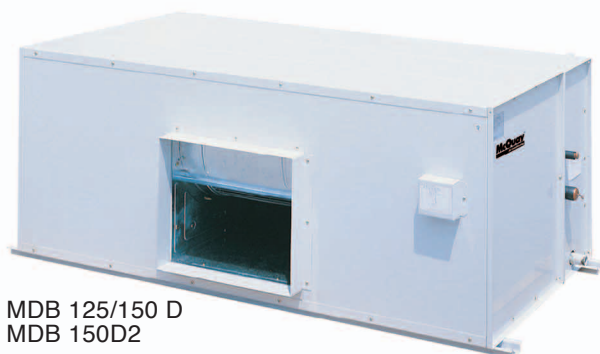


## Ducted Blower Split Systems

Models: MDB 200 - 750 B  
MDB 075 - 500 D



MDB 75/100 D



MDB 125/150 D  
MDB 150D2



Большая библиотека технической документации  
<http://splitoff.ru/tehn-doc.html>  
каталоги, инструкции, сервисные мануалы, схемы.

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**Note** : Installation and maintenance are to be performed only by qualified personnel who are familiar with local codes and regulations, and experienced with this type of equipment.

**Caution**: Sharp edges and coil surfaces are a potential injury hazard. Avoid contact with them.

**Warning** : Moving machinery and electrical power hazard. May cause severe personal injury or death. Disconnect and lock off power before servicing equipment.

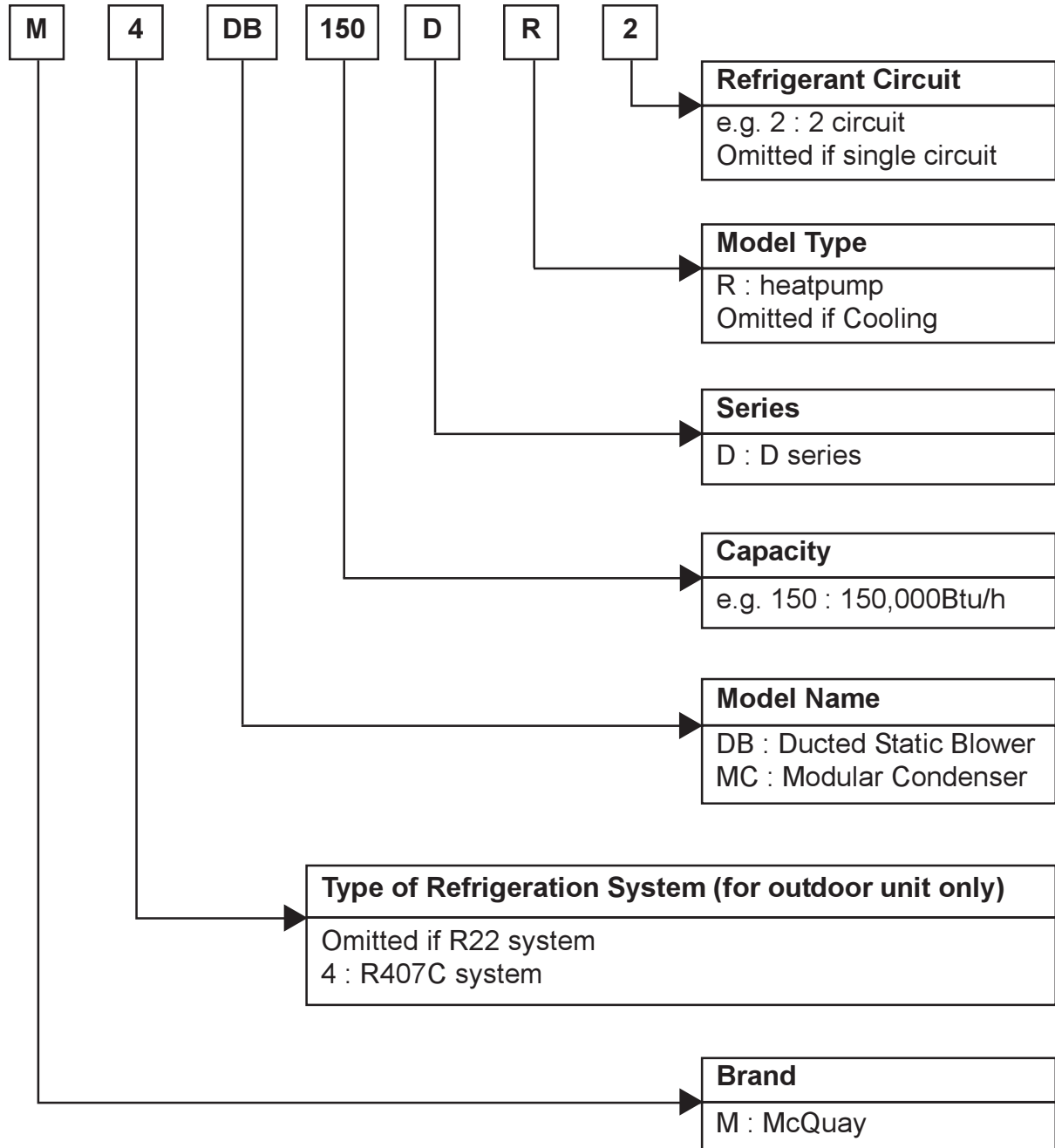
This manual supercedes MDB-2004

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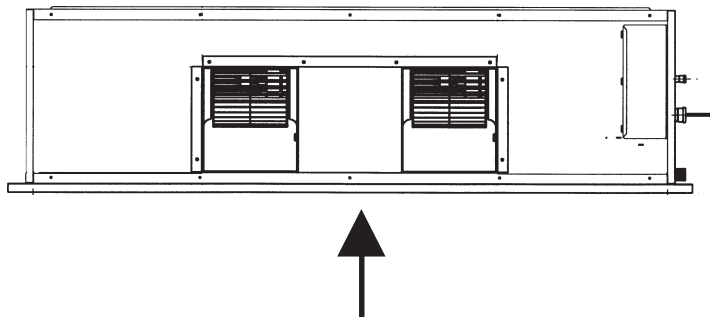
# Nomenclature System



# Features

## Easy Maintenance

The simple design concept has provided the ease of maintenance and servicing. Access to the internal part of the unit can be from the service panel or other side of the unit by loosening a few screws.



Only for model MDB075/100D with additional service panel from bottom

## Air Discharge Orientation

MDB075-150D models come with standard horizontal air discharge.

MDB200-500 B/D models only come with standard vertical air discharge and they can be converted to horizontal air discharge at the site. MDB200-500 B/D models with horizontal air discharge are not offered from factory. MDB600-750B models are offered in vertical and horizontal air discharge as standard by differentiate of nomenclature.

## Compact Indoor Unit

Indoor models are designed with compact size with twin coil structure. This design is able to provide some saving in space for installation.

## Versatility

Multiple rooms can be cooled together at the same time by using just one unit of fan coil unit.

## Fresh Air Intake For Healthy Living

Fresh air can be introduced into the building through the design of fresh air intakes. This will help to improve the indoor air quality.

## Superior Air Distribution For Comfortable Living

The conditioned air can be effectively distributed to every corner of the room through the ducting and this ensure a more pleasant environment for comfort living.

## Flexibility Of Air Supply

MDB125-750B and MDB125-500D models using belt driven blower such as that the air volume and static required can be adjusted according to the requirement. This flexibility allows for wider application.

## Copeland Scroll Compressor

All outdoor units are using the Copeland Scroll compressor which has better energy efficiency and quiet in operation.

## Sequential Controller As Standard

This controller is supplied as the standard specification for cooling model where the systems are matching with two outdoor units and more. The benefit of this controller is capable of part-loading of the system capacity.

# Specifications

## R22 - Cooling Only Models

| MODEL                          | INDOOR UNIT                         |                                    | MDB200B2                          |                         | MDB250B2                |  |
|--------------------------------|-------------------------------------|------------------------------------|-----------------------------------|-------------------------|-------------------------|--|
|                                | OUTDOOR UNIT                        |                                    | MMC100B x 2                       |                         | MMC100C x 2             |  |
| TOTAL COOLING CAPACITY         | OUTDOOR 35 °C DB                    | Btu/h                              | 200000                            |                         | 250000                  |  |
|                                |                                     | kcal/h                             | 50400                             |                         | 63000                   |  |
|                                |                                     | W                                  | 58600                             |                         | 73250                   |  |
| NOMINAL TOTAL POWER            |                                     | W                                  | 21130                             | 20850                   | 25146                   |  |
| NOMINAL TOTAL CURRENT          |                                     | A                                  | 39.8                              | 41.2                    | 45.4                    |  |
| CASING                         | MATERIAL                            | ELECTRO GALVANIZED MILD STEEL      |                                   |                         |                         |  |
|                                | FINISHING                           | EPOXY POLYESTER POWDER COATING     |                                   |                         |                         |  |
| DIMENSION                      | INSULATION                          | PE                                 |                                   |                         |                         |  |
|                                | HEIGHT (H)                          | mm (in)                            | 945 (37.20)                       |                         | 1291 (50.82)            |  |
|                                | WIDTH (W)                           | mm (in)                            | 1894 (74.56)                      |                         | 1866 (73.46)            |  |
|                                | DEPTH (D)                           | mm (in)                            | 980 (38.58)                       |                         | 1199 (47.20)            |  |
| NET WEIGHT                     |                                     | kg (lb)                            | 180 (396)                         |                         | 250 (551)               |  |
| NOISE LEVEL                    |                                     | dBA                                | 85                                |                         | 87.1                    |  |
| EVAPORATOR COIL                | TYPE                                | CROSS FINNED TUBES                 |                                   |                         |                         |  |
|                                | TUBE                                | MATERIAL                           | SEAMLESS COPPER                   |                         |                         |  |
|                                |                                     | WALL THICKNESS                     | mm (in)                           | 0.35 (0.013)            |                         |  |
|                                |                                     | OUTER DIAMETER                     | mm (in)                           | 9.52 (3/8)              |                         |  |
|                                | FIN                                 | MATERIAL                           | ALUMINIUM                         |                         |                         |  |
|                                |                                     | THICKNESS                          | mm (in)                           | 0.127 (0.005)           |                         |  |
|                                |                                     | ROWS                               |                                   | 4                       | 4                       |  |
|                                |                                     | FIN PER INCH                       |                                   | 12                      | 14                      |  |
|                                |                                     | CAPACITY STEP                      | %                                 | 100-50-0                | 100-50-0                |  |
|                                |                                     | FACE AREA                          | m <sup>2</sup> (ft <sup>2</sup> ) | 1.20 (12.92)            | 1.48 (16.01)            |  |
|                                | FACE VELOCITY                       | m/min (FPM)                        | 150.87 (495)                      | 152.40 (500)            |                         |  |
| EVAPORATOR BLOWER              | TYPE / DRIVE                        | CENTRIFUGAL / BELT DRIVEN          |                                   |                         |                         |  |
|                                | BLOWER MATERIAL                     | ZINC COATED STEEL                  |                                   |                         |                         |  |
|                                | BLOWER DIAMETER                     | mm (in)                            | 394.97 (15.55)                    |                         | 469.90 (18.50)          |  |
|                                | BLOWER LENGTH                       | mm (in)                            | 381.00 (15.00)                    |                         | 459.99 (18.11)          |  |
|                                | AIR FLOW                            | L/s (CFM)                          | 3021 (6400)                       |                         | 3776 (8000)             |  |
|                                | EXTERNAL STATIC PRESSURE (DRY COIL) | mm wg (in wg)                      | 18.0 (0.71)                       |                         | 42.0 (1.65)             |  |
|                                | BLOWER PULLEY DIAMETER              | mm                                 | 2 SPZ 140                         |                         | 2 SPZ 180               |  |
|                                | MOTOR PULLEY DIAMETER               | mm                                 | 2 SPZ 80                          |                         | 2 SPZ 90                |  |
|                                | PULLEY                              | TYPE                               | B1                                |                         | B2                      |  |
|                                | EVAPORATOR BLOWER MOTOR             | TYPE                               | SQUIRREL CAGE INDUCTION           |                         |                         |  |
| POWER SUPPLY                   |                                     | V / Ph / Hz                        | 380-415 / 3 / 50                  |                         |                         |  |
| NUMBER x RATED RUNNING CURRENT |                                     | A                                  | 5.0                               |                         | 6.3                     |  |
| MOTOR OUTPUT                   |                                     | W                                  | 3000                              |                         | 4000                    |  |
| NUMBER x RATED INPUT           |                                     | W                                  | 2730                              |                         | 3370                    |  |
| MOTOR POLES                    |                                     |                                    | 4                                 |                         |                         |  |
| REFRIGERANT                    | TYPE                                | R22                                |                                   |                         |                         |  |
|                                | TYPE OF GAS PRECHARGED              | NITROGEN HOLDING                   |                                   |                         |                         |  |
|                                | CONTROL                             | THERMOSTAT EXPANSION VALVE         |                                   |                         |                         |  |
|                                | PIPE CONNECTION                     | BRAZING                            |                                   |                         |                         |  |
|                                | PIPE SIZE                           | LIQUID                             | mm (in)                           | 15.88 (5/8)             | 15.88 (5/8)             |  |
|                                | GAS                                 | mm (in)                            | 28.58 (1-1/8)                     | 34.92 (1-3/8)           |                         |  |
| AIR FILTER                     | DRAIN PIPE CONNECTION               | mm (in)                            | 25.40 (1.00)                      |                         |                         |  |
|                                | TYPE                                | WASHABLE VILEDON                   |                                   |                         |                         |  |
|                                | SIZE                                | LENGTH x HEIGHT                    | mm                                | 542 x 738 (19.4 x 29.1) | 533 x 532 (21.0 x 21.0) |  |
|                                |                                     | DEPTH                              | mm (in)                           | 50.8 (2.00)             | 50.8 (2.00)             |  |
| QUANTITY                       |                                     |                                    | 3                                 | 6                       |                         |  |
| CASING                         | MATERIAL                            | ELECTRO GALVANIZED MILD STEEL      |                                   |                         |                         |  |
|                                | FINISHING                           | EPOXY POLYESTER POWDER             |                                   |                         |                         |  |
| DIMENSION                      | HEIGHT (H)                          | mm (in)                            | 946 (37.24)                       | 971.4 (38.24)           | 946 (37.24)             |  |
|                                | WIDTH (W)                           | mm (in)                            | 1116 (43.93)                      | 1393 (54.84)            | 1116 (43.93)            |  |
|                                | DEPTH (D)                           | mm (in)                            | 939 (36.96)                       | 500 (19.68)             | 939 (36.96)             |  |
| NET WEIGHT                     |                                     | kg (lb)                            | 193 (425)                         | 176 (387)               | 224 (493)               |  |
| NOISE LEVEL                    |                                     | dBA                                | 72                                | 75                      | 75                      |  |
| CONDENSER COIL                 | TYPE                                | CROSS FINNED TUBES                 |                                   |                         |                         |  |
|                                | TUBE                                | MATERIAL                           | SEAMLESS COPPER                   |                         |                         |  |
|                                |                                     | WALL THICKNESS                     | mm (in)                           | 0.35 (0.013)            |                         |  |
|                                |                                     | OUTER DIAMETER                     | mm (in)                           | 9.52 (3/8)              |                         |  |
|                                | FIN                                 | MATERIAL                           | ALUMINIUM                         |                         |                         |  |
|                                |                                     | THICKNESS                          | mm (in)                           | 0.127 (0.005)           |                         |  |
|                                |                                     | NUMBER x ROWS                      |                                   | 2 x 2                   | 1 x 3                   |  |
|                                |                                     | FIN PER INCH                       |                                   | 12                      | 14                      |  |
|                                |                                     | FACE AREA                          | m <sup>2</sup> (ft <sup>2</sup> ) | 1.76 (19.00)            | 1.35 (14.54)            |  |
|                                |                                     | FACE VELOCITY                      | m/min (FPM)                       | 112.16 (368)            | 146.80 (481)            |  |
| CONDENSER FAN                  | DRIVE                               | PROPELLER / DIRECT                 |                                   |                         |                         |  |
|                                | TYPE                                | INDUCTION                          |                                   |                         |                         |  |
|                                | BLADE MATERIAL                      | ALUMINIUM                          |                                   |                         |                         |  |
|                                | BLADE DIAMETER                      | mm (in)                            | 660.40 (26)                       | 762.00 (30)             | 660.40 (26)             |  |
|                                | POWER SUPPLY                        | V / Ph / Hz                        | 380-415/3/50                      |                         |                         |  |
|                                | NUMBER x RATED RUNNING CURRENT      | A                                  | 1.50                              | 2.60                    | 1.43                    |  |
|                                | NUMBER x RATED INPUT                | W                                  | 660                               | 950                     | 640                     |  |
|                                | MOTOR OUTPUT                        | W                                  | 466                               | 580                     | 466                     |  |
|                                | MOTOR POLES                         |                                    | 6                                 | 8                       | 6                       |  |
|                                | AIR FLOW                            | CMM (CFM)                          | 198.30 (7000)                     | 198.30 (7000)           | 198.30 (7000)           |  |
| COMPRESSOR                     | TYPE                                | SCROLL                             |                                   |                         |                         |  |
|                                | POWER SUPPLY                        | V / Ph / Hz                        | 380-415 / 3 / 50                  |                         |                         |  |
|                                | RATED RUNNING CURRENT               | A                                  | 15.9                              | 15.5                    | 18.1                    |  |
|                                | RATED INPUT                         | W                                  | 8540                              | 8110                    | 10248                   |  |
|                                | MAXIMUM STARTING CURRENT            | W                                  | 125                               | 125                     | 110                     |  |
|                                | PROTECTION DEVICE                   | OVERLOAD PROTECTION AND AUTO RESET |                                   |                         |                         |  |
| STAGE OF CAPACITY CONTROL      | HIGH/LOW PRESSURE SWITCH            |                                    |                                   |                         |                         |  |
| STARTER TYPE                   | ON / OFF                            |                                    |                                   |                         |                         |  |
| REFRIGERANT                    | TYPE                                | Direct OnLine (DOL)                |                                   |                         |                         |  |
|                                | TYPE OF GAS PRECHARGED              | R22                                |                                   |                         |                         |  |
|                                |                                     |                                    | NITROGEN HOLDING                  |                         |                         |  |

### NOTES :

1. ALL UNITS ARE BEING TESTED AND COMPLY TO ARI210/240-94.
2. NOMINAL COOLING CAPACITIES ARE BASED ON THE FOLLOWING CONDITIONS. INDOOR 26.7 °CDB, 19.4 °CWB, OUTDOOR 35 °CDB.
3. ALLOWABLE OPERATING RANGE : COOLING - INDOOR 19.4°C DB/ 13.9°C WB & OUTDOOR 19.4°C DB TO INDOOR 26.7°C DB/ 19.4°C WB & OUTDOOR 46.1°C DB.
4. ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY MANUFACTURER WITHOUT PRIOR NOTICE.

## R22 - Cooling Only Models

| MODEL                          |                                     | INDOOR UNIT   |                                | MDB300B3                |                | MDB300B2      | MDB350B3                        |              |
|--------------------------------|-------------------------------------|---|--------------------------------|-------------------------|----------------|---------------|---------------------------------|--------------|
|                                |                                     | OUTDOOR UNIT  |                                | MMC100B x 3             | MMC100C x 3    | MMC150C x 2   | MMC100B x 1                     | MMC125B x 2  |
| TOTAL COOLING CAPACITY         | OUTDOOR                             |   |                                | 300000                  |                | 300000        | 350000                          |              |
|                                | 35 °C DB                            |   |                                | 75600                   |                | 75600         | 88200                           |              |
|                                |                                     |   |                                | 87900                   |                | 87900         | 102550                          |              |
| NOMINAL TOTAL POWER            |                                     |   |                                | 31600                   | 31180          | 34460         | 35486                           |              |
| NOMINAL TOTAL CURRENT          |                                     |   |                                | 59.2                    | 61.4           | 59.1          | 64.9                            |              |
| INDOOR UNIT                    | CASING                              | MATERIAL  | ELECTRO GALVANIZED MILD STEEL  |                         |                |               |                                 |              |
|                                |                                     | FINISHING   | EPOXY POLYESTER POWDER COATING |                         |                |               |                                 |              |
|                                | DIMENSION                           | INSULATION  | FIBREGLASS / PE                |                         |                |               |                                 |              |
|                                |                                     | HEIGHT (H)  | mm (in)                        | 1291 (50.82)            |                | 1291 (50.82)  |                                 | 1546 (60.86) |
|                                |                                     | WIDTH (W)   | mm (in)                        | 1866 (73.46)            |                | 1866 (73.46)  |                                 | 2122 (83.54) |
|                                |                                     | DEPTH (D)   | mm (in)                        | 1199 (47.20)            |                | 1199 (47.20)  |                                 | 1199 (47.20) |
|                                | NET WEIGHT                          | kg (lb)   | 346 (762)                      |                         | 346 (762)      |               | 440 (970)                       |              |
|                                | NOISE LEVEL                         | dBA   | 89                             |                         | 89             |               | 92                              |              |
|                                | EVAPORATOR COIL                     | TYPE  | CROSS FINNED TUBES             |                         |                |               |                                 |              |
|                                |                                     |   | SEAMLESS COPPER                |                         |                |               |                                 |              |
| TUBE                           |                                     | WALL THICKNESS  | mm (in)                        | 0.35 (0.013)            |                |               |                                 |              |
|                                |                                     | OUTER DIAMETER  | mm (in)                        | 9.52 (3/8)              |                |               |                                 |              |
| FIN                            |                                     | MATERIAL  | ALUMINIUM                      |                         |                |               |                                 |              |
|                                |                                     | THICKNESS   | mm (in)                        | 0.127 (0.005)           |                |               |                                 |              |
| ROWS                           |                                     |   | 5                              |                         | 5              |               | 4                               |              |
| FIN PER INCH                   |                                     |   | 12                             |                         | 12             |               | 12                              |              |
| CAPACITY STEP                  |                                     | %   | 100-67-33-0                    |                         | 100-50-0       |               | 100-67-33-0                     |              |
| FACE AREA                      |                                     | m <sup>2</sup> (ft <sup>2</sup> )                           | 1.62 (17.50)                   |                         | 1.62 (17.50)   |               | 2.38 (25.62)                    |              |
| FACE VELOCITY                  | m/min (FPM)                         | 156.66 (514)  |                                | 156.66 (514)            |                | 124.96 (410)  |                                 |              |
| EVAPORATOR BLOWER              | TYPE / DRIVE                        | CENTRIFUGAL / BELT DRIVEN                                   |                                |                         |                |               |                                 |              |
|                                | BLOWER MATERIAL                     | ZINC COATED STEEL   |                                |                         |                |               |                                 |              |
|                                | BLOWER DIAMETER                     | mm (in)   | 469.90 (18.50)                 |                         | 469.90 (18.50) |               | 469.90 (18.50)                  |              |
|                                | BLOWER LENGTH                       | mm (in)   | 459.99 (18.11)                 |                         | 459.99 (18.11) |               | 459.99 (18.11)                  |              |
|                                | AIR FLOW                            | L/s (CFM)   | 4248 (9000)                    |                         | 4248 (9000)    |               | 4956 (10500)                    |              |
|                                | EXTERNAL STATIC PRESSURE (DRY COIL) | mm wg (in wg)   | 36.0 (1.42)                    |                         | 36.0 (1.42)    |               | 29.5 (1.16)                     |              |
|                                | BLOWER PULLEY DIAMETER              | mm  | 180                            |                         | 180            |               | 250                             |              |
|                                | MOTOR PULLEY DIAMETER               | mm  | 95                             |                         | 95             |               | 125                             |              |
|                                | PULLEY                              | TYPE  | 2 SPZ                          |                         | 2 SPZ          |               | 2 SPZ                           |              |
|                                | EVAPORATOR BLOWER MOTOR             | TYPE  | SQUIRREL CAGE INDUCTION        |                         |                |               |                                 |              |
| POWER SUPPLY                   |                                     | V / Ph / Hz   | 380-415 / 3 / 50               |                         |                |               |                                 |              |
| NUMBER x RATED RUNNING CURRENT |                                     | A   | 7.1                            |                         | 7.1            |               | 8.4                             |              |
| MOTOR OUTPUT                   |                                     | W   | 4000                           |                         | 4000           |               | 5500                            |              |
| NUMBER x RATED INPUT           |                                     | W   | 4000                           |                         | 4000           |               | 4510                            |              |
| MOTOR POLES                    |                                     |   | 4                              |                         |                |               |                                 |              |
| REFRIGERANT                    | TYPE                                | R22   |                                |                         |                |               |                                 |              |
|                                | TYPE OF GAS PRECHARGED              | NITROGEN HOLDING  |                                |                         |                |               |                                 |              |
|                                | CONTROL                             | THERMOSTAT EXPANSION VALVE                                  |                                |                         |                |               |                                 |              |
|                                | PIPE CONNECTION                     | BRAZING   |                                |                         |                |               |                                 |              |
|                                | PIPE SIZE                           | LIQUID  | mm (in)                        | 15.88 (5/8)             |                |               |                                 |              |
|                                |                                     | GAS   | mm (in)                        | 28.58 (1-1/8)           |                | 34.92 (1-3/8) | 28.58 (1-1/8) AND 34.92 (1-3/8) |              |
| DRAIN PIPE CONNECTION          | mm (in)                             | 25.40 (1.00)  |                                |                         |                |               |                                 |              |
| AIR FILTER                     | TYPE                                | WASHABLE VILEDON  |                                |                         |                |               |                                 |              |
|                                | SIZE                                | LENGTH x HEIGHT   | mm                             | 533 x 532 (21.0 x 21.0) |                |               | 617 x 661 (24.3 x 26.0)         |              |
|                                | DEPTH                               | mm (in)   | 50.8 (2.00)                    |                         |                |               |                                 |              |
|                                | QUANTITY                            |   | 6                              |                         |                |               |                                 |              |
| OUTDOOR UNIT                   | CASING                              | MATERIAL  | ELECTRO GALVANIZED MILD STEEL  |                         |                |               |                                 |              |
|                                |                                     | FINISHING   | EPOXY POLYESTER POWDER         |                         |                |               |                                 |              |
|                                | DIMENSION                           | HEIGHT (H)  | mm (in)                        | 946 (37.24)             | 971.4 (38.24)  | 1041 (40.98)  | 946 (37.24)                     | 946 (37.24)  |
|                                |                                     | WIDTH (W)   | mm (in)                        | 1116 (43.93)            | 1393 (54.84)   | 1116 (43.93)  | 1116 (43.93)                    | 1116 (43.93) |
|                                |                                     | DEPTH (D)   | mm (in)                        | 939 (36.96)             | 500 (19.68)    | 939 (36.96)   | 939 (36.96)                     | 939 (36.96)  |
|                                | NET WEIGHT                          | kg (lb)   | 164 (361)                      | 178 (392)               | 227 (500)      | 164 (361)     | 169 (372)                       |              |
|                                | NOISE LEVEL                         | dBA   | 72                             | 75                      | 77             | 72            | 75                              |              |
|                                | CONDENSER COIL                      | TYPE  | CROSS FINNED TUBES             |                         |                |               |                                 |              |
|                                |                                     |   | SEAMLESS COPPER                |                         |                |               |                                 |              |
|                                |                                     | TUBE  | WALL THICKNESS                 | mm (in)                 | 0.35 (0.013)   |               |                                 |              |
| OUTER DIAMETER                 |                                     |   | mm (in)                        | 9.52 (3/8)              |                |               |                                 |              |
| FIN                            |                                     | MATERIAL  | ALUMINIUM                      |                         |                |               |                                 |              |
|                                |                                     | THICKNESS   | mm (in)                        | 0.127 (0.005)           |                |               |                                 |              |
| NUMBER x ROWS                  |                                     |   | 2 x 2                          | 1 x 3                   | 2 x 2          | 2 x 2         | 2 x 2                           |              |
| FIN PER INCH                   |                                     |   | 12                             | 14                      | 14             | 12            | 16                              |              |
| FACE AREA                      |                                     | m <sup>2</sup> (ft <sup>2</sup> )                           | 1.76 (19.00)                   | 1.35 (14.54)            | 2.48 (26.69)   | 1.76 (19.00)  | 1.76 (19.00)                    |              |
| FACE VELOCITY                  |                                     | m/min (FPM)   | 112.16 (368)                   | 146.60 (481)            | 131.97 (433)   | 112.16 (368)  | 112.16 (368)                    |              |
| CONDENSER FAN                  | DRIVE                               | PROPELLER / DIRECT  |                                |                         |                |               |                                 |              |
|                                | TYPE                                | INDUCTION   |                                |                         |                |               |                                 |              |
|                                | BLADE MATERIAL                      | ALUMINIUM   |                                |                         |                |               |                                 |              |
|                                | BLADE DIAMETER                      | mm (in)   | 660.40 (26)                    | 762.00 (30)             | 762.00 (30)    | 660.40 (26)   |                                 |              |
|                                | POWER SUPPLY                        | V / Ph / Hz   | 380-415/3/50                   |                         |                |               |                                 |              |
|                                | NUMBER x RATED RUNNING CURRENT      | A   | 1.5                            | 2.6                     | 3.3            | 1.5           | 1.4                             |              |
|                                | NUMBER x RATED INPUT                | W   | 660                            | 950                     | 1630           | 660           | 640                             |              |
|                                | MOTOR OUTPUT                        | W   | 466                            | 580                     | 1250           | 466           | 466                             |              |
|                                | MOTOR POLES                         |   | 6                              | 8                       | 6              | 6             | 6                               |              |
|                                | AIR FLOW                            | CMM (CFM)   | 198.30 (7000)                  | 198.30 (7000)           | 328.61 (11600) | 198.30 (7000) | 198.30 (7000)                   |              |
| COMPRESSOR                     | TYPE                                | SCROLL  |                                |                         |                |               |                                 |              |
|                                | POWER SUPPLY                        | V / Ph / Hz   | 380-415/3/50                   |                         |                |               |                                 |              |
|                                | RATED RUNNING CURRENT               | A   | 15.9                           | 15.5                    | 22.7           | 15.9          | 18.1                            |              |
|                                | RATED INPUT                         | W   | 8540                           | 8110                    | 13600          | 8540          | 10248                           |              |
|                                | MAXIMUM STARTING CURRENT            | W   | 125                            |                         | 198            | 125           | 110                             |              |
|                                | PROTECTION DEVICE                   | OVERLOAD PROTECTION AND AUTO RESET HIGH/LOW PRESSURE SWITCH |                                |                         |                |               |                                 |              |
|                                | STAGE OF CAPACITY CONTROL           | ON / OFF  |                                |                         |                |               |                                 |              |
| STARTER TYPE                   | Direct OnLine (DOL)                 |   |                                |                         |                |               |                                 |              |
| REFRIGERANT                    | TYPE                                | R22   |                                |                         |                |               |                                 |              |
|                                | TYPE OF GAS PRECHARGED              | NITROGEN HOLDING  |                                |                         |                |               |                                 |              |

### NOTES :

1. ALL UNITS ARE BEING TESTED AND COMPLY TO ARI210/240-94.

2. NOMINAL COOLING CAPACITIES ARE BASED ON THE FOLLOWING CONDITIONS. INDOOR 26.7 °CDB, 19.4 °CWB, OUTDOOR 35 °CDB.

3. ALLOWABLE OPERATING RANGE : COOLING - INDOOR 19.4 °C DB/ 13.9 °C WB & OUTDOOR 19.4 °C DB TO INDOOR 26.7 °C DB/ 19.4 °C WB & OUTDOOR 46.1 °C DB.

4. ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY MANUFACTURER WITHOUT PRIOR NOTICE.

## R22 - Cooling Only Models

| MODEL                   |                                     | INDOOR UNIT  |                                   | MDB400B4       |                         | MDB450B3       |                         |                |
|-------------------------|-------------------------------------|--|-----------------------------------|----------------|-------------------------|----------------|-------------------------|----------------|
|                         |                                     | OUTDOOR UNIT   |                                   | MMC100B x 4    |                         | MMC100C x 4    |                         |                |
| TOTAL COOLING CAPACITY  | OUTDOOR                             | Btu/h  |                                   | 400000         |                         | 450000         |                         |                |
|                         | 35 °C DB                            | kcal/h   |                                   | 100800         |                         | 113400         |                         |                |
|                         |                                     | W  |                                   | 117200         |                         | 131850         |                         |                |
| NOMINAL TOTAL POWER     |                                     | W  |                                   | 41635          |                         | 41075          | 53010                   |                |
| NOMINAL TOTAL CURRENT   |                                     | A  |                                   | 78.2           |                         | 81.1           | 90.5                    |                |
| INDOOR UNIT             | CASING                              | MATERIAL   | ELECTRO GALVANIZED MILD STEEL     |                |                         |                |                         |                |
|                         |                                     | FINISHING  | EPOXY POLYESTER POWDER COATING    |                |                         |                |                         |                |
|                         |                                     | INSULATION   | FIBREGLASS / PE                   |                |                         |                |                         |                |
|                         | DIMENSION                           | HEIGHT (H)   | mm (in)                           |                | 1546 (60.86)            |                | 1546 (60.86)            |                |
|                         |                                     | WIDTH (W)  | mm (in)                           |                | 2274 (89.52)            |                | 2274 (89.52)            |                |
|                         |                                     | DEPTH (D)  | mm (in)                           |                | 1466 (57.71)            |                | 1466 (57.71)            |                |
|                         | NET WEIGHT                          |  | kg (lb)                           |                | 330 (727)               |                | 339 (747)               |                |
|                         | NOISE LEVEL                         |  | dBA                               |                | 90                      |                | 93                      |                |
|                         | EVAPORATOR COIL                     | TYPE   | CROSS FINNED TUBES                |                |                         |                |                         |                |
|                         |                                     |  | SEAMLESS COPPER                   |                |                         |                |                         |                |
| TUBE                    |                                     | MATERIAL   | ALUMINIUM                         |                |                         |                |                         |                |
|                         |                                     | WALL THICKNESS   | mm (in)                           |                | 0.35 (0.013)            |                | 0.35 (0.013)            |                |
|                         |                                     | OUTER DIAMETER   | mm (in)                           |                | 9.52 (3/8)              |                | 9.52 (3/8)              |                |
| FIN                     |                                     | MATERIAL   | ALUMINIUM                         |                |                         |                |                         |                |
|                         |                                     | THICKNESS  | mm (in)                           |                | 0.127 (0.005)           |                | 0.127 (0.005)           |                |
|                         |                                     | ROWS   |                                   |                | 4                       |                | 4                       |                |
| FIN PER INCH            |                                     |  |                                   | 14             |                         | 14             |                         |                |
| CAPACITY STEP           |                                     |  | %                                 |                | 100-75-50-25-0          |                | 100-67-33-0             |                |
| FACE AREA               |                                     | m <sup>2</sup> (ft <sup>2</sup> )                              |                                   | 2.38 (25.62)   |                         | 2.58 (27.78)   |                         |                |
| FACE VELOCITY           |                                     | m/min (FPM)  |                                   | 142.94 (468)   |                         | 147.82 (485)   |                         |                |
| EVAPORATOR BLOWER       | TYPE / DRIVE                        | CENTRIFUGAL / BELT DRIVEN                                      |                                   |                |                         |                |                         |                |
|                         |                                     | ZINC COATED STEEL  |                                   |                |                         |                |                         |                |
|                         | BLOWER MATERIAL                     | ZINC COATED STEEL  |                                   |                |                         |                |                         |                |
|                         | BLOWER DIAMETER                     | mm (in)  |                                   | 591.82 (23.30) |                         | 591.82 (23.30) |                         |                |
|                         | BLOWER LENGTH                       | mm (in)  |                                   | 563.88 (22.20) |                         | 563.88 (22.20) |                         |                |
|                         | AIR FLOW                            |  | L/s (CFM)                         |                | 5664 (12000)            |                | 6372 (13500)            |                |
|                         | EXTERNAL STATIC PRESSURE (DRY COIL) |  | mm wg (in wg)                     |                | 36.0 (1.42)             |                | 38.0 (1.50)             |                |
|                         | BLOWER PULLEY DIAMETER              |  | mm                                |                | 2 SPA 250               |                | 2 SPA 250               |                |
|                         | MOTOR PULLEY DIAMETER               |  | mm                                |                | 2 SPA 106               |                | 2 SPA 112               |                |
|                         | PULLEY                              |  | TYPE                              |                | B3                      |                | B3                      |                |
| EVAPORATOR BLOWER MOTOR | TYPE                                | SQUIRREL CAGE INDUCTION  |                                   |                |                         |                |                         |                |
|                         |                                     | 380-415 / 3 / 50   |                                   |                |                         |                |                         |                |
|                         | POWER SUPPLY                        |  | V / Ph / Hz                       |                | 380-415 / 3 / 50        |                | 380-415 / 3 / 50        |                |
|                         | NUMBER x RATED RUNNING CURRENT      |  | A                                 |                | 8.7                     |                | 12.5                    |                |
|                         | MOTOR OUTPUT                        |  | W                                 |                | 5500                    |                | 7500                    |                |
|                         | NUMBER x RATED INPUT                |  | W                                 |                | 4835                    |                | 7320                    |                |
| MOTOR POLES             |                                     |  |                                   | 4              |                         | 4              |                         |                |
| REFRIGERANT             | TYPE                                | R22  |                                   |                |                         |                |                         |                |
|                         |                                     | NITROGEN HOLDING   |                                   |                |                         |                |                         |                |
|                         | CONTROL                             | THERMOSTAT EXPANSION VALVE                                     |                                   |                |                         |                |                         |                |
|                         | PIPE CONNECTION                     | BRAZING  |                                   |                |                         |                |                         |                |
|                         | PIPE SIZE                           | LIQUID   | mm (in)                           |                | 15.88 (5/8)             |                | 15.88 (5/8)             |                |
|                         |                                     | GAS  | mm (in)                           |                | 28.58 (1-1/8)           |                | 34.92 (1-3/8)           |                |
| DRAIN PIPE CONNECTION   |                                     | mm (in)  |                                   | 25.40 (1.00)   |                         | 25.40 (1.00)   |                         |                |
| AIR FILTER              | TYPE                                | WASHABLE VILEDON   |                                   |                |                         |                |                         |                |
|                         |                                     | 668 x 661 (26.3 x 26.0)  |                                   |                |                         |                |                         |                |
|                         | SIZE                                |  | LENGTH x HEIGHT                   | mm             | 668 x 661 (26.3 x 26.0) |                | 668 x 661 (26.3 x 26.0) |                |
| DEPTH                   |                                     | mm (in)  |                                   | 50.8 (2.00)    |                         | 50.8 (2.00)    |                         |                |
| QUANTITY                |                                     |  |                                   | 6              |                         | 6              |                         |                |
| OUTDOOR UNIT            | CASING                              | MATERIAL   | ELECTRO GALVANIZED MILD STEEL     |                |                         |                |                         |                |
|                         |                                     | FINISHING  | EPOXY POLYESTER POWDER            |                |                         |                |                         |                |
|                         |                                     | INSULATION   | FIBREGLASS / PE                   |                |                         |                |                         |                |
|                         | DIMENSION                           | HEIGHT (H)   | mm (in)                           |                | 946 (37.24)             |                | 971.4 (38.24)           | 1041 (40.98)   |
|                         |                                     | WIDTH (W)  | mm (in)                           |                | 1116 (43.93)            |                | 1393 (54.84)            | 1116 (43.93)   |
|                         |                                     | DEPTH (D)  | mm (in)                           |                | 939 (36.96)             |                | 500 (19.68)             | 939 (36.96)    |
|                         | NET WEIGHT                          |  | kg (lb)                           |                | 193 (425)               |                | 176 (387)               | 258 (568)      |
|                         | NOISE LEVEL                         |  | dBA                               |                | 72                      |                | 75                      | 77             |
|                         | CONDENSER COIL                      | TYPE   | CROSS FINNED TUBES                |                |                         |                |                         |                |
|                         |                                     |  | SEAMLESS COPPER                   |                |                         |                |                         |                |
| TUBE                    |                                     | MATERIAL   | ALUMINIUM                         |                |                         |                |                         |                |
|                         |                                     | WALL THICKNESS   | mm (in)                           |                | 0.35 (0.013)            |                | 0.35 (0.013)            |                |
|                         |                                     | OUTER DIAMETER   | mm (in)                           |                | 9.52 (3/8)              |                | 9.52 (3/8)              |                |
| FIN                     |                                     | MATERIAL   | ALUMINIUM                         |                |                         |                |                         |                |
|                         |                                     | THICKNESS  | mm (in)                           |                | 0.127 (0.005)           |                | 0.127 (0.005)           |                |
|                         |                                     | NUMBER x ROWS  |                                   |                | 2 x 2                   |                | 1 x 3                   | 2 x 2          |
| FIN PER INCH            |                                     |  |                                   | 12             |                         | 14             | 14                      |                |
| FACE AREA               |                                     |  | m <sup>2</sup> (ft <sup>2</sup> ) |                | 1.76 (19.00)            |                | 1.35 (14.54)            | 2.48 (26.69)   |
| FACE VELOCITY           |                                     | m/min (FPM)  |                                   | 112.16 (368)   |                         | 146.60 (481)   | 131.97 (433)            |                |
| CONDENSER FAN           | DRIVE                               | PROPELLER / DIRECT   |                                   |                |                         |                |                         |                |
|                         |                                     | INDUCTION  |                                   |                |                         |                |                         |                |
|                         | BLADE MATERIAL                      | ALUMINIUM  |                                   |                |                         |                |                         |                |
|                         | BLADE DIAMETER                      | mm (in)  |                                   | 660.40 (26)    |                         | 762.00 (30)    | 762.00 (30)             |                |
|                         | POWER SUPPLY                        |  | V / Ph / Hz                       |                | 380-415/3/50            |                | 380-415/3/50            |                |
|                         | NUMBER x RATED RUNNING CURRENT      |  | A                                 |                | 1.5                     |                | 2.6                     | 3.3            |
|                         | NUMBER x RATED INPUT                |  | W                                 |                | 660                     |                | 950                     | 1630           |
|                         | MOTOR OUTPUT                        |  | W                                 |                | 466                     |                | 580                     | 1250           |
|                         | MOTOR POLES                         |  |                                   |                | 6                       |                | 8                       | 6              |
|                         | AIR FLOW                            |  | CMM (CFM)                         |                | 198.30 (7000)           |                | 198.30 (7000)           | 328.61 (11600) |
| COMPRESSOR              | TYPE                                | SCROLL   |                                   |                |                         |                |                         |                |
|                         |                                     | 380-415/3/50   |                                   |                |                         |                |                         |                |
|                         | RATED RUNNING CURRENT               |  | A                                 |                | 15.9                    |                | 15.5                    | 22.7           |
|                         | RATED INPUT                         |  | W                                 |                | 8540                    |                | 8110                    | 13600          |
|                         | MAXIMUM STARTING CURRENT            |  | W                                 |                | 125                     |                | 125                     | 198            |
|                         | PROTECTION DEVICE                   | OVERLOAD PROTECTION AND AUTO RESET<br>HIGH/LOW PRESSURE SWITCH |                                   |                |                         |                |                         |                |
|                         | STAGE OF CAPACITY CONTROL           | ON / OFF   |                                   |                |                         |                |                         |                |
|                         | STARTER TYPE                        | Direct OnLine (DOL)  |                                   |                |                         |                |                         |                |
| REFRIGERANT             | TYPE                                | R22  |                                   |                |                         |                |                         |                |
|                         |                                     | TYPE OF GAS PRECHARGED   | NITROGEN HOLDING                  |                |                         |                |                         |                |

### NOTES :

- ALL UNITS ARE BEING TESTED AND COMPLY TO ARI210/240-94.
- NOMINAL COOLING CAPACITIES ARE BASED ON THE FOLLOWING CONDITIONS. INDOOR 26.7 °CDB, 19.4 °CWB, OUTDOOR 35 °CDB.
- ALLOWABLE OPERATING RANGE : COOLING - INDOOR 19.4°C DB/ 13.9°C WB & OUTDOOR 19.4°C DB TO INDOOR 26.7°C DB/ 19.4°C WB & OUTDOOR 46.1°C DB.
- ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY MANUFACTURER WITHOUT PRIOR NOTICE.

## R22 - Cooling Only Models

| MODEL                          | INDOOR UNIT                         |                                   | MDB500B4                           | MDB600B4                | MDB750B5                |                         |  |
|--------------------------------|-------------------------------------|-----------------------------------|------------------------------------|-------------------------|-------------------------|-------------------------|--|
| TOTAL COOLING CAPACITY         | OUTDOOR UNIT                        |                                   | MMC125B x 4                        | MMC150C x 4             | MMC150C x 5             |                         |  |
|                                | OUTDOOR                             | Btu/h                             | 50000                              | 60000                   | 75000                   |                         |  |
|                                | 35 °C DB                            | kcal/h                            | 126000                             | 151200                  | 189000                  |                         |  |
|                                |                                     | W                                 | 146500                             | 175800                  | 219750                  |                         |  |
| NOMINAL TOTAL POWER            |                                     | W                                 | 51587                              | 73820                   | 91050                   |                         |  |
| NOMINAL TOTAL CURRENT          |                                     | A                                 | 92.9                               | 125.4                   | 155.0                   |                         |  |
| INDOOR UNIT                    | CASING                              | MATERIAL                          | ELECTRO GALVANIZED MILD STEEL      |                         |                         |                         |  |
|                                |                                     | FINISHING                         | EPOXY POLYESTER POWDER COATING     |                         |                         |                         |  |
|                                |                                     | INSULATION                        | FIBREGLASS / PE                    |                         |                         |                         |  |
|                                | DIMENSION                           | HEIGHT (H)                        | mm (in)                            | 1546 (60.86)            | 1977 (77.83)            | 2257 (88.85)            |  |
|                                |                                     | WIDTH (W)                         | mm (in)                            | 2274 (89.52)            | 2274 (89.52)            | 2274 (89.52)            |  |
|                                |                                     | DEPTH (D)                         | mm (in)                            | 1466 (57.71)            | 1905 (75.00)            | 1905 (75.00)            |  |
|                                | NET WEIGHT                          |                                   | kg (lb)                            | 350 (771)               | 999 (2202)              | 1084 (2389)             |  |
|                                | NOISE LEVEL                         |                                   | dBA                                | 96                      | 89                      | 93                      |  |
|                                | EVAPORATOR COIL                     | TYPE                              |                                    | CROSS FINNED TUBES      |                         |                         |  |
|                                |                                     |                                   |                                    | SEAMLESS COPPER         |                         |                         |  |
|                                |                                     | TUBE                              | MATERIAL                           |                         | ALUMINIUM               |                         |  |
|                                |                                     |                                   | WALL THICKNESS                     | mm (in)                 | 0.35 (0.013)            |                         |  |
|                                |                                     |                                   | OUTER DIAMETER                     | mm (in)                 | 9.52 (3/8)              |                         |  |
|                                |                                     | FIN                               | MATERIAL                           |                         | ALUMINIUM               |                         |  |
|                                |                                     |                                   | THICKNESS                          | mm (in)                 | 0.127 (0.005)           |                         |  |
| ROWS                           |                                     |                                   |                                    | 5                       |                         | 6                       |  |
| FIN PER INCH                   |                                     |                                   |                                    | 12                      |                         |                         |  |
| CAPACITY STEP                  |                                     |                                   | %                                  | 100-75-50-25-0          |                         | 100-80-60-40-20-0       |  |
| FACE AREA                      |                                     | m <sup>2</sup> (ft <sup>2</sup> ) | 2.55 (27.45)                       | 3.37 (36.32)            | 3.97 (42.73)            |                         |  |
| FACE VELOCITY                  |                                     | m/min (FPM)                       | 166.42 (546)                       | 150.87 (495)            | 160.32 (526)            |                         |  |
| EVAPORATOR BLOWER              | TYPE / DRIVE                        |                                   | CENTRIFUGAL / BELT DRIVEN          |                         |                         |                         |  |
|                                | BLOWER MATERIAL                     |                                   | ZINC COATED STEEL                  |                         |                         |                         |  |
|                                | BLOWER DIAMETER                     | mm (in)                           | 591.82 (23.30)                     | 785.00 (30.90)          | 785.00 (30.90)          |                         |  |
|                                | BLOWER LENGTH                       | mm (in)                           | 563.88 (22.20)                     | 706.00 (27.79)          | 706.00 (27.79)          |                         |  |
|                                | AIR FLOW                            | L/s (CFM)                         | 7080 (15000)                       | 8496 (18000)            | 11800 (25000)           |                         |  |
|                                | EXTERNAL STATIC PRESSURE (DRY COIL) | mm wg (in wg)                     | 41.0 (1.61)                        | 53.0 (2.09)             | 55.1 (2.17)             |                         |  |
|                                | BLOWER PULLEY DIAMETER              | mm                                | 2 SPA 315                          | 2 SPA 400               | 2 SPA 400               |                         |  |
|                                | MOTOR PULLEY DIAMETER               | mm                                | 2 SPA 150                          | 2 SPA 132               | 2 SPA 140               |                         |  |
|                                | PULLEY                              | TYPE                              |                                    | B3                      |                         |                         |  |
|                                | EVAPORATOR BLOWER MOTOR             | TYPE                              |                                    | SQUIRREL CAGE INDUCTION |                         |                         |  |
| POWER SUPPLY                   |                                     | V / Ph / Hz                       | 380-415/3/50                       |                         |                         |                         |  |
| NUMBER x RATED RUNNING CURRENT |                                     | A                                 | 14.7                               | 21.4                    | 25.0                    |                         |  |
| MOTOR OUTPUT                   |                                     | W                                 | 11000                              | 11000                   | 15000                   |                         |  |
| NUMBER x RATED INPUT           |                                     | W                                 | 8035                               | 12900                   | 14900                   |                         |  |
| REFRIGERANT                    | TYPE                                |                                   | R22                                |                         |                         |                         |  |
|                                | TYPE OF GAS PRECHARGED              |                                   | NITROGEN HOLDING                   |                         |                         |                         |  |
|                                | CONTROL                             |                                   | THERMOSTAT EXPANSION VALVE         |                         |                         |                         |  |
|                                | PIPE CONNECTION                     |                                   | BRAZING                            |                         |                         |                         |  |
|                                | PIPE SIZE                           | LIQUID                            | mm (in)                            | 15.88 (5/8)             |                         |                         |  |
|                                |                                     | GAS                               | mm (in)                            | 34.92 (1-3/8)           |                         |                         |  |
| DRAIN PIPE CONNECTION          |                                     | mm (in)                           | 25.40 (1.00)                       |                         |                         |                         |  |
| AIR FILTER                     | TYPE                                |                                   | WASHABLE VILEDON                   |                         |                         |                         |  |
|                                | SIZE                                | LENGTH x HEIGHT                   | mm                                 | 668 x 661 (26.3 x 26.0) | 668 x 579 (26.3 x 22.8) | 668 x 672 (26.3 x 26.5) |  |
|                                |                                     | DEPTH                             | mm (in)                            | 50.8 (2.00)             | 50.8 (2.00)             | 50.8 (2.00)             |  |
|                                | QUANTITY                            |                                   |                                    | 6                       | 9                       | 9                       |  |
| OUTDOOR UNIT                   | CASING                              | MATERIAL                          | ELECTRO GALVANIZED MILD STEEL      |                         |                         |                         |  |
|                                |                                     | FINISHING                         | EPOXY POLYESTER POWDER             |                         |                         |                         |  |
|                                |                                     | INSULATION                        | FIBREGLASS / PE                    |                         |                         |                         |  |
|                                | DIMENSION                           | HEIGHT (H)                        | mm (in)                            | 946 (37.24)             | 1041 (40.98)            | 1116 (43.93)            |  |
|                                |                                     | WIDTH (W)                         | mm (in)                            | 1116 (43.93)            | 1116 (43.93)            | 1116 (43.93)            |  |
|                                |                                     | DEPTH (D)                         | mm (in)                            | 939 (36.96)             | 939 (36.96)             | 939 (36.96)             |  |
|                                | NET WEIGHT                          |                                   | kg (lb)                            | 224 (493)               | 258 (568)               | 258 (568)               |  |
|                                | NOISE LEVEL                         |                                   | dBA                                | 75                      | 77                      | 77                      |  |
|                                | CONDENSER COIL                      | TYPE                              |                                    | CROSS FINNED TUBES      |                         |                         |  |
|                                |                                     |                                   |                                    | SEAMLESS COPPER         |                         |                         |  |
|                                |                                     | TUBE                              | MATERIAL                           |                         | ALUMINIUM               |                         |  |
|                                |                                     |                                   | WALL THICKNESS                     | mm (in)                 | 0.35 (0.013)            |                         |  |
|                                |                                     |                                   | OUTER DIAMETER                     | mm (in)                 | 9.52 (3/8)              |                         |  |
|                                |                                     | FIN                               | MATERIAL                           |                         | ALUMINIUM               |                         |  |
|                                |                                     |                                   | THICKNESS                          | mm (in)                 | 0.127 (0.005)           |                         |  |
| NUMBER x ROWS                  |                                     |                                   |                                    | 2 x 2                   |                         | 2 x 2                   |  |
| FIN PER INCH                   |                                     |                                   |                                    | 16                      |                         | 14                      |  |
| FACE AREA                      |                                     |                                   | m <sup>2</sup> (ft <sup>2</sup> )  | 1.76 (19.00)            |                         | 2.48 (26.69)            |  |
| FACE VELOCITY                  |                                     | m/min (FPM)                       | 112.16 (368)                       |                         | 131.97 (433)            |                         |  |
| CONDENSER FAN                  | DRIVE                               |                                   | PROPELLER / DIRECT                 |                         |                         |                         |  |
|                                | TYPE                                |                                   | INDUCTION                          |                         |                         |                         |  |
|                                | BLADE MATERIAL                      |                                   | ALUMINIUM                          |                         |                         |                         |  |
|                                | BLADE DIAMETER                      | mm (in)                           | 660.40 (26)                        |                         | 762.00 (30)             |                         |  |
|                                | POWER SUPPLY                        | V / Ph / Hz                       | 380-415/3/50                       |                         |                         |                         |  |
|                                | NUMBER x RATED RUNNING CURRENT      | A                                 | 1.4                                |                         | 3.3                     |                         |  |
|                                | NUMBER x RATED INPUT                | W                                 | 640                                |                         | 1630                    |                         |  |
|                                | MOTOR OUTPUT                        | W                                 | 466                                |                         | 1250                    |                         |  |
|                                | MOTOR POLES                         |                                   |                                    | 6                       |                         |                         |  |
|                                | AIR FLOW                            | CMM (CFM)                         | 198.30 (7000)                      |                         | 328.61 (11600)          |                         |  |
| COMPRESSOR                     | TYPE                                |                                   | SCROLL                             |                         |                         |                         |  |
|                                | POWER SUPPLY                        | V / Ph / Hz                       | 380-415/3/50                       |                         |                         |                         |  |
|                                | RATED RUNNING CURRENT               | A                                 | 18.1                               |                         | 22.7                    |                         |  |
|                                | RATED INPUT                         | W                                 | 10248                              |                         | 13600                   |                         |  |
|                                | MAXIMUM STARTING CURRENT            | W                                 | 110                                |                         | 198                     |                         |  |
|                                | PROTECTION DEVICE                   |                                   | OVERLOAD PROTECTION AND AUTO RESET |                         |                         |                         |  |
|                                | STAGE OF CAPACITY CONTROL           |                                   | HIGH/LOW PRESSURE SWITCH           |                         |                         |                         |  |
| STARTER TYPE                   |                                     | ON / OFF                          |                                    |                         |                         |                         |  |
| REFRIGERANT                    | TYPE                                |                                   | R22                                |                         |                         |                         |  |
|                                | TYPE OF GAS PRECHARGED              |                                   | NITROGEN HOLDING                   |                         |                         |                         |  |

### NOTES :

1. ALL UNITS ARE BEING TESTED AND COMPLY TO ARI210/240-94.
2. NOMINAL COOLING CAPACITIES ARE BASED ON THE FOLLOWING CONDITIONS. INDOOR 26.7 °CDB, 19.4 °CWB, OUTDOOR 35 °CDB.
3. ALLOWABLE OPERATING RANGE : COOLING - INDOOR 19.4 °C DB/ 13.9 °C WB & OUTDOOR 19.4 °C DB TO INDOOR 26.7 °C DB/ 19.4 °C WB & OUTDOOR 46.1 °C DB.
4. ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY MANUFACTURER WITHOUT PRIOR NOTICE.



## R22 - Cooling Only Models

| MODEL                    | INDOOR UNIT                    |                                   | MDB075D   | MDB100D                 | MDB125D                 | MDB125D2                      |                       |
|--------------------------|--------------------------------|-----------------------------------|---|-------------------------|-------------------------|-------------------------------|-----------------------|
| TOTAL COOLING CAPACITY   | OUTDOOR UNIT                   | Btu/h                             | MMC075D   | MMC100D                 | MMC125D                 | MLC061C x 2                   |                       |
| NOMINAL TOTAL POWER      | OUTDOOR 35 °C DB               | kcal/h                            | 75,000  | 100,000                 | 125,000                 | 117,000                       |                       |
| NOMINAL CURRENT          |                                | W                                 | 18,900  | 25,200                  | 31,500                  | 29,484                        |                       |
|                          |                                | W                                 | 21,975  | 29,300                  | 36,625                  | 34,281                        |                       |
|                          |                                | W                                 | 7,765   | 9,580                   | 11,413                  | 11,730                        |                       |
|                          |                                | A                                 | 14.8  | 16.9                    | 20.5                    | 19.0                          |                       |
| INDOOR UNIT              | CASING                         | MATERIAL                          | ELECTRO GALVANISED MILD STEEL                               |                         |                         |                               |                       |
|                          |                                | FINISHING                         | EPOXY POLYESTER POWDER COATING                              |                         |                         |                               |                       |
|                          |                                | INSULATION                        | PE FOAM -- 10MM THICKNESS                                   |                         |                         |                               |                       |
|                          | DIMENSION                      | HEIGHT (H)                        | mm (in)   | 507 (19.96)             |                         | 710 (27.95)                   |                       |
|                          |                                | WIDTH (W)                         | mm (in)   | 1507 (59.33)            | 1917 (75.47)            | 1794 (70.62)                  |                       |
|                          |                                | DEPTH (D)                         | mm (in)   | 859 (33.81)             |                         | 964 (37.95)                   |                       |
|                          | VOLUME                         | m <sup>3</sup> (ft <sup>3</sup> ) |   | 1.112 (39.27)           | 1.395 (49.26)           | 1.875 (66.22)                 |                       |
|                          | NET WEIGHT                     | kg (lb)                           |   | 95 (209)                | 120 (264)               | 155 (341)                     |                       |
|                          | NOISE LEVEL                    | dBA                               |   | 73                      | 75                      | 77                            |                       |
|                          | EVAPORATOR COIL                | TYPE                              |   | CROSS FINNED TUBES      |                         |                               | PLAIN TUBE / SLIT FIN |
|                          |                                | TUBE                              | MATERIAL  | SEAMLESS COPPER         |                         |                               |                       |
|                          |                                |                                   | WALL THICKNESS  | mm (in)                 | 0.35 (0.013)            |                               |                       |
|                          |                                |                                   | OUTER DIAMETER  | mm (in)                 | 9.52 (3/8)              |                               |                       |
|                          |                                | FIN                               | MATERIAL  | ALUMINIUM               |                         |                               |                       |
|                          |                                |                                   | THICKNESS   | mm (in)                 | 0.127 (0.005)           |                               |                       |
|                          |                                |                                   | ROWS / FIN PER INCH(FPI)                                    |                         | 3 / 14                  |                               |                       |
|                          |                                | CAPACITY STEP                     | %   |                         | 100-0                   |                               | 100-50-0              |
|                          |                                | FACE AREA                         | m <sup>2</sup> (ft <sup>2</sup> )                           |                         | 0.53 (5.73)             | 0.72 (7.75)                   | 0.89 (9.66)           |
|                          |                                | FACE VELOCITY                     | m/min (FPM)   |                         | 119.48 (392)            | 117.95 (387)                  | 118.26 (388)          |
|                          | EVAPORATOR BLOWER              | TYPE / DRIVE                      |   | CENTRIFUGAL / DIRECT    |                         | CENTRIFUGAL / BELT DRIVEN     |                       |
| BLOWER MATERIAL          |                                |                                   | ZINC COATED STEEL   |                         |                         |                               |                       |
| QUANTITY                 |                                |                                   | 2   |                         | 1                       |                               |                       |
| BLOWER DIAMETER          |                                | mm (in)                           | 282.70 (11.13)  |                         | 394.97 (15.55)          |                               |                       |
| BLOWER LENGTH            |                                | mm (in)                           | 203.20 (8.00)   |                         | 381.00 (15.00)          |                               |                       |
| AIR FLOW                 |                                | L/s (CFM)                         | 1062 (2250)   | 1416 (3000)             | 1770 (3750)             |                               |                       |
| EXTERNAL STATIC PRESSURE |                                | mmWG (inWG)                       | 10.8 (0.43)   | 21.5 (0.85)             | 17.2 (0.68)             |                               |                       |
| BLOWER PULLEY DIAMETER   |                                | mm                                | -   | -                       | 1 SPZ 160               |                               |                       |
| MOTOR PULLEY DIAMETER    |                                | mm                                | -   | -                       | 1 SPZ 85                |                               |                       |
| PULLEY                   |                                | TYPE                              | -   | -                       | 1 SPZ                   |                               |                       |
| V-BELT                   | TYPE                           | -                                 | -   | SPZ 760                 |                         |                               |                       |
| EVAPORATOR BLOWER MOTOR  | TYPE                           |                                   | PERMANENT SPLIT CAPACITOR                                   |                         | SQUIRREL CAGE INDUCTION |                               |                       |
|                          | POWER SUPPLY                   | V / Ph / Hz                       | 220-240 / 1 / 50  |                         | 380-415 / 3 / 50        |                               |                       |
|                          | NUMBER x RATED RUNNING CURRENT | A                                 | 3.6   | 5.2                     | 2.9                     |                               |                       |
|                          | NUMBER x RATED INPUT POWER     | W                                 | 738.00  | 1100.00                 | 1420                    |                               |                       |
|                          | NUMBER x MOTOR OUTPUT          | W                                 | 472.00  | 756.00                  | 1500                    |                               |                       |
| MOTOR POLES              |                                | 6                                 |   | 4                       |                         |                               |                       |
| REFRIGERANT              | TYPE                           |                                   | R22   |                         |                         |                               |                       |
|                          | TYPE OF GAS PRECHARGED         |                                   | NITROGEN HOLDING  |                         |                         |                               |                       |
|                          | CONTROL DEVICE                 |                                   | THERMOSTATIC EXPANSION VALVE                                |                         |                         |                               |                       |
|                          | PIPE CONNECTION                |                                   | BRAZING   |                         | FLARE VALVE             |                               |                       |
|                          | PIPE SIZE                      | LIQUID GAS                        | mm (in)   | 12.70 (1/2)             | 15.88 (5/8)             | 15.88 (5/8)                   |                       |
|                          |                                | mm (in)                           | 25.4 (1)  | 28.57 (1-1/8)           | 34.92 (1-3/8)           |                               |                       |
| DRAIN PIPE CONNECTION    |                                | mm (in)                           | 25.40 (1.00)  |                         |                         |                               |                       |
| AIR FILTER               | TYPE                           |                                   | AAF R15   |                         |                         |                               |                       |
|                          | SIZE                           | LENGTH x HEIGHT                   | mm (in)   | 399 x 385 (15.7 x 15.2) | 536 x 385 (21.1 x 15.2) | 508 x 581(20.0 x 22.9)        |                       |
|                          |                                | DEPTH                             | mm (in)   | 50.8 (2.00)             |                         |                               |                       |
| QUANTITY                 |                                |                                   | 3   |                         |                         |                               |                       |
| OUTDOOR UNIT             | CASING                         | MATERIAL                          | ELECTRO GALVANISED MILD STEEL                               |                         |                         |                               |                       |
|                          |                                | FINISHING                         | EPOXY POLYESTER POWDER                                      |                         |                         |                               |                       |
|                          | DIMENSION                      | HEIGHT (H)                        | mm (in)   | 1041 (40.98)            | 1041 (40.98)            | 850 (33.46)                   |                       |
|                          |                                | WIDTH (W)                         | mm (in)   | 981 (38.62)             | 1083 (42.63)            | 1030 (40.55)                  |                       |
|                          |                                | DEPTH (D)                         | mm (in)   | 981 (38.62)             | 1083 (42.63)            | 460 (18.11)                   |                       |
|                          | VOLUME                         | m <sup>3</sup> (ft <sup>3</sup> ) |   | 1.654 (58.46)           | 1.957 (69.11)           | 0.678 (23.94)3                |                       |
|                          | NET WEIGHT                     | kg (lb)                           |   | 170 (374)               | 184 (405)               | 197 (434)                     |                       |
|                          | NOISE LEVEL (Sound Power)      | dBA                               |   | 64                      | 66                      | 61                            |                       |
|                          | CONDENSER COIL                 | TYPE                              |   | CROSS FINNED TUBES      |                         |                               |                       |
|                          |                                | TUBE                              | MATERIAL  | SEAMLESS COPPER         |                         | SEAMLESS COPPER INNER GROOVED |                       |
|                          |                                |                                   | WALL THICKNESS  | mm (in)                 | 0.35 (0.013)            |                               |                       |
|                          |                                |                                   | OUTER DIAMETER  | mm (in)                 | 9.52 (3/8)              |                               |                       |
|                          |                                | FIN                               | MATERIAL  | ALUMINIUM               |                         |                               |                       |
|                          |                                |                                   | THICKNESS   | mm (in)                 | 0.127 (0.005)           |                               |                       |
|                          |                                |                                   | NUMBER x ROWS   |                         | 2 x 1                   | 2 x 2                         | 3                     |
|                          |                                |                                   | FIN PER INCH  |                         | 20                      | 16                            | 14                    |
|                          |                                | FACE AREA                         | m <sup>2</sup> (ft <sup>2</sup> )                           |                         | 2.29 (24.72)            | 2.26 (24.38)                  | 2.54 (27.38)          |
|                          |                                | FACE VELOCITY                     | m/min (FPM)   |                         | 86.25 (283)             | 87.47 (287)                   | 111.25 (365)          |
|                          | CONDENSER FAN                  | TYPE                              |   | INDUCTION MOTOR         |                         | PERMANENT SPLIT CAPACITOR     |                       |
|                          |                                | DRIVE                             |   | PROPELLER / DIRECT      |                         |                               |                       |
| BLADE MATERIAL           |                                |                                   | ALUMINIUM   |                         |                         |                               |                       |
| BLADE DIAMETER           |                                | mm (in)                           | 812.80 (32)   |                         | 914.40 (36)             | 609.6 (24)                    |                       |
| POWER SUPPLY             |                                | V / Ph / Hz                       | 380-415 / 3 / 50  |                         |                         |                               |                       |
| RATED RUNNING CURRENT    |                                | A                                 | 1.2   |                         |                         |                               |                       |
| RATED INPUT POWER        |                                | W                                 | 550   | 923                     | 250                     |                               |                       |
| MOTOR OUTPUT             |                                | W                                 | 350   | 560                     | 160                     |                               |                       |
| MOTOR POLES              |                                |                                   | 10  | 12                      | 6                       |                               |                       |
| AIR FLOW                 |                                | L/s (CFM)                         | 3304 (7000)   | 4720 (10000)            | 3800 (1794)             |                               |                       |
| COMPRESSOR               | TYPE                           |                                   | SCROLL COMPRESSOR   |                         |                         |                               |                       |
|                          | POWER SUPPLY                   | V / Ph / Hz                       | 380-415 / 3 / 50  |                         |                         |                               |                       |
|                          | RATED RUNNING CURRENT          | A                                 | 12.4  | 15.0                    | 16.4                    |                               |                       |
|                          | RATED INPUT POWER              | W                                 | 6810  | 9040                    | 10200                   |                               |                       |
|                          | MAXIMUM STARTING CURRENT       | A                                 | 95.0  | 125.0                   | 110.0                   |                               |                       |
|                          | COMPRESSOR MOTOR OUTPUT        | W                                 | 6000  | 7500                    | 8940                    |                               |                       |
|                          | PROTECTION DEVICE              |                                   | OVERLOAD PROTECTION AND AUTO RESET HIGH/LOW PRESSURE SWITCH |                         |                         |                               |                       |
|                          | STAGE OF CAPACITY CONTROL      |                                   | ON / OFF  |                         |                         |                               |                       |
| STARTER TYPE             |                                | Direct On Line (DOL)              |   |                         |                         |                               |                       |
| REFRIGERANT              | TYPE                           |                                   | R22   |                         |                         |                               |                       |
|                          | TYPE OF GAS PRECHARGED         |                                   | NITROGEN HOLDING  |                         | R22                     |                               |                       |

### NOTES :

- ALL UNITS ARE BEING TESTED AND COMPLY TO ARI210/240-94.
- NOMINAL COOLING CAPACITIES ARE BASED ON THE FOLLOWING CONDITIONS. INDOOR 26.7 °CDB, 19.4 °CWB, OUTDOOR 35 °CDB.
- ALLOWABLE OPERATING RANGE : COOLING - INDOOR 19.4°C DB/ 13.9°C WB & OUTDOOR 19.4°C DB TO INDOOR 26.7°C DB/ 19.4°C WB & OUTDOOR 46.1°C DB.
- ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY MANUFACTURER WITHOUT PRIOR NOTICE.

## R22 - Cooling Only Models

| MODEL                   | INDOOR UNIT                    |   | MDB150D                           | MDB150D2                | MDB200D2       | MDB250D2  |  |
|-------------------------|--------------------------------|---|-----------------------------------|-------------------------|----------------|---|--|
| TOTAL COOLING CAPACITY  | OUTDOOR UNIT                   |   | MMC150D                           | MMC075D x2              | MMC100D x2     | MMC125D x2  |  |
|                         | 35 °CDB                        | Btu/h   | 150,000                           | 150,000                 | 200,000        | 250,000   |  |
|                         |                                | kcal/h  | 37,800                            | 37,800                  | 50,400         | 63,000  |  |
|                         |                                | W   | 43,950                            | 43,950                  | 58,600         | 73,250  |  |
| NOMINAL TOTAL POWER     |                                | W   | 15,244                            | 15,794                  | 19,940         | 24,286  |  |
| NOMINAL TOTAL CURRENT   |                                | A   | 27.5                              | 30.5                    | 37.8           | 43.0  |  |
| INDOOR UNIT             | CASING                         | MATERIAL  | ELECTRO GALVANISED MILD STEEL     |                         |                |   |  |
|                         |                                | FINISHING   | EPOXY POLYESTER POWDER COATING    |                         |                |   |  |
|                         |                                | INSULATION  | PE FOAM – 10MM THICKNESS          |                         |                |   |  |
|                         | DIMENSION                      | HEIGHT (H)  | mm (in)                           | 710 (27.95)             | 881 (34.68)    | 983 (38.70)                                       |  |
|                         |                                | WIDTH (W)   | mm (in)                           | 2073 (81.61)            | 1324 (52.12)   | 1486 (58.50)                                      |  |
|                         |                                | DEPTH (D)   | mm (in)                           | 964 (37.95)             | 1209 (47.59)   | 1298 (51.10)                                      |  |
|                         | VOLUME                         |   | m <sup>3</sup> (ft <sup>3</sup> ) | 2.192 (77.41)           | 2.056 (72.61)  | 2.675 (94.47)                                     |  |
|                         | NET WEIGHT                     |   | kg (lb)                           | 175 (385)               | 248 (546)      | 321 (707)   |  |
|                         | NOISE LEVEL                    |   | dBA                               | 79                      | 85             | 87  |  |
|                         | EVAPORATOR COIL                | TYPE  | CROSS FINNED TUBES                |                         |                |   |  |
|                         |                                |   | SEAMLESS COPPER                   |                         |                |   |  |
|                         |                                | TUBE  | WALL THICKNESS                    | mm (in)                 | 0.35 (0.013)   |   |  |
|                         |                                |   | OUTER DIAMETER                    | mm (in)                 | 9.52 (3/8)     |   |  |
|                         |                                | FIN   | MATERIAL                          | ALUMINIUM               |                |   |  |
|                         |                                |   | THICKNESS                         | mm (in)                 | 0.127 (0.005)  |   |  |
|                         |                                | ROWS / FIN PER INCH(FPI)                                    | 3 / 14                            |                         |                |   |  |
| CAPACITY STEP           |                                | %   | 100-0                             |                         |                |   |  |
| FACE AREA               |                                | m <sup>2</sup> (ft <sup>2</sup> )                           | 1.06 (11.50)                      | 1.43 (15.41)            |                | 1.77 (19.12)                                      |  |
| FACE VELOCITY           |                                | m/min (FPM)   | 119.17 (391)                      | 118.56 (389)            |                | 119.48 (392)                                      |  |
| TYPE / DRIVE            | CENTRIFUGAL / BELT DRIVEN      |   |                                   |                         |                |   |  |
| BLOWER MATERIAL         | ZINC COATED STEEL              |   |                                   |                         |                |   |  |
| EVAPORATOR BLOWER       | QUANTITY                       | 1   |                                   |                         |                |   |  |
|                         | BLOWER DIAMETER                | mm (in)   | 394.97 (15.55)                    |                         | 469.90 (18.50) |   |  |
|                         | BLOWER LENGTH                  | mm (in)   | 381.00 (15.00)                    |                         | 459.99 (18.11) |   |  |
|                         | AIR FLOW                       | L/s (CFM)   | 2124 (4500)                       | 3020 (6000)             |                | 3540 (7500)                                       |  |
|                         | EXTERNAL STATIC PRESSURE       | mmWG(inWG)  | 18.0 (0.71)                       | 14.2 (0.56)             |                | 23.3 (0.92)                                       |  |
|                         | BLOWER PULLEY DIAMETER         | mm  | 1 SPZ 160                         | 2 SPZ125                |                | 2 SPZ180  |  |
|                         | MOTOR PULLEY DIAMETER          | mm  | 1 SPZ 85                          | 2 SPZ 75                |                | 2 SPZ95   |  |
|                         | PULLEY                         | TYPE  | 1 SPZ                             |                         |                | 2 SPZ   |  |
|                         | V-BELT                         | TYPE  | SPZ 760                           | SPZ 1150                |                | SPZ 1400  |  |
|                         | TYPE                           | SQUIRREL CAGE INDUCTION                                     |                                   |                         |                |   |  |
| EVAPORATOR BLOWER MOTOR | POWER SUPPLY                   | V / Ph / Hz   | 380-415 / 3 / 50                  |                         |                |   |  |
|                         | NUMBER x RATED RUNNING CURRENT | A   | 3.3                               | 5.4                     | 7.8            |   |  |
|                         | NUMBER x RATED INPUT POWER     | W   | 1740                              | 2800                    | 4300           |   |  |
|                         | NUMBER x MOTOR OUTPUT          | W   | 1500                              | 3000                    | 4000           |   |  |
|                         | MOTOR POLES                    | 4   |                                   |                         |                |   |  |
|                         | TYPE                           | R22   |                                   |                         |                |   |  |
| REFRIGERANT             | TYPE OF GAS PRECHARGED         | NITROGEN HOLDING  |                                   |                         |                |   |  |
|                         | CONTROL DEVICE                 | THERMOSTATIC EXPANSION VALVE                                |                                   |                         |                |   |  |
|                         | PIPE CONNECTION                | BRAZING   |                                   |                         |                |   |  |
|                         | PIPE SIZE                      | LIQUID  | mm (in)                           | 15.88 (5/8)             | 12.70 (1/2)    | 15.88 (5/8)                                       |  |
|                         |                                | GAS   | mm (in)                           | 34.92 (1-3/8)           | 28.57 (1)      | 28.57 (1-1/8)                                     |  |
|                         | DRAIN PIPE CONNECTION          | mm (in)   | 25.40 (1.00)                      |                         |                | 34.92 (1-3/8)                                     |  |
| AIR FILTER              | TYPE                           | AAF R15   |                                   |                         |                |   |  |
|                         | SIZE                           | LENGTH x HEIGHT   | mm (in)                           | 601 x 581 (23.7 x 22.9) |                | 470 x 346 (18.5 x 13.6)   514 x 397 (20.2 x 15.6) |  |
|                         |                                | DEPTH   | mm (in)                           | 50.8 (2.00)             |                |   |  |
| QUANTITY                |                                |   | 3                                 | 8                       |                |   |  |
| OUTDOOR UNIT            | CASING                         | MATERIAL  | ELECTRO GALVANISED MILD STEEL     |                         |                |   |  |
|                         |                                | FINISHING   | EPOXY POLYESTER POWDER            |                         |                |   |  |
|                         | DIMENSION                      | HEIGHT (H)  | mm (in)                           | 1142 (44.96)            | 1041 (40.98)   | 1041 (40.98)                                      |  |
|                         |                                | WIDTH (W)   | mm (in)                           | 1083 (42.63)            | 981 (38.62)    | 981 (38.62)                                       |  |
|                         |                                | DEPTH (D)   | mm (in)                           | 1083 (42.63)            | 981 (38.62)    | 1083 (42.63)                                      |  |
|                         | VOLUME                         |   | m <sup>3</sup>                    | 2.12 (74.87)            | 1.654 (58.46)  | 2.056 (72.6)                                      |  |
|                         | NET WEIGHT                     |   | kg (lb)                           | 268 (590)               | 170 (374)      | 184 (405)   |  |
|                         | NOISE LEVEL (Sound Power)      |   | dBA                               | 67                      | 64             | 64  |  |
|                         | CONDENSER COIL                 | TYPE  | CROSS FINNED TUBES                |                         |                |   |  |
|                         |                                |   | SEAMLESS COPPER                   |                         |                |   |  |
|                         |                                | TUBE  | WALL THICKNESS                    | mm (in)                 | 0.35 (0.013)   |   |  |
|                         |                                |   | OUTER DIAMETER                    | mm (in)                 | 9.52 (3/8)     |   |  |
|                         |                                | FIN   | MATERIAL                          | ALUMINIUM               |                |   |  |
|                         |                                |   | THICKNESS                         | mm (in)                 | 0.127 (0.005)  |   |  |
|                         |                                |   | NUMBER x ROWS                     | 2 x 2                   |                | 2 x 2   |  |
|                         |                                | FIN PER INCH  | 16                                | 20                      |                | 16  |  |
| FACE AREA               |                                | m <sup>2</sup> (ft <sup>2</sup> )                           | 2.82 (30.40)                      | 2.29 (24.72)            | 2.26 (24.38)   |   |  |
| FACE VELOCITY           |                                | m/min (FPM)   | 100.27 (329)                      | 86.25 (283)             | 87.47 (287)    |   |  |
| CONDENSER FAN           | TYPE                           | INDUCTION   |                                   |                         |                |   |  |
|                         | DRIVE                          | PROPELLER / DIRECT  |                                   |                         |                |   |  |
|                         | BLADE MATERIAL                 | ALUMINIUM   |                                   |                         |                |   |  |
|                         | BLADE DIAMETER                 | mm (in)   | 914.40 (36)                       | 812.80 (32)             |                | 914.40 (36)                                       |  |
|                         | POWER SUPPLY                   | V / Ph / Hz   | 380-415 / 3 / 50                  |                         |                |   |  |
|                         | RATED RUNNING CURRENT          | A   | 1.2                               |                         |                |   |  |
|                         | RATED INPUT POWER              | W   | 923                               | 550                     |                | 923   |  |
|                         | MOTOR OUTPUT                   | W   | 560                               | 350                     |                | 560   |  |
|                         | MOTOR POLES                    | 10  |                                   |                         |                |   |  |
|                         | AIR FLOW                       | L/s (CFM)   | 4720 (10000)                      | 3304 (7000)             |                | 4720 (10000)                                      |  |
| COMPRESSOR              | TYPE                           | SCROLL COMPRESSOR   |                                   |                         |                |   |  |
|                         | POWER SUPPLY                   | V / Ph / Hz   | 380-415 / 3 / 50                  |                         |                |   |  |
|                         | RATED RUNNING CURRENT          | A   | 23.0                              | 12.4                    | 15.0           | 16.4  |  |
|                         | RATED INPUT POWER              | W   | 13300                             | 6810                    | 9040           | 10200   |  |
|                         | MAXIMUM STARTING CURRENT       | A   | 198.0                             | 95.0                    | 125.0          | 110.0   |  |
|                         | COMPRESSOR MOTOR OUTPUT        | W   | 11250                             | 6000                    | 7500           | 8940  |  |
|                         | PROTECTION DEVICE              | OVERLOAD PROTECTION AND AUTO RESET HIGH/LOW PRESSURE SWITCH |                                   |                         |                |   |  |
|                         | STAGE OF CAPACITY CONTROL      | ON / OFF  |                                   |                         |                |   |  |
|                         | STARTER TYPE                   | Direct On Line (DOL)  |                                   |                         |                |   |  |
|                         | REFRIGERANT                    | TYPE  | R22                               |                         |                |   |  |
| TYPE OF GAS PRECHARGED  |                                | NITROGEN HOLDING  |                                   |                         |                |   |  |

### NOTES:

1. ALL UNITS ARE BEING TESTED AND COMPLY TO ARI210/240-94.
2. NOMINAL COOLING CAPACITIES ARE BASED ON THE FOLLOWING CONDITIONS: INDOOR 26.7 °CDB, 19.4 °CWB, OUTDOOR 35 °CDB.
3. ALLOWABLE OPERATING RANGE: COOLING - INDOOR 19.4 °C DB / 13.9 °C WB & OUTDOOR 19.4 °C DB TO INDOOR 26.7 °C DB / 19.4 °C WB & OUTDOOR 46.1 °C DB.
4. ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY MANUFACTURER WITHOUT PRIOR NOTICE.

## R22 - Cooling Only Models

| MODEL                     |                                | INDOOR UNIT   |                    | MDB300D2                      | MDB400D4                | MDB500D4                |
|---------------------------|--------------------------------|---|--------------------|-------------------------------|-------------------------|-------------------------|
|                           |                                | OUTDOOR UNIT  |                    | MMC150D x2                    | MMC100D x4              | MMC125D x4              |
| TOTAL COOLING CAPACITY    | 35 °CDB                        | Btu/h   |                    | 300,000                       | 400,000                 | 500,000                 |
|                           |                                | kcal/h  |                    | 75,600                        | 100,800                 | 126,000                 |
|                           |                                | W   |                    | 87,900                        | 117,200                 | 146,500                 |
| NOMINAL TOTAL POWER       |                                | W   |                    | 32,008                        | 40,180                  | 51,072                  |
| NOMINAL TOTAL CURRENT     |                                | A   |                    | 56.5                          | 75.8                    | 88.7                    |
| CASING                    | MATERIAL                       | ELECTRO GALVANISED MILD STEEL                               |                    |                               |                         |                         |
|                           | FINISHING                      | EPOXY POLYESTER POWDER COATING                              |                    |                               |                         |                         |
| DIMENSION                 | INSULATION                     | PE FOAM -- 10MM THICKNESS                                   |                    |                               |                         |                         |
|                           | HEIGHT (H)                     | mm (in)   |                    | 983 (38.70)                   | 1176 (46.29)            | 1176 (46.29)            |
|                           | WIDTH (W)                      | mm (in)   |                    | 1486 (58.50)                  | 1722 (67.79)            | 1722 (67.79)            |
|                           | DEPTH (D)                      | mm (in)   |                    | 1501 (59.09)                  | 1691 (66.57)            | 2047 (80.59)            |
| VOLUME                    |                                | m <sup>3</sup> (ft <sup>3</sup> )                           |                    | 3.047 (107.60)                | 4.552 (160.75)          | 5.427 (191.65)          |
| NET WEIGHT                |                                | kg (lb)   |                    | 394 (868)                     | 470 (1036)              | 567 (1250)              |
| NOISE LEVEL               |                                | dBA   |                    | 89                            | 90                      | 96                      |
| INDOOR UNIT               | EVAPORATOR COIL                | TYPE  | CROSS FINNED TUBES |                               |                         |                         |
|                           |                                | TUBE  | MATERIAL           | SEAMLESS COPPER               |                         |                         |
|                           |                                | WALL THICKNESS  | mm (in)            | 0.35 (0.013)                  |                         |                         |
|                           |                                | OUTER DIAMETER  | mm (in)            | 9.52 (3/8)                    |                         |                         |
|                           | FIN                            | MATERIAL  | ALUMINIUM          |                               |                         |                         |
|                           |                                | THICKNESS   | mm (in)            | 0.127 (0.005)                 |                         |                         |
|                           |                                | ROWS / FIN PER INCH(FPI)                                    | 3 / 14             |                               |                         |                         |
|                           | CAPACITY STEP                  | %   | 100-50-0           |                               | 100-75-50-25-0          |                         |
|                           | FACE AREA                      | m <sup>2</sup> (ft <sup>2</sup> )                           | 2.12 (22.90)       | 2.89 (31.11)                  | 3.61 (38.88)            |                         |
|                           | FACE VELOCITY                  | m/min (FPM)   | 119.78 (393)       | 117.34 (385)                  |                         |                         |
| EVAPORATOR BLOWER         | TYPE / DRIVE                   | CENTRIFUGAL / BELT DRIVEN                                   |                    |                               |                         |                         |
|                           | BLOWER MATERIAL                | ZINC COATED STEEL   |                    |                               |                         |                         |
|                           | QUANTITY                       | 1   |                    |                               |                         |                         |
|                           | BLOWER DIAMETER                | mm (in)   | 469.90 (18.50)     | 591.82 (23.30)                |                         |                         |
|                           | BLOWER LENGTH                  | mm (in)   | 459.99 (18.11)     | 563.88 (22.20)                |                         |                         |
|                           | AIR FLOW                       | L/s (CFM)   | 4248 (9000)        | 5664 (12000)                  | 7080 (15000)            |                         |
|                           | EXTERNAL STATIC PRESSURE       | mmWG(inWG)  | 23.0 (0.91)        | 25.0 (0.98)                   | 32.4 (1.28)             |                         |
|                           | BLOWER PULLEY DIAMETER         | mm  | 2 SPZ250           | 2 SPZ315                      | 3 SPA250                |                         |
|                           | MOTOR PULLEY DIAMETER          | mm  | 2 SPZ132           | 2 SPZ140                      | 3 SPA125                |                         |
|                           | PULLEY                         | TYPE  | 2 SPZ              |                               | 3 SPA                   |                         |
| V-BELT                    | TYPE                           | SPZ 1650  | SPZ 1987           | SPA 1900                      |                         |                         |
| EVAPORATOR BLOWER MOTOR   | TYPE                           | SQUIRREL CAGE INDUCTION                                     |                    |                               |                         |                         |
|                           | POWER SUPPLY                   | V / Ph / Hz   | 415 / 3 / 50       |                               |                         |                         |
|                           | NUMBER x RATED RUNNING CURRENT | A   | 9.0                | 11.0                          | 18.3                    |                         |
|                           | NUMBER x RATED INPUT POWER     | W   | 5000               | 5900                          | 11100                   |                         |
|                           | NUMBER x MOTOR OUTPUT          | W   | 5500               | 7500                          | 11000                   |                         |
| MOTOR POLES               |                                | 4   |                    |                               |                         |                         |
| REFRIGERANT               | TYPE                           | R22   |                    |                               |                         |                         |
|                           | TYPE OF GAS PRECHARGED         | NITROGEN HOLDING  |                    |                               |                         |                         |
|                           | CONTROL DEVICE                 | THERMOSTATIC EXPANSION VALVE                                |                    |                               |                         |                         |
|                           | PIPE CONNECTION                | BRAZING   |                    |                               |                         |                         |
| PIPE SIZE                 | LIQUID                         | mm (in)   | 15.88 (5/8)        |                               |                         |                         |
|                           | GAS                            | mm (in)   | 41.28 (1-3/8)      | 28.57 (1-1/8)                 | 34.92 (1 3/8)           |                         |
| DRAIN PIPE CONNECTION     | mm (in)                        | 25.40 (1.00)  |                    |                               |                         |                         |
| AIR FILTER                | TYPE                           | AAF R15   |                    |                               |                         |                         |
|                           | SIZE                           | LENGTH x HEIGHT   | mm (in)            | 616 x 397 (24.3 x 15.6)       | 474 x 493 (18.7 x 19.4) | 593 x 493 (23.3 x 19.4) |
|                           | QUANTITY                       | DEPTH   | mm (in)            | 8                             | 12                      | 12                      |
| CASING                    | MATERIAL                       | ELECTRO GALVANISED MILD STEEL                               |                    |                               |                         |                         |
|                           | FINISHING                      | EPOXY POLYESTER POWDER                                      |                    |                               |                         |                         |
| DIMENSION                 | HEIGHT (H)                     | mm (in)   | 1142 (44.96)       | 1041 (40.98)                  |                         |                         |
|                           | WIDTH (W)                      | mm (in)   | 1083 (42.63)       | 981 (38.62)                   | 1083 (42.63)            |                         |
|                           | DEPTH (D)                      | mm (in)   | 1083 (42.63)       | 981 (38.62)                   | 1083 (42.63)            |                         |
| VOLUME                    |                                | m <sup>3</sup>  | 2.120              | 1.654                         | 1.957                   |                         |
| NET WEIGHT                |                                | kg (lb)   | 268 (590)          | 184 (405)                     | 197 (434)               |                         |
| NOISE LEVEL (Sound Power) |                                | dBA   | 67                 | 64                            | 66                      |                         |
| OUTDOOR UNIT              | CONDENSER COIL                 | TYPE  | CROSS FINNED TUBES |                               |                         |                         |
|                           |                                | TUBE  | MATERIAL           | INNER GROOVED SEAMLESS COPPER |                         |                         |
|                           |                                | WALL THICKNESS  | mm (in)            | 0.35 (0.013)                  |                         |                         |
|                           |                                | OUTER DIAMETER  | mm (in)            | 9.52 (3/8)                    |                         |                         |
|                           | FIN                            | MATERIAL  | ALUMINIUM          |                               |                         |                         |
|                           |                                | THICKNESS   | mm (in)            | 0.127 (0.005)                 |                         |                         |
|                           |                                | NUMBER x ROWS   | 2 x 2              |                               |                         |                         |
|                           |                                | FIN PER INCH  | 16                 |                               |                         |                         |
|                           | FACE AREA                      | m <sup>2</sup> (ft <sup>2</sup> )                           | 2.82 (30.40)       | 2.26 (24.38)                  | 2.54 (27.38)            |                         |
|                           | FACE VELOCITY                  | m/min (FPM)   | 100.27 (329)       | 87.47 (287)                   | 111.25 (365)            |                         |
| CONDENSER FAN             | TYPE                           | INDUCTION   |                    |                               |                         |                         |
|                           | DRIVE                          | PROPELLER / DIRECT  |                    |                               |                         |                         |
|                           | BLADE MATERIAL                 | ALUMINIUM   |                    |                               |                         |                         |
|                           | BLADE DIAMETER                 | mm (in)   | 914.40 (36)        | 812.80 (32)                   | 914.40 (36)             |                         |
|                           | POWER SUPPLY                   | V / Ph / Hz   | 380-415 / 3 / 50   |                               |                         |                         |
|                           | RATED RUNNING CURRENT          | A   | 1.2                |                               |                         |                         |
|                           | RATED INPUT POWER              | W   | 923                | 500                           | 923                     |                         |
|                           | MOTOR OUTPUT                   | W   | 560                | 350                           | 560                     |                         |
|                           | MOTOR POLES                    |   | 12                 |                               |                         |                         |
|                           | AIR FLOW                       | L/s (CFM)   | 4720 (10000)       | 3304 (7000)                   | 4720 (10000)            |                         |
| COMPRESSOR                | TYPE                           | SCROLL COMPRESSOR   |                    |                               |                         |                         |
|                           | POWER SUPPLY                   | V / Ph / Hz   | 380-415 / 3 / 50   |                               |                         |                         |
|                           | RATED RUNNING CURRENT          | A   | 22.6               | 15.0                          | 16.4                    |                         |
|                           | RATED INPUT POWER              | W   | 13300              | 9040                          | 10200                   |                         |
|                           | MAXIMUM STARTING CURRENT       | A   | 198.0              | 125.0                         | 110.0                   |                         |
|                           | COMPRESSOR MOTOR OUTPUT        | W   | 11250              | 7500                          | 8940                    |                         |
|                           | PROTECTION DEVICE              | OVERLOAD PROTECTION AND AUTO RESET HIGH/LOW PRESSURE SWITCH |                    |                               |                         |                         |
|                           | STAGE OF CAPACITY CONTROL      | ON / OFF  |                    |                               |                         |                         |
| STARTER TYPE              | Direct On Line (DOL)           |   |                    |                               |                         |                         |
| REFRIGERANT               | TYPE                           | R22   |                    |                               |                         |                         |
|                           | TYPE OF GAS PRECHARGED         | NITROGEN HOLDING  |                    |                               |                         |                         |

### NOTES :

1. ALL UNITS ARE BEING TESTED AND COMPLY TO ARI210/240-94.
2. NOMINAL COOLING CAPACITIES ARE BASED ON THE FOLLOWING CONDITIONS. INDOOR 26.7 °CDB, 19.4 °CWB, OUTDOOR 35 °CDB.
3. ALLOWABLE OPERATING RANGE : COOLING - INDOOR 19.4°C DB/ 13.9°C WB & OUTDOOR 19.4°C DB TO INDOOR 26.7°C DB/ 19.4°C WB & OUTDOOR 46.1°C DB.
4. ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY MANUFACTURER WITHOUT PRIOR NOTICE.

## R22 - Cooling Only Models

| MODEL                     | INDOOR UNIT                    |                              | MDB200D2  | MDB250D2                | MDB300D2                                     |                         |
|---------------------------|--------------------------------|------------------------------|---|-------------------------|--|-------------------------|
| TOTAL COOLING CAPACITY    | OUTDOOR UNIT                   |                              | MMC200D2  | MMC250D2                | MMC300D2                                     |                         |
|                           | OUTDOOR                        |                              | 250,000   | 250,000                 | 300,000                                      |                         |
|                           | 35 °C DB                       | Btu/h                        | 200,400   | 63,000                  | 75,600                                       |                         |
|                           |                                | kcal/h                       | 58,600  | 73,250                  | 87,920                                       |                         |
| NOMINAL TOTAL POWER       |                                | W                            | 20,270  | 23,700                  | 30,140                                       |                         |
| NOMINAL TOTAL CURRENT     |                                | A                            | 40.3  | 48.7                    | 60.2   |                         |
| INDOOR UNIT               | CASING                         | MATERIAL                     | ELECTRO GALVANISED MILD STEEL                     |                         |  |                         |
|                           |                                | FINISHING                    | EPOXY POLYESTER POWDER COATING                    |                         |  |                         |
|                           |                                | INSULATION                   | PE FOAM – 10MM THICKNESS                          |                         |  |                         |
|                           | DIMENSION                      | HEIGHT (H)                   | mm (in)   | 881 (34.68)             | 983 (38.70)                                  | 983 (38.70)             |
|                           |                                | WIDTH (W)                    | mm (in)   | 1324 (52.12)            | 1486 (58.50)                                 | 1486 (58.50)            |
|                           |                                | DEPTH (D)                    | mm (in)   | 1209 (47.59)            | 1298 (51.10)                                 | 1501 (59.09)            |
|                           | VOLUME                         |                              | m <sup>3</sup>                                    | 2.056                   | 2.675  | 3.047                   |
|                           | NET WEIGHT                     |                              | kg (lb)   | 248 (546)               | 321 (707)                                    | 394 (868)               |
|                           | NOISE LEVEL                    |                              | dBA   | 85                      | 87   | 89                      |
|                           | EVAPORATOR COIL                | TYPE                         | CROSS FINNED TUBES                                |                         |  |                         |
| SEAMLESS COPPER           |                                |                              |   |                         |  |                         |
| TUBE                      |                                | MATERIAL                     |   | 0.35 (0.013)            |  |                         |
|                           |                                | WALL THICKNESS               | mm (in)   | 9.52 (3/8)              |  |                         |
|                           |                                | OUTER DIAMETER               | mm (in)   | ALUMINIUM               |  |                         |
| FIN                       |                                | MATERIAL                     |   | 0.127 (0.005)           |  |                         |
|                           |                                | THICKNESS                    | mm (in)   | 3 / 14                  |  |                         |
|                           |                                | ROWS / FIN PER INCH(FPI)     |   | 3 / 14                  | 3 / 14                                       | 3 / 14                  |
| CAPACITY STEP             |                                |                              | %   | 100-50-0                | 100-50-0                                     | 100-50-0                |
| FACE AREA                 |                                |                              | m <sup>2</sup> (ft <sup>2</sup> )                 | 1.43 (15.41)            | 1.77 (19.12)                                 | 2.12 (22.90)            |
| FACE VELOCITY             |                                | m/min (FPM)                  | 118.56 (389)                                      | 119.48 (392)            | 119.78 (393)                                 |                         |
| EVAPORATOR BLOWER         | TYPE / DRIVE                   | CENTRIFUGAL / BELT DRIVEN    |   |                         |  |                         |
|                           |                                | ZINC COATED STEEL            |   |                         |  |                         |
|                           | BLOWER MATERIAL                |                              |   |                         |  |                         |
|                           |                                | QUANTITY                     |   | 1                       |  |                         |
|                           | BLOWER DIAMETER                | mm (in)                      | 394.97 (15.55)                                    | 469.90 (18.50)          | 469.90 (18.50)                               |                         |
|                           | BLOWER LENGTH                  | mm (in)                      | 381.00 (15.00)                                    | 459.99 (18.11)          | 459.99 (18.11)                               |                         |
|                           | AIR FLOW                       |                              | L/s (CFM)   | 2832 (6000)             | 3540 (7500)                                  | 4248 (9000)             |
|                           | EXTERNAL STATIC PRESSURE       |                              | mmWG(inWG)  | 15.2 (0.6)              | 20.3 (0.8)                                   | 20.3 (0.8)              |
|                           | BLOWER PULLEY DIAMETER         | mm                           |   | 2 SPZ125                | 2 SPZ180                                     | 2 SPZ250                |
|                           | MOTOR PULLEY DIAMETER          | mm                           |   | 2 SPZ 75                | 2 SPZ95                                      | 2 SPZ132                |
| PULLEY                    | TYPE                           |                              | 2 SPZ   | 2 SPZ                   | 2 SPZ  |                         |
| V-BELT                    | TYPE                           |                              | SPZ 1150  | SPZ 1400                | SPZ 1650                                     |                         |
| EVAPORATOR BLOWER MOTOR   | TYPE                           | SQUIRREL CAGE INDUCTION      |   |                         |  |                         |
|                           |                                | 380-415 / 3 / 50             |   |                         |  |                         |
|                           | POWER SUPPLY                   | V / Ph / Hz                  |   |                         |  |                         |
|                           | RATED RUNNING CURRENT          | A                            | 5.2   | 7.7                     | 8.7  |                         |
|                           | RATED INPUT POWER              | W                            | 2750  | 4010                    | 4760   |                         |
|                           | MOTOR OUTPUT                   | W                            | 3000  | 4000                    | 5500   |                         |
| MOTOR POLES               |                                | 4                            | 4   | 4                       |  |                         |
| REFRIGERANT               | TYPE                           | R22                          |   |                         |  |                         |
|                           |                                | NITROGEN HOLDING             |   |                         |  |                         |
|                           | CONTROL DEVICE                 | THERMOSTATIC EXPANSION VALVE |   |                         |  |                         |
|                           |                                | BRAZING                      |   |                         |  |                         |
|                           | PIPE CONNECTION                |                              |   |                         |  |                         |
|                           |                                | PIPE SIZE                    | LIQUID  | mm (in)                 | 15.88 (5/8)                                  | 15.88 (5/8)             |
|                           | GAS                            | mm (in)                      | 28.57 (1 1/8)                                     | 34.92 (1 3/8)           | 34.92 (1 3/8)                                |                         |
| DRAIN PIPE CONNECTION     |                                | mm (in)                      | 25.40 (1.00)                                      | 25.40 (1.00)            | 25.40 (1.00)                                 |                         |
| AIR FILTER                | TYPE                           | AAF R15                      |   |                         |  |                         |
|                           |                                |                              |   |                         |  |                         |
|                           | SIZE                           | LENGTH x HEIGHT              | mm  | 470 x 346 (18.5 x 13.6) | 514 x 397 (20.2 x 15.6)                      | 616 x 397 (24.3 x 15.6) |
|                           | QUANTITY                       | DEPTH                        | mm (in)   | 50.8 (2.00)             | 50.8 (2.00)                                  | 50.8 (2.00)             |
|                           |                                |                              | 8   | 8                       | 8  |                         |
| OUTDOOR UNIT              | CASING                         | MATERIAL                     | ELECTRO GALVANISED MILD STEEL                     |                         |  |                         |
|                           |                                | FINISHING                    | EPOXY POLYESTER POWDER                            |                         |  |                         |
|                           |                                | INSULATION                   |   |                         |  |                         |
|                           | DIMENSION                      | HEIGHT (H)                   | mm (in)   | 1235 (48.62)            | 1433 (56.42)                                 |                         |
|                           |                                | WIDTH (W)                    | mm (in)   | 2292 (90.24)            | 2292 (90.24)                                 |                         |
|                           |                                | DEPTH (D)                    | mm (in)   | 1159 (45.63)            | 1159 (45.63)                                 |                         |
|                           | VOLUME                         |                              | m <sup>3</sup>                                    | 3.28                    | 3.81   |                         |
|                           | NET WEIGHT                     |                              | kg (lb)   | 470 (1036)              | 506 (1116)                                   | 608 (1340)              |
|                           | NOISE LEVEL                    |                              | dBA   | 70                      | 70   | 70                      |
|                           | CONDENSER COIL                 | TYPE                         | CROSS FINNED TUBES                                |                         |  |                         |
| SEAMLESS COPPER           |                                |                              |   |                         |  |                         |
| TUBE                      |                                | MATERIAL                     |   | 0.35 (0.013)            |  |                         |
|                           |                                | WALL THICKNESS               | mm (in)   | 9.52 (3/8)              |  |                         |
|                           |                                | OUTER DIAMETER               | mm (in)   | ALUMINIUM               |  |                         |
| FIN                       |                                | MATERIAL                     |   | 0.127 (0.005)           |  |                         |
|                           |                                | THICKNESS                    | mm (in)   | 2 x 2                   |  |                         |
|                           |                                | NUMBER x ROWS                |   | 14                      | 16   | 14                      |
| FACE AREA                 |                                |                              | m <sup>2</sup> (ft <sup>2</sup> )                 | 3.90 (41.98)            | 4.68 (50.36)                                 |                         |
| FACE VELOCITY             |                                |                              | m/min (FPM)                                       | 145.24 (476.5)          | 121.04 (397.1)                               |                         |
| CONDENSER FAN             | TYPE                           | INDUCTION                    |   |                         |  |                         |
|                           |                                | 2                            |   |                         |  |                         |
|                           | DRIVE                          | PROPELLER / DIRECT           |   |                         |  |                         |
|                           |                                | ALUMINIUM                    |   |                         |  |                         |
|                           | BLADE MATERIAL                 |                              |   |                         |  |                         |
|                           | BLADE DIAMETER                 | mm (in)                      | 914.40 (36)                                       |                         |  |                         |
|                           | POWER SUPPLY                   | V / Ph / Hz                  | 380-415 / 3 / 50                                  |                         |  |                         |
|                           | NUMBER x RATED RUNNING CURRENT | A                            | 3.90  | 3.90                    | 3.90   |                         |
|                           | NUMBER x RATED INPUT POWER     | W                            | 1710  | 1710                    | 1710   |                         |
|                           | NUMBER x MOTOR OUTPUT          | W                            | 1120  | 1120                    | 1120   |                         |
| MOTOR POLES               |                                | 10                           | 10  | 10                      |  |                         |
| AIR FLOW                  | L/s (CFM)                      | 9440 (20000)                 | 9440 (20000)                                      | 9440 (20000)            |  |                         |
| COMPRESSOR                | TYPE                           | SCROLL COMPRESSOR            |   |                         |  |                         |
|                           |                                | 2                            |   |                         |  |                         |
|                           | POWER SUPPLY                   | V / Ph / Hz                  | 380-415 / 3 / 50                                  |                         |  |                         |
|                           | RATED RUNNING CURRENT          | A                            | 31.2  | 37.1                    | 47.6   |                         |
|                           | RATED INPUT POWER              | W                            | 17050   | 20067                   | 26370  |                         |
|                           | MAXIMUM STARTING CURRENT       | A                            | 250.0   | 220.0                   | 396.0  |                         |
|                           | COMPRESSOR MOTOR OUTPUT        | W                            | 15000   | 17880                   | 22500  |                         |
|                           | PROTECTION DEVICE              |                              | OVERLOAD PROTECTION AND AUTO RESET H/L PRESS. SW. |                         | CONTROL MODULE AND AUTO RESET H/L PRESS. SW. |                         |
| STAGE OF CAPACITY CONTROL |                                | 100-50-0                     |   |                         |  |                         |
| STARTER TYPE              |                                | Direct On Line (DOL)         |   |                         |  |                         |
| REFRIGERANT               | TYPE                           | R22                          |   |                         |  |                         |
|                           |                                | NITROGEN HOLDING             |   |                         |  |                         |

### NOTES :

1. ALL UNITS ARE BEING TESTED AND COMPLY TO ARI210/240-94.
2. NOMINAL COOLING CAPACITIES ARE BASED ON THE FOLLOWING CONDITIONS. INDOOR 26.7 °CDB, 19.4 °CWB, OUTDOOR 35 °CDB.
3. ALLOWABLE OPERATING RANGE : COOLING - INDOOR 19.4 °C DB/ 13.9 °C WB & OUTDOOR 19.4 °C DB TO INDOOR 26.7 °C DB/ 19.4 °C WB & OUTDOOR 46.1 °C DB.
4. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE BY MANUFACTURER WITHOUT PRIOR NOTICE.

R22 - Cooling Only Models ~ High Static Motor

| MODEL                     | INDOOR UNIT                    |                              | MDB075D   | MDB100D                 | MDB125D                   | MDB125D2                  |                               |  |
|---------------------------|--------------------------------|------------------------------|---|-------------------------|---------------------------|---------------------------|-------------------------------|--|
| TOTAL COOLING CAPACITY    | OUTDOOR UNIT                   |                              | MMC075D   | MMC100D                 | MMC125D                   | MLC061C x 2               |                               |  |
|                           | OUTDOOR 35 °C DB               | Btu/h                        | 75,000  | 100,000                 | 125,000                   | 117,000                   |                               |  |
|                           |                                | kcal/h                       | 18,900  | 25,200                  | 31,500                    | 29,484                    |                               |  |
|                           |                                | W                            | 21,975  | 29,300                  | 36,625                    | 34,281                    |                               |  |
| NOMINAL TOTAL POWER       |                                | W                            | 7,765   | 9,590                   | 11,413                    | 11,730                    |                               |  |
| NOMINAL TOTAL CURRENT     |                                | A                            | 3.6 (1Ø), 13.6 (3Ø)   | 5.2 (1Ø), 16.2 (3Ø)     | 20.5                      | 5.3 (1Ø), 17.2 (3Ø)       |                               |  |
| INDOOR UNIT               | CASING                         | MATERIAL                     | ELECTRO GALVANISED MILD STEEL                               |                         |                           |                           |                               |  |
|                           |                                | FINISHING                    | EPOXY POLYESTER POWDER COATING                              |                         |                           |                           |                               |  |
|                           |                                | INSULATION                   | PE FOAM - 10MM THICKNESS                                    |                         |                           |                           |                               |  |
|                           | DIMENSION                      | HEIGHT (H)                   | mm (in)   | 507 (19.96)             |                           | 710 (27.95)               |                               |  |
|                           |                                | WIDTH (W)                    | mm (in)   | 1507 (59.33)            | 1917 (75.47)              |                           | 1794 (70.62)                  |  |
|                           |                                | DEPTH (D)                    | mm (in)   | 859 (33.81)             |                           | 964 (37.95)               |                               |  |
|                           | VOLUME                         |                              | m <sup>3</sup> (ft <sup>3</sup> )                           | 1,112 (39.27)           | 1,395 (49.26)             | 1,875 (66.22)             | 1,228 (43.37)                 |  |
|                           | NET WEIGHT                     |                              | kg (lb)   | 95 (209)                | 120 (264)                 |                           | 155 (341)                     |  |
|                           | NOISE LEVEL                    |                              | dBA   | 73                      | 75                        |                           | 77                            |  |
|                           | EVAPORATOR COIL                | TYPE                         |   | CROSS FINNED TUBES      |                           |                           | PLAIN TUBE / SLIT FIN         |  |
|                           |                                |                              | TUBE  | MATERIAL                | SEAMLESS COPPER           |                           |                               |  |
|                           |                                |                              | WALL THICKNESS  | mm (in)                 | 0.35 (0.013)              |                           |                               |  |
|                           |                                |                              | OUTER DIAMETER  | mm (in)                 | 9.52 (3/8)                |                           |                               |  |
|                           |                                | FIN                          | MATERIAL  | ALUMINIUM               |                           |                           |                               |  |
|                           |                                |                              | THICKNESS   | mm (in)                 | 0.127 (0.005)             |                           |                               |  |
|                           |                                | ROWS / FIN PER INCH (FPI)    |   | 3 / 14                  |                           |                           |                               |  |
| CAPACITY STEP             |                                |                              | %   | 100-0                   |                           |                           | 100-50-0                      |  |
| FACE AREA                 |                                |                              | m <sup>2</sup> (ft <sup>2</sup> )                           | 0.53 (5.73)             | 0.72 (7.75)               | 0.89 (9.66)               |                               |  |
| FACE VELOCITY             |                                |                              | m/min (FPM)   | 119.48 (392)            | 117.95 (387)              | 118.26 (388)              |                               |  |
| EVAPORATOR BLOWER         | TYPE / DRIVE                   |                              | CENTRIFUGAL / DIRECT  |                         | CENTRIFUGAL / BELT DRIVEN |                           |                               |  |
|                           |                                | BLOWER MATERIAL              | ZINC COATED STEEL   |                         |                           |                           |                               |  |
|                           | QUANTITY                       |                              | 2   |                         | 1                         |                           |                               |  |
|                           | BLOWER DIAMETER                | mm (in)                      | 282.70 (11.13)  |                         | 394.97 (15.55)            |                           |                               |  |
|                           | BLOWER LENGTH                  | mm (in)                      | 203.20 (8.00)   |                         | 381.00 (15.00)            |                           |                               |  |
|                           | AIR FLOW                       | L/s (CFM)                    | 1062 (2250)   | 1416 (3000)             | 1770 (3750)               |                           |                               |  |
|                           | EXTERNAL STATIC PRESSURE       | mmWG (inWG)                  | 38.1 (1.50)   | 22.9 (0.90)             | 25.4 (1.00)               |                           |                               |  |
|                           | BLOWER PULLEY DIAMETER         | mm                           | -   | -                       | 1 SPZ 160                 |                           |                               |  |
|                           | MOTOR PULLEY DIAMETER          | mm                           | -   | -                       | 1 SPZ 85                  |                           |                               |  |
|                           | PULLEY                         | TYPE                         | -   | -                       | 1 SPZ                     |                           |                               |  |
| V-BELT                    | TYPE                           | -                            | -   | SPZ 760                 |                           |                           |                               |  |
| EVAPORATOR BLOWER MOTOR   | TYPE                           |                              | PERMANENT SPLIT CAPACITOR                                   |                         | SQUIRREL CAGE INDUCTION   |                           |                               |  |
|                           |                                | POWER SUPPLY                 | V / Ph / Hz   | 220-240 / 1 / 50        |                           | 380-415 / 3 / 50          |                               |  |
|                           | NUMBER x RATED RUNNING CURRENT | A                            | 3.6   | 5.2                     | 2.9                       |                           |                               |  |
|                           | NUMBER x RATED INPUT POWER     | W                            | 738.00  | 1100.00                 | 1420                      |                           |                               |  |
|                           | NUMBER x MOTOR OUTPUT          | W                            | 472.00  | 756.00                  | 1500                      |                           |                               |  |
| MOTOR POLES               |                                |                              | 6   | 4                       |                           |                           |                               |  |
| REFRIGERANT               | TYPE                           |                              | R22   |                         |                           |                           |                               |  |
|                           |                                | TYPE OF GAS PRECHARGED       | NITROGEN HOLDING  |                         |                           |                           |                               |  |
|                           | CONTROL DEVICE                 | THERMOSTATIC EXPANSION VALVE |   |                         |                           |                           |                               |  |
|                           | PIPE CONNECTION                |                              | BRAZING   |                         | FLARE VALVE               |                           |                               |  |
|                           | PIPE SIZE                      | LIQUID                       | mm (in)   | 12.70 (1/2)             | 15.88 (5/8)               | 15.88 (5/8)               | 12.70 (1/2)                   |  |
| GAS                       |                                | mm (in)                      | 25.4 (1)  | 28.57 (1-1/8)           | 34.92 (1-3/8)             | 19.05 (3/4)               |                               |  |
| DRAIN PIPE CONNECTION     |                                | mm (in)                      | 25.40 (1.00)  |                         |                           |                           |                               |  |
| AIR FILTER                | TYPE                           |                              | AAF R15   |                         |                           |                           |                               |  |
|                           |                                | LENGTH x HEIGHT              | mm (in)   | 399 x 385 (15.7 x 15.2) | 536 x 385 (21.1 x 15.2)   | 508 x 581 (20.0 x 22.9)   |                               |  |
|                           | DEPTH                          | mm (in)                      | 50.8 (2.00)   |                         |                           |                           |                               |  |
| QUANTITY                  |                                |                              | 3   |                         |                           |                           |                               |  |
| OUTDOOR UNIT              | CASING                         | MATERIAL                     | ELECTRO GALVANISED MILD STEEL                               |                         |                           |                           |                               |  |
|                           |                                | FINISHING                    | EPOXY POLYESTER POWDER                                      |                         |                           |                           |                               |  |
|                           |                                | INSULATION                   | PE FOAM - 10MM THICKNESS                                    |                         |                           |                           |                               |  |
|                           | DIMENSION                      | HEIGHT (H)                   | mm (in)   | 1041 (40.98)            |                           | 850 (33.46)               |                               |  |
|                           |                                | WIDTH (W)                    | mm (in)   | 981 (38.62)             | 1083 (42.63)              |                           | 1030 (40.55)                  |  |
|                           |                                | DEPTH (D)                    | mm (in)   | 981 (38.62)             | 1083 (42.63)              |                           | 460 (18.11)                   |  |
|                           | VOLUME                         |                              | m <sup>3</sup> (ft <sup>3</sup> )                           | 1,654 (58.46)           | 1,957 (69.11)             | 0,678 (23.94)3            |                               |  |
|                           | NET WEIGHT                     |                              | kg (lb)   | 170 (374)               | 184 (405)                 | 197 (434)                 |                               |  |
|                           | NOISE LEVEL (Sound Power)      |                              | dBA   | 64                      | 66                        | 61                        |                               |  |
|                           | CONDENSER COIL                 | TYPE                         |   | CROSS FINNED TUBES      |                           |                           |                               |  |
|                           |                                |                              | TUBE  | MATERIAL                | SEAMLESS COPPER           |                           | SEAMLESS COPPER INNER GROOVED |  |
|                           |                                |                              | WALL THICKNESS  | mm (in)                 | 0.35 (0.013)              |                           |                               |  |
|                           |                                |                              | OUTER DIAMETER  | mm (in)                 | 9.52 (3/8)                |                           |                               |  |
|                           |                                | FIN                          | MATERIAL  | ALUMINIUM               |                           |                           |                               |  |
|                           |                                |                              | THICKNESS   | mm (in)                 | 0.127 (0.005)             |                           |                               |  |
|                           |                                | NUMBER x ROWS                |   | 2 x 1                   | 2 x 2                     | 3                         |                               |  |
|                           |                                | FIN PER INCH                 |   | 20                      | 16                        | 14                        |                               |  |
| FACE AREA                 |                                |                              | m <sup>2</sup> (ft <sup>2</sup> )                           | 2.29 (24.72)            | 2.26 (24.38)              | 2.54 (27.38)              | 0.95 (10.21)                  |  |
| FACE VELOCITY             |                                |                              | m/min (FPM)   | 86.25 (283)             | 87.47 (287)               | 111.25 (365)              | 113.39 (372)                  |  |
| CONDENSER FAN             | TYPE / DRIVE                   |                              | INDUCTION MOTOR   |                         |                           | PERMANENT SPLIT CAPACITOR |                               |  |
|                           |                                | BLADE MATERIAL               | PROPELLER / DIRECT  |                         |                           |                           |                               |  |
|                           | BLADE DIAMETER                 | mm (in)                      | 812.80 (32)   |                         | 914.40 (36)               |                           |                               |  |
|                           | POWER SUPPLY                   | V / Ph / Hz                  | 380-415 / 3 / 50  |                         | 1.2                       |                           |                               |  |
|                           | RATED RUNNING CURRENT          | A                            | 1.2   |                         |                           |                           |                               |  |
|                           | RATED INPUT POWER              | W                            | 550   | 923                     |                           | 250                       |                               |  |
|                           | MOTOR OUTPUT                   | W                            | 350   | 560                     |                           | 160                       |                               |  |
|                           | MOTOR POLES                    |                              | 10  | 12                      |                           | 6                         |                               |  |
|                           | AIR FLOW                       | L/s (CFM)                    | 3304 (7000)   | 4720 (10000)            |                           | 3800 (1794)               |                               |  |
|                           | COMPRESSOR                     | TYPE                         |   | SCROLL COMPRESSOR       |                           |                           |                               |  |
| POWER SUPPLY              |                                |                              | V / Ph / Hz   | 380-415 / 3 / 50        |                           |                           |                               |  |
| RATED RUNNING CURRENT     |                                | A                            | 12.4  | 15.0                    | 16.4                      | 8.6                       |                               |  |
| RATED INPUT POWER         |                                | W                            | 6810  | 9040                    | 10200                     | 5092                      |                               |  |
| MAXIMUM STARTING CURRENT  |                                | A                            | 95.0  | 125.0                   | 110.0                     | 740.0                     |                               |  |
| COMPRESSOR MOTOR OUTPUT   |                                | W                            | 6000  | 7500                    | 8940                      | -                         |                               |  |
| PROTECTION DEVICE         |                                |                              | OVERLOAD PROTECTION AND AUTO RESET HIGH/LOW PRESSURE SWITCH |                         |                           |                           |                               |  |
| STAGE OF CAPACITY CONTROL |                                |                              | ON / OFF  |                         |                           |                           |                               |  |
| STARTER TYPE              |                                | Direct On Line (DOL)         |   |                         |                           |                           |                               |  |
| REFRIGERANT               | TYPE                           |                              | R22   |                         |                           |                           |                               |  |
|                           |                                | TYPE OF GAS PRECHARGED       | NITROGEN HOLDING  |                         |                           |                           |                               |  |

NOTES :

1. ALL UNITS ARE BEING TESTED AND COMPLY TO ARI210/240-94.
2. NOMINAL COOLING CAPACITIES ARE BASED ON THE FOLLOWING CONDITIONS. INDOOR 26.7 °CDB, 19.4 °CWB, OUTDOOR 35 °CDB.
3. ALLOWABLE OPERATING RANGE : COOLING - INDOOR 19.4°C DB/ 13.9°C WB & OUTDOOR 19.4°C DB TO INDOOR 26.7°C DB/ 19.4°C WB & OUTDOOR 46.1°C DB.
4. ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY MANUFACTURER WITHOUT PRIOR NOTICE.

R22 - Cooling Only Models ~ High Static Motor

| MODEL                  |                         | INDOOR UNIT                    |                          | MDB150D1                          |                 | MDB150D2  |               |              |                 |
|------------------------|-------------------------|--------------------------------|--------------------------|-----------------------------------|-----------------|---|---------------|--------------|-----------------|
| TOTAL COOLING CAPACITY |                         | OUTDOOR UNIT                   |                          | MMC150D                           |                 | MMC075D x2  |               |              |                 |
|                        |                         | 35 °CDB                        |                          | 150,000                           |                 | 150,000   |               |              |                 |
|                        |                         |                                |                          | Btu/h                             |                 | 37,800  |               |              |                 |
|                        |                         |                                |                          | kcal/h                            |                 | 43,950  |               |              |                 |
| NOMINAL TOTAL POWER    |                         |                                |                          | W                                 |                 | 15,244  |               |              |                 |
| NOMINAL TOTAL CURRENT  |                         |                                |                          | A                                 |                 | 27.5  |               |              |                 |
| CASING                 |                         | MATERIAL                       |                          | ELECTRO GALVANISED MILD STEEL     |                 |   |               |              |                 |
|                        |                         | FINISHING                      |                          | EPOXY POLYESTER POWDER COATING    |                 |   |               |              |                 |
|                        |                         | INSULATION                     |                          | PE FOAM -- 10MM THICKNESS         |                 |   |               |              |                 |
| DIMENSION              |                         | HEIGHT (H)                     |                          | mm (in)                           |                 | 710 (27.95)   |               |              |                 |
|                        |                         | WIDTH (W)                      |                          | mm (in)                           |                 | 2073 (81.61)  |               |              |                 |
|                        |                         | DEPTH (D)                      |                          | mm (in)                           |                 | 964 (37.95)   |               |              |                 |
| VOLUME                 |                         |                                |                          | m <sup>3</sup> (ft <sup>3</sup> ) |                 | 2.192 (77.41)   |               |              |                 |
| NET WEIGHT             |                         |                                |                          | kg (lb)                           |                 | 175 (385)   |               |              |                 |
| NOISE LEVEL            |                         |                                |                          | dBA                               |                 | 79  |               |              |                 |
| INDOOR UNIT            | EVAPORATOR COIL         | TYPE                           |                          | CROSS FINNED TUBES                |                 |   |               |              |                 |
|                        |                         | TUBE                           | MATERIAL                 |                                   | SEAMLESS COPPER |   |               |              |                 |
|                        |                         |                                | WALL THICKNESS           |                                   | mm (in)         |   | 0.35 (0.013)  |              |                 |
|                        |                         |                                | OUTER DIAMETER           |                                   | mm (in)         |   | 9.52 (3/8)    |              |                 |
|                        |                         | FIN                            | MATERIAL                 |                                   | ALUMINIUM       |   |               |              |                 |
|                        |                         |                                | THICKNESS                |                                   | mm (in)         |   | 0.127 (0.005) |              |                 |
|                        |                         |                                | ROWS / FIN PER INCH(FPI) |                                   | 3 / 14          |   |               |              |                 |
|                        |                         | CAPACITY STEP                  |                          |                                   |                 | %   |               | 100-0        |                 |
|                        |                         | FACE AREA                      |                          |                                   |                 | m <sup>2</sup> (ft <sup>2</sup> )                           |               | 1.06 (11.50) |                 |
|                        |                         | FACE VELOCITY                  |                          |                                   |                 | m/min (FPM)   |               | 119.17 (391) |                 |
| INDOOR UNIT            | EVAPORATOR BLOWER       | TYPE / DRIVE                   |                          | CENTRIFUGAL / BELT DRIVEN         |                 |   |               |              |                 |
|                        |                         | BLOWER MATERIAL                |                          | ZINC COATED STEEL                 |                 |   |               |              |                 |
|                        |                         | QUANTITY                       |                          | 1                                 |                 |   |               |              |                 |
|                        |                         | BLOWER DIAMETER                |                          | mm (in)                           |                 | 394.97 (15.55)  |               |              |                 |
|                        |                         | BLOWER LENGTH                  |                          | mm (in)                           |                 | 381.00 (15.00)  |               |              |                 |
|                        |                         | AIR FLOW                       |                          |                                   |                 | L/s (CFM)   |               | 2124 (4500)  |                 |
|                        |                         | EXTERNAL STATIC PRESSURE       |                          | mmWG(inWG)                        |                 | 25.4 (1.00)   |               |              |                 |
|                        |                         | BLOWER PULLEY DIAMETER         |                          | mm                                |                 | 1 SPZ 160   |               |              |                 |
|                        |                         | MOTOR PULLEY DIAMETER          |                          | mm                                |                 | 1 SPZ 85  |               |              |                 |
|                        |                         | PULLEY                         |                          | TYPE                              |                 | 1 SPZ   |               |              |                 |
| INDOOR UNIT            | EVAPORATOR BLOWER MOTOR | V-BELT                         |                          | TYPE                              |                 | SPZ 760   |               |              |                 |
|                        |                         | POWER SUPPLY                   |                          | V / Ph / Hz                       |                 | 380-415 / 3 / 50  |               |              |                 |
|                        |                         | NUMBER x RATED RUNNING CURRENT |                          | A                                 |                 | 3.3   |               |              |                 |
|                        |                         | NUMBER x RATED INPUT POWER     |                          | W                                 |                 | 1740  |               |              |                 |
|                        |                         | NUMBER x MOTOR OUTPUT          |                          | W                                 |                 | 1500  |               |              |                 |
| INDOOR UNIT            | REFRIGERANT             | MOTOR POLES                    |                          | 4                                 |                 |   |               |              |                 |
|                        |                         | TYPE                           |                          | R22                               |                 |   |               |              |                 |
|                        |                         | TYPE OF GAS PRECHARGED         |                          | NITROGEN HOLDING                  |                 |   |               |              |                 |
|                        |                         | CONTROL DEVICE                 |                          | THERMOSTATIC EXPANSION VALVE      |                 |   |               |              |                 |
|                        |                         | PIPE CONNECTION                |                          | BRAZING                           |                 |   |               |              |                 |
| INDOOR UNIT            | AIR FILTER              | PIPE SIZE                      |                          | LIQUID                            |                 | mm (in)   |               |              |                 |
|                        |                         |                                |                          | GAS                               |                 | mm (in)   |               |              |                 |
|                        |                         |                                |                          |                                   |                 | 15.88 (5/8)   |               |              |                 |
|                        |                         |                                |                          |                                   |                 | 34.92 (1-3/8)   |               |              |                 |
| DRAIN PIPE CONNECTION  |                         | mm (in)                        |                          | 25.40 (1.00)                      |                 |   |               |              |                 |
| INDOOR UNIT            | EVAPORATOR BLOWER MOTOR | TYPE                           |                          | SQUIRREL CAGE INDUCTION           |                 |   |               |              |                 |
|                        |                         | SIZE                           |                          | AAFR15                            |                 |   |               |              |                 |
|                        |                         | LENGTH x HEIGHT                |                          | mm (in)                           |                 | 601 x 581 (23.7 x 22.9)                                     |               |              |                 |
|                        |                         | DEPTH                          |                          | mm (in)                           |                 | 50.8 (2.00)   |               |              |                 |
| QUANTITY               |                         |                                |                          | 3                                 |                 |   |               |              |                 |
| OUTDOOR UNIT           | CASING                  | MATERIAL                       |                          | ELECTRO GALVANISED MILD STEEL     |                 |   |               |              |                 |
|                        |                         | FINISHING                      |                          | EPOXY POLYESTER POWDER            |                 |   |               |              |                 |
|                        |                         | HEIGHT (H)                     |                          | mm (in)                           |                 | 1142 (44.96)  |               |              |                 |
|                        |                         | WIDTH (W)                      |                          | mm (in)                           |                 | 1083 (42.63)  |               |              |                 |
|                        |                         | DEPTH (D)                      |                          | mm (in)                           |                 | 1083 (42.63)  |               |              |                 |
|                        |                         | VOLUME                         |                          |                                   |                 | m <sup>3</sup>  |               | 2.12 (74.87) |                 |
|                        |                         | NET WEIGHT                     |                          |                                   |                 | kg (lb)   |               | 268 (590)    |                 |
|                        |                         | NOISE LEVEL (Sound Power)      |                          |                                   |                 | dBA   |               | 67           |                 |
|                        |                         | OUTDOOR UNIT                   | CONDENSER COIL           | TYPE                              |                 | CROSS FINNED TUBES  |               |              |                 |
|                        |                         |                                |                          | TUBE                              | MATERIAL        |   | INNER GROOVED |              | SEAMLESS COPPER |
| WALL THICKNESS         |                         |                                |                          |                                   | mm (in)         |   | 0.35 (0.013)  |              |                 |
| OUTER DIAMETER         |                         |                                |                          |                                   | mm (in)         |   | 9.52 (3/8)    |              |                 |
| FIN                    | MATERIAL                |                                |                          | ALUMINIUM                         |                 |   |               |              |                 |
|                        | THICKNESS               |                                |                          | mm (in)                           |                 | 0.127 (0.005)   |               |              |                 |
|                        | NUMBER x ROWS           |                                |                          | FIN PER INCH                      |                 | 2 x 2   |               |              |                 |
| FACE AREA              |                         |                                |                          |                                   |                 | m <sup>2</sup> (ft <sup>2</sup> )                           |               | 2.82 (30.40) |                 |
| FACE VELOCITY          |                         |                                |                          |                                   |                 | m/min (FPM)   |               | 100.27 (329) |                 |
| OUTDOOR UNIT           | CONDENSER FAN           |                                |                          | TYPE                              |                 | INDUCTION   |               |              |                 |
|                        |                         | DRIVE                          |                          | PROPELLER / DIRECT                |                 |   |               |              |                 |
|                        |                         | BLADE MATERIAL                 |                          | ALUMINIUM                         |                 |   |               |              |                 |
|                        |                         | BLADE DIAMETER                 |                          | mm (in)                           |                 | 914.40 (36)   |               |              |                 |
|                        |                         | POWER SUPPLY                   |                          | V / Ph / Hz                       |                 | 380-415 / 3 / 50  |               |              |                 |
|                        |                         | RATED RUNNING CURRENT          |                          | A                                 |                 | 1.2   |               |              |                 |
|                        |                         | RATED INPUT POWER              |                          | W                                 |                 | 923   |               |              |                 |
|                        |                         | MOTOR OUTPUT                   |                          | W                                 |                 | 560   |               |              |                 |
|                        |                         | MOTOR POLES                    |                          |                                   |                 | 12  |               |              |                 |
|                        |                         | AIR FLOW                       |                          | L/s (CFM)                         |                 | 4720 (10000)  |               |              |                 |
| OUTDOOR UNIT           | COMPRESSOR              | TYPE                           |                          | SCROLL COMPRESSOR                 |                 |   |               |              |                 |
|                        |                         | POWER SUPPLY                   |                          | V / Ph / Hz                       |                 | 380-415 / 3 / 50  |               |              |                 |
|                        |                         | RATED RUNNING CURRENT          |                          | A                                 |                 | 23.0  |               |              |                 |
|                        |                         | RATED INPUT POWER              |                          | W                                 |                 | 13300   |               |              |                 |
|                        |                         | MAXIMUM STARTING CURRENT       |                          | A                                 |                 | 198.0   |               |              |                 |
|                        |                         | COMPRESSOR MOTOR OUTPUT        |                          | W                                 |                 | 11250   |               |              |                 |
|                        |                         | PROTECTION DEVICE              |                          |                                   |                 | OVERLOAD PROTECTION AND AUTO RESET HIGH/LOW PRESSURE SWITCH |               |              |                 |
|                        |                         | STAGE OF CAPACITY CONTROL      |                          |                                   |                 | ON / OFF  |               |              |                 |
|                        |                         | STARTER TYPE                   |                          |                                   |                 | Direct On Line (DOL)  |               |              |                 |
|                        |                         | OUTDOOR UNIT                   | REFRIGERANT              | TYPE                              |                 | R22   |               |              |                 |
| TYPE OF GAS PRECHARGED |                         |                                |                          | NITROGEN HOLDING                  |                 |   |               |              |                 |

NOTES :

- 1.ALL UNITS ARE BEING TESTED AND COMPLY TO ARI210/240-94.
- 2.NOMINAL COOLING CAPACITIES ARE BASED ON THE FOLLOWING CONDITIONS. INDOOR 26.7 °CDB, 19.4 °CWB, OUTDOOR 35 °CDB.
- 3.ALLOWABLE OPERATING RANGE : COOLING - INDOOR 19.4°C DB/ 13.9°C WB & OUTDOOR 19.4°C DB TO INDOOR 26.7°C DB/ 19.4°C WB & OUTDOOR 46.1°C DB.
- 4.ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY MANUFACTURER WITHOUT PRIOR NOTICE.

R407C - Cooling Only Models

| MODEL                     |                                | INDOOR UNIT                       |   | MDB075D                 | MDB100D                   | MDB125D                 | MDB150D                 |  |  |
|---------------------------|--------------------------------|-----------------------------------|---|-------------------------|---------------------------|-------------------------|-------------------------|--|--|
|                           |                                | OUTDOOR UNIT                      |   | M4MC075D                | M4MC100D                  | M4MC125D                | M4MC150D                |  |  |
| TOTAL COOLING CAPACITY    | OUTDOOR 35 °C DB               | Btu/h                             |   | 73,000                  | 91,000                    | 108,000                 | 145,000                 |  |  |
|                           |                                | kcal/h                            |   | 18,396                  | 22,932                    | 27,216                  | 36,540                  |  |  |
|                           |                                | W                                 |   | 21,395                  | 26,670                    | 31,653                  | 42,497                  |  |  |
| NOMINAL TOTAL POWER       |                                | W                                 |   | 8,080                   | 9,150                     | 12,100                  | 16,239                  |  |  |
| NOMINAL TOTAL CURRENT     |                                | A                                 |   | 3.6 (1Ø), 13.9 (3Ø)     | 5.2 (1Ø), 17.1 (3Ø)       | 21.6                    | 28.4                    |  |  |
| CASING                    | MATERIAL                       |                                   | ELECTRO GALVANISED MILD STEEL                               |                         |                           |                         |                         |  |  |
|                           | FINISHING                      |                                   | EPOXY POLYESTER POWDER COATING                              |                         |                           |                         |                         |  |  |
| DIMENSION                 | INSULATION                     |                                   | PE FOAM -- 10MM THICKNESS                                   |                         |                           |                         |                         |  |  |
|                           | HEIGHT (H)                     | mm (in)                           | 507 (19.96)   |                         | 710 (27.95)               |                         |                         |  |  |
|                           | WIDTH (W)                      | mm (in)                           | 1507 (59.33)  | 1917 (75.47)            | 1794 (70.62)              | 2073 (81.61)            |                         |  |  |
| VOLUME                    | DEPTH (D)                      |                                   | mm (in)   | 859 (33.81)             | 964 (37.95)               |                         |                         |  |  |
|                           |                                |                                   | m <sup>3</sup> (ft <sup>3</sup> )                           | 1.112 (39.27)           | 1.395 (49.26)             | 1.875 (66.22)           | 2.192 (77.41)           |  |  |
| NET WEIGHT                |                                |                                   | kg (lb)   | 95 (209)                | 120 (264)                 | 155 (341)               | 175 (385)               |  |  |
| NOISE LEVEL               |                                |                                   | dBA   | 73                      | 75                        | 77                      | 79                      |  |  |
| EVAPORATOR COIL           | TYPE                           |                                   | CROSS FINNED TUBES  |                         |                           |                         |                         |  |  |
|                           | TUBE                           | MATERIAL                          |   | SEAMLESS COPPER         |                           |                         |                         |  |  |
|                           |                                | WALL THICKNESS                    |   | mm (in)                 | 0.35 (0.013)              |                         |                         |  |  |
|                           |                                | OUTER DIAMETER                    |   | mm (in)                 | 9.52 (3/8)                |                         |                         |  |  |
|                           | FIN                            | MATERIAL                          |   | ALUMINIUM               |                           |                         |                         |  |  |
|                           |                                | THICKNESS                         |   | mm (in)                 | 0.127 (0.005)             |                         |                         |  |  |
| ROWS / FIN PER INCH(FPI)  |                                |                                   | 3 / 14  |                         |                           |                         |                         |  |  |
| CAPACITY STEP             |                                | %                                 | 100-0   |                         |                           |                         |                         |  |  |
| FACE AREA                 |                                | m <sup>2</sup> (ft <sup>2</sup> ) | 0.53 (5.73)   | 0.72 (7.75)             | 0.89 (9.66)               | 1.06 (11.50)            |                         |  |  |
| FACE VELOCITY             |                                | m/min (FPM)                       | 119.48 (392)  | 117.95 (387)            | 118.26 (388)              | 119.17 (391)            |                         |  |  |
| EVAPORATOR BLOWER         | TYPE / DRIVE                   |                                   | CENTRIFUGAL / DIRECT  |                         | CENTRIFUGAL / BELT DRIVEN |                         |                         |  |  |
|                           | BLOWER MATERIAL                |                                   | ZINC COATED STEEL   |                         |                           |                         |                         |  |  |
|                           | QUANTITY                       |                                   | 2   |                         | 1                         |                         |                         |  |  |
|                           | BLOWER DIAMETER                |                                   | mm (in)   | 282.70 (11.13)          | 394.97 (15.55)            |                         |                         |  |  |
|                           | BLOWER LENGTH                  |                                   | mm (in)   | 203.20 (8.00)           | 381.00 (15.00)            |                         |                         |  |  |
|                           | AIR FLOW                       |                                   | L/s (CFM)   | 1062 (2250)             | 1416 (3000)               | 1770 (3750)             | 2124 (4500)             |  |  |
|                           | EXTERNAL STATIC PRESSURE       |                                   | mmWG(inWG)  | 10.8 (0.43)             | 21.5 (0.85)               | 17.2 (0.68)             |                         |  |  |
|                           | BLOWER PULLEY DIAMETER         |                                   | mm  | -                       | -                         | 1 SPZ 160               |                         |  |  |
|                           | MOTOR PULLEY DIAMETER          |                                   | mm  | -                       | -                         | 1 SPZ 85                |                         |  |  |
|                           | PULLEY                         |                                   | TYPE  | -                       | -                         | 1 SPZ                   |                         |  |  |
| V-BELT                    |                                | TYPE                              | -   | -                       | SPZ 760                   |                         |                         |  |  |
| EVAPORATOR BLOWER MOTOR   | TYPE                           |                                   | PERMANENT SPLIT CAPACITOR                                   |                         | SQUIRREL CAGE INDUCTION   |                         |                         |  |  |
|                           | POWER SUPPLY                   |                                   | V / Ph / Hz   | 220~240 / 1 / 50        |                           | 380~415 / 3 / 50        |                         |  |  |
|                           | NUMBER x RATED RUNNING CURRENT |                                   | A   | 3.60                    | 5.20                      | 2.90                    | 3.30                    |  |  |
|                           | NUMBER x RATED INPUT POWER     |                                   | W   | 738.00                  | 1100.00                   | 1420                    | 1740                    |  |  |
|                           | NUMBER x MOTOR OUTPUT          |                                   | W   | 472.00                  | 756.00                    | 1500                    |                         |  |  |
| MOTOR POLES               |                                |                                   | 6   |                         | 4                         |                         |                         |  |  |
| REFRIGERANT               | TYPE                           |                                   | R407C   |                         |                           |                         |                         |  |  |
|                           | TYPE OF GAS RECHARGED          |                                   | NITROGEN HOLDING  |                         |                           |                         |                         |  |  |
|                           | CONTROL DEVICE                 |                                   | THERMOSTATIC EXPANSION VALVE                                |                         |                           |                         |                         |  |  |
|                           | PIPE CONNECTION                |                                   | BRAZING   |                         |                           |                         |                         |  |  |
|                           | PIPE SIZE                      | LIQUID                            | mm (in)   | 12.70 (1/2)             | 15.88 (5/8)               | 15.88 (5/8)             |                         |  |  |
| GAS                       |                                | mm (in)                           | 28.57 (1)   | 34.92 (1-1/8)           | 34.92 (1-3/8)             | 41.28 (1-3/8)           |                         |  |  |
| DRAIN PIPE CONNECTION     |                                | mm (in)                           | 25.40 (1.00)  |                         |                           |                         |                         |  |  |
| AIR FILTER                | TYPE                           |                                   | AAF R15   |                         |                           |                         |                         |  |  |
|                           | SIZE                           | LENGTH x HEIGHT                   | mm  | 399 x 385 (15.7 x 15.2) | 536 x 385 (21.1 x 15.2)   | 508 x 581 (20.0 x 22.9) | 601 x 581 (23.7 x 22.9) |  |  |
|                           |                                | DEPTH                             | mm (in)   | 50.8 (2.00)             |                           |                         |                         |  |  |
| QUANTITY                  |                                |                                   | 3   |                         |                           |                         |                         |  |  |
| CASING                    | MATERIAL                       |                                   | ELECTRO GALVANISED MILD STEEL                               |                         |                           |                         |                         |  |  |
|                           | FINISHING                      |                                   | EPOXY POLYESTER POWDER                                      |                         |                           |                         |                         |  |  |
| DIMENSION                 | HEIGHT (H)                     |                                   | mm (in)   | 1041 (40.98)            |                           | 1142 (44.96)            |                         |  |  |
|                           | WIDTH (W)                      |                                   | mm (in)   | 981 (38.62)             | 1083 (42.63)              |                         |                         |  |  |
|                           | DEPTH (D)                      |                                   | mm (in)   | 981 (38.62)             | 1083 (42.63)              |                         |                         |  |  |
| VOLUME                    |                                |                                   | m <sup>3</sup> (ft <sup>3</sup> )                           | 1.654 (58.46)           | 1.957 (69.11)             |                         | 2.12 (74.87)            |  |  |
| NET WEIGHT                |                                |                                   | kg (lb)   | 170 (374)               | 184 (405)                 | 197 (434)               | 268 (590)               |  |  |
| NOISE LEVEL               |                                |                                   | dBA   | 64                      | 66                        | 67                      |                         |  |  |
| CONDENSER COIL            | TYPE                           |                                   | CROSS FINNED TUBES  |                         |                           |                         |                         |  |  |
|                           | TUBE                           | MATERIAL                          |   | SEAMLESS COPPER         |                           |                         |                         |  |  |
|                           |                                | WALL THICKNESS                    |   | mm (in)                 | 0.35 (0.013)              |                         |                         |  |  |
|                           |                                | OUTER DIAMETER                    |   | mm (in)                 | 9.52 (3/8)                |                         |                         |  |  |
|                           | FIN                            | MATERIAL                          |   | ALUMINIUM               |                           |                         |                         |  |  |
|                           |                                | THICKNESS                         |   | mm (in)                 | 0.127 (0.005)             |                         |                         |  |  |
| NUMBER x ROWS             |                                |                                   | 2 x 1   | 2 x 2                   |                           |                         |                         |  |  |
| FIN PER INCH              |                                |                                   | 16  |                         |                           |                         |                         |  |  |
| FACE AREA                 |                                | m <sup>2</sup> (ft <sup>2</sup> ) | 2.29 (24.72)  | 2.26 (24.38)            | 2.54 (27.38)              | 2.82 (30.40)            |                         |  |  |
| FACE VELOCITY             |                                | m/min (FPM)                       | 86.25 (283)   | 87.47 (287)             | 111.25 (365)              | 100.27 (329)            |                         |  |  |
| CONDENSER FAN             | TYPE                           |                                   | INDUCTION   |                         |                           |                         |                         |  |  |
|                           | DRIVE                          |                                   | PROPELLER / DIRECT  |                         |                           |                         |                         |  |  |
|                           | BLADE MATERIAL                 |                                   | ALUMINIUM   |                         |                           |                         |                         |  |  |
|                           | BLADE DIAMETER                 |                                   | mm (in)   | 812.80 (32)             |                           | 914.40 (36)             |                         |  |  |
|                           | POWER SUPPLY                   |                                   | V / Ph / Hz   | 380~415 / 3 / 50        |                           |                         |                         |  |  |
|                           | RATED RUNNING CURRENT          |                                   | A   | 1.2                     |                           |                         |                         |  |  |
|                           | RATED INPUT POWER              |                                   | W   | 570                     | 600                       | 820                     |                         |  |  |
|                           | MOTOR OUTPUT                   |                                   | W   | 350                     |                           | 560                     |                         |  |  |
| MOTOR POLES               |                                |                                   | 10  |                         |                           |                         |                         |  |  |
| AIR FLOW                  |                                | L/s (CFM)                         | 3304 (7000)   |                         | 4720 (10000)              |                         |                         |  |  |
| COMPRESSOR                | TYPE                           |                                   | SCROLL COMPRESSOR   |                         |                           |                         |                         |  |  |
|                           | POWER SUPPLY                   |                                   | V / Ph / Hz   | 380~415 / 3 / 50        |                           |                         |                         |  |  |
|                           | RATED RUNNING CURRENT          |                                   | A   | 12.7                    | 15.9                      | 17.5                    | 23.9                    |  |  |
|                           | RATED INPUT POWER              |                                   | W   | 6772                    | 8550                      | 9860                    | 13679                   |  |  |
|                           | MAXIMUM STARTING CURRENT       |                                   | A   | 95.0                    | 125.0                     | 110.0                   | 198.0                   |  |  |
|                           | COMPRESSOR MOTOR OUTPUT        |                                   | W   | 6000                    | 7500                      | 8940                    | 11250                   |  |  |
|                           | PROTECTION DEVICE              |                                   | OVERLOAD PROTECTION AND AUTO RESET HIGH/LOW PRESSURE SWITCH |                         |                           |                         |                         |  |  |
| STAGE OF CAPACITY CONTROL |                                | ON / OFF                          |   |                         |                           |                         |                         |  |  |
| STARTER TYPE              |                                | Direct OnLine (DOL)               |   |                         |                           |                         |                         |  |  |
| REFRIGERANT               | TYPE                           |                                   | R407C   |                         |                           |                         |                         |  |  |
|                           | TYPE OF GAS PRECHARGED         |                                   | NITROGEN HOLDING  |                         |                           |                         |                         |  |  |

NOTES :

1. ALL UNITS ARE BEING TESTED AND COMPLY TO ARI210/240-94.
2. NOMINAL COOLING CAPACITIES ARE BASED ON THE FOLLOWING CONDITIONS. INDOOR 26.7 °CDB, 19.4 °CWB, OUTDOOR 35 °CDB.
3. ALLOWABLE OPERATING RANGE : COOLING - INDOOR 19.4 °C DB/ 13.9 °C WB & OUTDOOR 19.4 °C DB TO INDOOR 26.7 °C DB/ 19.4 °C WB & OUTDOOR 46.1 °C DB.
4. ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY MANUFACTURER WITHOUT PRIOR NOTICE.

R407C - Cooling Only Models

| MODEL                    | INDOOR UNIT                    |                                   | MDB150D2  | MDB200D2                | MDB250D2                |               |
|--------------------------|--------------------------------|-----------------------------------|---|-------------------------|-------------------------|---------------|
|                          | OUTDOOR UNIT                   |                                   | M4MC075D x2   | M4MC100D x2             | M4MC125D x2             |               |
| TOTAL COOLING CAPACITY   | OUTDOOR<br>35 °C DB            | Btu/h                             | 146,000   | 182,000                 | 216,000                 |               |
|                          |                                | kcal/h                            | 36,792  | 45,864                  | 54,432                  |               |
|                          |                                | W                                 | 42,790  | 53,500                  | 63,306                  |               |
| NOMINAL TOTAL POWER      |                                | W                                 | 16,424  | 21,100                  | 25,660                  |               |
| NOMINAL TOTAL CURRENT    |                                | A                                 | 31.1  | 39.6                    | 45.2                    |               |
| INDOOR UNIT              | CASING                         | MATERIAL                          | ELECTRO GALVANISED MILD STEEL                               |                         |                         |               |
|                          |                                | FINISHING                         | EPOXY POLYESTER POWDER COATING                              |                         |                         |               |
|                          | DIMENSION                      | INSULATION                        | PE FOAM - 10MM THICKNESS                                    |                         |                         |               |
|                          |                                | HEIGHT (H)                        | mm (in)   | 710 (27.95)             | 881 (34.68)             | 983 (38.70)   |
|                          |                                | WIDTH (W)                         | mm (in)   | 2073 (81.61)            | 1324 (52.12)            | 1486 (58.50)  |
|                          | VOLUME                         | DEPTH (D)                         | mm (in)   | 964 (37.95)             | 1209 (47.59)            | 1298 (51.10)  |
|                          |                                |                                   | m <sup>3</sup> (ft <sup>3</sup> )                           | 2,192 (77.41)           | 2,056 (72.61)           | 2,675 (94.47) |
|                          | NET WEIGHT                     |                                   | kg (lb)   | 175 (385)               | 248 (546)               | 321 (707)     |
|                          | NOISE LEVEL                    |                                   | dBA   | 79                      | 85                      | 87            |
|                          | EVAPORATOR COIL                | TYPE                              | CROSS FINNED TUBES  |                         |                         |               |
| SEAMLESS COPPER          |                                |                                   |   |                         |                         |               |
| TUBE                     |                                | MATERIAL                          | ALUMINIUM   |                         |                         |               |
|                          |                                | WALL THICKNESS                    | mm (in)   | 0.35 (0.013)            |                         |               |
| FIN                      |                                | OUTER DIAMETER                    | mm (in)   | 9.52 (3/8)              |                         |               |
|                          |                                | THICKNESS                         | mm (in)   | 0.127 (0.005)           |                         |               |
| ROWS / FIN PER INCH(FPI) |                                | 3 / 14                            |   |                         |                         |               |
| CAPACITY STEP            |                                | %                                 |   |                         |                         |               |
| FACE AREA                |                                | m <sup>2</sup> (ft <sup>2</sup> ) | 1.06 (11.50)  | 1.43 (15.41)            | 1.77 (19.12)            |               |
| FACE VELOCITY            |                                | m/min (FPM)                       | 119.17 (391)  | 118.56 (389)            | 119.48 (392)            |               |
| EVAPORATOR BLOWER        | TYPE / DRIVE                   |                                   | CENTRIFUGAL / BELT DRIVEN                                   |                         |                         |               |
|                          | BLOWER MATERIAL                |                                   | ZINC COATED STEEL   |                         |                         |               |
|                          | QUANTITY                       |                                   | 1   |                         |                         |               |
|                          | BLOWER DIAMETER                |                                   | mm (in)   | 394.97 (15.55)          | 469.90 (18.50)          |               |
|                          | BLOWER LENGTH                  |                                   | mm (in)   | 381.00 (15.00)          | 459.99 (18.11)          |               |
|                          | AIR FLOW                       |                                   | L/s (CFM)   | 2124 (4500)             | 2832 (6000)             |               |
|                          | EXTERNAL STATIC PRESSURE       |                                   | mmWG(inWG)  | 18.0 (0.71)             | 14.2 (0.56)             |               |
|                          | BLOWER PULLEY DIAMETER         |                                   | mm  | 1 SPZ 160               | 2 SPZ125                |               |
|                          | MOTOR PULLEY DIAMETER          |                                   | mm  | 1 SPZ 85                | 2 SPZ 75                |               |
|                          | PULLEY                         |                                   | TYPE  | 1 SPZ                   | 2 SPZ                   |               |
| V-BELT                   |                                | TYPE                              | SPZ 760   | SPZ 1150                |                         |               |
| EVAPORATOR BLOWER MOTOR  | TYPE                           |                                   | SQUIRREL CAGE INDUCTION                                     |                         |                         |               |
|                          | POWER SUPPLY                   |                                   | V / Ph / Hz   | 380-415 / 3 / 50        |                         |               |
|                          | NUMBER x RATED RUNNING CURRENT |                                   | A   | 3.3                     | 5.40                    |               |
|                          | NUMBER x RATED INPUT POWER     |                                   | W   | 1740                    | 2800                    |               |
|                          | NUMBER x MOTOR OUTPUT          |                                   | W   | 1500                    | 3000                    |               |
| MOTOR POLES              |                                |                                   | 4   |                         |                         |               |
| REFRIGERANT              | TYPE                           |                                   | R22 / R407C   |                         |                         |               |
|                          | TYPE OF GAS PRECHARGED         |                                   | NITROGEN HOLDING  |                         |                         |               |
|                          | CONTROL DEVICE                 |                                   | THERMOSTATIC EXPANSION VALVE                                |                         |                         |               |
|                          | PIPE CONNECTION                |                                   | BRAZING   |                         |                         |               |
|                          | PIPE SIZE                      | LIQUID                            | mm (in)   | 12.70 (1/2)             | 15.88 (5/8)             |               |
| GAS                      |                                | mm (in)                           | 28.57 (1)   | 28.57 (1-1/8)           |                         |               |
| DRAIN PIPE CONNECTION    |                                | mm (in)                           | 25-40 (1.00)  |                         |                         |               |
| AIR FILTER               | TYPE                           |                                   | AAF R15   |                         |                         |               |
|                          | SIZE                           | LENGTH x HEIGHT                   | mm  | 601 x 581 (23.7 x 22.9) | 470 x 346 (18.5 x 13.6) |               |
|                          |                                | DEPTH                             | mm (in)   | 50.8 (2.00)             |                         |               |
| QUANTITY                 |                                |                                   | 3   | 8                       |                         |               |
| OUTDOOR UNIT             | CASING                         | MATERIAL                          | ELECTRO GALVANISED MILD STEEL                               |                         |                         |               |
|                          |                                | FINISHING                         | EPOXY POLYESTER POWDER                                      |                         |                         |               |
|                          | DIMENSION                      | HEIGHT (H)                        | mm (in)   | 1041 (40.98)            | 1041 (40.98)            | 1083 (42.63)  |
|                          |                                | WIDTH (W)                         | mm (in)   | 981 (38.62)             | 981 (38.62)             | 1083 (42.63)  |
|                          |                                | DEPTH (D)                         | mm (in)   | 981 (38.62)             | 981 (38.62)             | 1083 (42.63)  |
|                          | VOLUME                         |                                   | m <sup>3</sup> (ft <sup>3</sup> )                           | 1,654 (58.46)           | 2,056 (72.6)            | 2,675 (94.47) |
|                          | NET WEIGHT                     |                                   | kg (lb)   | 170 (374)               | 184 (405)               | 197 (434)     |
|                          | NOISE LEVEL                    |                                   | dBA   | 64                      | 64                      | 66            |
|                          | CONDENSER COIL                 | TYPE                              | CROSS FINNED TUBES  |                         |                         |               |
|                          |                                |                                   | SEAMLESS COPPER   |                         | INNER GROOVED           |               |
| TUBE                     |                                | MATERIAL                          | ALUMINIUM   |                         |                         |               |
|                          |                                | WALL THICKNESS                    | mm (in)   | 0.35 (0.013)            |                         |               |
| FIN                      |                                | OUTER DIAMETER                    | mm (in)   | 9.52 (3/8)              |                         |               |
|                          |                                | THICKNESS                         | mm (in)   | 0.127 (0.005)           |                         |               |
| NUMBER x ROWS            |                                | 2 x 1                             |   | 2 x 2                   |                         |               |
| FIN PER INCH             |                                | 20                                |   | 16                      |                         |               |
| FACE AREA                |                                | m <sup>2</sup> (ft <sup>2</sup> ) | 2.29 (24.72)  | 2.26 (24.38)            | 2.54 (27.38)            |               |
| FACE VELOCITY            |                                | m/min (FPM)                       | 86.25 (283)   | 87.47 (287)             | 111.25 (365)            |               |
| CONDENSER FAN            | TYPE                           |                                   | INDUCTION   |                         |                         |               |
|                          | DRIVE                          |                                   | PROPELLER / DIRECT  |                         |                         |               |
|                          | BLADE MATERIAL                 |                                   | ALUMINIUM   |                         |                         |               |
|                          | BLADE DIAMETER                 |                                   | mm (in)   | 812.80 (32)             | 914.40 (36)             |               |
|                          | POWER SUPPLY                   |                                   | V / Ph / Hz   | 415 / 3 / 50            |                         |               |
|                          | RATED RUNNING CURRENT          |                                   | A   | 1.2                     |                         |               |
|                          | RATED INPUT POWER              |                                   | W   | 600                     | 820                     |               |
|                          | MOTOR OUTPUT                   |                                   | W   | 350                     | 560                     |               |
|                          | MOTOR POLES                    |                                   |   | 10                      | 10                      |               |
|                          | AIR FLOW                       |                                   | L/s (CFM)   | 3304 (7000)             | 4720 (10000)            |               |
| COMPRESSOR               | TYPE                           |                                   | SCROLL COMPRESSOR   |                         |                         |               |
|                          | POWER SUPPLY                   |                                   | V / Ph / Hz   | 380-415 / 3 / 50        |                         |               |
|                          | RATED RUNNING CURRENT          |                                   | A   | 12.7                    | 15.9                    |               |
|                          | RATED INPUT POWER              |                                   | W   | 6772                    | 8550                    |               |
|                          | MAXIMUM STARTING CURRENT       |                                   | A   | 95.0                    | 125.0                   |               |
|                          | COMPRESSOR MOTOR OUTPUT        |                                   | W   | 6000                    | 7500                    |               |
|                          | PROTECTION DEVICE              |                                   | OVERLOAD PROTECTION AND AUTO RESET HIGH/LOW PRESSURE SWITCH |                         |                         |               |
|                          | STAGE OF CAPACITY CONTROL      |                                   | ON / OFF  |                         |                         |               |
|                          | STARTER TYPE                   |                                   | Direct OnLine (DOL)   |                         |                         |               |
|                          | REFRIGERANT                    | TYPE                              |   | R407C                   |                         |               |
| TYPE OF GAS PRECHARGED   |                                | NITROGEN HOLDING                  |   |                         |                         |               |

NOTES :

1. ALL UNITS ARE BEING TESTED AND COMPLY TO ARI210/240-94.
2. NOMINAL COOLING CAPACITIES ARE BASED ON THE FOLLOWING CONDITIONS. INDOOR 26.7 °CDB, 19.4 °CWB, OUTDOOR 35 °CDB.
3. ALLOWABLE OPERATING RANGE : COOLING - INDOOR 19.4 °C DB/ 13.9 °C WB & OUTDOOR 19.4 °C DB TO INDOOR 26.7 °C DB/ 19.4 °C WB & OUTDOOR 46.1 °C DB.
4. ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY MANUFACTURER WITHOUT PRIOR NOTICE.



## R407C - Cooling Only Models

| MODEL                   | INDOOR UNIT                       |   | MDB300D2<br>M4MC150D x2           | MDB400D4<br>M4MC100D x4 | MDB500D4<br>M4MC125D x4 |                |
|-------------------------|-----------------------------------|---|-----------------------------------|-------------------------|-------------------------|----------------|
|                         | OUTDOOR UNIT                      |   |                                   |                         |                         |                |
| TOTAL COOLING CAPACITY  | OUTDOOR<br>35 °C DB               | Btu/h   | 290,000                           | 364,000                 | 432,000                 |                |
|                         |                                   | kcal/h  | 73,080                            | 91,728                  | 108,864                 |                |
|                         |                                   | W   | 84,990                            | 105,510                 | 126,612                 |                |
|                         |                                   | W   | 33,998                            | 42,500                  | 53,820                  |                |
| NOMINAL TOTAL POWER     |                                   | A   | 59.2                              | 79.4                    | 93.1                    |                |
| NOMINAL TOTAL CURRENT   |                                   |   |                                   |                         |                         |                |
| INDOOR UNIT             | CASING                            | MATERIAL  | ELECTRO GALVANISED MILD STEEL     |                         |                         |                |
|                         |                                   | FINISHING   | EPOXY POLYESTER POWDER COATING    |                         |                         |                |
|                         |                                   | INSULATION  | PE FOAM – 10MM THICKNESS          |                         |                         |                |
|                         | DIMENSION                         | HEIGHT (H)  | mm (in)                           | 983 (38.70)             | 1176 (46.29)            | 1176 (46.29)   |
|                         |                                   | WIDTH (W)   | mm (in)                           | 1486 (58.50)            | 1722 (67.79)            | 1722 (67.79)   |
|                         |                                   | DEPTH (D)   | mm (in)                           | 1501 (59.09)            | 1691 (66.57)            | 2047 (80.59)   |
|                         |                                   | VOLUME  | m <sup>3</sup> (ft <sup>3</sup> ) | 3,047 (107.60)          | 4,552 (160.75)          | 5,427 (191.65) |
|                         | NET WEIGHT                        | kg (lb)   | 394 (868)                         | 470 (1036)              | 567 (1250)              |                |
|                         | NOISE LEVEL                       | dBA   | 89                                | 90                      | 96                      |                |
|                         | EVAPORATOR COIL                   | TYPE  | MATERIAL                          | SEAMLESS COPPER         |                         |                |
|                         |                                   |   | WALL THICKNESS                    | mm (in)                 | 0.35 (0.013)            |                |
|                         |                                   | TUBE  | OUTER DIAMETER                    | mm (in)                 | 9.52 (3/8)              |                |
|                         |                                   |   | MATERIAL                          | ALUMINIUM               |                         |                |
|                         |                                   | FIN   | THICKNESS                         | mm (in)                 | 0.127 (0.005)           |                |
|                         |                                   |   | ROWS / FIN PER INCH(FPI)          |                         | 3 / 14                  |                |
| CAPACITY STEP           |                                   | %   | 100-50-0                          | 100-75-50-25-0          |                         |                |
| FACE AREA               | m <sup>2</sup> (ft <sup>2</sup> ) | 2.12 (22.90)  | 2.89 (31.11)                      | 3.61 (38.88)            |                         |                |
| FACE VELOCITY           | m/min (FPM)                       | 119.78 (393)  | 117.34 (385)                      |                         |                         |                |
| EVAPORATOR BLOWER       | TYPE / DRIVE                      | CENTRIFUGAL / BELT DRIVEN                                   |                                   |                         |                         |                |
|                         |                                   | BLOWER MATERIAL   | ZINC COATED STEEL                 |                         |                         |                |
|                         | QUANTITY                          | 1   |                                   |                         |                         |                |
|                         | BLOWER DIAMETER                   | mm (in)   | 469.90 (18.50)                    | 591.82 (23.30)          |                         |                |
|                         | BLOWER LENGTH                     | mm (in)   | 459.99 (18.11)                    | 563.88 (22.20)          |                         |                |
|                         | AIR FLOW                          | L/s (CFM)   | 4248 (9000)                       | 5664 (12000)            | 7080 (15000)            |                |
|                         | EXTERNAL STATIC PRESSURE          | mmWG(inWG)  | 23.0 (0.91)                       | 25.0 (0.98)             | 32.4 (1.28)             |                |
|                         | BLOWER PULLEY DIAMETER            | mm  | 2 SPZ250                          | 2 SPZ315                | 3 SPA250                |                |
|                         | MOTOR PULLEY DIAMETER             | mm  | 2 SPZ132                          | 2 SPZ140                | 3 SPA125                |                |
|                         | PULLEY                            | TYPE  | 2 SPZ                             | 2 SPZ                   | 3 SPA                   |                |
| V-BELT                  | TYPE                              | SPZ 1650  | SPZ 1987                          | SPA 1900                |                         |                |
| EVAPORATOR BLOWER MOTOR | TYPE                              | SQUIRREL CAGE INDUCTION                                     |                                   |                         |                         |                |
|                         |                                   | POWER SUPPLY  | V / Ph / Hz                       | 380-415 / 3 / 50        |                         |                |
|                         | NUMBER x RATED RUNNING CURRENT    | A   | 9.0                               | 11.0                    | 18.3                    |                |
|                         | NUMBER x RATED INPUT POWER        | W   | 5000                              | 5900                    | 11100                   |                |
|                         | NUMBER x MOTOR OUTPUT             | W   | 5500                              | 7500                    | 11000                   |                |
| MOTOR POLES             |                                   | 4   |                                   |                         |                         |                |
| REFRIGERANT             | TYPE                              | R22 / R407C   |                                   |                         |                         |                |
|                         |                                   | TYPE OF GAS PRECHARGED                                      | NITROGEN HOLDING                  |                         |                         |                |
|                         | CONTROL DEVICE                    | THERMOSTATIC EXPANSION VALVE                                |                                   |                         |                         |                |
|                         | PIPE CONNECTION                   | BRAZING   |                                   |                         |                         |                |
|                         | PIPE SIZE                         | LIQUID  | mm (in)                           | 15.88 (5/8)             |                         |                |
|                         | GAS                               | mm (in)   | 41.28 (1-3/8)                     | 28.57 (1-1/8)           |                         |                |
| DRAIN PIPE CONNECTION   | mm (in)                           | 25.40 (1.00)  |                                   | 34.92 (1-3/8)           |                         |                |
| AIR FILTER              | TYPE                              | AAF R15   |                                   |                         |                         |                |
|                         |                                   | SIZE  | LENGTH x HEIGHT                   | mm                      | 616 x 397               | 474 x 493      |
|                         | DEPTH                             | mm (in)   | 50.8 (2.00)                       |                         | 593 x 493               |                |
| QUANTITY                |                                   | 8   | 12                                |                         |                         |                |
| OUTDOOR UNIT            | CASING                            | MATERIAL  | ELECTRO GALVANISED MILD STEEL     |                         |                         |                |
|                         |                                   | FINISHING   | EPOXY POLYESTER POWDER            |                         |                         |                |
|                         |                                   |   | 1041 (40.98)                      |                         |                         |                |
|                         | DIMENSION                         | HEIGHT (H)  | mm (in)                           | 1142 (44.96)            | 981 (38.62)             | 1083 (42.63)   |
|                         |                                   | WIDTH (W)   | mm (in)                           | 1083 (42.63)            | 981 (38.62)             | 1083 (42.63)   |
|                         |                                   | DEPTH (D)   | mm (in)                           | 1083 (42.63)            | 981 (38.62)             | 1083 (42.63)   |
|                         |                                   | VOLUME  | m <sup>3</sup> (ft <sup>3</sup> ) | 2.12 (74.87)            | 1.654 (58.46)           | 1.957 (69.11)  |
|                         | NET WEIGHT                        | kg (lb)   | 268 (590)                         | 184 (405)               | 197 (434)               |                |
|                         | NOISE LEVEL                       | dBA   | 67                                | 64                      | 66                      |                |
|                         | CONDENSER COIL                    | TYPE  | INNER GROOVED                     |                         |                         |                |
|                         |                                   |   | MATERIAL                          | SEAMLESS COPPER         |                         |                |
|                         |                                   | TUBE  | WALL THICKNESS                    | mm (in)                 | 0.35 (0.013)            |                |
|                         |                                   |   | OUTER DIAMETER                    | mm (in)                 | 9.52 (3/8)              |                |
|                         |                                   | FIN   | MATERIAL                          | ALUMINIUM               |                         |                |
|                         |                                   |   | THICKNESS                         | mm (in)                 | 0.127 (0.005)           |                |
| NUMBER x ROWS           |                                   |   | 2 x 2                             |                         |                         |                |
| FIN PER INCH            |                                   | 16  |                                   |                         |                         |                |
| FACE AREA               | m <sup>2</sup> (ft <sup>2</sup> ) | 2.82 (30.40)  | 2.26 (24.38)                      | 2.54 (27.38)            |                         |                |
| FACE VELOCITY           | m/min (FPM)                       | 100.27 (329)  | 87.47 (287)                       | 111.25 (365)            |                         |                |
| CONDENSER FAN           | TYPE                              | INDUCTION   |                                   |                         |                         |                |
|                         |                                   | DRIVE   | PROPELLER / DIRECT                |                         |                         |                |
|                         | BLADE MATERIAL                    | ALUMINIUM   |                                   |                         |                         |                |
|                         | BLADE DIAMETER                    | mm (in)   | 914.40 (36)                       | 812.80 (32)             | 914.40 (36)             |                |
|                         | POWER SUPPLY                      | V / Ph / Hz   | 415 / 3 / 50                      |                         |                         |                |
|                         | RATED RUNNING CURRENT             | A   | 1.2                               |                         |                         |                |
|                         | RATED INPUT POWER                 | W   | 820                               | 600                     | 820                     |                |
|                         | MOTOR OUTPUT                      | W   | 560                               | 350                     | 560                     |                |
|                         | MOTOR POLES                       |   | 10                                |                         |                         |                |
|                         | AIR FLOW                          | L/s (CFM)   | 4720 (10000)                      | 3304 (7000)             | 4720 (10000)            |                |
| COMPRESSOR              | TYPE                              | SCROLL COMPRESSOR   |                                   |                         |                         |                |
|                         |                                   | POWER SUPPLY  | V / Ph / Hz                       | 380-415 / 3 / 50        |                         |                |
|                         | RATED RUNNING CURRENT             | A   | 23.9                              | 15.9                    | 17.5                    |                |
|                         | RATED INPUT POWER                 | W   | 13679                             | 8550                    | 9860                    |                |
|                         | MAXIMUM STARTING CURRENT          | A   | 198.0                             | 125.0                   | 110.0                   |                |
|                         | COMPRESSOR MOTOR OUTPUT           | W   | 11250                             | 7500                    | 8940                    |                |
|                         | PROTECTION DEVICE                 | OVERLOAD PROTECTION AND AUTO RESET HIGH/LOW PRESSURE SWITCH |                                   |                         |                         |                |
|                         | STAGE OF CAPACITY CONTROL         | ON / OFF  |                                   |                         |                         |                |
| STARTER TYPE            | Direct OnLine (DOL)               |   |                                   |                         |                         |                |
| REFRIGERANT             | TYPE                              | R407C   |                                   |                         |                         |                |
|                         | TYPE OF GAS PRECHARGED            | NITROGEN HOLDING  |                                   |                         |                         |                |

### NOTES :

1. ALL UNITS ARE BEING TESTED AND COMPLY TO ARI210/240-94.
2. NOMINAL COOLING CAPACITIES ARE BASED ON THE FOLLOWING CONDITIONS: INDOOR 26.7 °CDB, 19.4 °CWB, OUTDOOR 35 °CDB.
3. ALLOWABLE OPERATING RANGE : COOLING - INDOOR 19.4°C DB/ 13.9°C WB & OUTDOOR 19.4°C DB TO INDOOR 26.7°C DB/ 19.4°C WB & OUTDOOR 46.1°C DB.
4. ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY MANUFACTURER WITHOUT PRIOR NOTICE.

# Performance Table

*Interpolation and Extrapolation* method can be used to get the total capacity, Q and sensible capacity, SC at those temperatures which are not stated out in the table.

## Example:

**Model:** MDB075D / MMC075D

**Indoor Condition:** 23°C DB, 15°C WB

**Outdoor Condition:** 37°C DB

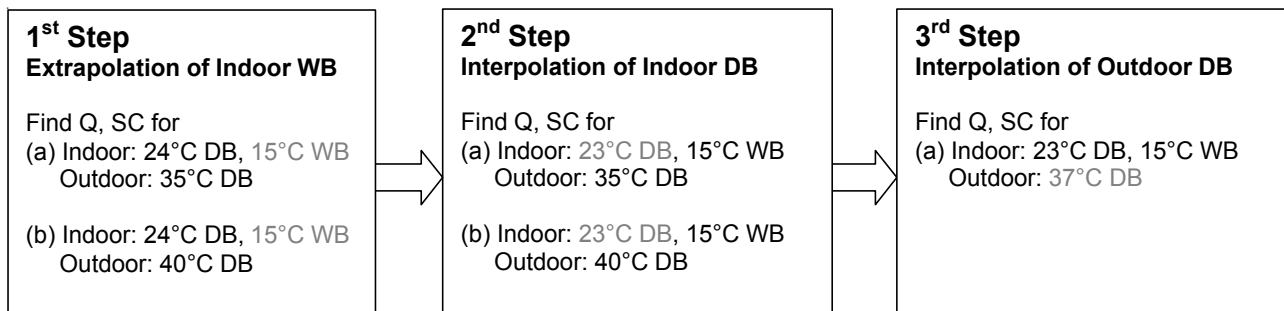
## Solution:

### Overall

Based on the Performance table of MDB075D / MMC075D

1. Refer to the Indoor DB column,
  - **23°C** is located between 20°C and 24°C (Thus, Interpolation need to be applied)
2. Refer to the Indoor WB column,
  - **15°C** only available in the case of Indoor DB = 20°C. (Thus, Extrapolation between 16°C WB and 17°C WB during 24°C indoor DB is required)
3. Refer to the Outdoor DB column,
  - **37°C** is located between 35°C and 40°C. (Thus, Interpolation need to be applied)

Please follow the steps below in order to get the required capacity.



**Details:**

**1<sup>st</sup> Step:**

To obtain the Total capacity and Sensible capacity for

**(a) Indoor Condition: 24°C DB, 15°C WB**

**Outdoor Condition: 35°C DB**

| Indoor DB<br>° C | Indoor WB<br>° C | Outdoor DB ° C |         |  |
|------------------|------------------|----------------|---------|--|
|                  |                  | 35             |         |  |
|                  |                  | Q (kW)         | SC (kW) |  |
|                  |                  | ⋮              | ⋮       |  |
| 24               | 15               | $x_1$          | $y_1$   |  |
|                  | 16               | 20.196         | 14.757  |  |
|                  | 17               | 20.721         | 14.156  |  |

Total capacity, Q

⇒  $x_1 = 19.671\text{kW}$  (Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 35°C Outdoor WB)\*

Sensible capacity, SC

Extrapolation Method:

$$\Rightarrow \frac{17^\circ\text{C} - 15^\circ\text{C}}{17^\circ\text{C} - 16^\circ\text{C}} = \frac{14.156\text{kW} - y_1}{14.156\text{kW} - 14.757\text{kW}}$$

$$\Rightarrow y_1 = 15.358\text{kW}$$

**(b) Indoor Condition: 24°C DB, 15°C WB**

**Outdoor Condition: 40°C DB**

| Indoor DB<br>° C | Indoor WB<br>° C | Outdoor DB ° C |         |  |
|------------------|------------------|----------------|---------|--|
|                  |                  | 40             |         |  |
|                  |                  | Q (kW)         | SC (kW) |  |
|                  |                  | ⋮              | ⋮       |  |
| 24               | 15               | $x_2$          | $y_2$   |  |
|                  | 16               | 18.764         | 13.626  |  |
|                  | 17               | 19.361         | 13.241  |  |

Total capacity, Q

⇒  $x_2 = 18.166\text{kW}$  (Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 40°C Outdoor WB)\*

Sensible capacity, SC

Extrapolation Method:

$$\Rightarrow \frac{17^\circ\text{C} - 15^\circ\text{C}}{17^\circ\text{C} - 16^\circ\text{C}} = \frac{13.241\text{kW} - y_2}{13.241\text{kW} - 13.626\text{kW}}$$

$$\Rightarrow y_2 = 14.011\text{kW}$$

\* This is due to 2 different conditions with same WB temperature, will have the same level of enthalpy. For more details, please refer to psychrometrics chart

## 2<sup>nd</sup> Step:

To obtain the Total capacity and Sensible capacity for

(a) **Indoor Condition:** 23°C DB, 15°C WB

**Outdoor Condition:** 35°C DB

| Indoor DB<br>° C | Indoor WB<br>° C | Outdoor DB ° C |         |
|------------------|------------------|----------------|---------|
|                  |                  | 35             |         |
|                  |                  | Q (kW)         | SC (kW) |
|                  |                  | ⋮              | ⋮       |
| 20               | 15               | 19.671         | 10.803  |
| 23               | 15               | $x_3$          | $y_3$   |
| 24               | 15               | 19.671         | 15.358  |

Total capacity, Q

$$\Rightarrow x_3 = 19.671 \text{ kW (Same as Total capacity at } 20^\circ\text{C Indoor DB / } 15^\circ\text{C Indoor WB \& } 35^\circ\text{C Outdoor WB)*}$$

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{24^\circ\text{C} - 20^\circ\text{C}}{24^\circ\text{C} - 23^\circ\text{C}} = \frac{15.358 \text{ kW} - 10.803 \text{ kW}}{15.358 \text{ kW} - y_3}$$

$$\Rightarrow y_3 = 14.219 \text{ kW}$$

(b) **Indoor Condition:** 23°C DB, 15°C WB

**Outdoor Condition:** 40°C DB

| Indoor DB<br>° C | Indoor WB<br>° C | Outdoor DB ° C |         |
|------------------|------------------|----------------|---------|
|                  |                  | 40             |         |
|                  |                  | Q (kW)         | SC (kW) |
|                  |                  | ⋮              | ⋮       |
| 20               | 15               | 18.166         | 9.456   |
| 23               | 15               | $x_4$          | $y_4$   |
| 24               | 15               | 18.166         | 14.011  |

Total capacity, Q

$$\Rightarrow x_4 = 18.166 \text{ kW (Same as Total capacity at } 20^\circ\text{C Indoor DB / } 15^\circ\text{C Indoor WB \& } 40^\circ\text{C Outdoor WB)*}$$

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{24^\circ\text{C} - 20^\circ\text{C}}{24^\circ\text{C} - 23^\circ\text{C}} = \frac{14.011 \text{ kW} - 9.456 \text{ kW}}{14.011 \text{ kW} - y_4}$$

$$\Rightarrow y_4 = 12.872 \text{ kW}$$

\* This is due to 2 different conditions with same WB temperature will have the same level of enthalpy. For more details, please refer to psychrometrics chart

### 3<sup>rd</sup> Step:

To obtain the Total capacity and Sensible capacity for

(a) **Indoor Condition:** 23°C DB, 15°C WB

**Outdoor Condition:** 37°C DB

| Indoor DB<br>° C | Indoor WB<br>° C | Outdoor DB ° C |         |        |         |        |         |
|------------------|------------------|----------------|---------|--------|---------|--------|---------|
|                  |                  | 35             |         | 37     |         | 40     |         |
|                  |                  | Q (kW)         | SC (kW) | Q (kW) | SC (kW) | Q (kW) | SC (kW) |
|                  |                  | ⋮              | ⋮       | ⋮      | ⋮       | ⋮      | ⋮       |
| 23               | 15               | 19.671         | 14.219  | x      | y       | 18.166 | 12.872  |

Total capacity, Q

Interpolation Method:

$$\Rightarrow \frac{40^{\circ}\text{C} - 35^{\circ}\text{C}}{40^{\circ}\text{C} - 37^{\circ}\text{C}} = \frac{18.166\text{kW} - 19.671\text{kW}}{18.166\text{kW} - x}$$

$$\Rightarrow x = 19.069\text{kW}$$

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{40^{\circ}\text{C} - 35^{\circ}\text{C}}{40^{\circ}\text{C} - 37^{\circ}\text{C}} = \frac{12.872\text{kW} - 14.219\text{kW}}{12.872\text{kW} - y}$$

$$\Rightarrow y = 14.219\text{kW}$$

**R22**

**MDB ~ B Series**

**Model : MDB200B2 ~ MMC100B x 2**

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 56.248       | 31.657 | 53.516 | 29.811 | 50.784 | 27.964 | 48.051 | 26.118 | 45.319 | 24.272 | 42.040 | 22.057 |
|         | 16      | 61.401       | 30.791 | 57.751 | 28.833 | 54.102 | 26.876 | 50.452 | 24.918 | 46.803 | 22.961 | 42.424 | 20.612 |
| 24      | 16      | 61.401       | 41.520 | 57.751 | 39.562 | 54.102 | 37.605 | 50.452 | 35.648 | 46.803 | 33.690 | 42.424 | 31.341 |
|         | 17      | 66.553       | 40.654 | 61.987 | 38.585 | 57.420 | 36.516 | 52.854 | 34.447 | 48.287 | 32.379 | 42.807 | 29.896 |
|         | 18      | 71.706       | 39.788 | 66.222 | 37.607 | 60.739 | 35.427 | 55.255 | 33.247 | 49.771 | 31.067 | 43.191 | 28.451 |
|         | 19      | 76.858       | 38.921 | 70.458 | 36.630 | 64.057 | 34.339 | 57.656 | 32.047 | 51.255 | 29.756 | 43.575 | 27.006 |
|         | 20      | 82.045       | 38.053 | 75.016 | 35.631 | 67.987 | 33.209 | 60.958 | 30.787 | 53.929 | 28.365 | 45.494 | 25.459 |
| 28      | 18      | 71.706       | 50.517 | 66.222 | 48.337 | 60.739 | 46.157 | 55.255 | 43.977 | 49.771 | 41.797 | 43.191 | 39.180 |
|         | 19      | 76.858       | 49.651 | 70.458 | 47.359 | 64.057 | 45.068 | 57.656 | 42.777 | 51.255 | 40.485 | 43.575 | 37.736 |
|         | 20      | 82.045       | 48.782 | 75.016 | 46.360 | 67.987 | 43.938 | 60.958 | 41.516 | 53.929 | 39.094 | 45.494 | 36.188 |
|         | 21      | 87.256       | 47.912 | 79.791 | 45.347 | 72.326 | 42.781 | 64.861 | 40.216 | 57.396 | 37.650 | 48.438 | 34.571 |
|         | 22      | 92.466       | 47.042 | 84.565 | 44.333 | 76.664 | 41.624 | 68.763 | 38.915 | 60.862 | 36.206 | 51.381 | 32.955 |
|         | 23      | 97.676       | 46.172 | 89.339 | 43.320 | 81.003 | 40.467 | 72.666 | 37.614 | 64.329 | 34.762 | 54.325 | 31.339 |
|         | 24      | 102.886      | 45.302 | 94.114 | 42.306 | 85.341 | 39.310 | 76.568 | 36.314 | 67.796 | 33.318 | 57.268 | 29.722 |
| 30      | 20      | 82.045       | 54.147 | 75.016 | 51.725 | 67.987 | 49.303 | 60.958 | 46.881 | 53.929 | 44.459 | 45.494 | 41.552 |
|         | 21      | 87.256       | 53.277 | 79.791 | 50.711 | 72.326 | 48.146 | 64.861 | 45.580 | 57.396 | 43.015 | 48.438 | 39.936 |
|         | 22      | 92.466       | 52.407 | 84.565 | 49.698 | 76.664 | 46.989 | 68.763 | 44.280 | 60.862 | 41.570 | 51.381 | 38.320 |
|         | 23      | 97.676       | 51.537 | 89.339 | 48.684 | 81.003 | 45.832 | 72.666 | 42.979 | 64.329 | 40.126 | 54.325 | 36.703 |
|         | 24      | 102.886      | 50.667 | 94.114 | 47.671 | 85.341 | 44.675 | 76.568 | 41.678 | 67.796 | 38.682 | 57.268 | 35.087 |

**Model : MDB250B2 ~ MMC125B x 2**

| ID DB°C | ID WB°C | Outdoor DB°C |        |         |        |         |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|---------|--------|---------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25      |        | 30      |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 74.839       | 41.478 | 70.573  | 38.636 | 66.308  | 35.794 | 62.042 | 32.952 | 57.776 | 30.110 | 52.658 | 26.700 |
|         | 16      | 80.083       | 37.885 | 74.920  | 35.440 | 69.757  | 32.995 | 64.594 | 30.549 | 59.431 | 28.104 | 53.235 | 25.170 |
| 24      | 16      | 80.083       | 51.998 | 74.920  | 49.553 | 69.757  | 47.108 | 64.594 | 44.663 | 59.431 | 42.217 | 53.235 | 39.283 |
|         | 17      | 85.327       | 48.406 | 79.267  | 46.357 | 73.206  | 44.308 | 67.146 | 42.260 | 61.086 | 40.211 | 53.813 | 37.753 |
|         | 18      | 90.572       | 44.813 | 83.614  | 43.161 | 76.656  | 41.509 | 69.698 | 39.857 | 62.740 | 38.205 | 54.391 | 36.223 |
|         | 19      | 95.816       | 41.220 | 87.961  | 39.965 | 80.105  | 38.709 | 72.250 | 37.454 | 64.395 | 36.199 | 54.968 | 34.693 |
|         | 20      | 101.101      | 37.611 | 92.685  | 36.618 | 84.268  | 35.626 | 75.852 | 34.634 | 67.436 | 33.642 | 57.337 | 32.451 |
| 28      | 18      | 90.572       | 58.926 | 83.614  | 57.274 | 76.656  | 55.622 | 69.698 | 53.970 | 62.740 | 52.318 | 54.391 | 50.336 |
|         | 19      | 95.816       | 55.333 | 87.961  | 54.078 | 80.105  | 52.823 | 72.250 | 51.568 | 64.395 | 50.312 | 54.968 | 48.806 |
|         | 20      | 101.101      | 51.724 | 92.685  | 50.732 | 84.268  | 49.739 | 75.852 | 48.747 | 67.436 | 47.755 | 57.337 | 46.564 |
|         | 21      | 106.412      | 48.104 | 97.660  | 47.286 | 88.907  | 46.467 | 80.155 | 45.648 | 71.402 | 44.830 | 60.899 | 43.847 |
|         | 22      | 111.724      | 44.485 | 102.635 | 43.840 | 93.546  | 43.194 | 84.457 | 42.549 | 75.368 | 41.904 | 64.461 | 41.130 |
|         | 23      | 117.036      | 40.865 | 107.610 | 40.394 | 98.185  | 39.922 | 88.759 | 39.450 | 79.334 | 38.979 | 68.023 | 38.413 |
|         | 24      | 122.347      | 37.245 | 112.585 | 36.947 | 102.824 | 36.650 | 93.062 | 36.352 | 83.300 | 36.054 | 71.586 | 35.696 |
| 30      | 20      | 101.101      | 58.781 | 92.685  | 57.788 | 84.268  | 56.796 | 75.852 | 55.804 | 67.436 | 54.811 | 57.337 | 53.621 |
|         | 21      | 106.412      | 55.161 | 97.660  | 54.342 | 88.907  | 53.524 | 80.155 | 52.705 | 71.402 | 51.886 | 60.899 | 50.904 |
|         | 22      | 111.724      | 51.541 | 102.635 | 50.896 | 93.546  | 50.251 | 84.457 | 49.606 | 75.368 | 48.961 | 64.461 | 48.187 |
|         | 23      | 117.036      | 47.922 | 107.610 | 47.450 | 98.185  | 46.979 | 88.759 | 46.507 | 79.334 | 46.036 | 68.023 | 45.470 |
|         | 24      | 122.347      | 44.302 | 112.585 | 44.004 | 102.824 | 43.706 | 93.062 | 43.408 | 83.300 | 43.110 | 71.586 | 42.753 |

**R22**

**Model : MDB300B3 ~ MMC100B x 3**

| ID DB°C | ID WB°C | Outdoor DB°C |        |         |        |         |        |         |        |         |        |        |        |
|---------|---------|--------------|--------|---------|--------|---------|--------|---------|--------|---------|--------|--------|--------|
|         |         | 20           |        | 25      |        | 30      |        | 35      |        | 40      |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 82.937       | 47.734 | 79.115  | 45.241 | 75.292  | 42.748 | 71.470  | 40.255 | 67.647  | 37.762 | 63.060 | 34.770 |
|         | 16      | 90.992       | 46.761 | 85.731  | 44.039 | 80.470  | 41.316 | 75.209  | 38.593 | 69.948  | 35.870 | 63.635 | 32.603 |
| 24      | 16      | 90.992       | 61.849 | 85.731  | 59.127 | 80.470  | 56.404 | 75.209  | 53.681 | 69.948  | 50.958 | 63.635 | 47.691 |
|         | 17      | 99.047       | 60.876 | 92.348  | 57.924 | 85.649  | 54.971 | 78.949  | 52.019 | 72.250  | 49.066 | 64.211 | 45.523 |
|         | 18      | 107.102      | 59.904 | 98.964  | 56.721 | 90.827  | 53.539 | 82.689  | 50.357 | 74.551  | 47.175 | 64.786 | 43.356 |
|         | 19      | 115.157      | 58.931 | 105.581 | 55.519 | 96.005  | 52.107 | 86.429  | 48.695 | 76.853  | 45.283 | 65.362 | 41.188 |
|         | 20      | 123.264      | 57.954 | 112.683 | 54.284 | 102.101 | 50.613 | 91.520  | 46.942 | 80.939  | 43.272 | 68.241 | 38.867 |
| 28      | 18      | 107.102      | 74.991 | 98.964  | 71.809 | 90.827  | 68.627 | 82.689  | 65.445 | 74.551  | 62.263 | 64.786 | 58.444 |
|         | 19      | 115.157      | 74.019 | 105.581 | 70.607 | 96.005  | 67.195 | 86.429  | 63.783 | 76.853  | 60.371 | 65.362 | 56.276 |
|         | 20      | 123.264      | 73.042 | 112.683 | 69.371 | 102.101 | 65.701 | 91.520  | 62.030 | 80.939  | 58.359 | 68.241 | 53.955 |
|         | 21      | 131.405      | 72.063 | 120.108 | 68.115 | 108.810 | 64.166 | 97.512  | 60.217 | 86.214  | 56.269 | 72.657 | 51.530 |
|         | 22      | 139.547      | 71.085 | 127.533 | 66.858 | 115.518 | 62.631 | 103.504 | 58.404 | 91.489  | 54.178 | 77.072 | 49.106 |
|         | 23      | 147.689      | 70.106 | 134.958 | 65.601 | 122.227 | 61.096 | 109.496 | 56.592 | 96.765  | 52.087 | 81.487 | 46.681 |
| 30      | 24      | 155.830      | 69.127 | 142.382 | 64.344 | 128.935 | 59.561 | 115.487 | 54.779 | 102.040 | 49.996 | 85.903 | 44.256 |
|         | 20      | 123.264      | 80.586 | 112.683 | 76.915 | 102.101 | 73.245 | 91.520  | 69.574 | 80.939  | 65.903 | 68.241 | 61.499 |
|         | 21      | 131.405      | 79.607 | 120.108 | 75.659 | 108.810 | 71.710 | 97.512  | 67.761 | 86.214  | 63.813 | 72.657 | 59.074 |
|         | 22      | 139.547      | 78.629 | 127.533 | 74.402 | 115.518 | 70.175 | 103.504 | 65.948 | 91.489  | 61.722 | 77.072 | 56.650 |
|         | 23      | 147.689      | 77.650 | 134.958 | 73.145 | 122.227 | 68.640 | 109.496 | 64.135 | 96.765  | 59.631 | 81.487 | 54.225 |
|         | 24      | 155.830      | 76.671 | 142.382 | 71.888 | 128.935 | 67.105 | 115.487 | 62.323 | 102.040 | 57.540 | 85.903 | 51.800 |

**Model : MDB400B4 ~ MMC100B x 4**

| ID DB°C | ID WB°C | Outdoor DB°C |         |         |         |         |        |         |        |         |        |         |        |
|---------|---------|--------------|---------|---------|---------|---------|--------|---------|--------|---------|--------|---------|--------|
|         |         | 20           |         | 25      |         | 30      |        | 35      |        | 40      |        | 46      |        |
|         |         | TC(kW)       | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) |
| 20      | 15      | 110.583      | 63.646  | 105.486 | 60.322  | 100.389 | 56.998 | 95.293  | 53.673 | 90.196  | 50.349 | 84.080  | 46.360 |
|         | 16      | 121.323      | 62.349  | 114.308 | 58.718  | 107.294 | 55.088 | 100.279 | 51.457 | 93.265  | 47.827 | 84.847  | 43.470 |
| 24      | 16      | 121.323      | 82.466  | 114.308 | 78.835  | 107.294 | 75.205 | 100.279 | 71.575 | 93.265  | 67.944 | 84.847  | 63.588 |
|         | 17      | 132.063      | 81.169  | 123.130 | 77.232  | 114.198 | 73.295 | 105.266 | 69.359 | 96.333  | 65.422 | 85.614  | 60.698 |
|         | 18      | 142.803      | 79.871  | 131.953 | 75.628  | 121.102 | 71.385 | 110.252 | 67.142 | 99.402  | 62.899 | 86.382  | 57.808 |
|         | 19      | 153.543      | 78.574  | 140.775 | 74.025  | 128.007 | 69.476 | 115.239 | 64.926 | 102.471 | 60.377 | 87.149  | 54.918 |
|         | 20      | 164.352      | 77.272  | 150.243 | 72.378  | 136.135 | 67.484 | 122.027 | 62.590 | 107.918 | 57.695 | 90.988  | 51.822 |
| 28      | 18      | 142.803      | 99.989  | 131.953 | 95.746  | 121.102 | 91.503 | 110.252 | 87.260 | 99.402  | 83.017 | 86.382  | 77.925 |
|         | 19      | 153.543      | 98.691  | 140.775 | 94.142  | 128.007 | 89.593 | 115.239 | 85.044 | 102.471 | 80.494 | 87.149  | 75.035 |
|         | 20      | 164.352      | 97.389  | 150.243 | 92.495  | 136.135 | 87.601 | 122.027 | 82.707 | 107.918 | 77.813 | 90.988  | 71.940 |
|         | 21      | 175.207      | 96.084  | 160.143 | 90.820  | 145.080 | 85.555 | 130.016 | 80.290 | 114.952 | 75.025 | 96.875  | 68.707 |
|         | 22      | 186.063      | 94.779  | 170.043 | 89.144  | 154.024 | 83.508 | 138.005 | 77.873 | 121.986 | 72.237 | 102.763 | 65.474 |
|         | 23      | 196.918      | 93.475  | 179.943 | 87.468  | 162.969 | 81.462 | 145.994 | 75.455 | 129.019 | 69.449 | 108.650 | 62.241 |
| 30      | 24      | 207.773      | 92.170  | 189.843 | 85.792  | 171.913 | 79.415 | 153.983 | 73.038 | 136.053 | 66.661 | 114.537 | 59.009 |
|         | 20      | 164.352      | 107.448 | 150.243 | 102.554 | 136.135 | 97.660 | 122.027 | 92.765 | 107.918 | 87.871 | 90.988  | 81.998 |
|         | 21      | 175.207      | 106.143 | 160.143 | 100.878 | 145.080 | 95.613 | 130.016 | 90.348 | 114.952 | 85.083 | 96.875  | 78.765 |
|         | 22      | 186.063      | 104.838 | 170.043 | 99.202  | 154.024 | 93.567 | 138.005 | 87.931 | 121.986 | 82.295 | 102.763 | 75.533 |
|         | 23      | 196.918      | 103.533 | 179.943 | 97.527  | 162.969 | 91.520 | 145.994 | 85.514 | 129.019 | 79.508 | 108.650 | 72.300 |
|         | 24      | 207.773      | 102.228 | 189.843 | 95.851  | 171.913 | 89.474 | 153.983 | 83.097 | 136.053 | 76.720 | 114.537 | 69.067 |

**R22**

**Model : MDB450B3 ~ MMC150C x 3**

| ID DB°C | ID WB°C | Outdoor DB°C |         |         |         |         |         |         |         |         |         |         |        |
|---------|---------|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
|         |         | 20           |         | 25      |         | 30      |         | 35      |         | 40      |         | 46      |        |
|         |         | TC(kW)       | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW) |
| 20      | 15      | 124.915      | 81.216  | 120.042 | 76.253  | 115.170 | 71.289  | 110.298 | 66.326  | 105.425 | 61.362  | 99.579  | 55.406 |
|         | 16      | 129.151      | 78.035  | 124.502 | 73.212  | 119.853 | 68.389  | 115.204 | 63.567  | 110.556 | 58.744  | 104.977 | 52.956 |
| 24      | 16      | 129.151      | 99.252  | 124.502 | 94.430  | 119.853 | 89.607  | 115.204 | 84.784  | 110.556 | 79.961  | 104.977 | 74.174 |
|         | 17      | 133.387      | 96.071  | 128.962 | 91.389  | 124.536 | 86.707  | 120.111 | 82.025  | 115.686 | 77.342  | 110.376 | 71.724 |
|         | 18      | 137.623      | 92.890  | 133.421 | 88.348  | 129.220 | 83.807  | 125.018 | 79.265  | 120.816 | 74.724  | 115.774 | 69.274 |
|         | 19      | 141.859      | 89.709  | 137.881 | 85.308  | 133.903 | 80.907  | 129.925 | 76.506  | 125.947 | 72.105  | 121.173 | 66.824 |
|         | 20      | 146.038      | 86.503  | 141.810 | 82.041  | 137.582 | 77.578  | 133.354 | 73.116  | 129.126 | 68.654  | 124.053 | 63.299 |
| 28      | 18      | 137.623      | 114.107 | 133.421 | 109.566 | 129.220 | 105.024 | 125.018 | 100.483 | 120.816 | 95.941  | 115.774 | 90.491 |
|         | 19      | 141.859      | 110.926 | 137.881 | 106.525 | 133.903 | 102.124 | 129.925 | 97.723  | 125.947 | 93.323  | 121.173 | 88.042 |
|         | 20      | 146.038      | 107.720 | 141.810 | 103.258 | 137.582 | 98.796  | 133.354 | 94.334  | 129.126 | 89.871  | 124.053 | 84.517 |
|         | 21      | 150.180      | 104.499 | 145.386 | 99.840  | 140.593 | 95.182  | 135.799 | 90.523  | 131.005 | 85.865  | 125.253 | 80.275 |
|         | 22      | 154.321      | 101.277 | 148.962 | 96.422  | 143.603 | 91.568  | 138.244 | 86.713  | 132.884 | 81.858  | 126.453 | 76.033 |
|         | 23      | 158.463      | 98.055  | 152.538 | 93.004  | 146.613 | 87.954  | 140.688 | 82.903  | 134.763 | 77.852  | 127.654 | 71.791 |
| 30      | 20      | 146.038      | 118.329 | 141.810 | 113.867 | 137.582 | 109.404 | 133.354 | 104.942 | 129.126 | 100.480 | 124.053 | 95.125 |
|         | 21      | 150.180      | 115.107 | 145.386 | 110.449 | 140.593 | 105.790 | 135.799 | 101.132 | 131.005 | 96.474  | 125.253 | 90.883 |
|         | 22      | 154.321      | 111.886 | 148.962 | 107.031 | 143.603 | 102.176 | 138.244 | 97.322  | 132.884 | 92.467  | 126.453 | 86.642 |
|         | 23      | 158.463      | 108.664 | 152.538 | 103.613 | 146.613 | 98.562  | 140.688 | 93.511  | 134.763 | 88.461  | 127.654 | 82.400 |
|         | 24      | 162.604      | 105.442 | 156.114 | 100.195 | 149.623 | 94.948  | 143.133 | 89.701  | 136.642 | 84.454  | 128.854 | 78.158 |

**Model : MDB500B4 ~ MMC125B x 4**

| ID DB°C | ID WB°C | Outdoor DB°C |         |         |         |         |         |         |         |         |         |         |         |
|---------|---------|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|         |         | 20           |         | 25      |         | 30      |         | 35      |         | 40      |         | 46      |         |
|         |         | TC(kW)       | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  |
| 20      | 15      | 147.160      | 83.394  | 139.113 | 78.194  | 131.066 | 72.994  | 123.019 | 67.794  | 114.972 | 62.594  | 105.315 | 56.354  |
|         | 16      | 158.221      | 76.780  | 148.269 | 72.263  | 138.317 | 67.747  | 128.365 | 63.230  | 118.413 | 58.714  | 106.471 | 53.294  |
| 24      | 16      | 158.221      | 103.242 | 148.269 | 98.726  | 138.317 | 94.209  | 128.365 | 89.693  | 118.413 | 85.176  | 106.471 | 79.757  |
|         | 17      | 169.282      | 96.629  | 157.425 | 92.796  | 145.568 | 88.963  | 133.711 | 85.129  | 121.854 | 81.296  | 107.626 | 76.697  |
|         | 18      | 180.342      | 90.015  | 166.581 | 86.865  | 152.819 | 83.716  | 139.057 | 80.566  | 125.295 | 77.416  | 108.781 | 73.637  |
|         | 19      | 191.403      | 83.401  | 175.737 | 80.935  | 160.070 | 78.469  | 144.403 | 76.003  | 128.737 | 73.536  | 109.936 | 70.577  |
|         | 20      | 202.545      | 76.756  | 185.646 | 74.705  | 168.748 | 72.654  | 151.850 | 70.604  | 134.951 | 68.553  | 114.673 | 66.092  |
| 28      | 18      | 180.342      | 116.478 | 166.581 | 113.328 | 152.819 | 110.178 | 139.057 | 107.028 | 125.295 | 103.879 | 108.781 | 100.099 |
|         | 19      | 191.403      | 109.864 | 175.737 | 107.398 | 160.070 | 104.931 | 144.403 | 102.465 | 128.737 | 99.999  | 109.936 | 97.039  |
|         | 20      | 202.545      | 103.218 | 185.646 | 101.167 | 168.748 | 99.117  | 151.850 | 97.066  | 134.951 | 95.016  | 114.673 | 92.555  |
|         | 21      | 213.740      | 96.551  | 196.059 | 94.737  | 178.378 | 92.924  | 160.697 | 91.110  | 143.015 | 89.297  | 121.798 | 87.121  |
|         | 22      | 224.936      | 89.884  | 206.472 | 88.307  | 188.007 | 86.731  | 169.543 | 85.155  | 151.079 | 83.578  | 128.922 | 81.687  |
|         | 23      | 236.131      | 83.217  | 216.884 | 81.877  | 197.637 | 80.538  | 178.390 | 79.199  | 159.143 | 77.860  | 136.047 | 76.253  |
| 30      | 20      | 202.545      | 116.449 | 185.646 | 114.399 | 168.748 | 112.348 | 151.850 | 110.297 | 134.951 | 108.247 | 114.673 | 105.786 |
|         | 21      | 213.740      | 109.782 | 196.059 | 107.969 | 178.378 | 106.155 | 160.697 | 104.342 | 143.015 | 102.528 | 121.798 | 100.352 |
|         | 22      | 224.936      | 103.115 | 206.472 | 101.539 | 188.007 | 99.962  | 169.543 | 98.386  | 151.079 | 96.810  | 128.922 | 94.918  |
|         | 23      | 236.131      | 96.448  | 216.884 | 95.109  | 197.637 | 93.769  | 178.390 | 92.430  | 159.143 | 91.091  | 136.047 | 89.484  |
|         | 24      | 247.327      | 89.781  | 227.297 | 88.679  | 207.267 | 87.577  | 187.237 | 86.475  | 167.207 | 85.373  | 143.171 | 84.050  |



**R22**

**Model : MDB600B4 ~ MMC150C x 4**

| ID DB°C | ID WB°C | Outdoor DB°C |         |         |         |         |         |         |         |         |         |         |         |
|---------|---------|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|         |         | 20           |         | 25      |         | 30      |         | 35      |         | 40      |         | 46      |         |
|         |         | TC(kW)       | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  |
| 20      | 15      | 170.171      | 106.043 | 162.618 | 99.750  | 155.065 | 93.457  | 147.512 | 87.164  | 139.959 | 80.871  | 130.896 | 73.319  |
|         | 16      | 177.903      | 99.925  | 169.920 | 94.347  | 161.936 | 88.768  | 153.952 | 83.190  | 145.969 | 77.612  | 136.389 | 70.918  |
| 24      | 16      | 177.903      | 129.115 | 169.920 | 123.537 | 161.936 | 117.958 | 153.952 | 112.380 | 145.969 | 106.802 | 136.389 | 100.108 |
|         | 17      | 185.636      | 122.998 | 177.221 | 118.134 | 168.807 | 113.270 | 160.393 | 108.406 | 151.979 | 103.543 | 141.881 | 97.706  |
|         | 18      | 193.368      | 116.880 | 184.523 | 112.731 | 175.678 | 108.582 | 166.833 | 104.433 | 157.988 | 100.284 | 147.374 | 95.305  |
|         | 19      | 201.101      | 110.763 | 191.825 | 107.328 | 182.549 | 103.894 | 173.274 | 100.459 | 163.998 | 97.025  | 152.867 | 92.904  |
|         | 20      | 208.808      | 104.585 | 198.893 | 101.364 | 188.977 | 98.143  | 179.062 | 94.922  | 169.147 | 91.701  | 157.248 | 87.836  |
| 28      | 18      | 193.368      | 146.070 | 184.523 | 141.921 | 175.678 | 137.772 | 166.833 | 133.623 | 157.988 | 129.474 | 147.374 | 124.495 |
|         | 19      | 201.101      | 139.953 | 191.825 | 136.518 | 182.549 | 133.084 | 173.274 | 129.649 | 163.998 | 126.215 | 152.867 | 122.094 |
|         | 20      | 208.808      | 133.775 | 198.893 | 130.554 | 188.977 | 127.333 | 179.062 | 124.112 | 169.147 | 120.891 | 157.248 | 117.026 |
|         | 21      | 216.499      | 127.557 | 205.804 | 124.216 | 195.110 | 120.874 | 184.415 | 117.532 | 173.721 | 114.190 | 160.887 | 110.180 |
|         | 22      | 224.190      | 121.340 | 212.716 | 117.877 | 201.242 | 114.414 | 189.769 | 110.952 | 178.295 | 107.489 | 164.527 | 103.334 |
|         | 23      | 231.880      | 115.122 | 219.628 | 111.539 | 207.375 | 107.955 | 195.122 | 104.372 | 182.869 | 100.788 | 168.166 | 96.488  |
| 30      | 24      | 239.571      | 108.904 | 226.539 | 105.200 | 213.507 | 101.496 | 200.476 | 97.792  | 187.444 | 94.087  | 171.805 | 89.642  |
|         | 20      | 208.808      | 148.370 | 198.893 | 145.149 | 188.977 | 141.928 | 179.062 | 138.707 | 169.147 | 135.486 | 157.248 | 131.621 |
|         | 21      | 216.499      | 142.152 | 205.804 | 138.810 | 195.110 | 135.469 | 184.415 | 132.127 | 173.721 | 128.785 | 160.887 | 124.775 |
|         | 22      | 224.190      | 135.935 | 212.716 | 132.472 | 201.242 | 129.009 | 189.769 | 125.547 | 178.295 | 122.084 | 164.527 | 117.929 |
|         | 23      | 231.880      | 129.717 | 219.628 | 126.134 | 207.375 | 122.550 | 195.122 | 118.967 | 182.869 | 115.383 | 168.166 | 111.083 |
|         | 24      | 239.571      | 123.499 | 226.539 | 119.795 | 213.507 | 116.091 | 200.476 | 112.387 | 187.444 | 108.682 | 171.805 | 104.237 |

**Model : MDB750B4 ~ MMC150C x 5**

| ID DB°C | ID WB°C | Outdoor DB°C |         |         |         |         |         |         |         |         |         |         |         |
|---------|---------|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|         |         | 20           |         | 25      |         | 30      |         | 35      |         | 40      |         | 46      |         |
|         |         | TC(kW)       | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  |
| 20      | 15      | 212.713      | 132.553 | 203.272 | 124.687 | 193.831 | 116.821 | 184.390 | 108.954 | 174.949 | 101.088 | 163.620 | 91.649  |
|         | 16      | 222.379      | 124.906 | 212.399 | 117.933 | 202.420 | 110.961 | 192.440 | 103.988 | 182.461 | 97.015  | 170.486 | 88.647  |
| 24      | 16      | 222.379      | 161.394 | 212.399 | 154.421 | 202.420 | 147.448 | 192.440 | 140.475 | 182.461 | 133.502 | 170.486 | 125.135 |
|         | 17      | 232.045      | 153.747 | 221.527 | 147.667 | 211.009 | 141.588 | 200.491 | 135.508 | 189.973 | 129.428 | 177.352 | 122.133 |
|         | 18      | 241.710      | 146.100 | 230.654 | 140.914 | 219.598 | 135.728 | 208.542 | 130.541 | 197.485 | 125.355 | 184.218 | 119.131 |
|         | 19      | 251.376      | 138.453 | 239.781 | 134.160 | 228.187 | 129.867 | 216.592 | 125.574 | 204.998 | 121.281 | 191.084 | 116.130 |
|         | 20      | 261.010      | 130.731 | 248.616 | 126.705 | 236.222 | 122.679 | 223.827 | 118.653 | 211.433 | 114.626 | 196.560 | 109.795 |
| 28      | 18      | 241.710      | 182.588 | 230.654 | 177.401 | 219.598 | 172.215 | 208.542 | 167.029 | 197.485 | 161.842 | 184.218 | 155.619 |
|         | 19      | 251.376      | 174.941 | 239.781 | 170.648 | 228.187 | 166.355 | 216.592 | 162.062 | 204.998 | 157.769 | 191.084 | 152.617 |
|         | 20      | 261.010      | 167.219 | 248.616 | 163.193 | 236.222 | 159.166 | 223.827 | 155.140 | 211.433 | 151.114 | 196.560 | 146.282 |
|         | 21      | 270.624      | 159.447 | 257.256 | 155.269 | 243.887 | 151.092 | 230.519 | 146.915 | 217.151 | 142.737 | 201.109 | 137.725 |
|         | 22      | 280.237      | 151.675 | 265.895 | 147.346 | 251.553 | 143.018 | 237.211 | 138.690 | 222.869 | 134.361 | 205.658 | 129.167 |
|         | 23      | 289.851      | 143.903 | 274.535 | 139.423 | 259.219 | 134.944 | 243.903 | 130.465 | 228.587 | 125.985 | 210.208 | 120.610 |
| 30      | 24      | 299.464      | 136.131 | 283.174 | 131.500 | 266.884 | 126.870 | 250.594 | 122.240 | 234.305 | 117.609 | 214.757 | 112.053 |
|         | 20      | 261.010      | 185.462 | 248.616 | 181.436 | 236.222 | 177.410 | 223.827 | 173.384 | 211.433 | 169.357 | 196.560 | 164.526 |
|         | 21      | 270.624      | 177.690 | 257.256 | 173.513 | 243.887 | 169.336 | 230.519 | 165.158 | 217.151 | 160.981 | 201.109 | 155.968 |
|         | 22      | 280.237      | 169.918 | 265.895 | 165.590 | 251.553 | 161.262 | 237.211 | 156.933 | 222.869 | 152.605 | 205.658 | 147.411 |
|         | 23      | 289.851      | 162.146 | 274.535 | 157.667 | 259.219 | 153.188 | 243.903 | 148.708 | 228.587 | 144.229 | 210.208 | 138.854 |
|         | 24      | 299.464      | 154.374 | 283.174 | 149.744 | 266.884 | 145.114 | 250.594 | 140.483 | 234.305 | 135.853 | 214.757 | 130.296 |

**R22**  
**MDB-D Series**

**Model : MDB075D ~ MMC075D**

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 24.186       | 14.844 | 22.681 | 13.497 | 21.176 | 12.150 | 19.671 | 10.803 | 18.166 | 9.456  | 16.360 | 7.839  |
|         | 16      | 24.493       | 13.594 | 23.061 | 12.463 | 21.628 | 11.333 | 20.196 | 10.202 | 18.764 | 9.071  | 17.045 | 7.714  |
| 24      | 16      | 24.493       | 18.149 | 23.061 | 17.018 | 21.628 | 15.887 | 20.196 | 14.757 | 18.764 | 13.626 | 17.045 | 12.269 |
|         | 17      | 24.801       | 16.899 | 23.441 | 15.985 | 22.081 | 15.070 | 20.721 | 14.156 | 19.361 | 13.241 | 17.729 | 12.143 |
|         | 18      | 25.108       | 15.650 | 23.821 | 14.951 | 22.533 | 14.253 | 21.246 | 13.554 | 19.959 | 12.856 | 18.414 | 12.018 |
|         | 19      | 25.415       | 14.400 | 24.201 | 13.918 | 22.986 | 13.436 | 21.771 | 12.953 | 20.557 | 12.471 | 19.099 | 11.893 |
|         | 20      | 25.720       | 13.139 | 24.552 | 12.783 | 23.384 | 12.428 | 22.216 | 12.072 | 21.048 | 11.716 | 19.647 | 11.289 |
| 28      | 18      | 25.108       | 20.204 | 23.821 | 19.506 | 22.533 | 18.808 | 21.246 | 18.109 | 19.959 | 17.411 | 18.414 | 16.573 |
|         | 19      | 25.415       | 18.955 | 24.201 | 18.472 | 22.986 | 17.990 | 21.771 | 17.508 | 20.557 | 17.026 | 19.099 | 16.448 |
|         | 20      | 25.720       | 17.694 | 24.552 | 17.338 | 23.384 | 16.982 | 22.216 | 16.627 | 21.048 | 16.271 | 19.647 | 15.844 |
|         | 21      | 26.022       | 16.426 | 24.884 | 16.137 | 23.746 | 15.847 | 22.608 | 15.558 | 21.470 | 15.268 | 20.104 | 14.921 |
|         | 22      | 26.324       | 15.159 | 25.216 | 14.935 | 24.108 | 14.712 | 22.999 | 14.489 | 21.891 | 14.266 | 20.561 | 13.998 |
|         | 23      | 26.626       | 13.891 | 25.548 | 13.734 | 24.469 | 13.577 | 23.391 | 13.420 | 22.313 | 13.264 | 21.019 | 13.075 |
|         | 24      | 26.928       | 12.623 | 25.880 | 12.533 | 24.831 | 12.442 | 23.782 | 12.352 | 22.734 | 12.261 | 21.476 | 12.153 |
| 30      | 20      | 25.720       | 19.971 | 24.552 | 19.616 | 23.384 | 19.260 | 22.216 | 18.904 | 21.048 | 18.548 | 19.647 | 18.121 |
|         | 21      | 26.022       | 18.704 | 24.884 | 18.414 | 23.746 | 18.125 | 22.608 | 17.835 | 21.470 | 17.546 | 20.104 | 17.198 |
|         | 22      | 26.324       | 17.436 | 25.216 | 17.213 | 24.108 | 16.990 | 22.999 | 16.767 | 21.891 | 16.543 | 20.561 | 16.276 |
|         | 23      | 26.626       | 16.168 | 25.548 | 16.011 | 24.469 | 15.855 | 23.391 | 15.698 | 22.313 | 15.541 | 21.019 | 15.353 |
|         | 24      | 26.928       | 14.900 | 25.880 | 14.810 | 24.831 | 14.720 | 23.782 | 14.629 | 22.734 | 14.539 | 21.476 | 14.430 |

**Model : MDB100D ~ MMC100D**

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 31.079       | 18.617 | 29.271 | 17.207 | 27.463 | 15.797 | 25.654 | 14.386 | 23.846 | 12.976 | 21.676 | 11.284 |
|         | 16      | 31.966       | 16.709 | 30.139 | 15.642 | 28.312 | 14.574 | 26.485 | 13.507 | 24.658 | 12.439 | 22.465 | 11.158 |
| 24      | 16      | 31.966       | 22.313 | 30.139 | 21.246 | 28.312 | 20.178 | 26.485 | 19.111 | 24.658 | 18.043 | 22.465 | 16.762 |
|         | 17      | 32.854       | 20.405 | 31.008 | 19.680 | 29.161 | 18.956 | 27.315 | 18.231 | 25.469 | 17.506 | 23.254 | 16.636 |
|         | 18      | 33.741       | 18.497 | 31.876 | 18.115 | 30.011 | 17.733 | 28.146 | 17.351 | 26.281 | 16.969 | 24.042 | 16.511 |
|         | 19      | 34.629       | 16.589 | 32.744 | 16.550 | 30.860 | 16.511 | 28.976 | 16.471 | 27.092 | 16.432 | 24.831 | 16.385 |
|         | 20      | 35.515       | 14.663 | 33.609 | 14.818 | 31.702 | 14.972 | 29.796 | 15.126 | 27.889 | 15.280 | 25.601 | 15.465 |
| 28      | 18      | 33.741       | 24.101 | 31.876 | 23.719 | 30.011 | 23.337 | 28.146 | 22.955 | 26.281 | 22.573 | 24.042 | 22.115 |
|         | 19      | 34.629       | 22.193 | 32.744 | 22.154 | 30.860 | 22.115 | 28.976 | 22.075 | 27.092 | 22.036 | 24.831 | 21.989 |
|         | 20      | 35.515       | 20.267 | 33.609 | 20.422 | 31.702 | 20.576 | 29.796 | 20.730 | 27.889 | 20.884 | 25.601 | 21.069 |
|         | 21      | 36.402       | 18.330 | 34.471 | 18.578 | 32.540 | 18.826 | 30.608 | 19.075 | 28.677 | 19.323 | 26.360 | 19.621 |
|         | 22      | 37.289       | 16.392 | 35.333 | 16.734 | 33.377 | 17.077 | 31.421 | 17.419 | 29.465 | 17.761 | 27.118 | 18.172 |
|         | 23      | 38.175       | 14.454 | 36.195 | 14.890 | 34.214 | 15.327 | 32.233 | 15.763 | 30.253 | 16.200 | 27.876 | 16.724 |
| 30      | 20      | 35.515       | 23.069 | 33.609 | 23.224 | 31.702 | 23.378 | 29.796 | 23.532 | 27.889 | 23.686 | 25.601 | 23.872 |
|         | 21      | 36.402       | 21.132 | 34.471 | 21.380 | 32.540 | 21.628 | 30.608 | 21.877 | 28.677 | 22.125 | 26.360 | 22.423 |
|         | 22      | 37.289       | 19.194 | 35.333 | 19.536 | 33.377 | 19.879 | 31.421 | 20.221 | 29.465 | 20.563 | 27.118 | 20.974 |
|         | 23      | 38.175       | 17.256 | 36.195 | 17.692 | 34.214 | 18.129 | 32.233 | 18.565 | 30.253 | 19.002 | 27.876 | 19.526 |
|         | 24      | 39.062       | 15.318 | 37.057 | 15.849 | 35.051 | 16.379 | 33.046 | 16.910 | 31.041 | 17.440 | 28.634 | 18.077 |

## R22

### Model : MDB125D ~ MMC125D

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 40.171       | 23.237 | 37.537 | 21.276 | 34.904 | 19.314 | 32.271 | 17.352 | 29.637 | 15.391 | 26.477 | 13.036 |
|         | 16      | 41.938       | 20.953 | 39.046 | 19.344 | 36.154 | 17.734 | 33.263 | 16.125 | 30.371 | 14.515 | 26.901 | 12.584 |
| 24      | 16      | 41.938       | 28.403 | 39.046 | 26.793 | 36.154 | 25.183 | 33.263 | 23.574 | 30.371 | 21.964 | 26.901 | 20.033 |
|         | 17      | 43.705       | 26.119 | 40.555 | 24.861 | 37.405 | 23.604 | 34.255 | 22.347 | 31.105 | 21.089 | 27.324 | 19.581 |
|         | 18      | 45.472       | 23.835 | 42.063 | 22.929 | 38.655 | 22.024 | 35.247 | 21.119 | 31.838 | 20.214 | 27.748 | 19.128 |
|         | 19      | 47.239       | 21.551 | 43.572 | 20.998 | 39.905 | 20.445 | 36.239 | 19.892 | 32.572 | 19.339 | 28.172 | 18.676 |
|         | 20      | 49.022       | 19.252 | 45.232 | 18.931 | 41.442 | 18.609 | 37.652 | 18.288 | 33.861 | 17.967 | 29.313 | 17.581 |
| 28      | 18      | 45.472       | 31.284 | 42.063 | 30.379 | 38.655 | 29.473 | 35.247 | 28.568 | 31.838 | 27.663 | 27.748 | 26.577 |
|         | 19      | 47.239       | 29.000 | 43.572 | 28.447 | 39.905 | 27.894 | 36.239 | 27.341 | 32.572 | 26.788 | 28.172 | 26.125 |
|         | 20      | 49.022       | 26.701 | 45.232 | 26.380 | 41.442 | 26.058 | 37.652 | 25.737 | 33.861 | 25.416 | 29.313 | 25.030 |
|         | 21      | 50.816       | 24.393 | 46.993 | 24.222 | 43.169 | 24.052 | 39.345 | 23.881 | 35.521 | 23.711 | 30.933 | 23.506 |
|         | 22      | 52.610       | 22.085 | 48.753 | 22.065 | 44.896 | 22.045 | 41.039 | 22.026 | 37.182 | 22.006 | 32.553 | 21.983 |
|         | 23      | 54.404       | 19.777 | 50.514 | 19.908 | 46.623 | 20.039 | 42.732 | 20.170 | 38.842 | 20.301 | 34.173 | 20.459 |
| 30      | 24      | 56.198       | 17.468 | 52.274 | 17.750 | 48.350 | 18.033 | 44.426 | 18.315 | 40.502 | 18.597 | 35.793 | 18.935 |
|         | 20      | 49.022       | 30.426 | 45.232 | 30.104 | 41.442 | 29.783 | 37.652 | 29.461 | 33.861 | 29.140 | 29.313 | 28.754 |
|         | 21      | 50.816       | 28.117 | 46.993 | 27.947 | 43.169 | 27.776 | 39.345 | 27.606 | 35.521 | 27.435 | 30.933 | 27.231 |
|         | 22      | 52.610       | 25.809 | 48.753 | 25.790 | 44.896 | 25.770 | 41.039 | 25.750 | 37.182 | 25.731 | 32.553 | 25.707 |
|         | 23      | 54.404       | 23.501 | 50.514 | 23.632 | 46.623 | 23.763 | 42.732 | 23.895 | 38.842 | 24.026 | 34.173 | 24.183 |
|         | 24      | 56.198       | 21.193 | 52.274 | 21.475 | 48.350 | 21.757 | 44.426 | 22.039 | 40.502 | 22.321 | 35.793 | 22.660 |

### Model : MDB125D2 ~ MLC061C x 2

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 40.627       | 23.593 | 37.679 | 21.138 | 34.731 | 18.684 | 31.784 | 16.229 | 28.836 | 13.774 | 25.299 | 10.829 |
|         | 16      | 39.962       | 20.542 | 37.381 | 18.903 | 34.801 | 17.263 | 32.220 | 15.624 | 29.640 | 13.984 | 26.543 | 12.017 |
| 24      | 16      | 39.962       | 29.144 | 37.381 | 27.505 | 34.801 | 25.865 | 32.220 | 24.226 | 29.640 | 22.587 | 26.543 | 20.619 |
|         | 17      | 39.297       | 26.093 | 37.084 | 25.269 | 34.870 | 24.445 | 32.657 | 23.621 | 30.443 | 22.797 | 27.787 | 21.807 |
|         | 18      | 38.632       | 23.042 | 36.786 | 23.034 | 34.940 | 23.025 | 33.093 | 23.016 | 31.247 | 23.007 | 29.032 | 22.996 |
|         | 19      | 37.967       | 19.992 | 36.488 | 20.798 | 35.009 | 21.604 | 33.530 | 22.410 | 32.051 | 23.217 | 30.276 | 24.184 |
|         | 20      | 37.292       | 16.890 | 36.092 | 18.095 | 34.893 | 19.299 | 33.694 | 20.503 | 32.494 | 21.707 | 31.055 | 23.152 |
| 28      | 18      | 38.632       | 31.645 | 36.786 | 31.636 | 34.940 | 31.627 | 33.093 | 31.618 | 31.609 | 31.609 | 31.598 | 31.598 |
|         | 19      | 37.967       | 28.594 | 36.488 | 29.400 | 35.009 | 30.206 | 33.530 | 31.013 | 32.051 | 31.819 | 32.786 | 32.786 |
|         | 20      | 37.292       | 25.493 | 36.092 | 26.697 | 34.893 | 27.901 | 33.694 | 29.105 | 32.494 | 30.310 | 31.755 | 31.755 |
|         | 21      | 36.609       | 22.358 | 35.631 | 23.682 | 34.653 | 25.006 | 33.675 | 26.330 | 32.697 | 27.654 | 31.524 | 29.243 |
|         | 22      | 35.927       | 19.224 | 35.170 | 20.668 | 34.414 | 22.111 | 33.657 | 23.555 | 32.900 | 24.998 | 31.992 | 26.731 |
|         | 23      | 35.245       | 16.090 | 34.709 | 17.653 | 34.174 | 19.216 | 33.639 | 20.779 | 33.103 | 22.343 | 32.461 | 24.219 |
| 30      | 24      | 34.562       | 12.955 | 34.248 | 14.638 | 33.934 | 16.321 | 33.620 | 18.004 | 33.306 | 19.687 | 32.929 | 21.707 |
|         | 20      | 37.292       | 29.794 | 36.092 | 30.998 | 34.893 | 32.202 | 33.694 | 33.406 | 34.611 | 34.611 | 36.056 | 36.056 |
|         | 21      | 36.609       | 26.660 | 35.631 | 27.983 | 34.653 | 29.307 | 33.675 | 30.631 | 32.697 | 31.955 | 33.544 | 33.544 |
|         | 22      | 35.927       | 23.525 | 35.170 | 24.969 | 34.414 | 26.412 | 33.657 | 27.856 | 32.900 | 29.299 | 31.992 | 31.032 |
|         | 23      | 35.245       | 20.391 | 34.709 | 21.954 | 34.174 | 23.517 | 33.639 | 25.081 | 33.103 | 26.644 | 32.461 | 28.520 |
|         | 24      | 34.562       | 17.256 | 34.248 | 18.939 | 33.934 | 20.622 | 33.620 | 22.305 | 33.306 | 23.988 | 32.929 | 26.008 |

**R22**

**Model :MDB150D ~ MMC150D**

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 48.767       | 28.482 | 45.492 | 26.093 | 42.217 | 23.705 | 38.941 | 21.316 | 35.666 | 18.927 | 31.735 | 16.061 |
|         | 16      | 50.818       | 25.663 | 47.240 | 23.778 | 43.661 | 21.893 | 40.082 | 20.007 | 36.504 | 18.122 | 32.209 | 15.859 |
| 24      | 16      | 50.818       | 34.577 | 47.240 | 32.691 | 43.661 | 30.806 | 40.082 | 28.920 | 36.504 | 27.035 | 32.209 | 24.772 |
|         | 17      | 52.869       | 31.759 | 48.987 | 30.376 | 45.105 | 28.994 | 41.224 | 27.611 | 37.342 | 26.229 | 32.684 | 24.570 |
|         | 18      | 54.920       | 28.940 | 50.735 | 28.061 | 46.550 | 27.182 | 42.365 | 26.302 | 38.180 | 25.423 | 33.158 | 24.368 |
|         | 19      | 56.970       | 26.122 | 52.482 | 25.746 | 47.994 | 25.370 | 43.506 | 24.993 | 39.018 | 24.617 | 33.632 | 24.166 |
|         | 20      | 59.042       | 23.279 | 54.421 | 23.196 | 49.800 | 23.112 | 45.179 | 23.029 | 40.558 | 22.946 | 35.013 | 22.847 |
| 28      | 18      | 54.920       | 37.854 | 50.735 | 36.974 | 46.550 | 36.095 | 42.365 | 35.216 | 38.180 | 34.336 | 33.281 | 33.281 |
|         | 19      | 56.970       | 35.035 | 52.482 | 34.659 | 47.994 | 34.283 | 43.506 | 33.907 | 39.018 | 33.531 | 33.632 | 33.079 |
|         | 20      | 59.042       | 32.192 | 54.421 | 32.109 | 49.800 | 32.026 | 45.179 | 31.943 | 40.558 | 31.860 | 35.013 | 31.760 |
|         | 21      | 61.126       | 29.332 | 56.486 | 29.402 | 51.846 | 29.472 | 47.206 | 29.542 | 42.566 | 29.612 | 36.997 | 29.696 |
|         | 22      | 63.211       | 26.471 | 58.552 | 26.695 | 53.892 | 26.918 | 49.233 | 27.141 | 44.573 | 27.365 | 38.982 | 27.633 |
|         | 23      | 65.296       | 23.611 | 60.617 | 23.988 | 55.939 | 24.364 | 51.260 | 24.741 | 46.581 | 25.117 | 40.967 | 25.569 |
| 30      | 20      | 59.042       | 36.649 | 54.421 | 36.565 | 49.800 | 36.482 | 45.179 | 36.399 | 40.558 | 36.316 | 36.217 | 36.217 |
|         | 21      | 61.126       | 33.788 | 56.486 | 33.858 | 51.846 | 33.929 | 47.206 | 33.999 | 42.566 | 34.069 | 36.997 | 34.153 |
|         | 22      | 63.211       | 30.928 | 58.552 | 31.151 | 53.892 | 31.375 | 49.233 | 31.598 | 44.573 | 31.821 | 38.982 | 32.089 |
|         | 23      | 65.296       | 28.068 | 60.617 | 28.444 | 55.939 | 28.821 | 51.260 | 29.197 | 46.581 | 29.574 | 40.967 | 30.026 |
|         | 24      | 67.381       | 25.207 | 62.683 | 25.737 | 57.985 | 26.267 | 53.287 | 26.797 | 48.589 | 27.327 | 42.951 | 27.962 |

**Model : MDB150D2 ~ MMC075D x 2**

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 48.372       | 29.688 | 45.362 | 26.994 | 42.352 | 24.300 | 39.342 | 21.606 | 36.332 | 18.912 | 32.720 | 15.679 |
|         | 16      | 48.987       | 27.188 | 46.122 | 24.927 | 43.257 | 22.665 | 40.392 | 20.404 | 37.527 | 18.142 | 34.089 | 15.428 |
| 24      | 16      | 48.987       | 36.298 | 46.122 | 34.036 | 43.257 | 31.775 | 40.392 | 29.513 | 37.527 | 27.252 | 34.089 | 24.538 |
|         | 17      | 49.601       | 33.799 | 46.882 | 31.969 | 44.162 | 30.140 | 41.442 | 28.311 | 38.722 | 26.482 | 35.459 | 24.287 |
|         | 18      | 50.216       | 31.299 | 47.641 | 29.902 | 45.067 | 28.506 | 42.492 | 27.109 | 39.918 | 25.712 | 36.828 | 24.036 |
|         | 19      | 50.831       | 28.800 | 48.401 | 27.835 | 45.972 | 26.871 | 43.542 | 25.907 | 41.113 | 24.943 | 38.198 | 23.785 |
|         | 20      | 51.439       | 26.278 | 49.103 | 25.567 | 46.768 | 24.855 | 44.432 | 24.143 | 42.097 | 23.432 | 39.294 | 22.578 |
| 28      | 18      | 50.216       | 40.409 | 47.641 | 39.012 | 45.067 | 37.615 | 42.492 | 36.219 | 39.918 | 34.822 | 36.828 | 33.146 |
|         | 19      | 50.831       | 37.909 | 48.401 | 36.945 | 45.972 | 35.981 | 43.542 | 35.016 | 41.113 | 34.052 | 38.198 | 32.895 |
|         | 20      | 51.439       | 35.388 | 49.103 | 34.676 | 46.768 | 33.965 | 44.432 | 33.253 | 42.097 | 32.541 | 39.294 | 31.687 |
|         | 21      | 52.043       | 32.853 | 49.767 | 32.274 | 47.491 | 31.695 | 45.216 | 31.116 | 42.940 | 30.537 | 40.208 | 29.842 |
|         | 22      | 52.648       | 30.317 | 50.431 | 29.871 | 48.215 | 29.425 | 45.999 | 28.978 | 43.782 | 28.532 | 41.123 | 27.996 |
|         | 23      | 53.252       | 27.782 | 51.095 | 27.468 | 48.939 | 27.154 | 46.782 | 26.841 | 44.625 | 26.527 | 42.037 | 26.151 |
| 30      | 20      | 51.439       | 39.943 | 49.103 | 39.231 | 46.768 | 38.520 | 44.432 | 37.808 | 42.097 | 37.096 | 39.294 | 36.242 |
|         | 21      | 52.043       | 37.407 | 49.767 | 36.828 | 47.491 | 36.249 | 45.216 | 35.670 | 42.940 | 35.092 | 40.208 | 34.397 |
|         | 22      | 52.648       | 34.872 | 50.431 | 34.426 | 48.215 | 33.979 | 45.999 | 33.533 | 43.782 | 33.087 | 41.123 | 32.551 |
|         | 23      | 53.252       | 32.336 | 51.095 | 32.023 | 48.939 | 31.709 | 46.782 | 31.396 | 44.625 | 31.082 | 42.037 | 30.706 |
|         | 24      | 53.856       | 29.801 | 51.759 | 29.620 | 49.662 | 29.439 | 47.565 | 29.258 | 45.468 | 29.077 | 42.951 | 28.860 |

## R22

### Model : MDB200D2 ~ MMC100D x 2

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 62.158       | 37.235 | 58.542 | 34.414 | 54.925 | 31.593 | 51.309 | 28.773 | 47.693 | 25.952 | 43.353 | 22.567 |
|         | 16      | 63.933       | 33.418 | 60.279 | 31.283 | 56.624 | 29.148 | 52.970 | 27.013 | 49.315 | 24.878 | 44.930 | 22.316 |
| 24      | 16      | 63.933       | 44.627 | 60.279 | 42.492 | 56.624 | 40.356 | 52.970 | 38.221 | 49.315 | 36.086 | 44.930 | 33.524 |
|         | 17      | 65.708       | 40.811 | 62.015 | 39.361 | 58.323 | 37.911 | 54.631 | 36.462 | 50.938 | 35.012 | 46.508 | 33.273 |
|         | 18      | 67.482       | 36.995 | 63.752 | 36.230 | 60.022 | 35.466 | 56.291 | 34.702 | 52.561 | 33.938 | 48.085 | 33.021 |
|         | 19      | 69.257       | 33.178 | 65.489 | 33.100 | 61.721 | 33.021 | 57.952 | 32.943 | 54.184 | 32.864 | 49.662 | 32.769 |
|         | 20      | 71.031       | 29.327 | 67.218 | 29.635 | 63.405 | 29.944 | 59.592 | 30.252 | 55.779 | 30.560 | 51.203 | 30.931 |
| 28      | 18      | 67.482       | 48.203 | 63.752 | 47.439 | 60.022 | 46.675 | 56.291 | 45.910 | 52.561 | 45.146 | 48.085 | 44.229 |
|         | 19      | 69.257       | 44.387 | 65.489 | 44.308 | 61.721 | 44.229 | 57.952 | 44.151 | 54.184 | 44.072 | 49.662 | 43.978 |
|         | 20      | 71.031       | 40.535 | 67.218 | 40.843 | 63.405 | 41.152 | 59.592 | 41.460 | 55.779 | 41.769 | 51.203 | 42.139 |
|         | 21      | 72.804       | 36.659 | 68.942 | 37.156 | 65.079 | 37.652 | 61.217 | 38.149 | 57.354 | 38.646 | 52.719 | 39.242 |
|         | 22      | 74.578       | 32.783 | 70.666 | 33.468 | 66.754 | 34.153 | 62.842 | 34.838 | 58.930 | 35.523 | 54.236 | 36.345 |
|         | 23      | 76.351       | 28.908 | 72.390 | 29.781 | 68.428 | 30.654 | 64.467 | 31.527 | 60.506 | 32.400 | 55.752 | 33.447 |
|         | 24      | 78.124       | 25.032 | 74.114 | 26.093 | 70.103 | 27.154 | 66.092 | 28.216 | 62.081 | 29.277 | 57.268 | 30.550 |
| 30      | 20      | 71.031       | 46.139 | 67.218 | 46.447 | 63.405 | 46.756 | 59.592 | 47.064 | 55.779 | 47.373 | 51.203 | 47.743 |
|         | 21      | 72.804       | 42.263 | 68.942 | 42.760 | 65.079 | 43.257 | 61.217 | 43.753 | 57.354 | 44.250 | 52.719 | 44.846 |
|         | 22      | 74.578       | 38.387 | 70.666 | 39.072 | 66.754 | 39.757 | 62.842 | 40.442 | 58.930 | 41.127 | 54.236 | 41.949 |
|         | 23      | 76.351       | 34.512 | 72.390 | 35.385 | 68.428 | 36.258 | 64.467 | 37.131 | 60.506 | 38.004 | 55.752 | 39.052 |
|         | 24      | 78.124       | 30.636 | 74.114 | 31.697 | 70.103 | 32.758 | 66.092 | 33.820 | 62.081 | 34.881 | 57.268 | 36.154 |

### Model : MDB200D2 ~ MMC200D2

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 65.359       | 43.033 | 61.222 | 39.440 | 57.085 | 35.846 | 52.947 | 32.252 | 48.810 | 28.658 | 43.845 | 24.346 |
|         | 16      | 65.643       | 39.597 | 61.841 | 36.832 | 58.038 | 34.067 | 54.236 | 31.302 | 50.433 | 28.538 | 45.870 | 25.220 |
| 24      | 16      | 65.643       | 50.483 | 61.841 | 47.718 | 58.038 | 44.953 | 54.236 | 42.188 | 50.433 | 39.423 | 45.870 | 36.105 |
|         | 17      | 65.928       | 47.046 | 62.460 | 45.110 | 58.992 | 43.174 | 55.524 | 41.238 | 52.056 | 39.302 | 47.895 | 36.979 |
|         | 18      | 66.212       | 43.610 | 63.079 | 42.503 | 59.946 | 41.396 | 56.813 | 40.289 | 53.680 | 39.182 | 49.920 | 37.853 |
|         | 19      | 66.496       | 40.174 | 63.698 | 39.896 | 60.900 | 39.617 | 58.101 | 39.339 | 55.303 | 39.061 | 51.945 | 38.727 |
|         | 20      | 66.766       | 36.681 | 64.185 | 36.763 | 61.604 | 36.844 | 59.022 | 36.925 | 56.441 | 37.007 | 53.344 | 37.104 |
| 28      | 18      | 66.212       | 54.496 | 63.079 | 53.389 | 59.946 | 52.282 | 56.813 | 51.174 | 53.680 | 50.067 | 49.920 | 48.739 |
|         | 19      | 66.496       | 51.060 | 63.698 | 50.781 | 60.900 | 50.503 | 58.101 | 50.225 | 55.303 | 49.947 | 51.945 | 49.613 |
|         | 20      | 66.766       | 47.567 | 64.185 | 47.648 | 61.604 | 47.730 | 59.022 | 47.811 | 56.441 | 47.892 | 53.344 | 47.990 |
|         | 21      | 67.027       | 44.037 | 64.584 | 44.165 | 62.142 | 44.293 | 59.699 | 44.421 | 57.256 | 44.549 | 54.325 | 44.703 |
|         | 22      | 67.288       | 40.507 | 64.983 | 40.682 | 62.679 | 40.856 | 60.375 | 41.031 | 58.071 | 41.206 | 55.306 | 41.416 |
|         | 23      | 67.548       | 36.977 | 65.383 | 37.198 | 63.217 | 37.420 | 61.052 | 37.641 | 58.886 | 37.863 | 56.287 | 38.129 |
|         | 24      | 67.809       | 33.447 | 65.782 | 33.715 | 63.755 | 33.983 | 61.728 | 34.251 | 59.701 | 34.520 | 57.268 | 34.841 |
| 30      | 20      | 66.766       | 53.010 | 64.185 | 53.091 | 61.604 | 53.173 | 59.022 | 53.254 | 56.441 | 53.335 | 53.433 | 53.433 |
|         | 21      | 67.027       | 49.480 | 64.584 | 49.608 | 62.142 | 49.736 | 59.699 | 49.864 | 57.256 | 49.992 | 54.325 | 50.146 |
|         | 22      | 67.288       | 45.950 | 64.983 | 46.124 | 62.679 | 46.299 | 60.375 | 46.474 | 58.071 | 46.649 | 55.306 | 46.859 |
|         | 23      | 67.548       | 42.420 | 65.383 | 42.641 | 63.217 | 42.863 | 61.052 | 43.084 | 58.886 | 43.306 | 56.287 | 43.571 |
|         | 24      | 67.809       | 38.889 | 65.782 | 39.158 | 63.755 | 39.426 | 61.728 | 39.694 | 59.701 | 39.962 | 57.268 | 40.284 |

## R22

### Model : MDB250D2 ~ MMC125D x 2

| ID DB°C | ID WB°C | Outdoor DB°C |        |         |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25      |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW)  | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 80.341       | 46.475 | 75.075  | 42.551 | 69.808 | 38.628 | 64.541 | 34.705 | 59.274 | 30.781 | 52.954 | 26.073 |
|         | 16      | 83.876       | 41.907 | 78.092  | 38.688 | 72.309 | 35.469 | 66.525 | 32.250 | 60.742 | 29.031 | 53.802 | 25.168 |
| 24      | 16      | 83.876       | 56.805 | 78.092  | 53.586 | 72.309 | 50.367 | 66.525 | 47.148 | 60.742 | 43.929 | 53.802 | 40.066 |
|         | 17      | 87.410       | 52.237 | 81.110  | 49.722 | 74.809 | 47.208 | 68.509 | 44.693 | 62.209 | 42.179 | 54.649 | 39.161 |
|         | 18      | 90.944       | 47.669 | 84.127  | 45.859 | 77.310 | 44.049 | 70.493 | 42.239 | 63.676 | 40.429 | 55.496 | 38.257 |
|         | 19      | 94.478       | 43.101 | 87.144  | 41.995 | 79.811 | 40.890 | 72.477 | 39.784 | 65.144 | 38.679 | 56.343 | 37.352 |
|         | 20      | 98.044       | 38.504 | 90.464  | 37.861 | 82.884 | 37.219 | 75.303 | 36.576 | 67.723 | 35.933 | 58.626 | 35.162 |
| 28      | 18      | 90.944       | 62.567 | 84.127  | 60.757 | 77.310 | 58.947 | 70.493 | 57.137 | 63.676 | 55.327 | 55.496 | 53.155 |
|         | 19      | 94.478       | 57.999 | 87.144  | 56.894 | 79.811 | 55.788 | 72.477 | 54.682 | 65.144 | 53.577 | 56.343 | 52.250 |
|         | 20      | 98.044       | 53.402 | 90.464  | 52.759 | 82.884 | 52.117 | 75.303 | 51.474 | 67.723 | 50.831 | 58.626 | 50.060 |
|         | 21      | 101.632      | 48.786 | 93.985  | 48.445 | 86.338 | 48.104 | 78.690 | 47.763 | 71.043 | 47.422 | 61.866 | 47.012 |
|         | 22      | 105.220      | 44.169 | 97.506  | 44.130 | 89.792 | 44.091 | 82.077 | 44.052 | 74.363 | 44.012 | 65.106 | 43.965 |
|         | 23      | 108.809      | 39.553 | 101.027 | 39.816 | 93.246 | 40.078 | 85.465 | 40.340 | 77.683 | 40.603 | 68.346 | 40.918 |
| 30      | 24      | 112.397      | 34.937 | 104.548 | 35.501 | 96.700 | 36.065 | 88.852 | 36.629 | 81.004 | 37.193 | 71.586 | 37.870 |
|         | 20      | 98.044       | 60.851 | 90.464  | 60.208 | 82.884 | 59.566 | 75.303 | 58.923 | 67.723 | 58.280 | 58.626 | 57.509 |
|         | 21      | 101.632      | 56.235 | 93.985  | 55.894 | 86.338 | 55.553 | 78.690 | 55.212 | 71.043 | 54.871 | 61.866 | 54.461 |
|         | 22      | 105.220      | 51.618 | 97.506  | 51.579 | 89.792 | 51.540 | 82.077 | 51.501 | 74.363 | 51.461 | 65.106 | 51.414 |
|         | 23      | 108.809      | 47.002 | 101.027 | 47.265 | 93.246 | 47.527 | 85.465 | 47.789 | 77.683 | 48.052 | 68.346 | 48.367 |
|         | 24      | 112.397      | 42.386 | 104.548 | 42.950 | 96.700 | 43.514 | 88.852 | 44.078 | 81.004 | 44.642 | 71.586 | 45.319 |

### Model : MDB250D2 ~ MMC250D2

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 77.114       | 48.631 | 72.768 | 45.156 | 68.421 | 41.681 | 64.075 | 38.206 | 59.729 | 34.731 | 54.513 | 30.561 |
|         | 16      | 78.965       | 45.309 | 74.699 | 42.705 | 70.432 | 40.102 | 66.165 | 37.499 | 61.898 | 34.895 | 56.778 | 31.771 |
| 24      | 16      | 78.965       | 58.916 | 74.699 | 56.312 | 70.432 | 53.709 | 66.165 | 51.105 | 61.898 | 48.502 | 56.778 | 45.378 |
|         | 17      | 80.817       | 55.594 | 76.630 | 53.862 | 72.442 | 52.130 | 68.255 | 50.398 | 64.068 | 48.666 | 59.043 | 46.587 |
|         | 18      | 82.668       | 52.271 | 78.561 | 51.411 | 74.453 | 50.550 | 70.345 | 49.690 | 66.237 | 48.830 | 61.308 | 47.797 |
|         | 19      | 84.520       | 48.949 | 80.492 | 48.960 | 76.463 | 48.971 | 72.435 | 48.982 | 68.406 | 48.993 | 63.572 | 49.007 |
|         | 20      | 86.362       | 45.553 | 82.332 | 45.820 | 78.302 | 46.087 | 74.272 | 46.354 | 70.241 | 46.621 | 65.405 | 46.941 |
| 28      | 18      | 82.668       | 65.878 | 78.561 | 65.018 | 74.453 | 64.157 | 70.345 | 63.297 | 66.237 | 62.437 | 61.404 | 61.404 |
|         | 19      | 84.520       | 62.556 | 80.492 | 62.567 | 76.463 | 62.578 | 72.435 | 62.589 | 68.406 | 62.600 | 63.572 | 62.614 |
|         | 20      | 86.362       | 59.160 | 82.332 | 59.427 | 78.302 | 59.694 | 74.272 | 59.961 | 70.241 | 60.228 | 65.405 | 60.548 |
|         | 21      | 88.197       | 55.714 | 84.111 | 55.827 | 80.025 | 55.939 | 75.939 | 56.052 | 71.853 | 56.164 | 66.950 | 56.299 |
|         | 22      | 90.032       | 52.269 | 85.891 | 52.227 | 81.749 | 52.185 | 77.607 | 52.143 | 73.466 | 52.101 | 68.495 | 52.050 |
|         | 23      | 91.868       | 48.824 | 87.670 | 48.627 | 83.473 | 48.430 | 79.275 | 48.234 | 75.078 | 48.037 | 70.041 | 47.801 |
| 30      | 24      | 93.703       | 45.378 | 89.450 | 45.027 | 85.196 | 44.676 | 80.943 | 44.325 | 76.690 | 43.973 | 71.586 | 43.552 |
|         | 20      | 86.362       | 65.963 | 82.332 | 66.230 | 78.302 | 66.497 | 74.272 | 66.764 | 70.241 | 67.031 | 67.352 | 67.352 |
|         | 21      | 88.197       | 62.518 | 84.111 | 62.630 | 80.025 | 62.743 | 75.939 | 62.855 | 71.853 | 62.968 | 66.950 | 63.102 |
|         | 22      | 90.032       | 59.073 | 85.891 | 59.030 | 81.749 | 58.988 | 77.607 | 58.946 | 73.466 | 58.904 | 68.495 | 58.853 |
|         | 23      | 91.868       | 55.627 | 87.670 | 55.430 | 83.473 | 55.234 | 79.275 | 55.037 | 75.078 | 54.840 | 70.041 | 54.604 |
|         | 24      | 93.703       | 52.182 | 89.450 | 51.831 | 85.196 | 51.479 | 80.943 | 51.128 | 76.690 | 50.777 | 71.586 | 50.355 |

## R22

### Model : MDB300D2 ~ MMC150D x 2

| ID DB°C | ID WB°C | Outdoor DB°C |        |         |        |         |        |         |        |        |        |        |        |
|---------|---------|--------------|--------|---------|--------|---------|--------|---------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25      |        | 30      |        | 35      |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 97.535       | 56.964 | 90.984  | 52.186 | 84.433  | 47.409 | 77.882  | 42.632 | 71.331 | 37.855 | 63.470 | 32.122 |
|         | 16      | 101.636      | 51.327 | 94.479  | 47.556 | 87.322  | 43.785 | 80.165  | 40.014 | 73.007 | 36.243 | 64.419 | 31.718 |
| 24      | 16      | 101.636      | 69.154 | 94.479  | 65.383 | 87.322  | 61.612 | 80.165  | 57.841 | 73.007 | 54.070 | 64.419 | 49.545 |
|         | 17      | 105.738      | 63.517 | 97.974  | 60.752 | 90.211  | 57.988 | 82.447  | 55.223 | 74.683 | 52.458 | 65.367 | 49.140 |
|         | 18      | 109.839      | 57.881 | 101.469 | 56.122 | 93.099  | 54.363 | 84.730  | 52.605 | 76.360 | 50.846 | 66.316 | 48.736 |
|         | 19      | 113.941      | 52.244 | 104.965 | 51.492 | 95.988  | 50.739 | 87.012  | 49.987 | 78.036 | 49.234 | 67.264 | 48.332 |
|         | 20      | 118.083      | 46.557 | 108.841 | 46.391 | 99.599  | 46.225 | 90.357  | 46.059 | 81.116 | 45.893 | 70.025 | 45.693 |
| 28      | 18      | 109.839      | 75.707 | 101.469 | 73.949 | 93.099  | 72.190 | 84.730  | 70.431 | 76.360 | 68.673 | 66.563 | 66.563 |
|         | 19      | 113.941      | 70.071 | 104.965 | 69.318 | 95.988  | 68.566 | 87.012  | 67.813 | 78.036 | 67.061 | 67.264 | 66.158 |
|         | 20      | 118.083      | 64.384 | 108.841 | 64.218 | 99.599  | 64.052 | 90.357  | 63.885 | 81.116 | 63.719 | 70.025 | 63.520 |
|         | 21      | 122.253      | 58.663 | 112.972 | 58.804 | 103.692 | 58.944 | 94.412  | 59.084 | 85.131 | 59.224 | 73.995 | 59.393 |
|         | 22      | 126.422      | 52.943 | 117.103 | 53.389 | 107.785 | 53.836 | 98.466  | 54.283 | 89.147 | 54.730 | 77.964 | 55.266 |
|         | 23      | 130.592      | 47.222 | 121.235 | 47.975 | 111.877 | 48.728 | 102.520 | 49.482 | 93.162 | 50.235 | 81.933 | 51.138 |
| 30      | 24      | 134.762      | 41.502 | 125.366 | 42.561 | 115.970 | 43.621 | 106.574 | 44.680 | 97.178 | 45.740 | 85.903 | 47.011 |
|         | 20      | 118.083      | 73.297 | 108.841 | 73.131 | 99.599  | 72.965 | 90.357  | 72.799 | 81.116 | 72.633 | 72.433 | 72.433 |
|         | 21      | 122.253      | 67.577 | 112.972 | 67.717 | 103.692 | 67.857 | 94.412  | 67.997 | 85.131 | 68.138 | 73.995 | 68.306 |
|         | 22      | 126.422      | 61.856 | 117.103 | 62.303 | 107.785 | 62.749 | 98.466  | 63.196 | 89.147 | 63.643 | 77.964 | 64.179 |
|         | 23      | 130.592      | 56.135 | 121.235 | 56.889 | 111.877 | 57.642 | 102.520 | 58.395 | 93.162 | 59.148 | 81.933 | 60.052 |
|         | 24      | 134.762      | 50.415 | 125.366 | 51.475 | 115.970 | 52.534 | 106.574 | 53.594 | 97.178 | 54.653 | 85.903 | 55.924 |

### Model : MDB300D2 ~ MMC300D2

| ID DB°C | ID WB°C | Outdoor DB°C |        |         |        |         |        |         |        |        |        |        |        |
|---------|---------|--------------|--------|---------|--------|---------|--------|---------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25      |        | 30      |        | 35      |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 95.578       | 60.651 | 89.507  | 55.875 | 83.436  | 51.099 | 77.365  | 46.323 | 71.294 | 41.547 | 64.009 | 35.815 |
|         | 16      | 99.289       | 57.473 | 92.781  | 53.437 | 86.273  | 49.401 | 79.765  | 45.365 | 73.257 | 41.330 | 65.448 | 36.487 |
| 24      | 16      | 99.289       | 73.801 | 92.781  | 69.765 | 86.273  | 65.729 | 79.765  | 61.694 | 73.257 | 57.658 | 65.448 | 52.815 |
|         | 17      | 102.999      | 70.623 | 96.054  | 67.327 | 89.110  | 64.032 | 82.165  | 60.736 | 75.221 | 57.441 | 66.887 | 53.487 |
|         | 18      | 106.710      | 67.445 | 99.328  | 64.889 | 91.947  | 62.334 | 84.565  | 59.779 | 77.184 | 57.224 | 68.326 | 54.158 |
|         | 19      | 110.420      | 64.266 | 102.602 | 62.452 | 94.783  | 60.637 | 86.965  | 58.822 | 79.147 | 57.007 | 69.764 | 54.829 |
|         | 20      | 114.157      | 61.023 | 106.121 | 59.403 | 98.085  | 57.783 | 90.049  | 56.163 | 82.013 | 54.542 | 72.370 | 52.598 |
| 28      | 18      | 106.710      | 83.773 | 99.328  | 81.218 | 91.947  | 78.663 | 84.565  | 76.108 | 77.184 | 73.552 | 70.486 | 70.486 |
|         | 19      | 110.420      | 80.595 | 102.602 | 78.780 | 94.783  | 76.965 | 86.965  | 75.150 | 79.147 | 73.335 | 71.158 | 71.158 |
|         | 20      | 114.157      | 77.351 | 106.121 | 75.731 | 98.085  | 74.111 | 90.049  | 72.491 | 82.013 | 70.871 | 72.370 | 68.927 |
|         | 21      | 117.912      | 74.064 | 109.804 | 72.275 | 101.697 | 70.486 | 93.589  | 68.697 | 85.482 | 66.907 | 75.753 | 64.760 |
|         | 22      | 121.666      | 70.777 | 113.487 | 68.819 | 105.308 | 66.860 | 97.130  | 64.902 | 88.951 | 62.944 | 79.136 | 60.594 |
|         | 23      | 125.420      | 67.490 | 117.170 | 65.362 | 108.920 | 63.235 | 100.670 | 61.108 | 92.420 | 58.981 | 82.519 | 56.428 |
| 30      | 24      | 129.175      | 64.202 | 120.853 | 61.906 | 112.532 | 59.610 | 104.210 | 57.314 | 95.889 | 55.018 | 85.903 | 52.262 |
|         | 20      | 114.157      | 85.515 | 106.121 | 83.895 | 98.085  | 82.275 | 90.049  | 80.655 | 82.013 | 79.035 | 77.091 | 77.091 |
|         | 21      | 117.912      | 82.228 | 109.804 | 80.439 | 101.697 | 78.650 | 93.589  | 76.861 | 85.482 | 75.072 | 75.753 | 72.925 |
|         | 22      | 121.666      | 78.941 | 113.487 | 76.983 | 105.308 | 75.025 | 97.130  | 73.066 | 88.951 | 71.108 | 79.136 | 68.759 |
|         | 23      | 125.420      | 75.654 | 117.170 | 73.527 | 108.920 | 71.399 | 100.670 | 69.272 | 92.420 | 67.145 | 82.519 | 64.592 |
|         | 24      | 129.175      | 72.366 | 120.853 | 70.070 | 112.532 | 67.774 | 104.210 | 65.478 | 95.889 | 63.182 | 85.903 | 60.426 |

**R22**

**Model : MDB400D4 ~ MMC100D x 4**

| ID DB°C | ID WB°C | Outdoor DB°C |        |         |        |         |        |         |        |         |        |         |        |
|---------|---------|--------------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
|         |         | 20           |        | 25      |        | 30      |        | 35      |        | 40      |        | 46      |        |
|         |         | TC(kW)       | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) |
| 20      | 15      | 124.317      | 74.469 | 117.084 | 68.828 | 109.851 | 63.187 | 102.618 | 57.545 | 95.385  | 51.904 | 86.706  | 45.135 |
|         | 16      | 127.866      | 66.837 | 120.557 | 62.567 | 113.248 | 58.296 | 105.940 | 54.026 | 98.631  | 49.756 | 89.860  | 44.632 |
| 24      | 16      | 127.866      | 89.253 | 120.557 | 84.983 | 113.248 | 80.713 | 105.940 | 76.443 | 98.631  | 72.172 | 89.860  | 67.048 |
|         | 17      | 131.415      | 81.621 | 124.031 | 78.722 | 116.646 | 75.823 | 109.261 | 72.923 | 101.877 | 70.024 | 93.015  | 66.545 |
|         | 18      | 134.965      | 73.989 | 127.504 | 72.461 | 120.044 | 70.933 | 112.583 | 69.404 | 105.122 | 67.876 | 96.170  | 66.042 |
|         | 19      | 138.514      | 66.357 | 130.978 | 66.200 | 123.441 | 66.042 | 115.905 | 65.885 | 108.368 | 65.728 | 99.324  | 65.539 |
|         | 20      | 142.062      | 58.653 | 134.436 | 59.270 | 126.810 | 59.887 | 119.183 | 60.504 | 111.557 | 61.121 | 102.406 | 61.861 |
| 28      | 18      | 134.965      | 96.406 | 127.504 | 94.877 | 120.044 | 93.349 | 112.583 | 91.821 | 105.122 | 90.292 | 96.170  | 88.459 |
|         | 19      | 138.514      | 88.773 | 130.978 | 88.616 | 123.441 | 88.459 | 115.905 | 88.302 | 108.368 | 88.144 | 99.324  | 87.956 |
|         | 20      | 142.062      | 81.070 | 134.436 | 81.687 | 126.810 | 82.304 | 119.183 | 82.920 | 111.557 | 83.537 | 102.406 | 84.278 |
|         | 21      | 145.609      | 73.318 | 137.884 | 74.311 | 130.159 | 75.305 | 122.434 | 76.298 | 114.709 | 77.291 | 105.439 | 78.483 |
|         | 22      | 149.155      | 65.567 | 141.331 | 66.936 | 133.508 | 68.306 | 125.684 | 69.676 | 117.860 | 71.046 | 108.471 | 72.689 |
|         | 23      | 152.702      | 57.815 | 144.779 | 59.561 | 136.857 | 61.307 | 128.934 | 63.053 | 121.011 | 64.800 | 111.504 | 66.895 |
| 30      | 24      | 156.249      | 50.064 | 148.227 | 52.186 | 140.206 | 54.309 | 132.184 | 56.431 | 124.163 | 58.554 | 114.537 | 61.101 |
|         | 20      | 142.062      | 92.278 | 134.436 | 92.895 | 126.810 | 93.512 | 119.183 | 94.129 | 111.557 | 94.746 | 102.406 | 95.486 |
|         | 21      | 145.609      | 84.526 | 137.884 | 85.520 | 130.159 | 86.513 | 122.434 | 87.506 | 114.709 | 88.500 | 105.439 | 89.692 |
|         | 22      | 149.155      | 76.775 | 141.331 | 78.145 | 133.508 | 79.514 | 125.684 | 80.884 | 117.860 | 82.254 | 108.471 | 83.898 |
|         | 23      | 152.702      | 69.023 | 144.779 | 70.769 | 136.857 | 72.516 | 128.934 | 74.262 | 121.011 | 76.008 | 111.504 | 78.103 |
|         | 24      | 156.249      | 61.272 | 148.227 | 63.394 | 140.206 | 65.517 | 132.184 | 67.639 | 124.163 | 69.762 | 114.537 | 72.309 |

**Model : MDB500D4 ~ MMC125D x 4**

| ID DB°C | ID WB°C | Outdoor DB°C |         |         |         |         |         |         |         |         |         |         |         |
|---------|---------|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|         |         | 20           |         | 25      |         | 30      |         | 35      |         | 40      |         | 46      |         |
|         |         | TC(kW)       | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  |
| 20      | 15      | 160.683      | 92.950  | 150.149 | 85.103  | 139.616 | 77.256  | 129.082 | 69.409  | 118.549 | 61.562  | 105.909 | 52.146  |
|         | 16      | 167.751      | 83.814  | 156.184 | 77.376  | 144.617 | 70.938  | 133.050 | 64.500  | 121.483 | 58.062  | 107.603 | 50.336  |
| 24      | 16      | 167.751      | 113.610 | 156.184 | 107.172 | 144.617 | 100.734 | 133.050 | 94.296  | 121.483 | 87.858  | 107.603 | 80.132  |
|         | 17      | 174.819      | 104.474 | 162.219 | 99.445  | 149.619 | 94.416  | 137.018 | 89.387  | 124.418 | 84.358  | 109.298 | 78.323  |
|         | 18      | 181.888      | 95.338  | 168.254 | 91.718  | 154.620 | 88.098  | 140.986 | 84.478  | 127.353 | 80.858  | 110.992 | 76.513  |
|         | 19      | 188.956      | 86.202  | 174.289 | 83.991  | 159.622 | 81.780  | 144.954 | 79.569  | 130.287 | 77.357  | 112.687 | 74.704  |
|         | 20      | 196.089      | 77.008  | 180.928 | 75.723  | 165.767 | 74.437  | 150.606 | 73.152  | 135.445 | 71.866  | 117.252 | 70.323  |
| 28      | 18      | 181.888      | 125.134 | 168.254 | 121.514 | 154.620 | 117.894 | 140.986 | 114.274 | 127.353 | 110.654 | 110.992 | 106.310 |
|         | 19      | 188.956      | 115.998 | 174.289 | 113.787 | 159.622 | 111.576 | 144.954 | 109.365 | 130.287 | 107.154 | 112.687 | 104.500 |
|         | 20      | 196.089      | 106.804 | 180.928 | 105.519 | 165.767 | 104.233 | 150.606 | 102.948 | 135.445 | 101.662 | 117.252 | 100.119 |
|         | 21      | 203.265      | 97.572  | 187.970 | 96.890  | 172.675 | 96.207  | 157.381 | 95.525  | 142.086 | 94.843  | 123.732 | 94.025  |
|         | 22      | 210.441      | 88.339  | 195.012 | 88.260  | 179.584 | 88.182  | 164.155 | 88.103  | 148.726 | 88.024  | 130.212 | 87.930  |
|         | 23      | 217.617      | 79.106  | 202.054 | 79.631  | 186.492 | 80.156  | 170.929 | 80.681  | 155.367 | 81.206  | 136.691 | 81.835  |
| 30      | 24      | 224.793      | 69.874  | 209.097 | 71.002  | 193.400 | 72.130  | 177.704 | 73.258  | 162.007 | 74.387  | 143.171 | 75.741  |
|         | 20      | 196.089      | 121.702 | 180.928 | 120.417 | 165.767 | 119.131 | 150.606 | 117.846 | 135.445 | 116.560 | 117.252 | 115.018 |
|         | 21      | 203.265      | 112.470 | 187.970 | 111.788 | 172.675 | 111.105 | 157.381 | 110.423 | 142.086 | 109.741 | 123.732 | 108.923 |
|         | 22      | 210.441      | 103.237 | 195.012 | 103.158 | 179.584 | 103.080 | 164.155 | 103.001 | 148.726 | 102.922 | 130.212 | 102.828 |
|         | 23      | 217.617      | 94.004  | 202.054 | 94.529  | 186.492 | 95.054  | 170.929 | 95.579  | 155.367 | 96.104  | 136.691 | 96.733  |
|         | 24      | 224.793      | 84.772  | 209.097 | 85.900  | 193.400 | 87.028  | 177.704 | 88.156  | 162.007 | 89.285  | 143.171 | 90.639  |



**R407C**  
**MDB-D Series**

**Model : MDB075D ~ M4MC075D**

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 23.541       | 14.245 | 22.076 | 12.934 | 20.611 | 11.622 | 19.146 | 10.311 | 17.682 | 9.000  | 15.924 | 7.427  |
|         | 16      | 23.840       | 13.028 | 22.446 | 11.928 | 21.052 | 10.827 | 19.657 | 9.726  | 18.263 | 8.626  | 16.590 | 7.305  |
| 24      | 16      | 23.840       | 17.583 | 22.446 | 16.482 | 21.052 | 15.382 | 19.657 | 14.281 | 18.263 | 13.180 | 16.590 | 11.860 |
|         | 17      | 24.139       | 16.367 | 22.816 | 15.476 | 21.492 | 14.586 | 20.169 | 13.696 | 18.845 | 12.806 | 17.257 | 11.738 |
|         | 18      | 24.438       | 15.150 | 23.185 | 14.470 | 21.933 | 13.791 | 20.680 | 13.111 | 19.427 | 12.431 | 17.923 | 11.616 |
|         | 19      | 24.738       | 13.934 | 23.555 | 13.465 | 22.373 | 12.995 | 21.191 | 12.526 | 20.008 | 12.057 | 18.590 | 11.494 |
| 28      | 20      | 25.034       | 12.707 | 23.897 | 12.361 | 22.760 | 12.014 | 21.624 | 11.668 | 20.487 | 11.321 | 19.123 | 10.906 |
|         | 18      | 24.438       | 19.705 | 23.185 | 19.025 | 21.933 | 18.346 | 20.680 | 17.666 | 19.427 | 16.986 | 17.923 | 16.170 |
|         | 19      | 24.738       | 18.489 | 23.555 | 18.019 | 22.373 | 17.550 | 21.191 | 17.081 | 20.008 | 16.612 | 18.590 | 16.048 |
|         | 20      | 25.034       | 17.262 | 23.897 | 16.915 | 22.760 | 16.569 | 21.624 | 16.223 | 20.487 | 15.876 | 19.123 | 15.461 |
|         | 21      | 25.328       | 16.028 | 24.220 | 15.746 | 23.113 | 15.464 | 22.005 | 15.182 | 20.897 | 14.901 | 19.568 | 14.563 |
|         | 22      | 25.622       | 14.794 | 24.543 | 14.577 | 23.465 | 14.359 | 22.386 | 14.142 | 21.307 | 13.925 | 20.013 | 13.664 |
|         | 23      | 25.916       | 13.560 | 24.866 | 13.407 | 23.817 | 13.255 | 22.767 | 13.102 | 21.718 | 12.949 | 20.458 | 12.766 |
| 30      | 24      | 26.210       | 12.326 | 25.189 | 12.238 | 24.169 | 12.150 | 23.148 | 12.062 | 22.128 | 11.974 | 20.903 | 11.868 |
|         | 20      | 25.034       | 19.539 | 23.897 | 19.193 | 22.760 | 18.846 | 21.624 | 18.500 | 20.487 | 18.154 | 19.123 | 17.738 |
|         | 21      | 25.328       | 18.305 | 24.220 | 18.023 | 23.113 | 17.742 | 22.005 | 17.460 | 20.897 | 17.178 | 19.568 | 16.840 |
|         | 22      | 25.622       | 17.071 | 24.543 | 16.854 | 23.465 | 16.637 | 22.386 | 16.420 | 21.307 | 16.202 | 20.013 | 15.942 |
|         | 23      | 25.916       | 15.837 | 24.866 | 15.685 | 23.817 | 15.532 | 22.767 | 15.379 | 21.718 | 15.227 | 20.458 | 15.044 |
|         | 24      | 26.210       | 14.603 | 25.189 | 14.515 | 24.169 | 14.427 | 23.148 | 14.339 | 22.128 | 14.251 | 20.903 | 14.145 |

**Model : MDB100D ~ M4MC100D**

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 28.282       | 16.097 | 26.637 | 14.814 | 24.991 | 13.530 | 23.346 | 12.247 | 21.700 | 10.963 | 19.726 | 9.423  |
|         | 16      | 29.090       | 14.361 | 27.427 | 13.389 | 25.764 | 12.418 | 24.101 | 11.446 | 22.439 | 10.475 | 20.443 | 9.309  |
| 24      | 16      | 29.090       | 19.965 | 27.427 | 18.993 | 25.764 | 18.022 | 24.101 | 17.050 | 22.439 | 16.079 | 20.443 | 14.913 |
|         | 17      | 29.897       | 18.228 | 28.217 | 17.569 | 26.537 | 16.909 | 24.857 | 16.250 | 23.177 | 15.590 | 21.161 | 14.799 |
|         | 18      | 30.704       | 16.492 | 29.007 | 16.144 | 27.310 | 15.797 | 25.613 | 15.449 | 23.915 | 15.101 | 21.879 | 14.684 |
|         | 19      | 31.512       | 14.756 | 29.797 | 14.720 | 28.083 | 14.684 | 26.368 | 14.648 | 24.654 | 14.613 | 22.596 | 14.570 |
| 28      | 20      | 32.319       | 13.003 | 30.584 | 13.143 | 28.849 | 13.284 | 27.114 | 13.424 | 25.379 | 13.565 | 23.297 | 13.733 |
|         | 18      | 30.704       | 22.096 | 29.007 | 21.749 | 27.310 | 21.401 | 25.613 | 21.053 | 23.915 | 20.705 | 21.879 | 20.288 |
|         | 19      | 31.512       | 20.360 | 29.797 | 20.324 | 28.083 | 20.288 | 26.368 | 20.253 | 24.654 | 20.217 | 22.596 | 20.174 |
|         | 20      | 32.319       | 18.607 | 30.584 | 18.748 | 28.849 | 18.888 | 27.114 | 19.028 | 25.379 | 19.169 | 23.297 | 19.337 |
|         | 21      | 33.126       | 16.844 | 31.369 | 17.070 | 29.611 | 17.296 | 27.854 | 17.522 | 26.096 | 17.748 | 23.987 | 18.019 |
|         | 22      | 33.933       | 15.080 | 32.153 | 15.392 | 30.373 | 15.704 | 28.593 | 16.015 | 26.813 | 16.327 | 24.677 | 16.701 |
|         | 23      | 34.740       | 13.317 | 32.937 | 13.714 | 31.135 | 14.111 | 29.332 | 14.509 | 27.530 | 14.906 | 25.367 | 15.383 |
| 30      | 24      | 35.547       | 11.553 | 33.722 | 12.036 | 31.897 | 12.519 | 30.072 | 13.002 | 28.247 | 13.485 | 26.057 | 14.064 |
|         | 20      | 32.319       | 21.409 | 30.584 | 21.550 | 28.849 | 21.690 | 27.114 | 21.830 | 25.379 | 21.971 | 23.297 | 22.139 |
|         | 21      | 33.126       | 19.646 | 31.369 | 19.872 | 29.611 | 20.098 | 27.854 | 20.324 | 26.096 | 20.550 | 23.987 | 20.821 |
|         | 22      | 33.933       | 17.882 | 32.153 | 18.194 | 30.373 | 18.506 | 28.593 | 18.817 | 26.813 | 19.129 | 24.677 | 19.503 |
|         | 23      | 34.740       | 16.119 | 32.937 | 16.516 | 31.135 | 16.913 | 29.332 | 17.311 | 27.530 | 17.708 | 25.367 | 18.185 |
|         | 24      | 35.547       | 14.355 | 33.722 | 14.838 | 31.897 | 15.321 | 30.072 | 15.804 | 28.247 | 16.287 | 26.057 | 16.866 |

## R407C

### Model : MDB125D ~ M4MC125D

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 34.708       | 18.380 | 32.432 | 16.685 | 30.157 | 14.990 | 27.882 | 13.295 | 25.607 | 11.601 | 22.876 | 9.567  |
|         | 16      | 36.234       | 16.407 | 33.736 | 15.016 | 31.237 | 13.626 | 28.739 | 12.235 | 26.240 | 10.844 | 23.242 | 9.176  |
| 24      | 16      | 36.234       | 23.856 | 33.736 | 22.465 | 31.237 | 21.075 | 28.739 | 19.684 | 26.240 | 18.294 | 23.242 | 16.625 |
|         | 17      | 37.761       | 21.883 | 35.039 | 20.796 | 32.318 | 19.710 | 29.596 | 18.624 | 26.874 | 17.537 | 23.608 | 16.234 |
|         | 18      | 39.288       | 19.909 | 36.343 | 19.127 | 33.398 | 18.345 | 30.453 | 17.563 | 27.508 | 16.781 | 23.974 | 15.843 |
|         | 19      | 40.814       | 17.936 | 37.646 | 17.458 | 34.478 | 16.981 | 31.310 | 16.503 | 28.142 | 16.025 | 24.340 | 15.452 |
| 28      | 20      | 42.355       | 15.950 | 39.080 | 15.672 | 35.806 | 15.395 | 32.531 | 15.117 | 29.256 | 14.839 | 25.327 | 14.506 |
|         | 18      | 39.288       | 27.358 | 36.343 | 26.576 | 33.398 | 25.794 | 30.453 | 25.012 | 27.508 | 24.230 | 23.974 | 23.292 |
|         | 19      | 40.814       | 25.385 | 37.646 | 24.907 | 34.478 | 24.430 | 31.310 | 23.952 | 28.142 | 23.474 | 24.340 | 22.901 |
|         | 20      | 42.355       | 23.399 | 39.080 | 23.121 | 35.806 | 22.844 | 32.531 | 22.566 | 29.256 | 22.288 | 25.327 | 21.955 |
|         | 21      | 43.905       | 21.405 | 40.602 | 21.257 | 37.298 | 21.110 | 33.994 | 20.963 | 30.691 | 20.815 | 26.726 | 20.639 |
|         | 22      | 45.455       | 19.410 | 42.123 | 19.393 | 38.790 | 19.376 | 35.457 | 19.360 | 32.125 | 19.343 | 28.126 | 19.322 |
|         | 23      | 47.005       | 17.416 | 43.644 | 17.530 | 40.282 | 17.643 | 36.921 | 17.756 | 33.559 | 17.870 | 29.525 | 18.006 |
| 30      | 24      | 48.555       | 15.422 | 45.165 | 15.666 | 41.774 | 15.909 | 38.384 | 16.153 | 34.994 | 16.397 | 30.925 | 16.689 |
|         | 20      | 42.355       | 27.123 | 39.080 | 26.846 | 35.806 | 26.568 | 32.531 | 26.290 | 29.256 | 26.013 | 25.680 | 25.680 |
|         | 21      | 43.905       | 25.129 | 40.602 | 24.982 | 37.298 | 24.835 | 33.994 | 24.687 | 30.691 | 24.540 | 26.726 | 24.363 |
|         | 22      | 45.455       | 23.135 | 42.123 | 23.118 | 38.790 | 23.101 | 35.457 | 23.084 | 32.125 | 23.067 | 28.126 | 23.047 |
|         | 23      | 47.005       | 21.141 | 43.644 | 21.254 | 40.282 | 21.367 | 36.921 | 21.481 | 33.559 | 21.594 | 29.525 | 21.730 |
|         | 24      | 48.555       | 19.146 | 45.165 | 19.390 | 41.774 | 19.634 | 38.384 | 19.878 | 34.994 | 20.121 | 30.925 | 20.414 |

### Model : MDB150D1 ~ M4MC150D

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 47.142       | 27.035 | 43.976 | 24.726 | 40.809 | 22.417 | 37.643 | 20.108 | 34.477 | 17.799 | 30.677 | 15.028 |
|         | 16      | 49.124       | 24.310 | 45.665 | 22.488 | 42.206 | 20.665 | 38.746 | 18.842 | 35.287 | 17.020 | 31.136 | 14.833 |
| 24      | 16      | 49.124       | 33.224 | 45.665 | 31.401 | 42.206 | 29.578 | 38.746 | 27.756 | 35.287 | 25.933 | 31.136 | 23.746 |
|         | 17      | 51.107       | 30.499 | 47.354 | 29.163 | 43.602 | 27.827 | 39.849 | 26.490 | 36.097 | 25.154 | 31.594 | 23.551 |
|         | 18      | 53.089       | 27.775 | 49.044 | 26.925 | 44.998 | 26.075 | 40.953 | 25.225 | 36.907 | 24.375 | 32.053 | 23.355 |
|         | 19      | 55.071       | 25.051 | 50.733 | 24.687 | 46.394 | 24.323 | 42.056 | 23.960 | 37.717 | 23.596 | 32.511 | 23.160 |
| 28      | 20      | 57.074       | 22.302 | 52.607 | 22.222 | 48.140 | 22.141 | 43.673 | 22.061 | 39.206 | 21.981 | 33.846 | 21.885 |
|         | 18      | 53.089       | 36.688 | 49.044 | 35.838 | 44.998 | 34.988 | 40.953 | 34.138 | 36.907 | 33.288 | 32.268 | 32.268 |
|         | 19      | 55.071       | 33.964 | 50.733 | 33.600 | 46.394 | 33.237 | 42.056 | 32.873 | 37.717 | 32.509 | 32.511 | 32.073 |
|         | 20      | 57.074       | 31.215 | 52.607 | 31.135 | 48.140 | 31.055 | 43.673 | 30.975 | 39.206 | 30.894 | 33.846 | 30.798 |
|         | 21      | 59.089       | 28.450 | 54.603 | 28.518 | 50.118 | 28.586 | 45.632 | 28.654 | 41.147 | 28.722 | 35.764 | 28.803 |
|         | 22      | 61.104       | 25.686 | 56.600 | 25.901 | 52.096 | 26.117 | 47.592 | 26.333 | 43.088 | 26.549 | 37.683 | 26.808 |
|         | 23      | 63.119       | 22.921 | 58.597 | 23.285 | 54.074 | 23.649 | 49.551 | 24.013 | 45.028 | 24.377 | 39.601 | 24.813 |
| 30      | 24      | 65.135       | 20.156 | 60.593 | 20.668 | 56.052 | 21.180 | 51.511 | 21.692 | 46.969 | 22.204 | 41.520 | 22.819 |
|         | 20      | 57.074       | 35.672 | 52.607 | 35.592 | 48.140 | 35.511 | 43.673 | 35.431 | 39.206 | 35.351 | 35.255 | 35.255 |
|         | 21      | 59.089       | 32.907 | 54.603 | 32.975 | 50.118 | 33.043 | 45.632 | 33.111 | 41.147 | 33.178 | 35.764 | 33.260 |
|         | 22      | 61.104       | 30.142 | 56.600 | 30.358 | 52.096 | 30.574 | 47.592 | 30.790 | 43.088 | 31.006 | 37.683 | 31.265 |
|         | 23      | 63.119       | 27.377 | 58.597 | 27.741 | 54.074 | 28.105 | 49.551 | 28.469 | 45.028 | 28.833 | 39.601 | 29.270 |
|         | 24      | 65.135       | 24.612 | 60.593 | 25.124 | 56.052 | 25.637 | 51.511 | 26.149 | 46.969 | 26.661 | 41.520 | 27.275 |

## R407C

### Model : MDB150D2 ~ M4MC075D x 2

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 47.082       | 28.489 | 44.152 | 25.867 | 41.223 | 23.245 | 38.293 | 20.623 | 35.363 | 18.000 | 31.847 | 14.854 |
|         | 16      | 47.680       | 26.057 | 44.892 | 23.855 | 42.103 | 21.654 | 39.315 | 19.453 | 36.526 | 17.251 | 33.180 | 14.610 |
| 24      | 16      | 47.680       | 35.166 | 44.892 | 32.965 | 42.103 | 30.764 | 39.315 | 28.562 | 36.526 | 26.361 | 33.180 | 23.719 |
|         | 17      | 48.279       | 32.733 | 45.631 | 30.953 | 42.984 | 29.173 | 40.337 | 27.392 | 37.690 | 25.612 | 34.513 | 23.475 |
|         | 18      | 48.877       | 30.300 | 46.371 | 28.941 | 43.865 | 27.582 | 41.359 | 26.222 | 38.853 | 24.863 | 35.846 | 23.231 |
|         | 19      | 49.475       | 27.868 | 47.110 | 26.929 | 44.746 | 25.990 | 42.381 | 25.052 | 40.017 | 24.113 | 37.179 | 22.987 |
|         | 20      | 50.067       | 25.414 | 47.794 | 24.721 | 45.521 | 24.028 | 43.248 | 23.336 | 40.974 | 22.643 | 38.246 | 21.812 |
| 28      | 18      | 48.877       | 39.410 | 46.371 | 38.051 | 43.865 | 36.691 | 41.359 | 35.332 | 38.853 | 33.972 | 35.846 | 32.341 |
|         | 19      | 49.475       | 36.977 | 47.110 | 36.039 | 44.746 | 35.100 | 42.381 | 34.162 | 40.017 | 33.223 | 37.179 | 32.097 |
|         | 20      | 50.067       | 34.523 | 47.794 | 33.831 | 45.521 | 33.138 | 43.248 | 32.445 | 40.974 | 31.753 | 38.246 | 30.921 |
|         | 21      | 50.656       | 32.055 | 48.440 | 31.492 | 46.225 | 30.928 | 44.010 | 30.365 | 41.795 | 29.801 | 39.136 | 29.125 |
|         | 22      | 51.244       | 29.588 | 49.087 | 29.153 | 46.929 | 28.719 | 44.772 | 28.284 | 42.615 | 27.850 | 40.026 | 27.329 |
|         | 23      | 51.832       | 27.120 | 49.733 | 26.814 | 47.634 | 26.509 | 45.534 | 26.204 | 43.435 | 25.899 | 40.916 | 25.532 |
| 30      | 24      | 52.420       | 24.652 | 50.379 | 24.476 | 48.338 | 24.300 | 46.297 | 24.124 | 44.255 | 23.947 | 41.806 | 23.736 |
|         | 20      | 50.067       | 39.078 | 47.794 | 38.386 | 45.521 | 37.693 | 43.248 | 37.000 | 40.974 | 36.307 | 38.246 | 35.476 |
|         | 21      | 50.656       | 36.610 | 48.440 | 36.047 | 46.225 | 35.483 | 44.010 | 34.920 | 41.795 | 34.356 | 39.136 | 33.680 |
|         | 22      | 51.244       | 34.142 | 49.087 | 33.708 | 46.929 | 33.274 | 44.772 | 32.839 | 42.615 | 32.405 | 40.026 | 31.884 |
|         | 23      | 51.832       | 31.675 | 49.733 | 31.369 | 47.634 | 31.064 | 45.534 | 30.759 | 43.435 | 30.454 | 40.916 | 30.087 |
|         | 24      | 52.420       | 29.207 | 50.379 | 29.031 | 48.338 | 28.854 | 46.297 | 28.678 | 44.255 | 28.502 | 41.806 | 28.291 |

### Model : MDB200D2 ~ M4MC100D x 2

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 56.564       | 32.194 | 53.273 | 29.627 | 49.982 | 27.060 | 46.691 | 24.493 | 43.400 | 21.927 | 39.451 | 18.847 |
|         | 16      | 58.179       | 28.721 | 54.854 | 26.778 | 51.528 | 24.835 | 48.203 | 22.892 | 44.877 | 20.949 | 40.886 | 18.618 |
| 24      | 16      | 58.179       | 39.929 | 54.854 | 37.986 | 51.528 | 36.043 | 48.203 | 34.101 | 44.877 | 32.158 | 40.886 | 29.826 |
|         | 17      | 59.794       | 36.457 | 56.434 | 35.138 | 53.074 | 33.818 | 49.714 | 32.499 | 46.354 | 31.180 | 42.322 | 29.597 |
|         | 18      | 61.409       | 32.984 | 58.014 | 32.289 | 54.620 | 31.593 | 51.225 | 30.898 | 47.831 | 30.203 | 43.757 | 29.368 |
|         | 19      | 63.024       | 29.511 | 59.595 | 29.440 | 56.166 | 29.368 | 52.737 | 29.297 | 49.307 | 29.225 | 45.193 | 29.139 |
|         | 20      | 64.638       | 26.006 | 61.168 | 26.287 | 57.698 | 26.568 | 54.228 | 26.848 | 50.759 | 27.129 | 46.595 | 27.466 |
| 28      | 18      | 61.409       | 44.192 | 58.014 | 43.497 | 54.620 | 42.802 | 51.225 | 42.106 | 47.831 | 41.411 | 43.757 | 40.576 |
|         | 19      | 63.024       | 40.720 | 59.595 | 40.648 | 56.166 | 40.577 | 52.737 | 40.505 | 49.307 | 40.433 | 45.193 | 40.348 |
|         | 20      | 64.638       | 37.215 | 61.168 | 37.495 | 57.698 | 37.776 | 54.228 | 38.057 | 50.759 | 38.337 | 46.595 | 38.674 |
|         | 21      | 66.252       | 33.688 | 62.737 | 34.140 | 59.222 | 34.592 | 55.707 | 35.044 | 52.192 | 35.495 | 47.975 | 36.038 |
|         | 22      | 67.866       | 30.161 | 64.306 | 30.784 | 60.746 | 31.407 | 57.186 | 32.030 | 53.626 | 32.654 | 49.354 | 33.401 |
|         | 23      | 69.479       | 26.634 | 65.875 | 27.428 | 62.270 | 28.223 | 58.665 | 29.017 | 55.060 | 29.812 | 50.734 | 30.765 |
| 30      | 24      | 71.093       | 23.107 | 67.443 | 24.073 | 63.794 | 25.038 | 60.144 | 26.004 | 56.494 | 26.970 | 52.114 | 28.129 |
|         | 20      | 64.638       | 42.819 | 61.168 | 43.099 | 57.698 | 43.380 | 54.228 | 43.661 | 50.759 | 43.942 | 46.595 | 44.278 |
|         | 21      | 66.252       | 39.292 | 62.737 | 39.744 | 59.222 | 40.196 | 55.707 | 40.648 | 52.192 | 41.100 | 47.975 | 41.642 |
|         | 22      | 67.866       | 35.765 | 64.306 | 36.388 | 60.746 | 37.011 | 57.186 | 37.634 | 53.626 | 38.258 | 49.354 | 39.006 |
|         | 23      | 69.479       | 32.238 | 65.875 | 33.032 | 62.270 | 33.827 | 58.665 | 34.621 | 55.060 | 35.416 | 50.734 | 36.369 |
|         | 24      | 71.093       | 28.711 | 67.443 | 29.677 | 63.794 | 30.642 | 60.144 | 31.608 | 56.494 | 32.574 | 52.114 | 33.733 |

## R407C

### Model : MDB250D2 ~ M4MC125D x 2

| ID DB°C | ID WB°C | Outdoor DB°C |        |        |        |        |        |        |        |        |        |        |        |
|---------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25     |        | 30     |        | 35     |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 69.415       | 36.761 | 64.865 | 33.371 | 60.314 | 29.981 | 55.764 | 26.591 | 51.213 | 23.201 | 45.752 | 19.133 |
|         | 16      | 72.468       | 32.814 | 67.472 | 30.033 | 62.475 | 27.251 | 57.478 | 24.470 | 52.481 | 21.689 | 46.485 | 18.352 |
| 24      | 16      | 72.468       | 47.712 | 67.472 | 44.931 | 62.475 | 42.149 | 57.478 | 39.368 | 52.481 | 36.587 | 46.485 | 33.250 |
|         | 17      | 75.522       | 43.765 | 70.079 | 41.593 | 64.635 | 39.420 | 59.192 | 37.247 | 53.749 | 35.075 | 47.217 | 32.468 |
|         | 18      | 78.575       | 39.818 | 72.686 | 38.255 | 66.796 | 36.691 | 60.906 | 35.127 | 55.016 | 33.563 | 47.949 | 31.686 |
|         | 19      | 81.629       | 35.872 | 75.293 | 34.916 | 68.956 | 33.961 | 62.620 | 33.006 | 56.284 | 32.051 | 48.681 | 30.905 |
|         | 20      | 84.710       | 31.900 | 78.161 | 31.345 | 71.611 | 30.789 | 65.062 | 30.234 | 58.512 | 29.678 | 50.653 | 29.012 |
| 28      | 18      | 78.575       | 54.716 | 72.686 | 53.153 | 66.796 | 51.589 | 60.906 | 50.025 | 55.016 | 48.461 | 47.949 | 46.584 |
|         | 19      | 81.629       | 50.770 | 75.293 | 49.814 | 68.956 | 48.859 | 62.620 | 47.904 | 56.284 | 46.949 | 48.681 | 45.803 |
|         | 20      | 84.710       | 46.798 | 78.161 | 46.243 | 71.611 | 45.687 | 65.062 | 45.132 | 58.512 | 44.577 | 50.653 | 43.910 |
|         | 21      | 87.810       | 42.809 | 81.203 | 42.515 | 74.596 | 42.220 | 67.988 | 41.925 | 61.381 | 41.631 | 53.452 | 41.277 |
|         | 22      | 90.911       | 38.821 | 84.245 | 38.787 | 77.580 | 38.753 | 70.915 | 38.719 | 64.250 | 38.685 | 56.251 | 38.644 |
|         | 23      | 94.011       | 34.832 | 87.288 | 35.059 | 80.564 | 35.286 | 73.841 | 35.513 | 67.118 | 35.739 | 59.051 | 36.011 |
| 30      | 20      | 84.710       | 54.247 | 78.161 | 53.692 | 71.611 | 53.136 | 65.062 | 52.581 | 58.512 | 52.026 | 51.359 | 51.359 |
|         | 21      | 87.810       | 50.258 | 81.203 | 49.964 | 74.596 | 49.669 | 67.988 | 49.374 | 61.381 | 49.080 | 53.452 | 48.726 |
|         | 22      | 90.911       | 46.270 | 84.245 | 46.236 | 77.580 | 46.202 | 70.915 | 46.168 | 64.250 | 46.134 | 56.251 | 46.093 |
|         | 23      | 94.011       | 42.281 | 87.288 | 42.508 | 80.564 | 42.735 | 73.841 | 42.962 | 67.118 | 43.188 | 59.051 | 43.460 |
|         | 24      | 97.111       | 38.293 | 90.330 | 38.780 | 83.549 | 39.268 | 76.768 | 39.755 | 69.987 | 40.243 | 61.850 | 40.827 |

### Model : MDB300D2 ~ M4MC150D x 2

| ID DB°C | ID WB°C | Outdoor DB°C |        |         |        |         |        |         |        |        |        |        |        |
|---------|---------|--------------|--------|---------|--------|---------|--------|---------|--------|--------|--------|--------|--------|
|         |         | 20           |        | 25      |        | 30      |        | 35      |        | 40     |        | 46     |        |
|         |         | TC(kW)       | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW) | SC(kW) | TC(kW) | SC(kW) |
| 20      | 15      | 94.284       | 54.069 | 87.951  | 49.451 | 81.619  | 44.834 | 75.286  | 40.216 | 68.954 | 35.598 | 61.354 | 30.056 |
|         | 16      | 98.249       | 48.621 | 91.330  | 44.975 | 84.411  | 41.330 | 77.492  | 37.685 | 70.574 | 34.040 | 62.271 | 29.665 |
| 24      | 16      | 98.249       | 66.447 | 91.330  | 62.802 | 84.411  | 59.157 | 77.492  | 55.512 | 70.574 | 51.866 | 62.271 | 47.492 |
|         | 17      | 102.213      | 60.999 | 94.708  | 58.326 | 87.204  | 55.654 | 79.699  | 52.981 | 72.194 | 50.308 | 63.188 | 47.101 |
|         | 18      | 106.178      | 55.550 | 98.087  | 53.850 | 89.996  | 52.150 | 81.905  | 50.450 | 73.814 | 48.750 | 64.105 | 46.710 |
|         | 19      | 110.143      | 50.101 | 101.466 | 49.374 | 92.789  | 48.647 | 84.112  | 47.920 | 75.435 | 47.192 | 65.022 | 46.319 |
|         | 20      | 114.147      | 44.604 | 105.213 | 44.444 | 96.279  | 44.283 | 87.346  | 44.122 | 78.412 | 43.962 | 67.691 | 43.769 |
| 28      | 18      | 106.178      | 73.377 | 98.087  | 71.677 | 89.996  | 69.977 | 81.905  | 68.277 | 73.814 | 66.577 | 64.537 | 64.537 |
|         | 19      | 110.143      | 67.928 | 101.466 | 67.201 | 92.789  | 66.473 | 84.112  | 65.746 | 75.435 | 65.019 | 65.022 | 64.146 |
|         | 20      | 114.147      | 62.431 | 105.213 | 62.270 | 96.279  | 62.110 | 87.346  | 61.949 | 78.412 | 61.789 | 67.691 | 61.596 |
|         | 21      | 118.178      | 56.901 | 109.207 | 57.037 | 100.236 | 57.172 | 91.264  | 57.308 | 82.293 | 57.443 | 71.528 | 57.606 |
|         | 22      | 122.208      | 51.371 | 113.200 | 51.803 | 104.192 | 52.235 | 95.183  | 52.667 | 86.175 | 53.098 | 75.365 | 53.617 |
|         | 23      | 126.239      | 45.841 | 117.193 | 46.569 | 108.148 | 47.297 | 99.102  | 48.025 | 90.057 | 48.753 | 79.202 | 49.627 |
| 30      | 20      | 114.147      | 71.344 | 105.213 | 71.183 | 96.279  | 71.023 | 87.346  | 70.862 | 78.412 | 70.702 | 70.509 | 70.509 |
|         | 21      | 118.178      | 65.814 | 109.207 | 65.950 | 100.236 | 66.085 | 91.264  | 66.221 | 82.293 | 66.357 | 71.528 | 66.520 |
|         | 22      | 122.208      | 60.284 | 113.200 | 60.716 | 104.192 | 61.148 | 95.183  | 61.580 | 86.175 | 62.012 | 75.365 | 62.530 |
|         | 23      | 126.239      | 54.755 | 117.193 | 55.483 | 108.148 | 56.211 | 99.102  | 56.939 | 90.057 | 57.667 | 79.202 | 58.540 |
|         | 24      | 130.269      | 49.225 | 121.187 | 50.249 | 112.104 | 51.273 | 103.021 | 52.297 | 93.939 | 53.322 | 83.039 | 54.551 |

## R407C

### Model : MDB400D4 ~ M4MC100D x 4

| ID DB°C | ID WB°C | Outdoor DB°C |        |         |        |         |        |         |        |         |        |         |        |
|---------|---------|--------------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
|         |         | 20           |        | 25      |        | 30      |        | 35      |        | 40      |        | 46      |        |
|         |         | TC(kW)       | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) | TC(kW)  | SC(kW) |
| 20      | 15      | 113.128      | 64.388 | 106.546 | 59.254 | 99.964  | 54.121 | 93.382  | 48.987 | 86.800  | 43.853 | 78.902  | 37.693 |
|         | 16      | 116.358      | 57.442 | 109.707 | 53.556 | 103.056 | 49.670 | 96.405  | 45.784 | 89.754  | 41.899 | 81.773  | 37.235 |
| 24      | 16      | 116.358      | 79.859 | 109.707 | 75.973 | 103.056 | 72.087 | 96.405  | 68.201 | 89.754  | 64.315 | 81.773  | 59.652 |
|         | 17      | 119.588      | 72.914 | 112.868 | 70.275 | 106.148 | 67.637 | 99.428  | 64.999 | 92.708  | 62.360 | 84.644  | 59.194 |
|         | 18      | 122.818      | 65.968 | 116.029 | 64.578 | 109.240 | 63.187 | 102.451 | 61.796 | 95.661  | 60.405 | 87.514  | 58.736 |
|         | 19      | 126.048      | 59.023 | 119.190 | 58.880 | 112.331 | 58.737 | 105.473 | 58.594 | 98.615  | 58.450 | 90.385  | 58.279 |
|         | 20      | 129.276      | 52.013 | 122.337 | 52.574 | 115.397 | 53.135 | 108.457 | 53.697 | 101.517 | 54.258 | 93.189  | 54.932 |
| 28      | 18      | 122.818      | 88.385 | 116.029 | 86.994 | 109.240 | 85.603 | 102.451 | 84.213 | 95.661  | 82.822 | 87.514  | 81.153 |
|         | 19      | 126.048      | 81.440 | 119.190 | 81.296 | 112.331 | 81.153 | 105.473 | 81.010 | 98.615  | 80.867 | 90.385  | 80.695 |
|         | 20      | 129.276      | 74.429 | 122.337 | 74.990 | 115.397 | 75.552 | 108.457 | 76.113 | 101.517 | 76.675 | 93.189  | 77.348 |
|         | 21      | 132.504      | 67.375 | 125.474 | 68.279 | 118.444 | 69.183 | 111.415 | 70.087 | 104.385 | 70.991 | 95.949  | 72.076 |
|         | 22      | 135.731      | 60.321 | 128.612 | 61.568 | 121.492 | 62.814 | 114.372 | 64.061 | 107.253 | 65.307 | 98.709  | 66.803 |
|         | 23      | 138.959      | 53.267 | 131.749 | 54.856 | 124.540 | 56.445 | 117.330 | 58.034 | 110.120 | 59.623 | 101.469 | 61.530 |
| 30      | 24      | 142.186      | 46.214 | 134.887 | 48.145 | 127.587 | 50.077 | 120.288 | 52.008 | 112.988 | 53.940 | 104.229 | 56.257 |
|         | 20      | 129.276      | 85.637 | 122.337 | 86.199 | 115.397 | 86.760 | 108.457 | 87.322 | 101.517 | 87.883 | 93.189  | 88.557 |
|         | 21      | 132.504      | 78.583 | 125.474 | 79.487 | 118.444 | 80.391 | 111.415 | 81.295 | 104.385 | 82.199 | 95.949  | 83.284 |
|         | 22      | 135.731      | 71.530 | 128.612 | 72.776 | 121.492 | 74.022 | 114.372 | 75.269 | 107.253 | 76.515 | 98.709  | 78.011 |
|         | 23      | 138.959      | 64.476 | 131.749 | 66.065 | 124.540 | 67.654 | 117.330 | 69.243 | 110.120 | 70.832 | 101.469 | 72.738 |
|         | 24      | 142.186      | 57.422 | 134.887 | 59.353 | 127.587 | 61.285 | 120.288 | 63.216 | 112.988 | 65.148 | 104.229 | 67.466 |

### Model : MDB500D4 ~ M4MC125D x 4

| ID DB°C | ID WB°C | Outdoor DB°C |         |         |         |         |         |         |         |         |         |         |         |
|---------|---------|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|         |         | 20           |         | 25      |         | 30      |         | 35      |         | 40      |         | 46      |         |
|         |         | TC(kW)       | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  | TC(kW)  | SC(kW)  |
| 20      | 15      | 138.830      | 73.521  | 129.729 | 66.741  | 120.628 | 59.962  | 111.527 | 53.182  | 102.426 | 46.402  | 91.505  | 38.266  |
|         | 16      | 144.937      | 65.628  | 134.943 | 60.065  | 124.949 | 54.503  | 114.956 | 48.940  | 104.962 | 43.378  | 92.969  | 36.703  |
| 24      | 16      | 144.937      | 95.424  | 134.943 | 89.861  | 124.949 | 84.299  | 114.956 | 78.736  | 104.962 | 73.174  | 92.969  | 66.499  |
|         | 17      | 151.044      | 87.530  | 140.157 | 83.185  | 129.271 | 78.840  | 118.384 | 74.495  | 107.497 | 70.150  | 94.433  | 64.936  |
|         | 18      | 157.151      | 79.637  | 145.371 | 76.509  | 133.592 | 73.381  | 121.812 | 70.253  | 110.033 | 67.126  | 95.897  | 63.372  |
|         | 19      | 163.258      | 71.743  | 150.585 | 69.833  | 137.913 | 67.922  | 125.241 | 66.012  | 112.568 | 64.102  | 97.361  | 61.809  |
|         | 20      | 169.421      | 63.800  | 156.322 | 62.689  | 143.223 | 61.578  | 130.124 | 60.468  | 117.025 | 59.357  | 101.306 | 58.024  |
| 28      | 18      | 157.151      | 109.433 | 145.371 | 106.305 | 133.592 | 103.177 | 121.812 | 100.050 | 110.033 | 96.922  | 95.897  | 93.168  |
|         | 19      | 163.258      | 101.539 | 150.585 | 99.629  | 137.913 | 97.719  | 125.241 | 95.808  | 112.568 | 93.898  | 97.361  | 91.605  |
|         | 20      | 169.421      | 93.596  | 156.322 | 92.485  | 143.223 | 91.374  | 130.124 | 90.264  | 117.025 | 89.153  | 101.306 | 87.820  |
|         | 21      | 175.621      | 85.619  | 162.406 | 85.030  | 149.191 | 84.440  | 135.977 | 83.851  | 122.762 | 83.262  | 106.905 | 82.554  |
|         | 22      | 181.821      | 77.642  | 168.491 | 77.574  | 155.160 | 77.506  | 141.830 | 77.438  | 128.499 | 77.370  | 112.503 | 77.289  |
|         | 23      | 188.021      | 69.665  | 174.575 | 70.118  | 161.129 | 70.572  | 147.683 | 71.025  | 134.237 | 71.479  | 118.101 | 72.023  |
| 30      | 24      | 194.221      | 61.688  | 180.660 | 62.663  | 167.098 | 63.637  | 153.536 | 64.612  | 139.974 | 65.587  | 123.700 | 66.757  |
|         | 20      | 169.421      | 108.494 | 156.322 | 107.383 | 143.223 | 106.272 | 130.124 | 105.162 | 117.025 | 104.051 | 102.718 | 102.718 |
|         | 21      | 175.621      | 100.517 | 162.406 | 99.928  | 149.191 | 99.338  | 135.977 | 98.749  | 122.762 | 98.160  | 106.905 | 97.452  |
|         | 22      | 181.821      | 92.540  | 168.491 | 92.472  | 155.160 | 92.404  | 141.830 | 92.336  | 128.499 | 92.268  | 112.503 | 92.187  |
|         | 23      | 188.021      | 84.563  | 174.575 | 85.016  | 161.129 | 85.470  | 147.683 | 85.923  | 134.237 | 86.377  | 118.101 | 86.921  |
|         | 24      | 194.221      | 76.586  | 180.660 | 77.561  | 167.098 | 78.536  | 153.536 | 79.510  | 139.974 | 80.485  | 123.700 | 81.655  |

# Sound Power Level

## MDB-B Series

| Model   | 1/1 Octave Sound Power Level (dB), ref 1pW |       |       |      |      |      |      | Overall A (dBA) |
|---------|--|-------|-------|------|------|------|------|-----------------|
|         | 125Hz                                      | 250Hz | 500Hz | 1kHz | 2kHz | 4kHz | 8kHz |                 |
| MDB200B | 83   | 84    | 83    | 81   | 77   | 73   | 68   | 85              |
| MDB250B | 85   | 86    | 85    | 83   | 79   | 75   | 70   | 87              |
| MDB300B | 87   | 88    | 87    | 85   | 81   | 77   | 72   | 89              |
| MDB350B | 90   | 91    | 90    | 87   | 84   | 80   | 75   | 92              |
| MDB400B | 88   | 89    | 88    | 86   | 82   | 78   | 73   | 90              |
| MDB450B | 91   | 92    | 91    | 89   | 85   | 81   | 76   | 93              |
| MDB500B | 94   | 95    | 94    | 92   | 88   | 84   | 79   | 96              |
| MDB600B | 87   | 88    | 87    | 85   | 81   | 77   | 72   | 89              |
| MDB750B | 91   | 92    | 91    | 89   | 85   | 81   | 76   | 93              |

## MDB-D Series

| Model   | 1/1 Octave Sound Power Level (dB), ref 1pW |       |       |      |      |      |      | Overall A (dBA) |
|---------|--|-------|-------|------|------|------|------|-----------------|
|         | 125Hz                                      | 250Hz | 500Hz | 1kHz | 2kHz | 4kHz | 8kHz |                 |
| MDB075D | 72   | 73    | 71    | 68   | 65   | 61   | 56   | 73              |
| MDB100D | 74   | 74    | 73    | 70   | 67   | 63   | 58   | 75              |
| MDB125D | 75   | 76    | 75    | 72   | 69   | 65   | 60   | 77              |
| MDB150D | 77   | 78    | 77    | 74   | 71   | 67   | 62   | 79              |
| MDB200D | 83   | 84    | 83    | 81   | 77   | 73   | 68   | 85              |
| MDB250D | 85   | 86    | 85    | 83   | 79   | 75   | 70   | 87              |
| MDB300D | 87   | 88    | 87    | 85   | 81   | 77   | 72   | 89              |
| MDB400D | 88   | 89    | 88    | 86   | 82   | 78   | 73   | 90              |
| MDB500D | 94   | 95    | 94    | 92   | 88   | 84   | 79   | 96              |

# Power Tables

R22

MDB-B Series

## Model : MDB200B2 vs MMC100B x 2

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 16,290         | 17,843 | 19,229 | 20,616 | 22,002 | 23,666 |
| 15              | 16,472         | 18,053 | 19,465 | 20,877 | 22,288 | 23,982 |
| 16.7            | 16,753         | 18,378 | 19,829 | 21,280 | 22,731 | 24,472 |
| 18              | 16,968         | 18,627 | 20,108 | 21,589 | 23,070 | 24,847 |
| 19.4            | 17,200         | 18,611 | 19,870 | 21,130 | 23,003 | 25,250 |
| 20              | 17,299         | 18,993 | 20,506 | 22,019 | 23,531 | 25,347 |
| 22              | 17,630         | 19,322 | 20,833 | 22,344 | 23,855 | 25,668 |
| 22.2            | 17,663         | 19,355 | 20,866 | 22,377 | 23,887 | 25,700 |
| 24              | 17,961         | 19,651 | 21,160 | 22,669 | 24,179 | 25,990 |

All power units in watts

## Model : MDB250B2 vs MMC125B x 2

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 18,934         | 20,877 | 22,612 | 24,347 | 26,082 | 28,164 |
| 15              | 19,200         | 21,146 | 22,884 | 24,622 | 26,359 | 28,445 |
| 16.7            | 19,610         | 21,562 | 23,304 | 25,046 | 26,789 | 28,880 |
| 18              | 19,925         | 21,880 | 23,626 | 25,371 | 27,117 | 29,212 |
| 19.4            | 20,263         | 22,016 | 23,581 | 25,146 | 27,157 | 29,570 |
| 20              | 20,408         | 22,374 | 24,130 | 25,885 | 27,641 | 29,747 |
| 22              | 20,891         | 22,880 | 24,656 | 26,432 | 28,207 | 30,338 |
| 22.2            | 20,939         | 22,930 | 24,708 | 26,486 | 28,264 | 30,398 |
| 24              | 21,374         | 23,386 | 25,182 | 26,978 | 28,774 | 30,930 |

All power units in watts

## Model : MDB400B4 vs MMC100B x 4

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 31,955         | 35,045 | 37,803 | 40,562 | 43,321 | 46,631 |
| 15              | 32,329         | 35,510 | 38,351 | 41,191 | 44,031 | 47,440 |
| 16.7            | 32,907         | 36,230 | 39,197 | 42,163 | 45,130 | 48,690 |
| 18              | 33,349         | 36,780 | 39,843 | 42,907 | 45,970 | 49,646 |
| 19.4            | 33,825         | 36,629 | 39,132 | 41,635 | 45,744 | 50,675 |
| 20              | 34,029         | 37,548 | 40,691 | 43,833 | 46,975 | 50,745 |
| 22              | 34,710         | 38,135 | 41,192 | 44,250 | 47,308 | 50,978 |
| 22.2            | 34,778         | 38,193 | 41,243 | 44,292 | 47,342 | 51,001 |
| 24              | 35,390         | 38,721 | 41,694 | 44,668 | 47,642 | 51,211 |

All power units in watts

## Model : MDB500B4 vs MMC125B x 4

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 39,160         | 43,079 | 46,579 | 50,078 | 53,578 | 57,777 |
| 15              | 39,671         | 43,593 | 47,095 | 50,597 | 54,099 | 58,301 |
| 16.7            | 40,460         | 44,386 | 47,892 | 51,398 | 54,903 | 59,110 |
| 18              | 41,063         | 44,993 | 48,501 | 52,010 | 55,518 | 59,729 |
| 19.4            | 41,713         | 45,258 | 48,422 | 51,587 | 55,591 | 60,395 |
| 20              | 41,992         | 45,950 | 49,484 | 53,019 | 56,553 | 60,794 |
| 22              | 42,920         | 46,963 | 50,573 | 54,182 | 57,791 | 62,123 |
| 22.2            | 43,013         | 47,064 | 50,681 | 54,298 | 57,915 | 62,256 |
| 24              | 43,849         | 47,976 | 51,661 | 55,345 | 59,030 | 63,452 |

All power units in watts

**R22****MDB-D Series****Model : MDB075D vs. MMC075D**

| Indoor WB<br>°C | Outdoor DB, °C |       |       |       |       |       |
|-----------------|----------------|-------|-------|-------|-------|-------|
|                 | 19.4           | 25    | 30    | 35    | 40    | 46    |
| 13.9            | 6,104          | 6,707 | 7,246 | 7,784 | 8,323 | 8,969 |
| 15              | 6,181          | 6,789 | 7,332 | 7,875 | 8,418 | 9,070 |
| 16.7            | 6,299          | 6,915 | 7,465 | 8,015 | 8,565 | 9,225 |
| 18              | 6,389          | 7,011 | 7,567 | 8,122 | 8,677 | 9,344 |
| 19.4            | 6,487          | 7,033 | 7,520 | 8,008 | 8,673 | 9,472 |
| 20              | 6,528          | 7,159 | 7,721 | 8,284 | 8,846 | 9,521 |
| 22              | 6,668          | 7,303 | 7,870 | 8,438 | 9,005 | 9,686 |
| 22.2            | 6,682          | 7,317 | 7,885 | 8,453 | 9,021 | 9,702 |
| 24              | 6,807          | 7,447 | 8,019 | 8,591 | 9,163 | 9,850 |

All power units in watts

**Model : MDB100D vs. MMC100D**

| Indoor WB<br>°C | Outdoor DB, °C |       |       |        |        |        |
|-----------------|----------------|-------|-------|--------|--------|--------|
|                 | 19.4           | 25    | 30    | 35     | 40     | 46     |
| 13.9            | 7,420          | 8,147 | 8,797 | 9,446  | 10,096 | 10,875 |
| 15              | 7,511          | 8,256 | 8,922 | 9,588  | 10,253 | 11,052 |
| 16.7            | 7,651          | 8,425 | 9,115 | 9,806  | 10,497 | 11,326 |
| 18              | 7,758          | 8,553 | 9,263 | 9,973  | 10,683 | 11,535 |
| 19.4            | 7,874          | 8,533 | 9,122 | 9,710  | 10,642 | 11,760 |
| 20              | 7,923          | 8,736 | 9,462 | 10,187 | 10,913 | 11,784 |
| 22              | 8,088          | 8,883 | 9,593 | 10,302 | 11,012 | 11,864 |
| 22.2            | 8,105          | 8,898 | 9,606 | 10,314 | 11,022 | 11,872 |
| 24              | 8,254          | 9,030 | 9,724 | 10,417 | 11,111 | 11,943 |

All power units in watts

**Model : MDB125D2 vs. MMC125D**

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 9,060          | 9,928  | 10,703 | 11,478 | 12,253 | 13,182 |
| 15              | 9,163          | 10,073 | 10,886 | 11,699 | 12,512 | 13,488 |
| 16.7            | 9,322          | 10,298 | 11,170 | 12,042 | 12,914 | 13,960 |
| 18              | 9,443          | 10,470 | 11,387 | 12,304 | 13,221 | 14,321 |
| 19.4            | 9,574          | 10,363 | 11,066 | 11,770 | 13,106 | 14,710 |
| 20              | 9,630          | 10,693 | 11,643 | 12,592 | 13,541 | 14,680 |
| 22              | 9,817          | 10,820 | 11,715 | 12,610 | 13,504 | 14,578 |
| 22.2            | 9,836          | 10,832 | 11,722 | 12,611 | 13,501 | 14,568 |
| 24              | 10,005         | 10,946 | 11,787 | 12,628 | 13,468 | 14,477 |

All power units in watts

**Model : MDB125D2 vs. MLC061C x 2**

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 8,830          | 9,737  | 10,547 | 11,356 | 12,166 | 13,138 |
| 15              | 8,954          | 9,882  | 10,711 | 11,539 | 12,368 | 13,362 |
| 16.7            | 9,146          | 10,107 | 10,964 | 11,822 | 12,680 | 13,709 |
| 18              | 9,293          | 10,279 | 11,158 | 12,038 | 12,918 | 13,974 |
| 19.4            | 9,451          | 10,269 | 11,000 | 11,730 | 12,880 | 14,260 |
| 20              | 9,519          | 10,522 | 11,417 | 12,312 | 13,208 | 14,282 |
| 22              | 9,745          | 10,715 | 11,582 | 12,448 | 13,315 | 14,355 |
| 22.2            | 9,767          | 10,735 | 11,598 | 12,462 | 13,326 | 14,362 |
| 24              | 9,971          | 10,909 | 11,747 | 12,585 | 13,422 | 14,428 |

All power units in watts



## R22

### Model : MDB150D vs. MMC150D

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 12,020         | 13,215 | 14,282 | 15,349 | 16,416 | 17,696 |
| 15              | 12,174         | 13,400 | 14,496 | 15,591 | 16,686 | 18,001 |
| 16.7            | 12,411         | 13,687 | 14,826 | 15,965 | 17,105 | 18,472 |
| 18              | 12,592         | 13,906 | 15,079 | 16,252 | 17,425 | 18,832 |
| 19.4            | 12,788         | 13,869 | 14,835 | 15,800 | 17,355 | 19,220 |
| 20              | 12,872         | 14,214 | 15,413 | 16,611 | 17,810 | 19,248 |
| 22              | 13,151         | 14,454 | 15,618 | 16,781 | 17,945 | 19,341 |
| 22.2            | 13,179         | 14,478 | 15,638 | 16,798 | 17,958 | 19,350 |
| 24              | 13,430         | 14,694 | 15,823 | 16,951 | 18,080 | 19,434 |

All power units in watts

### Model : MDB150D2 vs. MMC075D x 2

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 12,472         | 13,685 | 14,768 | 15,851 | 16,934 | 18,234 |
| 15              | 12,621         | 13,843 | 14,935 | 16,027 | 17,118 | 18,428 |
| 16.7            | 12,851         | 14,088 | 15,193 | 16,299 | 17,404 | 18,730 |
| 18              | 13,027         | 14,276 | 15,391 | 16,506 | 17,622 | 18,960 |
| 19.4            | 13,216         | 14,316 | 15,298 | 16,280 | 17,611 | 19,208 |
| 20              | 13,297         | 14,564 | 15,695 | 16,826 | 17,957 | 19,314 |
| 22              | 13,568         | 14,852 | 15,999 | 17,146 | 18,293 | 19,669 |
| 22.2            | 13,595         | 14,881 | 16,030 | 17,178 | 18,327 | 19,705 |
| 24              | 13,838         | 15,140 | 16,303 | 17,466 | 18,629 | 20,024 |

All power units in watts

### Model : MDB200D2 vs. MMC100D x 2

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 15,620         | 17,095 | 18,411 | 19,728 | 21,044 | 22,624 |
| 15              | 15,789         | 17,298 | 18,646 | 19,994 | 21,342 | 22,959 |
| 16.7            | 16,050         | 17,613 | 19,010 | 20,406 | 21,802 | 23,477 |
| 18              | 16,249         | 17,854 | 19,287 | 20,721 | 22,154 | 23,873 |
| 19.4            | 16,464         | 17,805 | 19,003 | 20,200 | 22,064 | 24,300 |
| 20              | 16,556         | 18,201 | 19,670 | 21,139 | 22,608 | 24,371 |
| 22              | 16,863         | 18,494 | 19,950 | 21,406 | 22,861 | 24,609 |
| 22.2            | 16,894         | 18,523 | 19,978 | 21,432 | 22,887 | 24,632 |
| 24              | 17,170         | 18,786 | 20,229 | 21,672 | 23,115 | 24,846 |

All power units in watts

### Model : MDB250D2 vs. MMC125D x 2

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 19,580         | 21,353 | 22,935 | 24,518 | 26,101 | 28,000 |
| 15              | 19,762         | 21,617 | 23,274 | 24,931 | 26,588 | 28,576 |
| 16.7            | 20,043         | 22,027 | 23,798 | 25,569 | 27,341 | 29,466 |
| 18              | 20,258         | 22,340 | 24,199 | 26,057 | 27,916 | 30,147 |
| 19.4            | 20,489         | 22,109 | 23,554 | 25,000 | 27,673 | 30,880 |
| 20              | 20,589         | 22,752 | 24,683 | 26,614 | 28,546 | 30,863 |
| 22              | 20,919         | 23,001 | 24,859 | 26,718 | 28,576 | 30,807 |
| 22.2            | 20,952         | 23,026 | 24,877 | 26,728 | 28,579 | 30,801 |
| 24              | 21,250         | 23,250 | 25,036 | 26,821 | 28,607 | 30,750 |

All power units in watts

## R22

### Model : MDB300D2 vs. MMC150D x 2

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 27,060         | 29,173 | 31,059 | 32,945 | 34,831 | 37,094 |
| 15              | 27,179         | 29,450 | 31,478 | 33,506 | 35,534 | 37,968 |
| 16.7            | 27,363         | 29,879 | 32,126 | 34,373 | 36,620 | 39,317 |
| 18              | 27,503         | 30,208 | 32,622 | 35,037 | 37,451 | 40,349 |
| 19.4            | 27,655         | 29,617 | 31,368 | 33,120 | 36,911 | 41,460 |
| 20              | 27,720         | 30,592 | 33,158 | 35,723 | 38,288 | 41,366 |
| 22              | 27,936         | 30,697 | 33,162 | 35,628 | 38,093 | 41,052 |
| 22.2            | 27,957         | 30,707 | 33,163 | 35,618 | 38,074 | 41,020 |
| 24              | 28,152         | 30,802 | 33,167 | 35,533 | 37,899 | 40,738 |

All power units in watts

### Model : MDB400D4 vs. MMC100D x 4

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 31,540         | 34,497 | 37,136 | 39,776 | 42,416 | 45,584 |
| 15              | 31,873         | 34,899 | 37,601 | 40,303 | 43,005 | 46,247 |
| 16.7            | 32,387         | 35,521 | 38,319 | 41,117 | 43,915 | 47,272 |
| 18              | 32,780         | 35,996 | 38,867 | 41,739 | 44,610 | 48,056 |
| 19.4            | 33,204         | 35,895 | 38,297 | 40,700 | 44,427 | 48,900 |
| 20              | 33,385         | 36,683 | 39,628 | 42,573 | 45,518 | 49,051 |
| 22              | 33,990         | 37,267 | 40,193 | 43,119 | 46,045 | 49,556 |
| 22.2            | 34,051         | 37,326 | 40,250 | 43,174 | 46,098 | 49,607 |
| 24              | 34,595         | 37,851 | 40,758 | 43,665 | 46,572 | 50,061 |

All power units in watts

### Model : MDB500D4 vs. MMC125D x 4

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 41,660         | 45,268 | 48,490 | 51,712 | 54,934 | 58,800 |
| 15              | 41,983         | 45,753 | 49,120 | 52,486 | 55,852 | 59,892 |
| 16.7            | 42,482         | 46,503 | 50,092 | 53,682 | 57,272 | 61,580 |
| 18              | 42,864         | 47,076 | 50,836 | 54,597 | 58,357 | 62,870 |
| 19.4            | 43,275         | 46,586 | 49,543 | 52,500 | 57,845 | 64,260 |
| 20              | 43,451         | 47,840 | 51,760 | 55,679 | 59,598 | 64,301 |
| 22              | 44,038         | 48,333 | 52,167 | 56,002 | 59,837 | 64,438 |
| 22.2            | 44,097         | 48,382 | 52,208 | 56,034 | 59,860 | 64,452 |
| 24              | 44,625         | 48,825 | 52,575 | 56,325 | 60,075 | 64,575 |

All power units in watts

**R407C**  
**MDB-D Series**

**Model : MDB075D vs. M4MC075D**

| Indoor WB<br>°C | Outdoor DB, °C |       |       |       |       |       |
|-----------------|----------------|-------|-------|-------|-------|-------|
|                 | 19.4           | 25    | 30    | 35    | 40    | 46    |
| 13.9            | 6,228          | 6,822 | 7,352 | 7,883 | 8,413 | 9,050 |
| 15              | 6,298          | 6,904 | 7,445 | 7,987 | 8,528 | 9,178 |
| 16.7            | 6,405          | 7,031 | 7,589 | 8,147 | 8,706 | 9,376 |
| 18              | 6,488          | 7,128 | 7,699 | 8,270 | 8,841 | 9,527 |
| 19.4            | 6,577          | 7,116 | 7,598 | 8,080 | 8,812 | 9,690 |
| 20              | 6,615          | 7,269 | 7,853 | 8,437 | 9,021 | 9,722 |
| 22              | 6,741          | 7,392 | 7,972 | 8,553 | 9,134 | 9,830 |
| 22.2            | 6,754          | 7,404 | 7,984 | 8,565 | 9,145 | 9,841 |
| 24              | 6,868          | 7,514 | 8,092 | 8,669 | 9,246 | 9,938 |

All power units in watts

**Model : MDB100D vs. M4MC100D**

| Indoor WB<br>°C | Outdoor DB, °C |       |        |        |        |        |
|-----------------|----------------|-------|--------|--------|--------|--------|
|                 | 19.4           | 25    | 30     | 35     | 40     | 46     |
| 13.9            | 8,210          | 8,877 | 9,473  | 10,069 | 10,664 | 11,379 |
| 15              | 8,256          | 8,980 | 9,626  | 10,272 | 10,918 | 11,693 |
| 16.7            | 8,328          | 9,139 | 9,863  | 10,586 | 11,310 | 12,179 |
| 18              | 8,383          | 9,260 | 10,044 | 10,827 | 11,610 | 12,550 |
| 19.4            | 8,442          | 9,059 | 9,609  | 10,160 | 11,428 | 12,950 |
| 20              | 8,467          | 9,399 | 10,230 | 11,062 | 11,893 | 12,891 |
| 22              | 8,552          | 9,424 | 10,202 | 10,981 | 11,760 | 12,694 |
| 22.2            | 8,560          | 9,426 | 10,200 | 10,973 | 11,746 | 12,674 |
| 24              | 8,636          | 9,449 | 10,175 | 10,900 | 11,626 | 12,497 |

All power units in watts

**Model : MDB125D vs. M4MC125D**

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 9,330          | 10,219 | 11,012 | 11,806 | 12,600 | 13,552 |
| 15              | 9,434          | 10,332 | 11,134 | 11,936 | 12,737 | 13,700 |
| 16.7            | 9,595          | 10,507 | 11,321 | 12,136 | 12,950 | 13,928 |
| 18              | 9,718          | 10,641 | 11,465 | 12,289 | 13,113 | 14,102 |
| 19.4            | 9,850          | 10,658 | 11,379 | 12,100 | 13,095 | 14,290 |
| 20              | 9,907          | 10,846 | 11,684 | 12,523 | 13,361 | 14,367 |
| 22              | 10,096         | 11,049 | 11,901 | 12,752 | 13,604 | 14,625 |
| 22.2            | 10,115         | 11,070 | 11,922 | 12,775 | 13,628 | 14,651 |
| 24              | 10,285         | 11,253 | 12,117 | 12,982 | 13,846 | 14,883 |

All power units in watts

**Model : MDB150D vs. M4MC150D**

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 12,506         | 13,702 | 14,770 | 15,838 | 16,906 | 18,188 |
| 15              | 12,647         | 13,884 | 14,989 | 16,093 | 17,198 | 18,523 |
| 16.7            | 12,866         | 14,166 | 15,327 | 16,487 | 17,648 | 19,041 |
| 18              | 13,033         | 14,381 | 15,585 | 16,789 | 17,993 | 19,437 |
| 19.4            | 13,212         | 14,299 | 15,269 | 16,239 | 17,887 | 19,864 |
| 20              | 13,289         | 14,677 | 15,915 | 17,154 | 18,392 | 19,878 |
| 22              | 13,546         | 14,889 | 16,089 | 17,288 | 18,487 | 19,926 |
| 22.2            | 13,572         | 14,911 | 16,106 | 17,301 | 18,497 | 19,931 |
| 24              | 13,803         | 15,102 | 16,262 | 17,422 | 18,582 | 19,974 |

All power units in watts

## R407C

### Model : MDB150D2 vs. M4MC075D x 2

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 12,736         | 13,927 | 14,991 | 16,055 | 17,118 | 18,395 |
| 15              | 12,869         | 14,086 | 15,172 | 16,258 | 17,344 | 18,648 |
| 16.7            | 13,075         | 14,331 | 15,452 | 16,573 | 17,694 | 19,039 |
| 18              | 13,233         | 14,518 | 15,666 | 16,813 | 17,961 | 19,338 |
| 19.4            | 13,403         | 14,487 | 15,456 | 16,424 | 17,895 | 19,660 |
| 20              | 13,475         | 14,792 | 15,968 | 17,144 | 18,320 | 19,731 |
| 22              | 13,718         | 15,033 | 16,208 | 17,382 | 18,557 | 19,966 |
| 22.2            | 13,742         | 15,057 | 16,232 | 17,406 | 18,580 | 19,990 |
| 24              | 13,960         | 15,274 | 16,447 | 17,621 | 18,794 | 20,202 |

All power units in watts

### Model :MDB200D2 vs. M4MC100D x 2

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 17,200         | 18,554 | 19,763 | 20,972 | 22,181 | 23,632 |
| 15              | 17,280         | 18,746 | 20,054 | 21,363 | 22,671 | 24,242 |
| 16.7            | 17,404         | 19,042 | 20,504 | 21,966 | 23,429 | 25,184 |
| 18              | 17,498         | 19,268 | 20,848 | 22,428 | 24,008 | 25,904 |
| 19.4            | 17,600         | 18,857 | 19,978 | 21,100 | 23,636 | 26,680 |
| 20              | 17,644         | 19,526 | 21,207 | 22,888 | 24,568 | 26,585 |
| 22              | 17,789         | 19,575 | 21,169 | 22,762 | 24,356 | 26,269 |
| 22.2            | 17,804         | 19,579 | 21,165 | 22,750 | 24,335 | 26,237 |
| 24              | 17,935         | 19,623 | 21,130 | 22,637 | 24,144 | 25,953 |

All power units in watts

### Model : MDB250D2 vs. M4MC125D x 2

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 20,120         | 21,935 | 23,555 | 25,175 | 26,795 | 28,739 |
| 15              | 20,304         | 22,135 | 23,769 | 25,404 | 27,038 | 28,999 |
| 16.7            | 20,589         | 22,444 | 24,101 | 25,757 | 27,414 | 29,401 |
| 18              | 20,806         | 22,681 | 24,354 | 26,027 | 27,701 | 29,709 |
| 19.4            | 21,041         | 22,699 | 24,180 | 25,660 | 27,651 | 30,040 |
| 20              | 21,141         | 23,056 | 24,766 | 26,476 | 28,186 | 30,238 |
| 22              | 21,476         | 23,460 | 25,232 | 27,003 | 28,774 | 30,900 |
| 22.2            | 21,510         | 23,501 | 25,278 | 27,056 | 28,833 | 30,966 |
| 24              | 21,811         | 23,864 | 25,697 | 27,530 | 29,362 | 31,562 |

All power units in watts

### Model : MDB300D2 vs. M4MC150D x 2

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 27,006         | 29,337 | 31,418 | 33,499 | 35,580 | 38,078 |
| 15              | 27,212         | 29,659 | 31,843 | 34,028 | 36,213 | 38,834 |
| 16.7            | 27,531         | 30,156 | 32,501 | 34,845 | 37,190 | 40,003 |
| 18              | 27,774         | 30,537 | 33,004 | 35,470 | 37,937 | 40,897 |
| 19.4            | 28,036         | 30,177 | 32,087 | 33,998 | 37,572 | 41,860 |
| 20              | 28,149         | 31,034 | 33,610 | 36,187 | 38,763 | 41,854 |
| 22              | 28,524         | 31,326 | 33,829 | 36,331 | 38,833 | 41,836 |
| 22.2            | 28,561         | 31,355 | 33,850 | 36,345 | 38,840 | 41,834 |
| 24              | 28,898         | 31,618 | 34,047 | 36,475 | 38,903 | 41,818 |

All power units in watts

## R407C

### Model : MDB400D4 vs. M4MC100D x 4

| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 34,700         | 37,416 | 39,841 | 42,265 | 44,690 | 47,600 |
| 15              | 34,855         | 37,793 | 40,417 | 43,040 | 45,664 | 48,812 |
| 16.7            | 35,095         | 38,377 | 41,308 | 44,238 | 47,169 | 50,685 |
| 18              | 35,278         | 38,824 | 41,989 | 45,154 | 48,319 | 52,117 |
| 19.4            | 35,476         | 37,997 | 40,249 | 42,500 | 47,573 | 53,660 |
| 20              | 35,561         | 39,333 | 42,701 | 46,069 | 49,438 | 53,479 |
| 22              | 35,843         | 39,429 | 42,631 | 45,833 | 49,035 | 52,877 |
| 22.2            | 35,871         | 39,439 | 42,624 | 45,809 | 48,995 | 52,817 |
| 24              | 36,125         | 39,525 | 42,561 | 45,596 | 48,632 | 52,275 |

All power units in watts

### Model : MDB500D4 vs. M4MC125D x 4

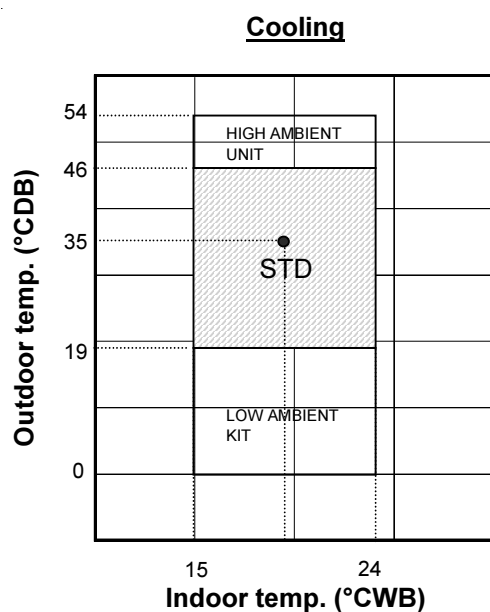
| Indoor WB<br>°C | Outdoor DB, °C |        |        |        |        |        |
|-----------------|----------------|--------|--------|--------|--------|--------|
|                 | 19.4           | 25     | 30     | 35     | 40     | 46     |
| 13.9            | 42,740         | 46,432 | 49,729 | 53,026 | 56,322 | 60,278 |
| 15              | 43,067         | 46,788 | 50,109 | 53,431 | 56,753 | 60,739 |
| 16.7            | 43,574         | 47,337 | 50,697 | 54,058 | 57,418 | 61,450 |
| 18              | 43,961         | 47,757 | 51,147 | 54,537 | 57,926 | 61,994 |
| 19.4            | 44,377         | 47,767 | 50,794 | 53,820 | 57,802 | 62,580 |
| 20              | 44,556         | 48,450 | 51,927 | 55,403 | 58,880 | 63,052 |
| 22              | 45,152         | 49,251 | 52,912 | 56,572 | 60,233 | 64,625 |
| 22.2            | 45,211         | 49,331 | 53,010 | 56,689 | 60,368 | 64,783 |
| 24              | 45,747         | 50,053 | 53,897 | 57,741 | 61,585 | 66,199 |

All power units in watts

# Operating Range

Ensure the operating temperature is in allowable range.

## Cooling only



### Caution :

The use of your air conditioner outside the range of working temperature and humidity can result in serious failure.

# Drive Package Selection Example

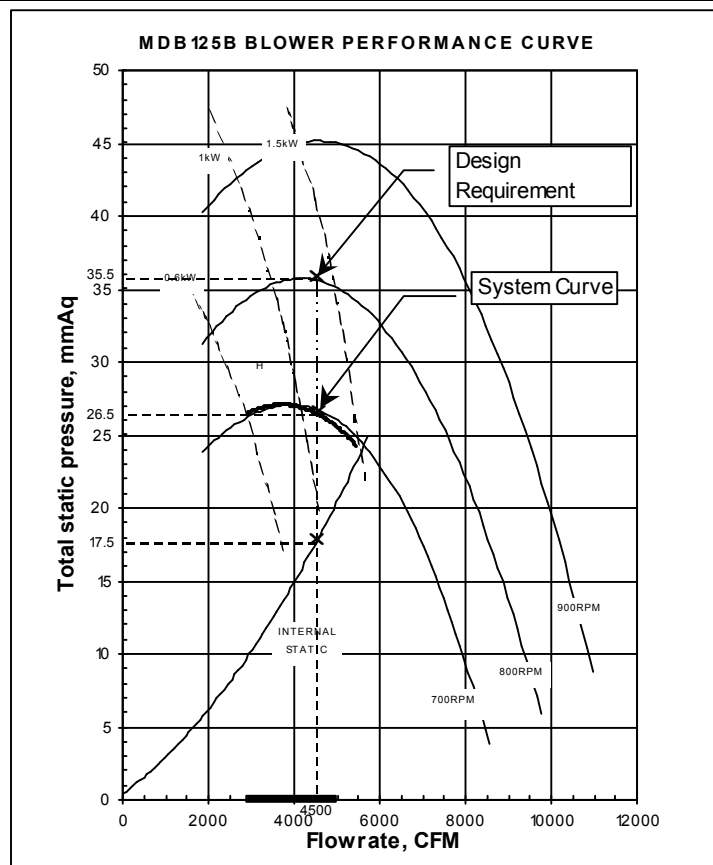
## Example 1 :

|  |   |
|--|---|
| <p>The following are the design requirements for MDB125B unit:</p> <p><b>Model:</b> <b>MDB125B</b></p> <p>Supply Air Quantity = 4500 CFM</p> <p>External Static Pressure = 18 mmAq</p> |   |
| Step 1:  | <p>From the blower curve (at 4500 CFM),<br/>Standard operating system;</p> <p>Total Static Pressure = <b>26.5</b> mmAq</p> <p>Internal Static Pressure = <b>17.5</b> mmAq</p> <p>External Static Pressure = <b>9</b> mmAq</p> <p>External Static Pressure of 9.0 mmAq did not fulfill the design requirements.</p>  |
| Step 2:  | <p>Therefore at 4500 CFM and 18 mmAq External static pressure,</p> <p>Total Static Pressure = 17.5 + 18 mmAq</p> <p>= <b>35.5</b> mmAq</p>  |
| Step 3:  | <p>From the blower curve, the design requirement calls for RPM about 800, whereas the unit can only deliver RPM about 690 under the same CFM. Therefore, it is necessary to resize the pulley sizes.</p> <p>From the table:</p> <p>Motor pulley = 4"</p> <p>Blower pulley = 8"</p> <p>Motor RPM = 1425</p> <p>In order to obtain 800 RPM, we recalculate the new blower pulley as:<br/>(while maintaining the motor pulley)</p> <p>Db = 4" x (1425/800)</p> <p>= 7.125"</p> <p>The nearest pulley size will be a diameter of 7"</p> <p>Recheck, with Db = 7"</p> <p>Blower pulley = 1425 x (4/7)</p> <p>= <b>814</b></p> <p>We thus need to change the blower pulley from 8" to 7" in order to obtain the higher operating static pressure.</p> |
| Step 4:  | <p>When the pulley is changed, the V-belt length must be rechecked. We have for horizontal air throw configuration:</p> <p>V-belt length, L = 2C + 1.57 (Db + Dm)</p> <p>= (2 x (319 x 0.03937")) + 1.57 (4" + 7")</p> <p>= 42.4"</p> <p>We thus can use a belt with a length of <b>43"</b></p> <p>where, C = distance between the centres of the two pulleys</p> <p>Db = diameter of blower pulley</p> <p>Dm = diameter of motor pulley</p>  |
| Step 5:  | <p>From the blower curve, we can also notice that the motor power input has increased. At the new operating point, the power is approximately 1.25 kW.</p> <p>By applying a safety factor of 1.2 to account for losses, we calculate that the motor power input requirement should be = 1.25 x 1.2 = <b>1.5 kW</b></p> <p>Thus, the existing motor is still sufficient to drive the blower with the smaller 7" pulley.</p>  |
|  | <p><b>Summary:</b></p> <p>i) Fan motor kW = <b>1.5</b> kW</p> <p>ii) Blower pulley diameter = <b>7"</b></p> <p>iii) V-belt size = <b>43"</b></p>  |

The following table summarizes the pulley data, motor size used for the ADB series, as manufactured:

| Model    | Motor pulley, Dm |         | Blower pulley, Db |         |
|----------|------------------|---------|-------------------|---------|
|          | V-pulley         | Taper # | V-pulley          | Taper # |
|          | (in.)            | (mm)    | (in.)             | (mm)    |
| MDB 125B | 4                | 80      | 8                 | 160     |
| MDB 125C | 3.5              | 85      | 6.5               | 160     |
| MDB 150B | 4                | 80      | 8                 | 160     |
| MDB 150C | 4.5              | 71      | 8                 | 125     |
| MDB 200B | 4                | 80      | 7                 | 140     |
| MDB 250B | 6.5              | 90      | 12                | 180     |
| MDB 300B | 6.5              | 95      | 12                | 180     |
| MDB 350B | 6                | 125     | 12                | 250     |
| MDB 400B | 5.5              | 106     | 13                | 250     |
| MDB 450B | 5.5              | 112     | 12                | 250     |
| MDB 500B | 6                | 150     | 12                | 315     |
| MDB 600B | 5                | 132     | 15                | 400     |
| MDB 750B | 5                | 140     | 14                | 400     |

| Model    | Pulley Centre Distance, C |          | Motor kW | Motor RPM |
|----------|---------------------------|----------|----------|-----------|
|          | Horizontal                | Vertical |          |           |
|          | (mm)                      | (mm)     |          |           |
| MDB 125B | 319                       | 340      | 1.5      | 1425      |
| MDB 125C | 180                       | -        | 1.5      | 1425      |
| MDB 150B | 319                       | 340      | 1.5      | 1425      |
| MDB 150C | 185                       | -        | 2.2      | 1430      |
| MDB 200B | 314                       | 330      | 3        | 1430      |
| MDB 250B | 599                       | 623      | 4        | 1440      |
| MDB 300B | 599                       | 623      | 4        | 1440      |
| MDB 350B | 840                       | 870      | 5.5      | 1445      |
| MDB 400B | 732                       | 782      | 5.5      | 1445      |
| MDB 450B | 738                       | 768      | 7.5      | 1445      |
| MDB 500B | 700                       | 751      | 11       | 1445      |
| MDB 600B | 300                       | 490      | 11       | 1450      |
| MDB 750B | 300                       | 490      | 15       | 1455      |



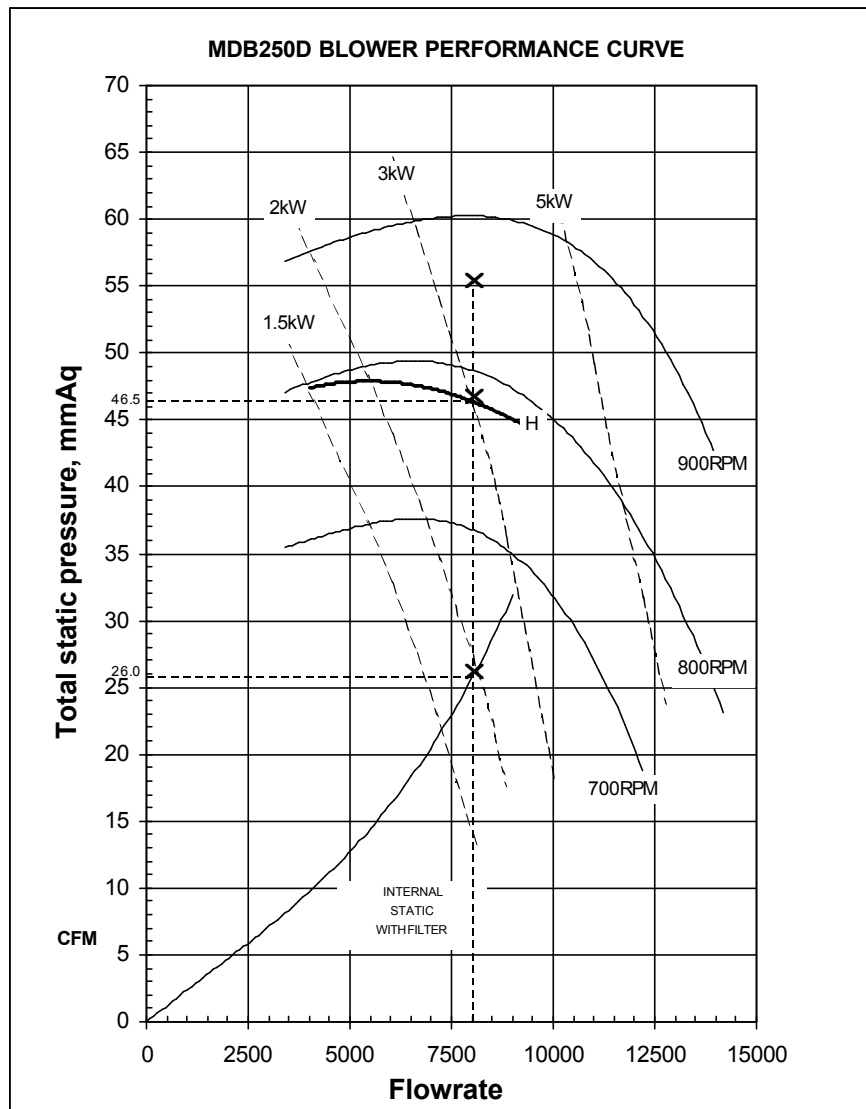


**Example 2 :**

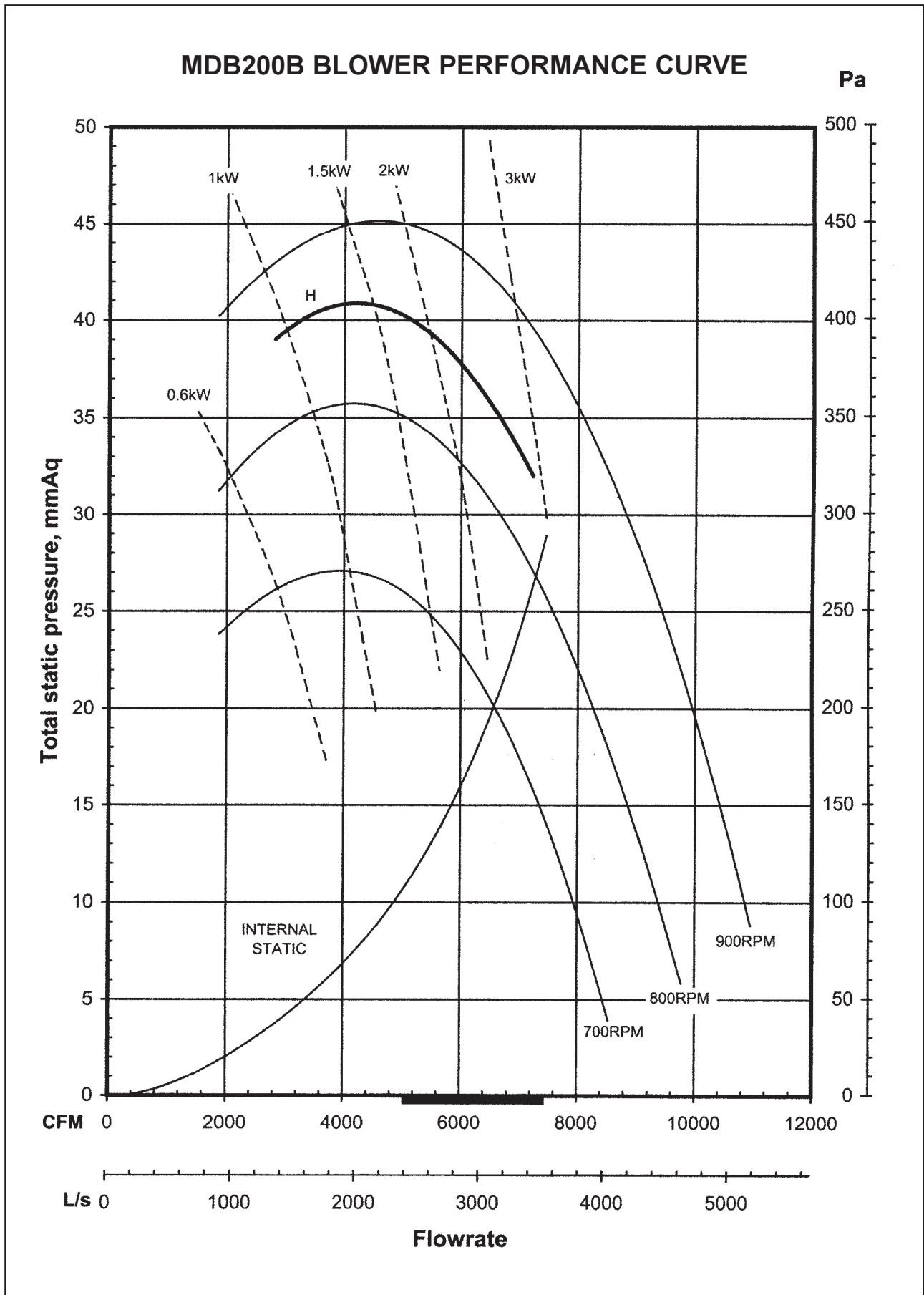
|  |  |                            |   |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
|--|--|----------------------------|---|---------------------|------|----------------------------|---|----------------------------|------|--------------------------|---|-------------|------|--------|---|-----------------|---|--|----|-------|---------------------------|---------------|----|-----------------|--------------------------|--|---|------------|--|
| <p>The following are the design requirements for MDB250D2 unit:</p> <table border="0"> <tr> <td><b>Model:</b></td> <td><b>MDB250D2</b></td> <td></td> <td></td> </tr> <tr> <td>Supply Air Quantity</td> <td>=</td> <td>8000</td> <td>CFM</td> </tr> <tr> <td>External Static Pressure</td> <td>=</td> <td>29</td> <td>mmAq</td> </tr> </table> |  | <b>Model:</b>              | <b>MDB250D2</b>                                 |                     |      | Supply Air Quantity        | = | 8000                       | CFM  | External Static Pressure | = | 29          | mmAq |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| <b>Model:</b>  | <b>MDB250D2</b>  |                            |   |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| Supply Air Quantity  | =  | 8000                       | CFM   |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| External Static Pressure   | =  | 29                         | mmAq  |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| Step 1:  | <p>From the blower curve (at 4500 CFM),<br/>Standard operating system;</p> <table border="0"> <tr> <td>Total Static Pressure</td> <td>=</td> <td><b>46.5</b></td> <td>mmAq</td> </tr> <tr> <td>Internal Static Pressure</td> <td>=</td> <td><b>26</b></td> <td>mmAq</td> </tr> <tr> <td>External Static Pressure</td> <td>=</td> <td><b>20.5</b></td> <td>mmAq</td> </tr> </table> <p>External Static Pressure of 20.5 mmAq did not fulfill the design requirements.</p>   | Total Static Pressure      | =   | <b>46.5</b>         | mmAq | Internal Static Pressure   | = | <b>26</b>                  | mmAq | External Static Pressure | = | <b>20.5</b> | mmAq |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| Total Static Pressure  | =  | <b>46.5</b>                | mmAq  |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| Internal Static Pressure   | =  | <b>26</b>                  | mmAq  |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| External Static Pressure   | =  | <b>20.5</b>                | mmAq  |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| Step 2:  | <p>Therefore at 8000 CFM and 14 mmAq External static pressure,</p> <table border="0"> <tr> <td>Total Static Pressure</td> <td>=</td> <td>26 + 29</td> <td>mmAq</td> </tr> <tr> <td></td> <td>=</td> <td><b>55</b></td> <td>mmAq</td> </tr> </table>  | Total Static Pressure      | =   | 26 + 29             | mmAq |                            | = | <b>55</b>                  | mmAq |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| Total Static Pressure  | =  | 26 + 29                    | mmAq  |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
|  | =  | <b>55</b>                  | mmAq  |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| Step 3:  | <p>From the blower curve, the design requirement calls for RPM about 850, whereas the unit can only deliver RPM about 700 under the same CFM. Therefore, it is necessary to resize the pulley sizes.</p> <p>From the table:</p> <table border="0"> <tr> <td>Motor pulley</td> <td>=</td> <td>95</td> <td>mm</td> </tr> <tr> <td>Blower pulley</td> <td>=</td> <td>180</td> <td>mm</td> </tr> <tr> <td>Motor RPM</td> <td>=</td> <td>1440</td> <td></td> </tr> </table> <p>In order to obtain 850 RPM, we recalculate the new blower pulley as:<br/>(while maintaining the motor pulley)</p> <table border="0"> <tr> <td>Db</td> <td>=</td> <td>95 x (1440/850)</td> <td></td> </tr> <tr> <td></td> <td>=</td> <td>160.9</td> <td>mm</td> </tr> </table> <p>The nearest pulley size will be a diameter of 160mm</p> <p>Recheck, with Db = <b>160mm</b></p> <table border="0"> <tr> <td>Blower pulley</td> <td>=</td> <td>1440 x (95/160)</td> <td></td> </tr> <tr> <td></td> <td>=</td> <td><b>855</b></td> <td></td> </tr> </table> <p>We thus need to change the blower pulley from 180mm to 160mm in order to obtain the higher operating static pressure.</p> | Motor pulley               | =   | 95                  | mm   | Blower pulley              | = | 180                        | mm   | Motor RPM                | = | 1440        |      | Db     | = | 95 x (1440/850) |   |  | =  | 160.9 | mm                        | Blower pulley | =  | 1440 x (95/160) |                          |  | = | <b>855</b> |  |
| Motor pulley   | =  | 95                         | mm  |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| Blower pulley  | =  | 180                        | mm  |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| Motor RPM  | =  | 1440                       |   |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| Db   | =  | 95 x (1440/850)            |   |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
|  | =  | 160.9                      | mm  |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| Blower pulley  | =  | 1440 x (95/160)            |   |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
|  | =  | <b>855</b>                 |   |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| Step 4:  | <p>When the pulley is changed, the V-belt length must be rechecked. We have for horizontal air throw configuration:</p> <table border="0"> <tr> <td>V-belt length, L</td> <td>=</td> <td>2C + 1.57 (Db + Dm)</td> <td></td> </tr> <tr> <td></td> <td>=</td> <td>(2 x 580) + 1.57(95 + 160)</td> <td></td> </tr> <tr> <td></td> <td>=</td> <td>1560.35</td> <td>mm</td> </tr> </table> <p>We thus can use a belt with a length of <b>1600mm</b></p> <table border="0"> <tr> <td>where,</td> <td>C</td> <td>=</td> <td>distance between the centres of the two pulleys</td> </tr> <tr> <td></td> <td>Db</td> <td>=</td> <td>diameter of blower pulley</td> </tr> <tr> <td></td> <td>Dm</td> <td>=</td> <td>diameter of motor pulley</td> </tr> </table>  | V-belt length, L           | =   | 2C + 1.57 (Db + Dm) |      |                            | = | (2 x 580) + 1.57(95 + 160) |      |                          | = | 1560.35     | mm   | where, | C | =               | distance between the centres of the two pulleys |  | Db | =     | diameter of blower pulley |               | Dm | =               | diameter of motor pulley |  |   |            |  |
| V-belt length, L   | =  | 2C + 1.57 (Db + Dm)        |   |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
|  | =  | (2 x 580) + 1.57(95 + 160) |   |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
|  | =  | 1560.35                    | mm  |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| where,   | C  | =                          | distance between the centres of the two pulleys |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
|  | Db   | =                          | diameter of blower pulley                       |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
|  | Dm   | =                          | diameter of motor pulley                        |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| Step 5:  | <p>From the blower curve, we can also notice that the motor power input has increased. At the new operating point, the power is approximately 2.7 kW.</p> <p>By applying a safety factor of 1.2 to account for losses, we calculate that the motor power input requirement should be = 2.7 x 1.2 = <b>3.24 kW</b></p> <p>Thus, the existing motor is still sufficient to drive the blower with the smaller 160mm pulley.</p>   |                            |   |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
|  | <p><b>Summary:</b></p> <table border="0"> <tr> <td>i) Fan motor kW</td> <td>=</td> <td><b>4.0</b></td> <td>kW</td> </tr> <tr> <td>ii) Blower pulley diameter</td> <td>=</td> <td><b>160</b></td> <td>mm</td> </tr> <tr> <td>iii) V-belt size</td> <td>=</td> <td><b>1600</b></td> <td>mm</td> </tr> </table>   | i) Fan motor kW            | =   | <b>4.0</b>          | kW   | ii) Blower pulley diameter | = | <b>160</b>                 | mm   | iii) V-belt size         | = | <b>1600</b> | mm   |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| i) Fan motor kW  | =  | <b>4.0</b>                 | kW  |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| ii) Blower pulley diameter   | =  | <b>160</b>                 | mm  |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |
| iii) V-belt size   | =  | <b>1600</b>                | mm  |                     |      |                            |   |                            |      |                          |   |             |      |        |   |                 |   |  |    |       |                           |               |    |                 |                          |  |   |            |  |

| Model   | Motor pulley, Dm |         | Blower pulley, Db |         |
|---------|------------------|---------|-------------------|---------|
|         | V-pulley         | Taper # | V-pulley          | Taper # |
|         | (in.)            | (mm)    | (in.)             | (mm)    |
| MDB125D | N/A              | 85      | N/A               | 160     |
| MDB150D | N/A              | 85      | N/A               | 160     |
| MDB200D | N/A              | 75      | N/A               | 125     |
| MDB250D | N/A              | 95      | N/A               | 180     |
| MDB300D | N/A              | 132     | N/A               | 250     |
| MDB400D | N/A              | 140     | N/A               | 315     |
| MDB500D | N/A              | 125     | N/A               | 250     |

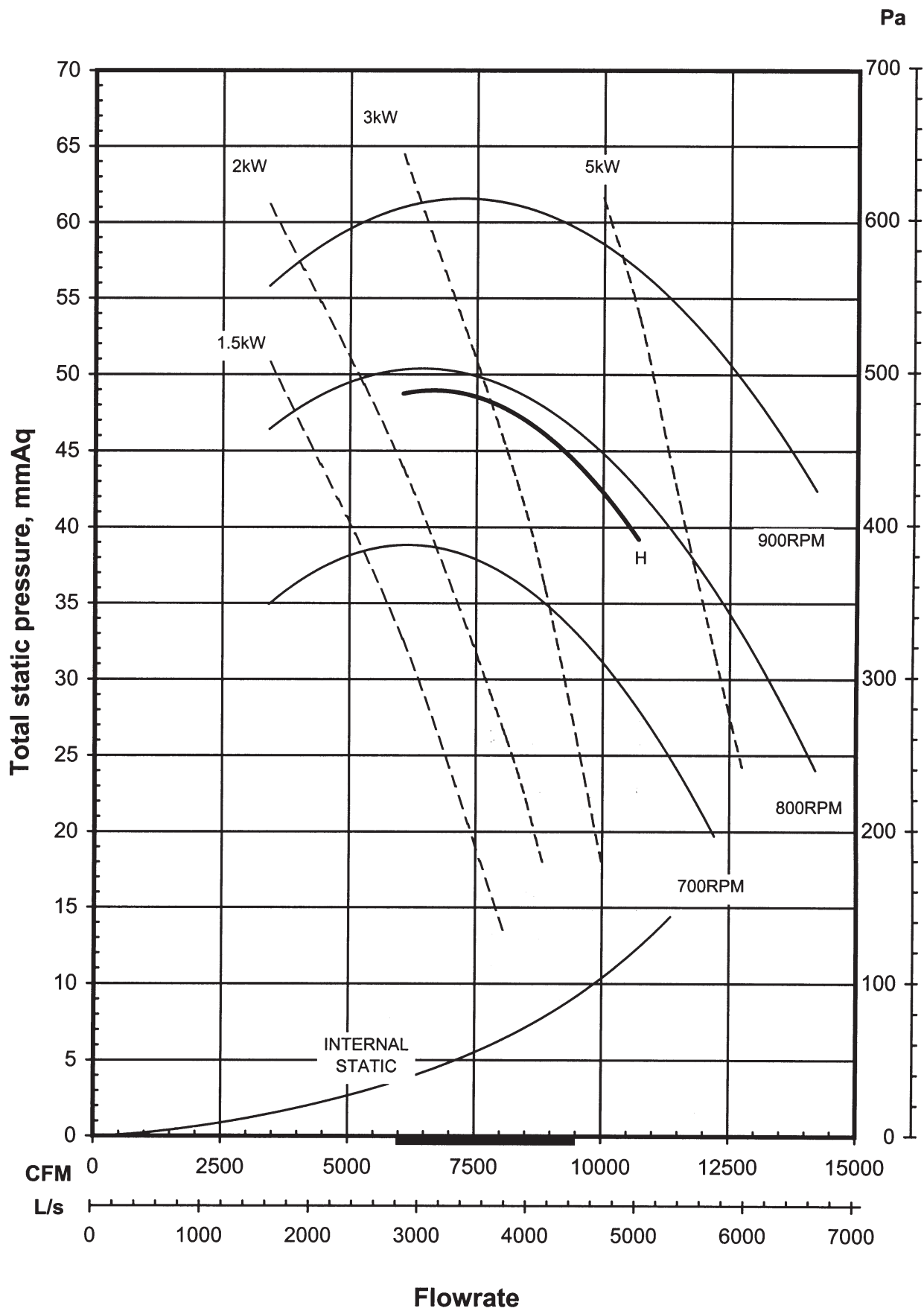
| Model   | Pulley Centre Distance, C |          | Motor kW | Motor RPM |
|---------|---------------------------|----------|----------|-----------|
|         | Horizontal                | Vertical |          |           |
|         | (mm)                      | (mm)     |          |           |
| MDB125D | 180                       | -        | 1.5      | 1425      |
| MDB150D | 180                       | -        | 1.5      | 1425      |
| MDB200D | 515                       | 410      | 3.0      | 1430      |
| MDB250D | 580                       | 480      | 4.0      | 1440      |
| MDB300D | 615                       | 495      | 5.5      | 1445      |
| MDB400D | 780                       | 630      | 7.5      | 1445      |
| MDB500D | 820                       | 650      | 11.0     | 1450      |



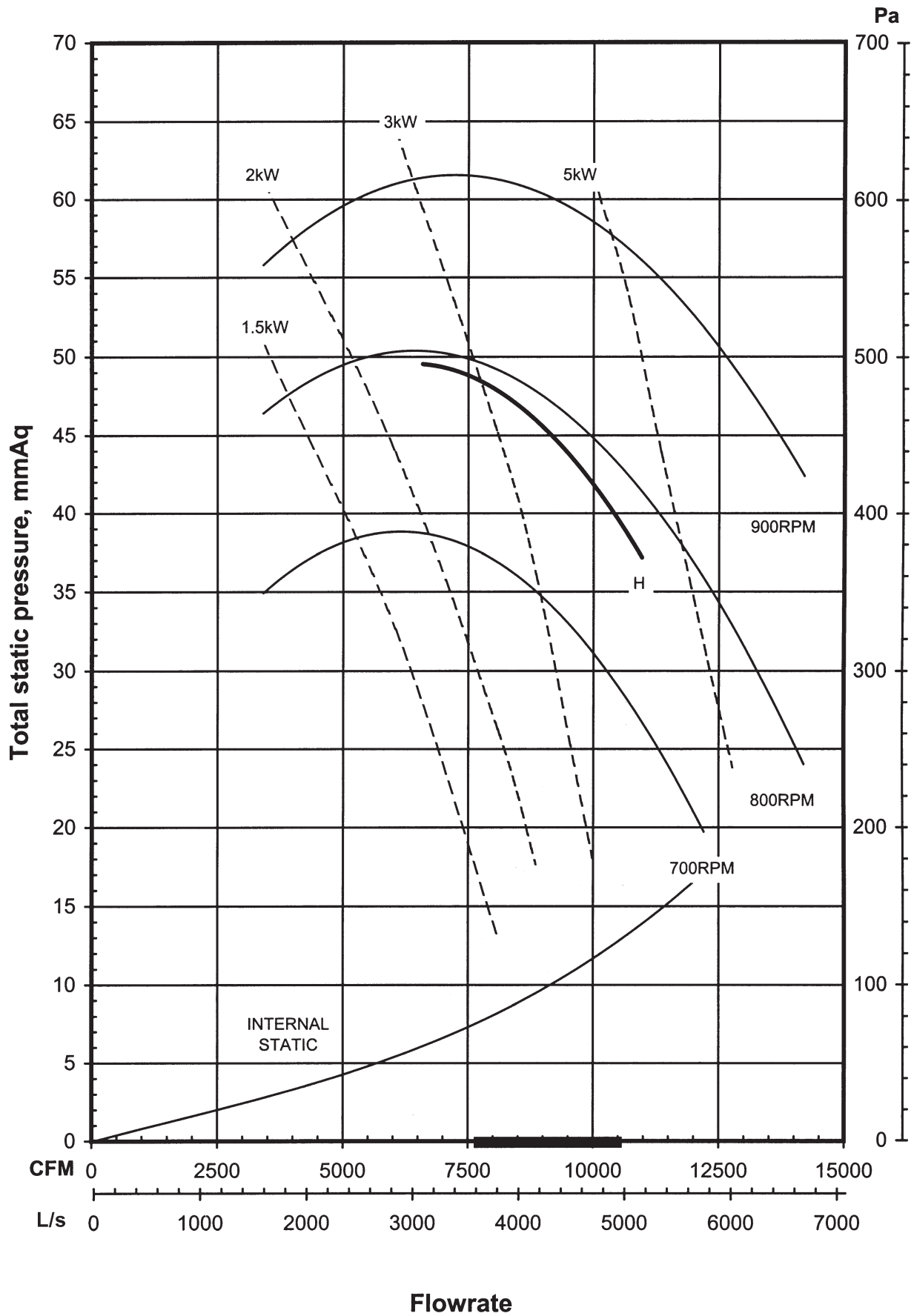
# Blower Performance Curves



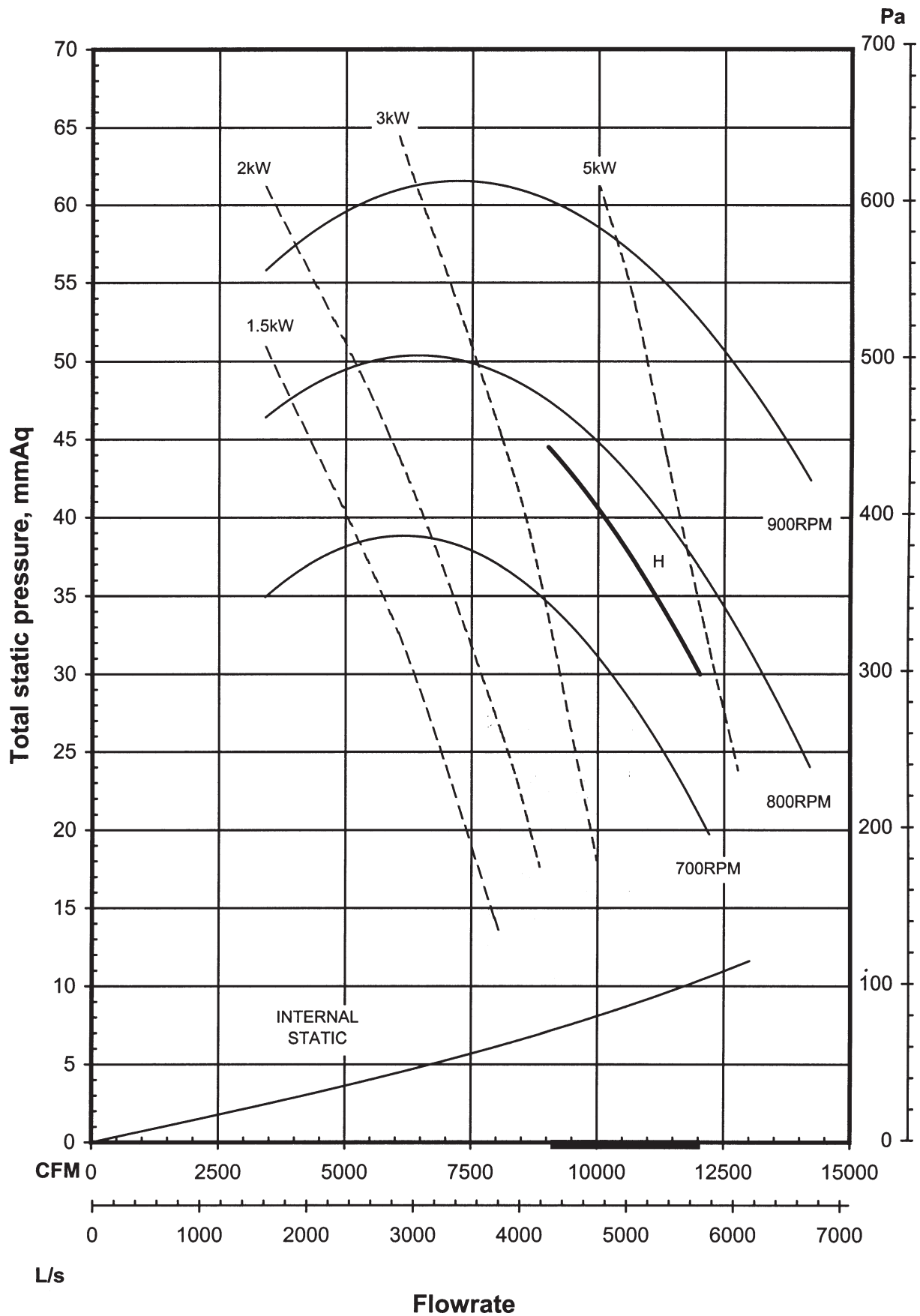
# MDB250B BLOWER PERFORMANCE CURVE



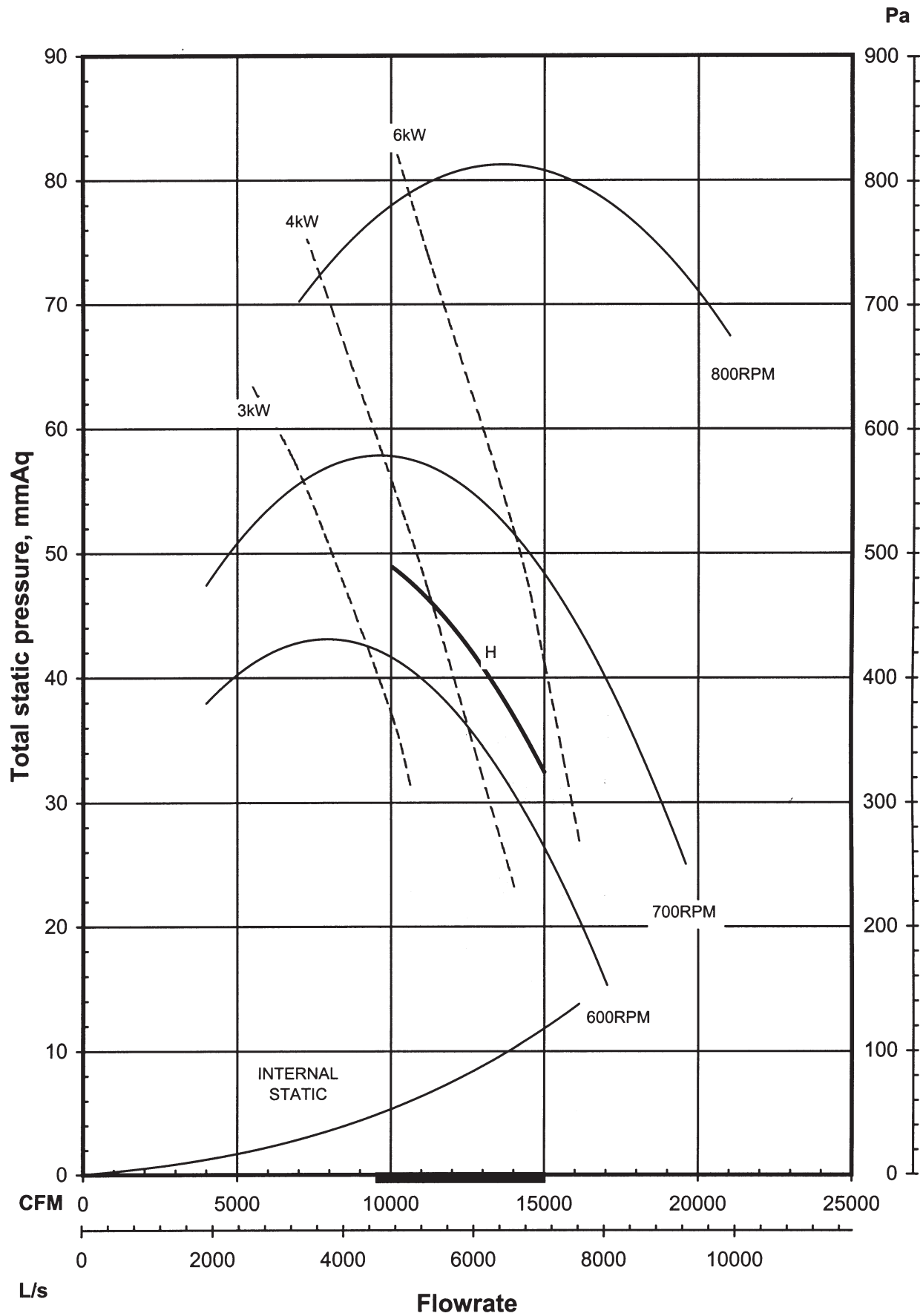
## MDB300B BLOWER PERFORMANCE CURVE



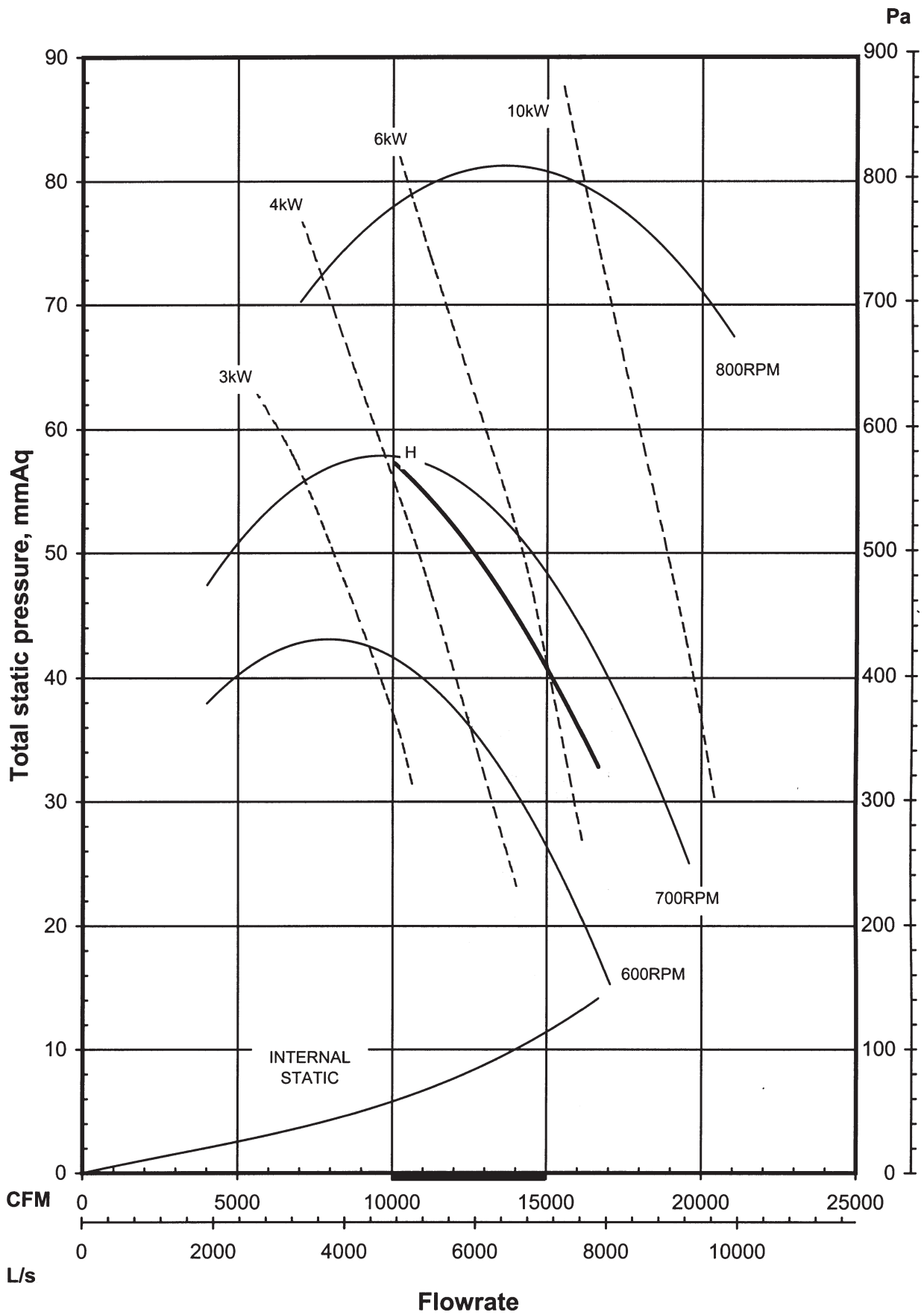
# MDB350B BLOWER PERFORMANCE CURVE



# MDB400B BLOWER PERFORMANCE CURVE

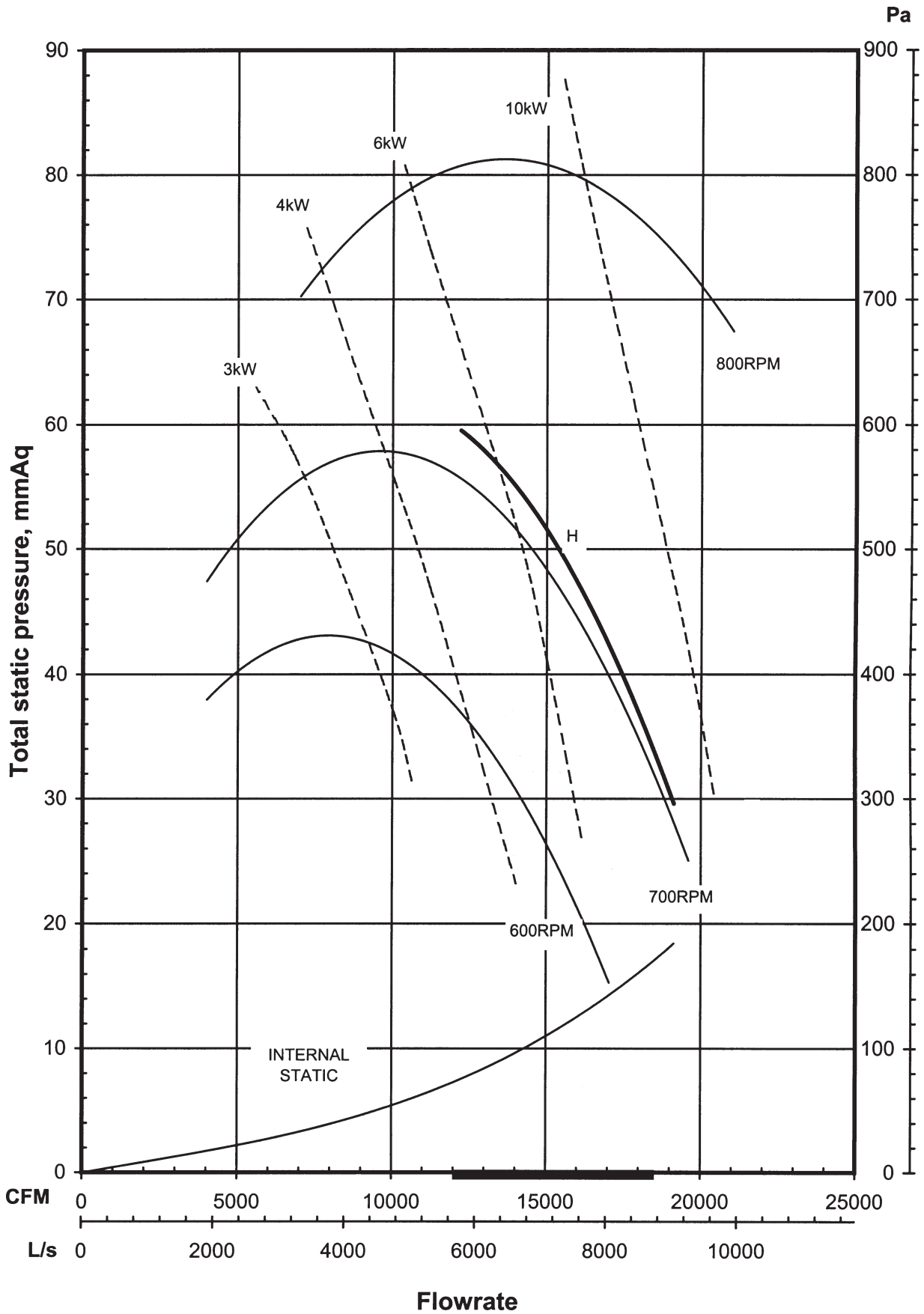


# MDB450B BLOWER PERFORMANCE CURVE

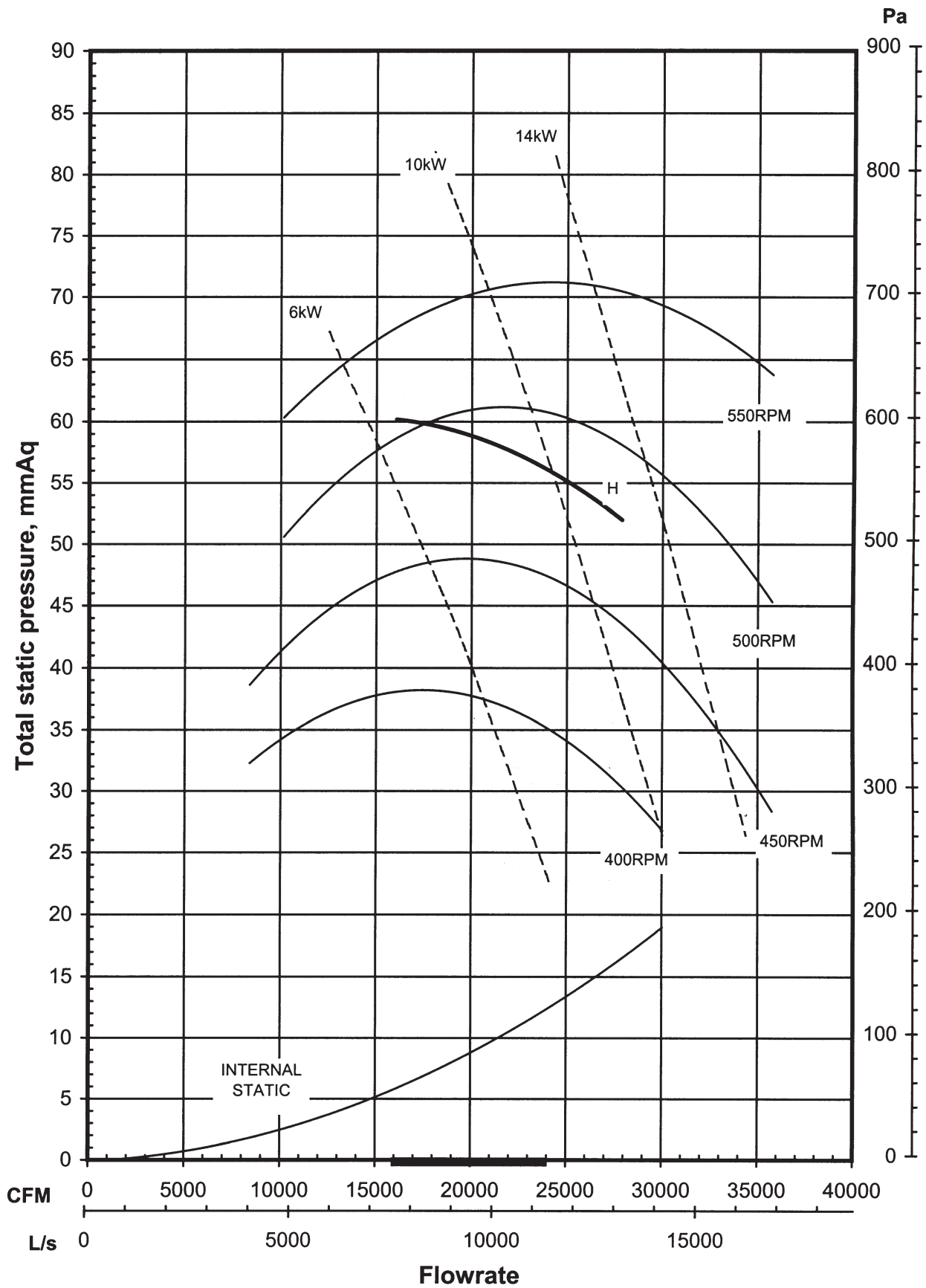




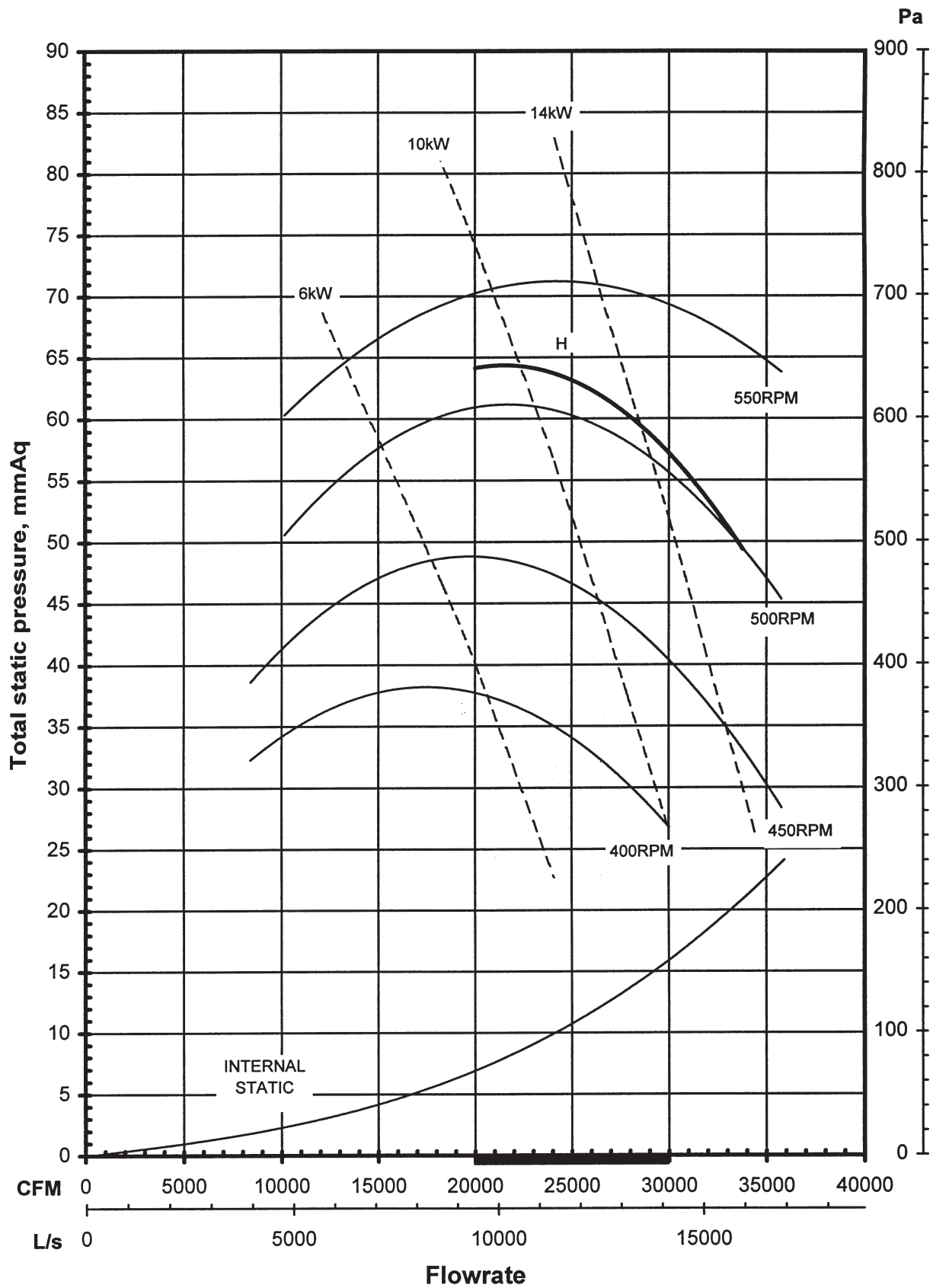
# MDB500B BLOWER PERFORMANCE CURVE



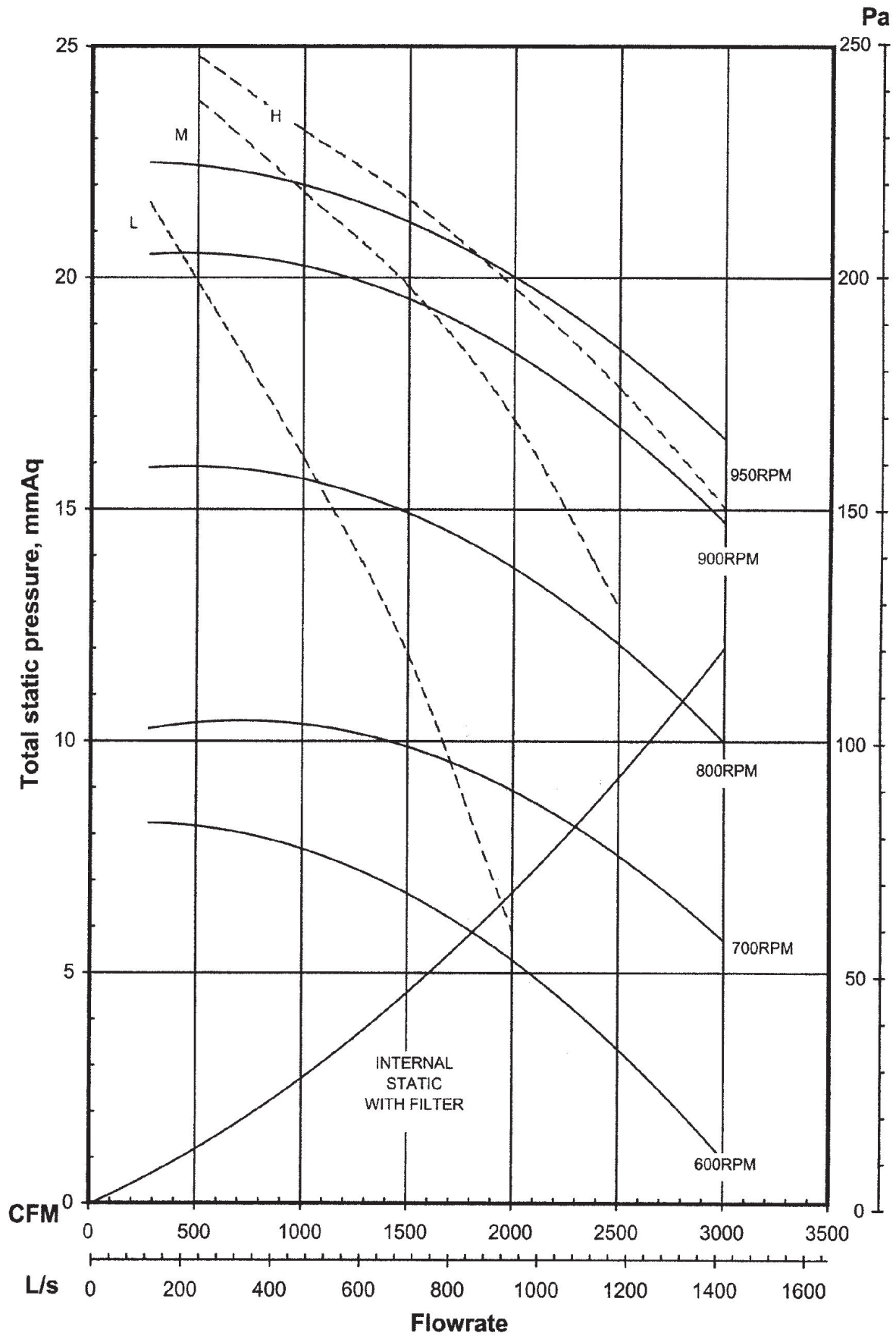
# MDB600B BLOWER PERFORMANCE CURVE



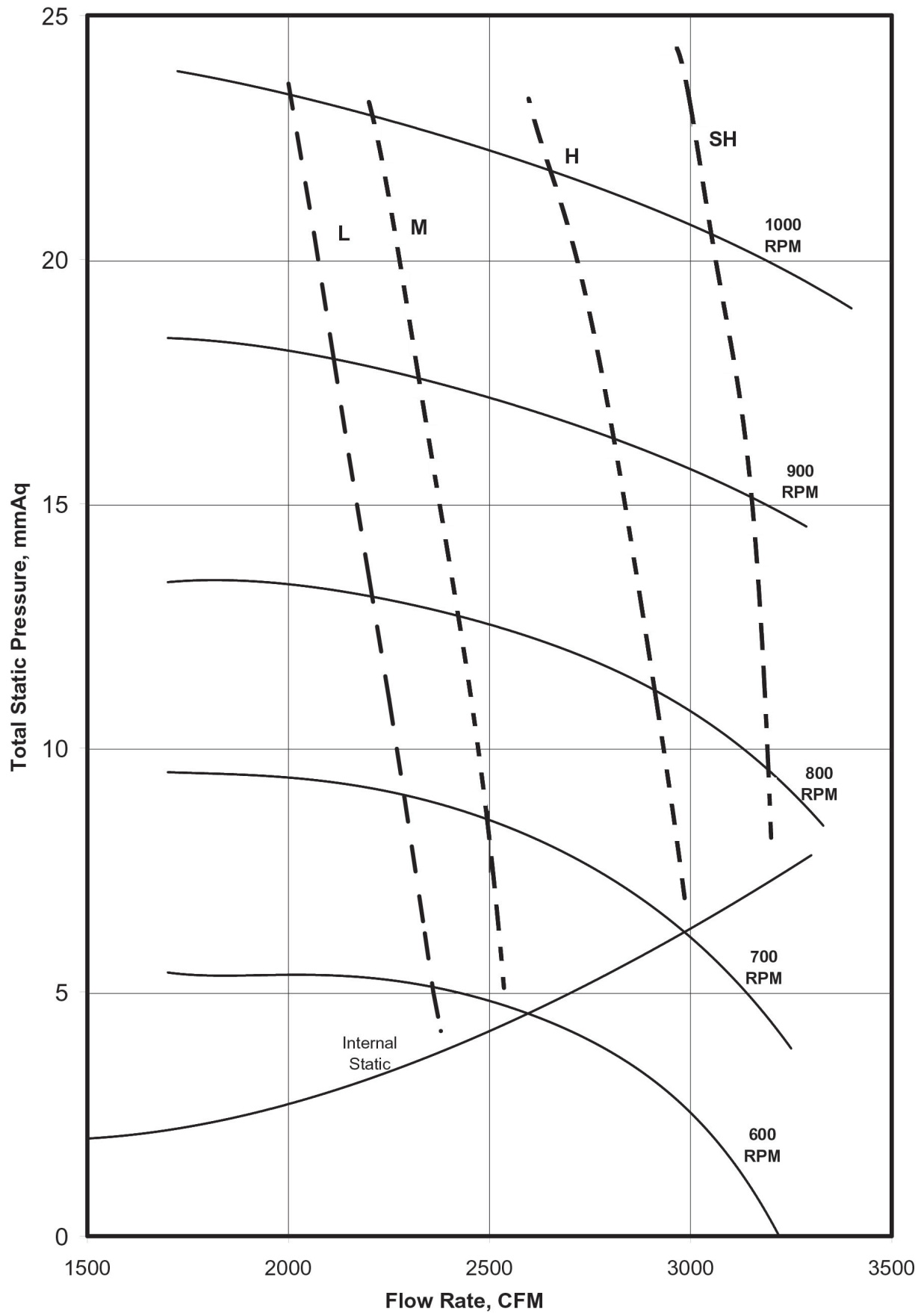
# MDB750B BLOWER PERFORMANCE CURVE



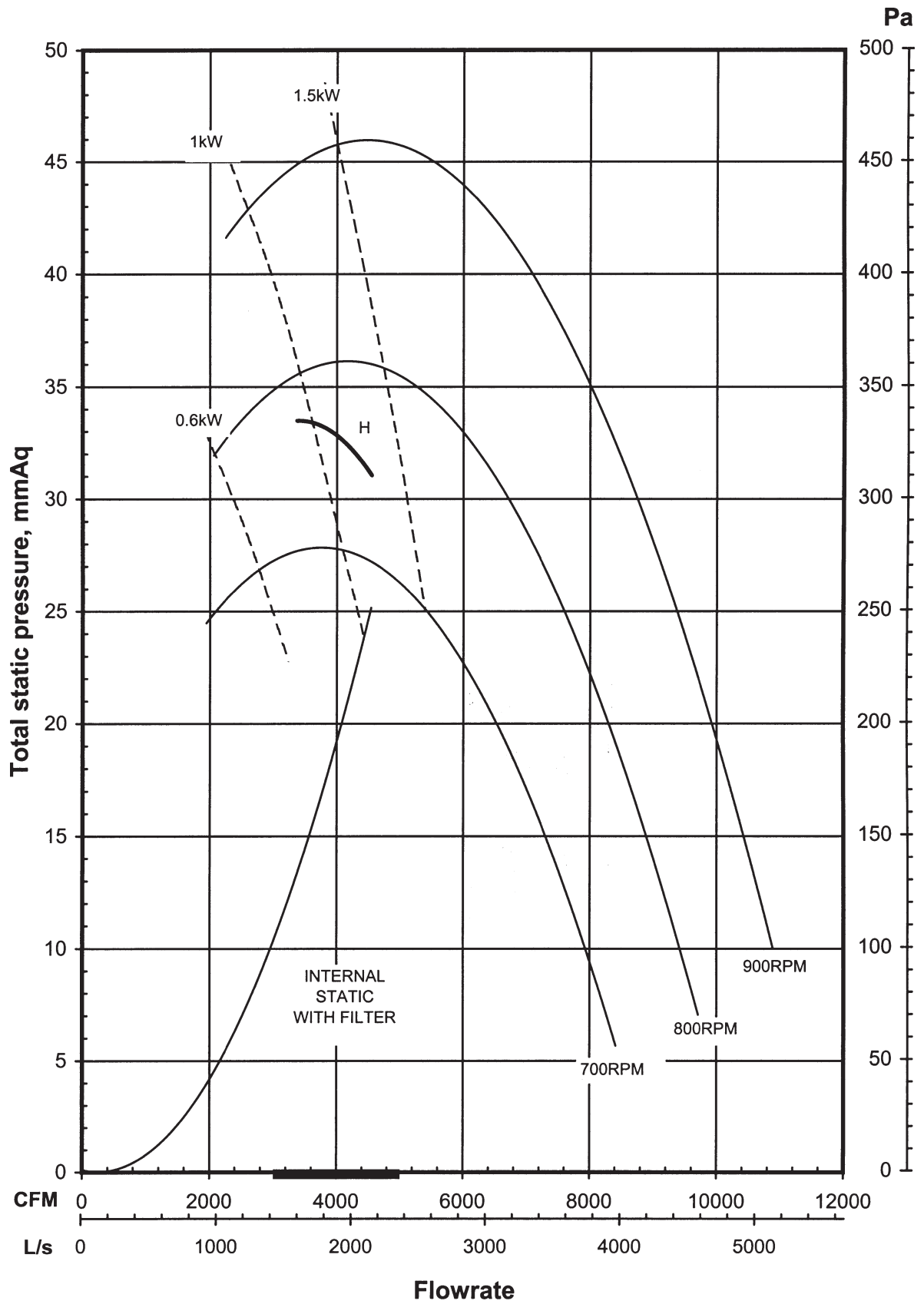
## MDB075D BLOWER PERFORMANCE CURVE



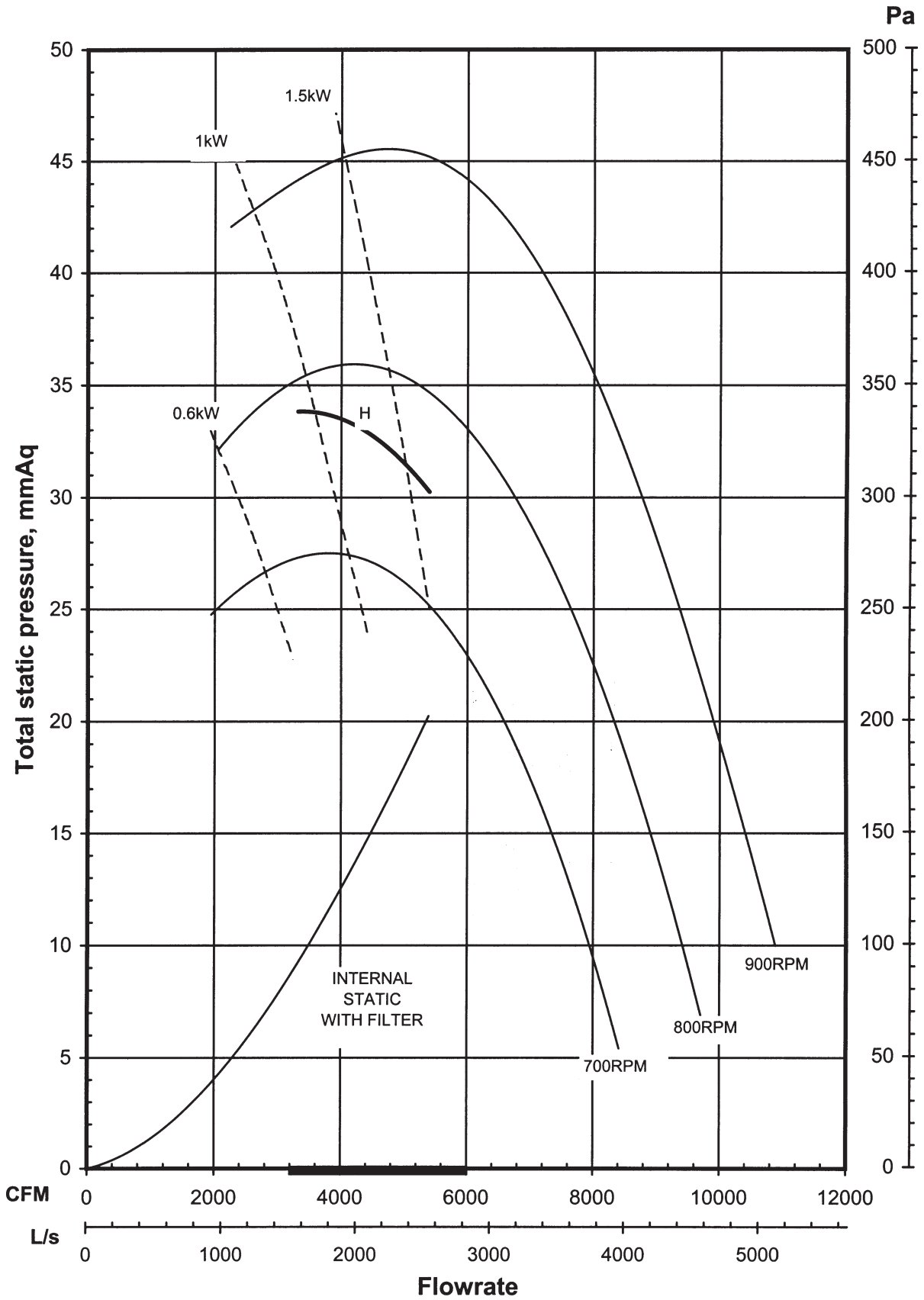
# MDB100D BLOWER PERFORMANCE CURVE



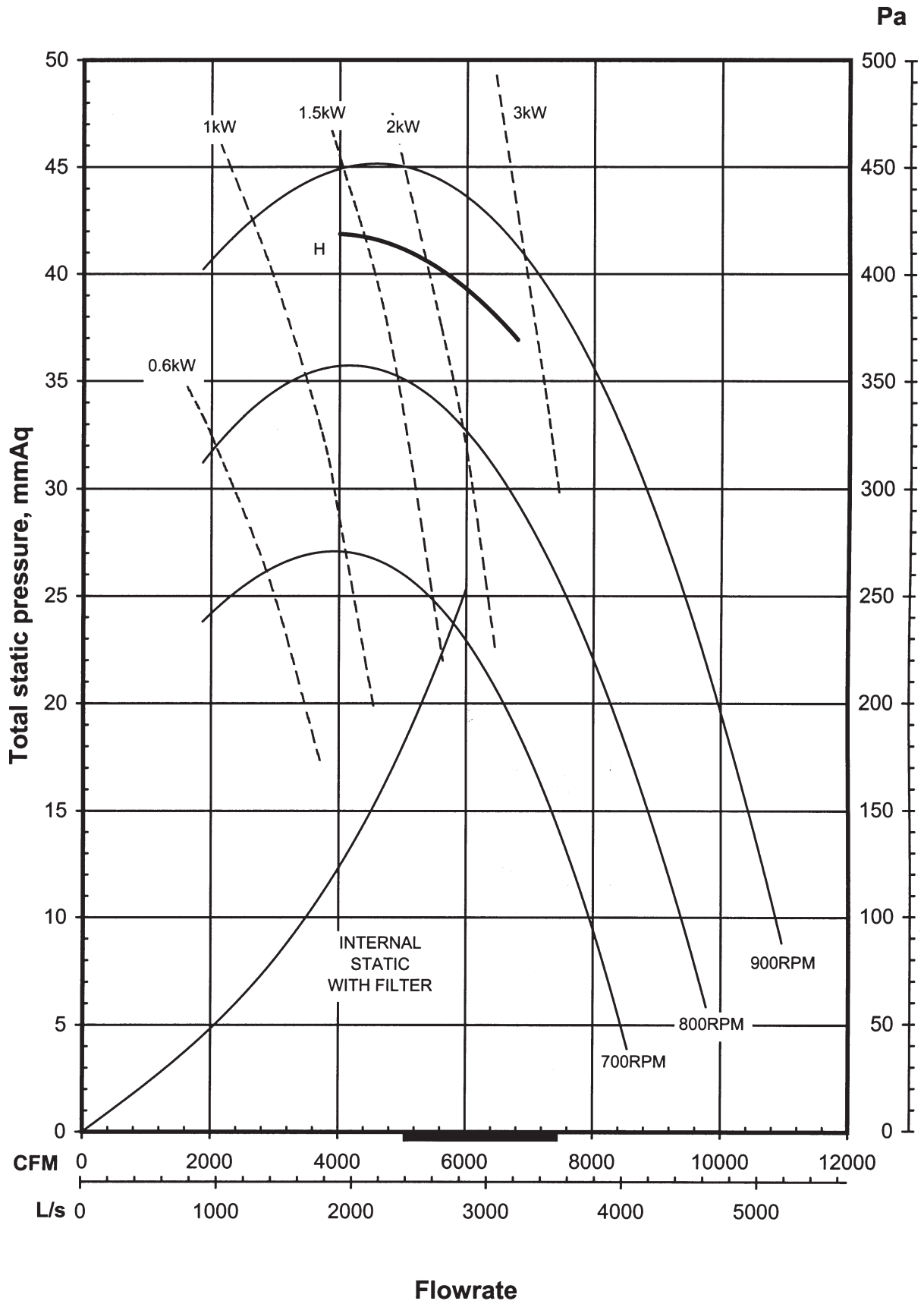
# MDB125D BLOWER PERFORMANCE CURVE



## MDB150D BLOWER PERFORMANCE CURVE

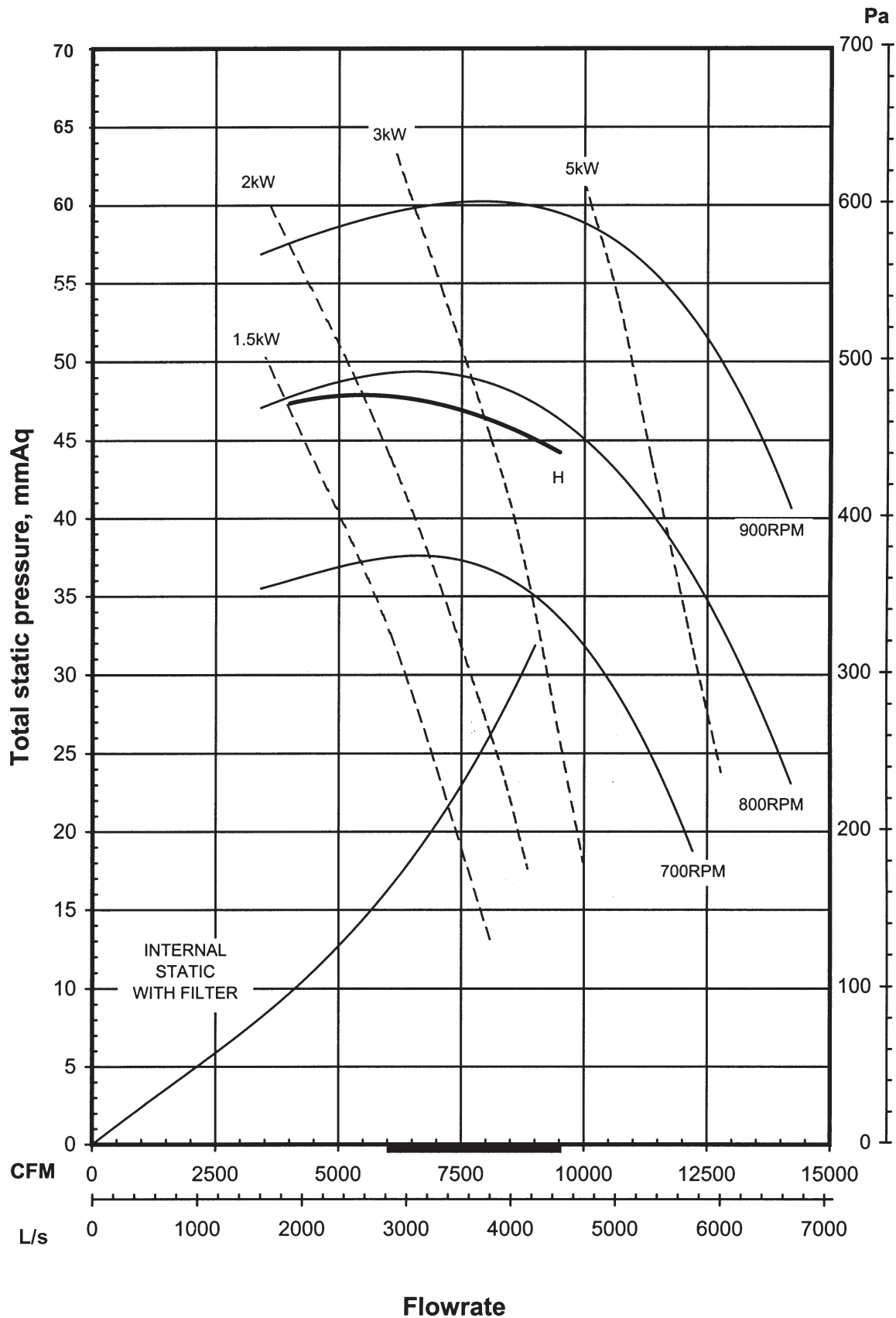


# MDB200D BLOWER PERFORMANCE CURVE

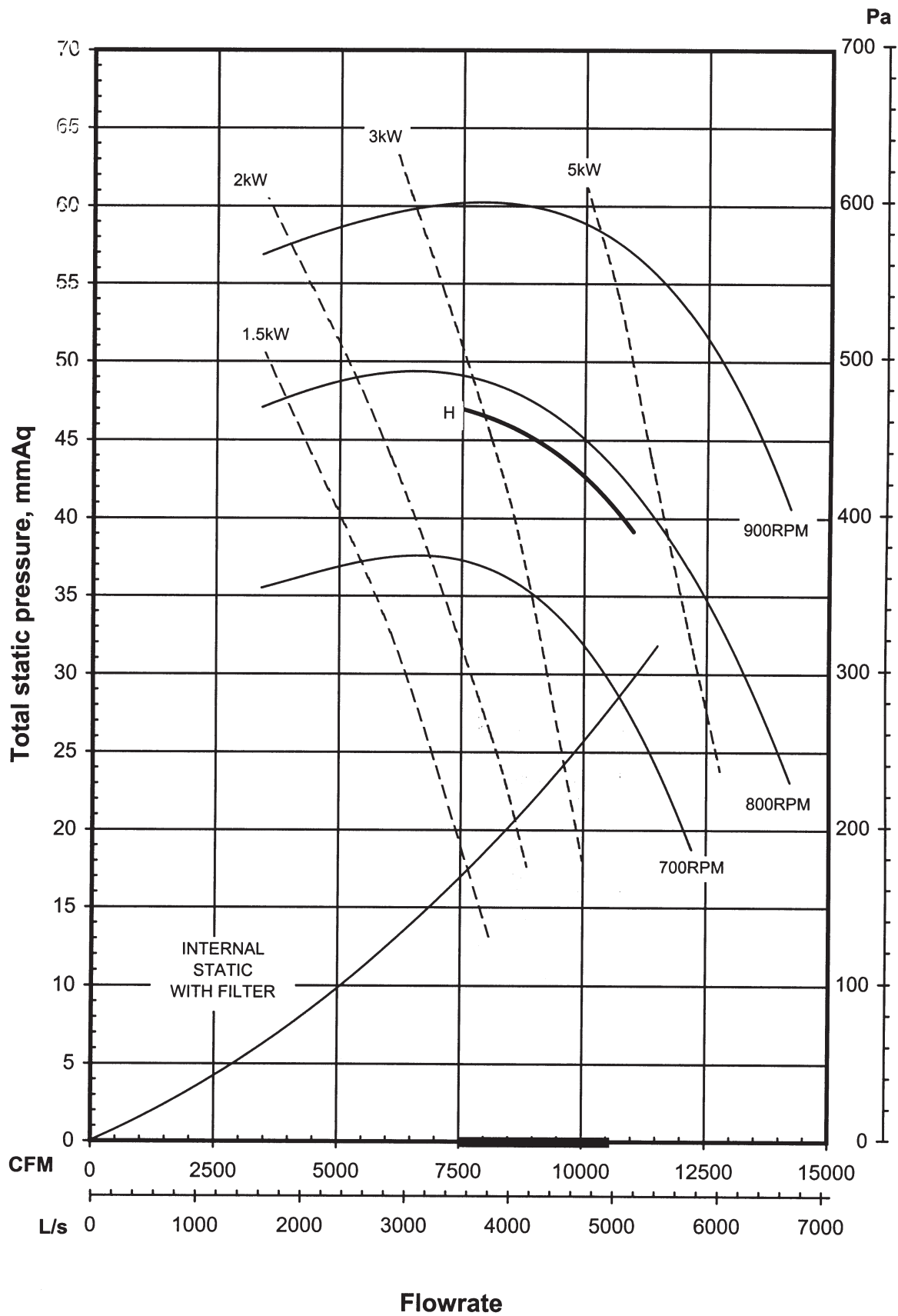




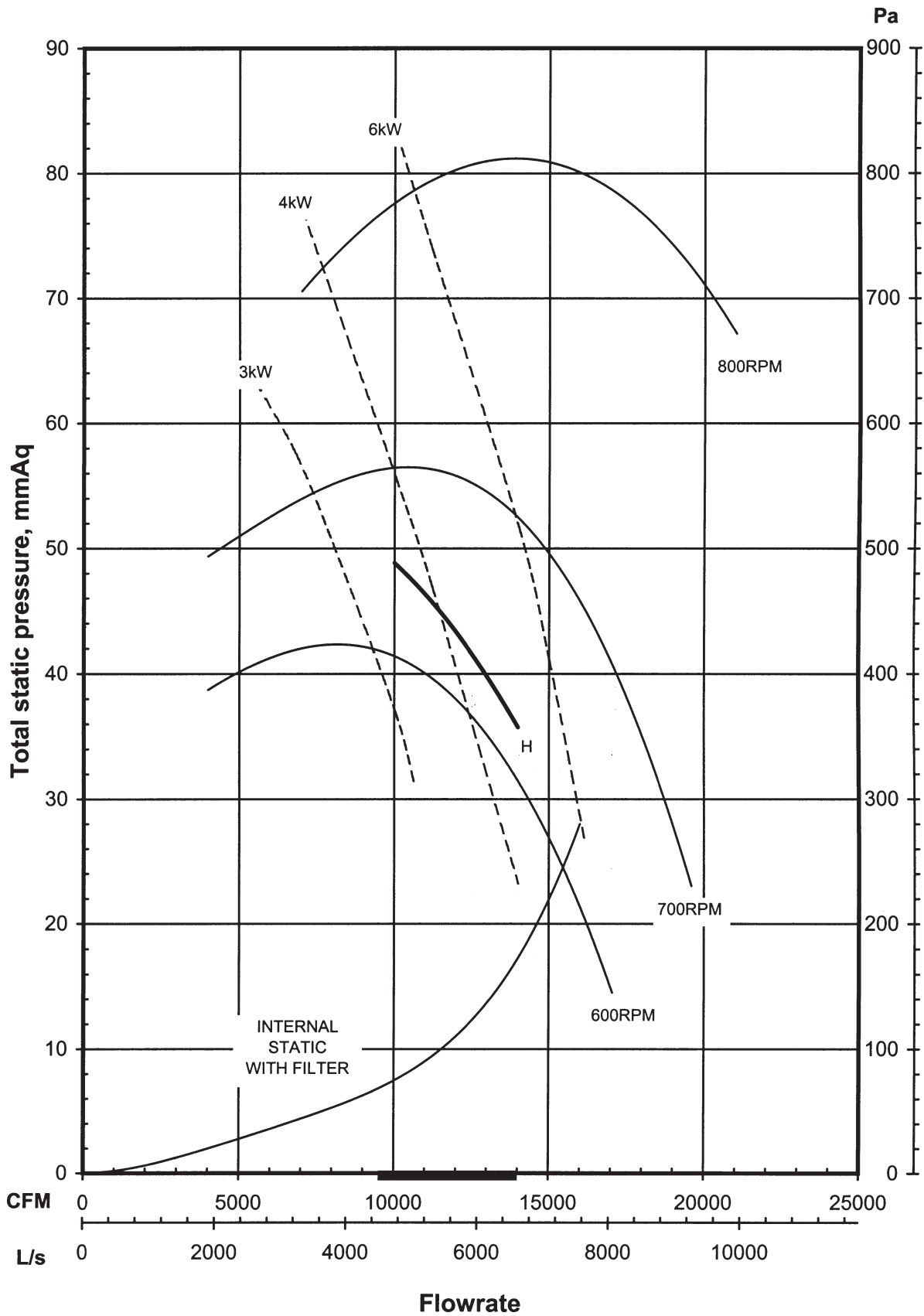
# MDB250D BLOWER PERFORMANCE CURVE



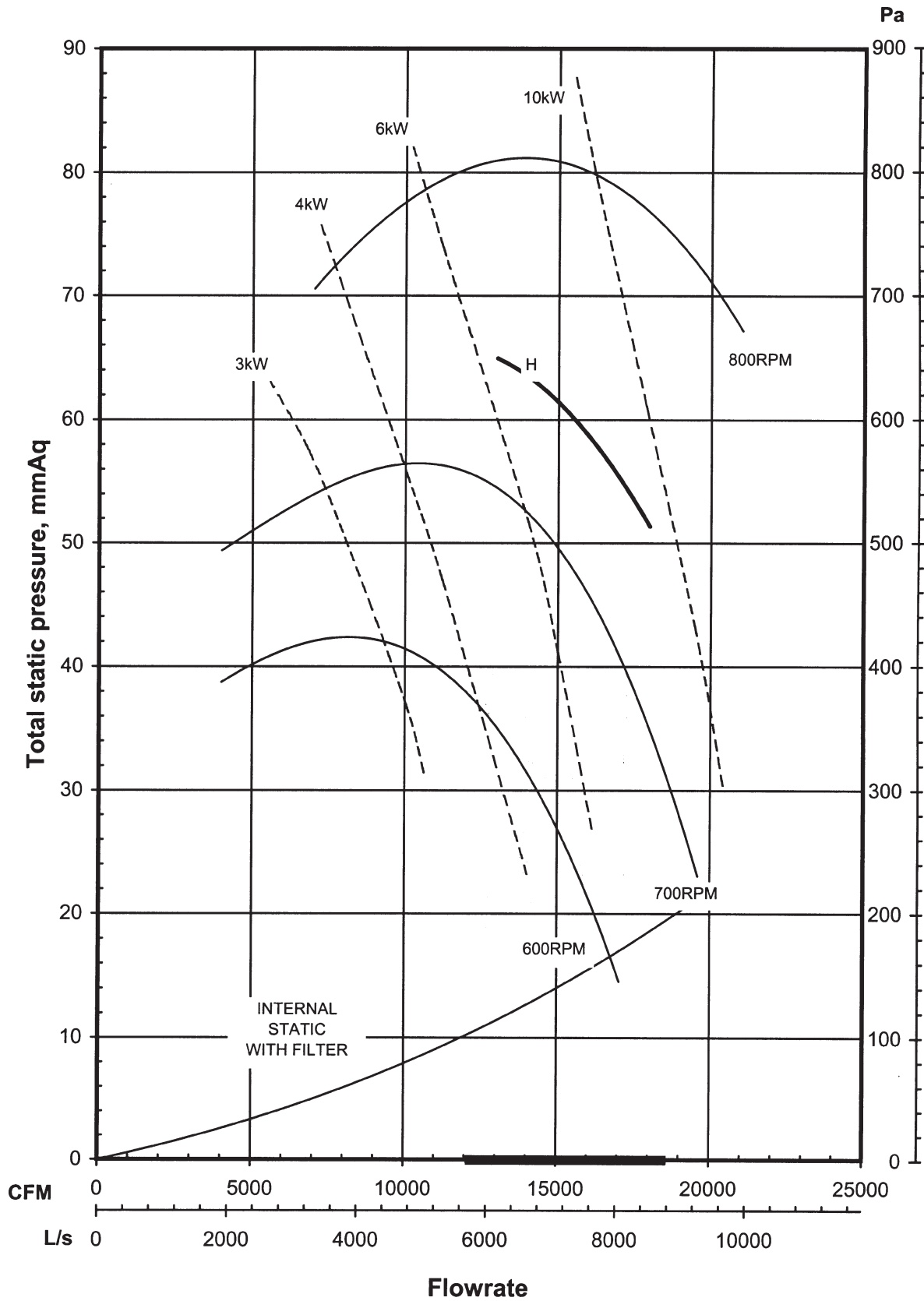
## MDB300D BLOWER PERFORMANCE CURVE



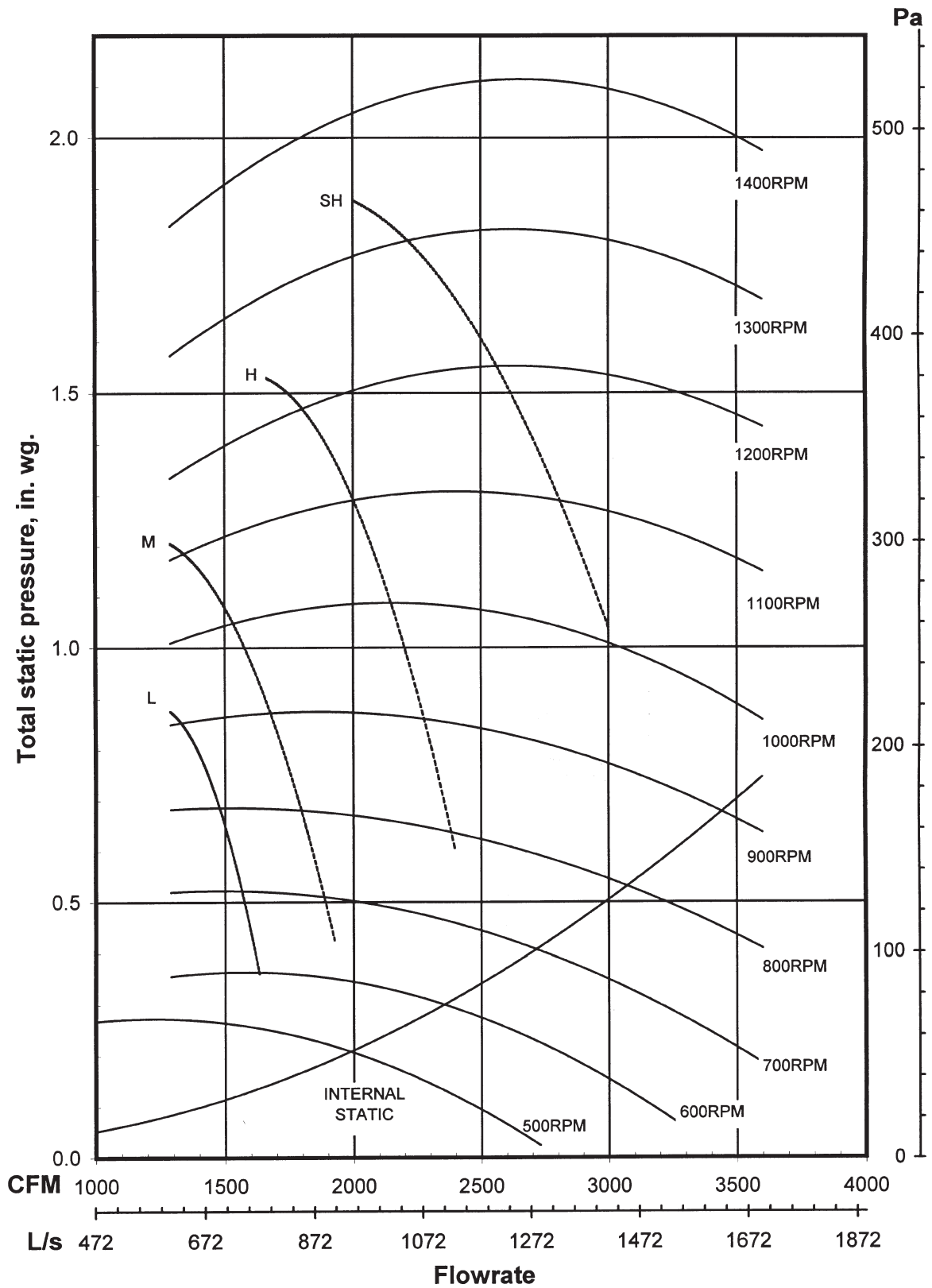
## MDB400D BLOWER PERFORMANCE CURVE



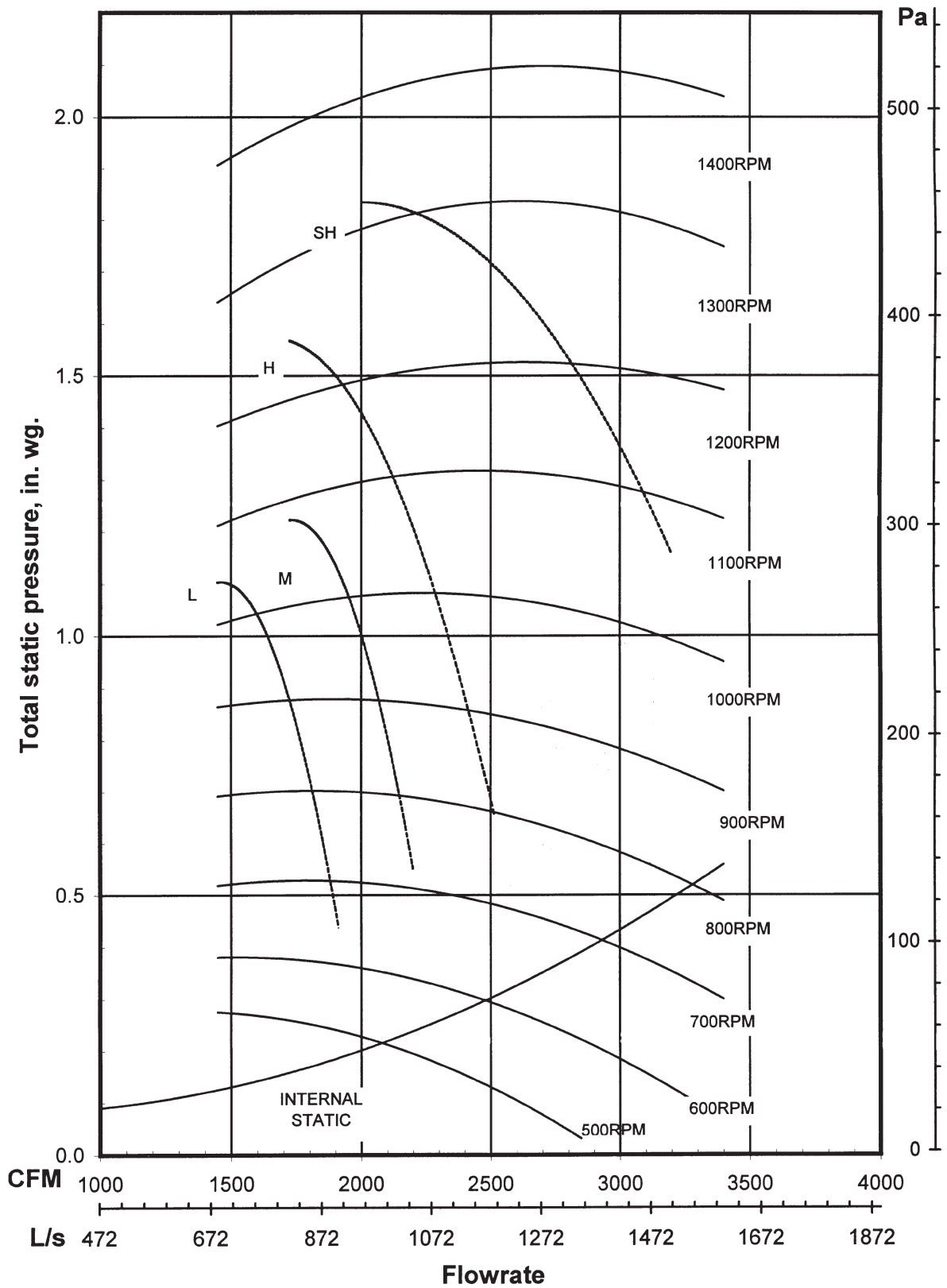
# MDB500D BLOWER PERFORMANCE CURVE



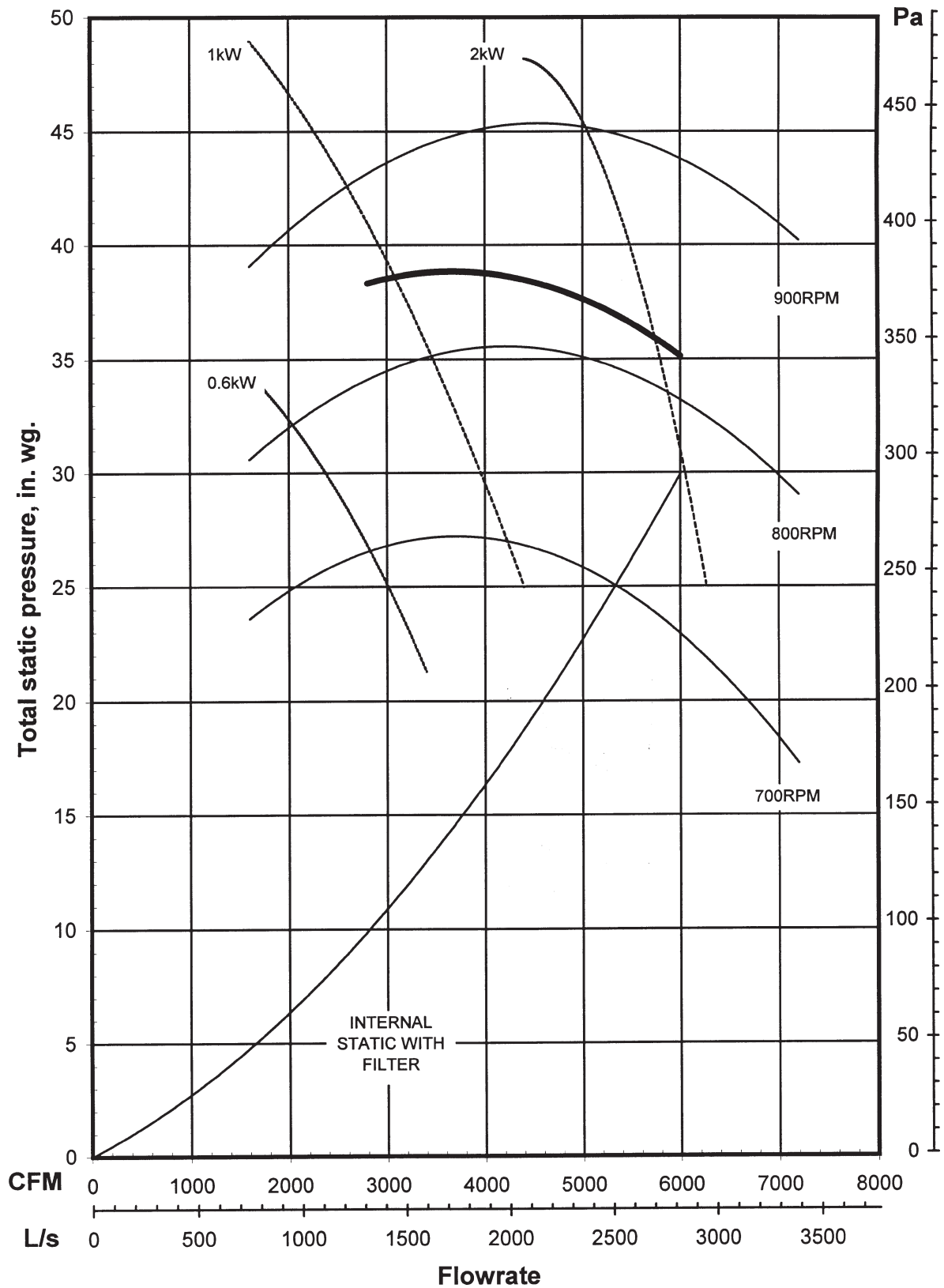
## MDB075D BLOWER PERFORMANCE CURVE VERY HIGH STATIC



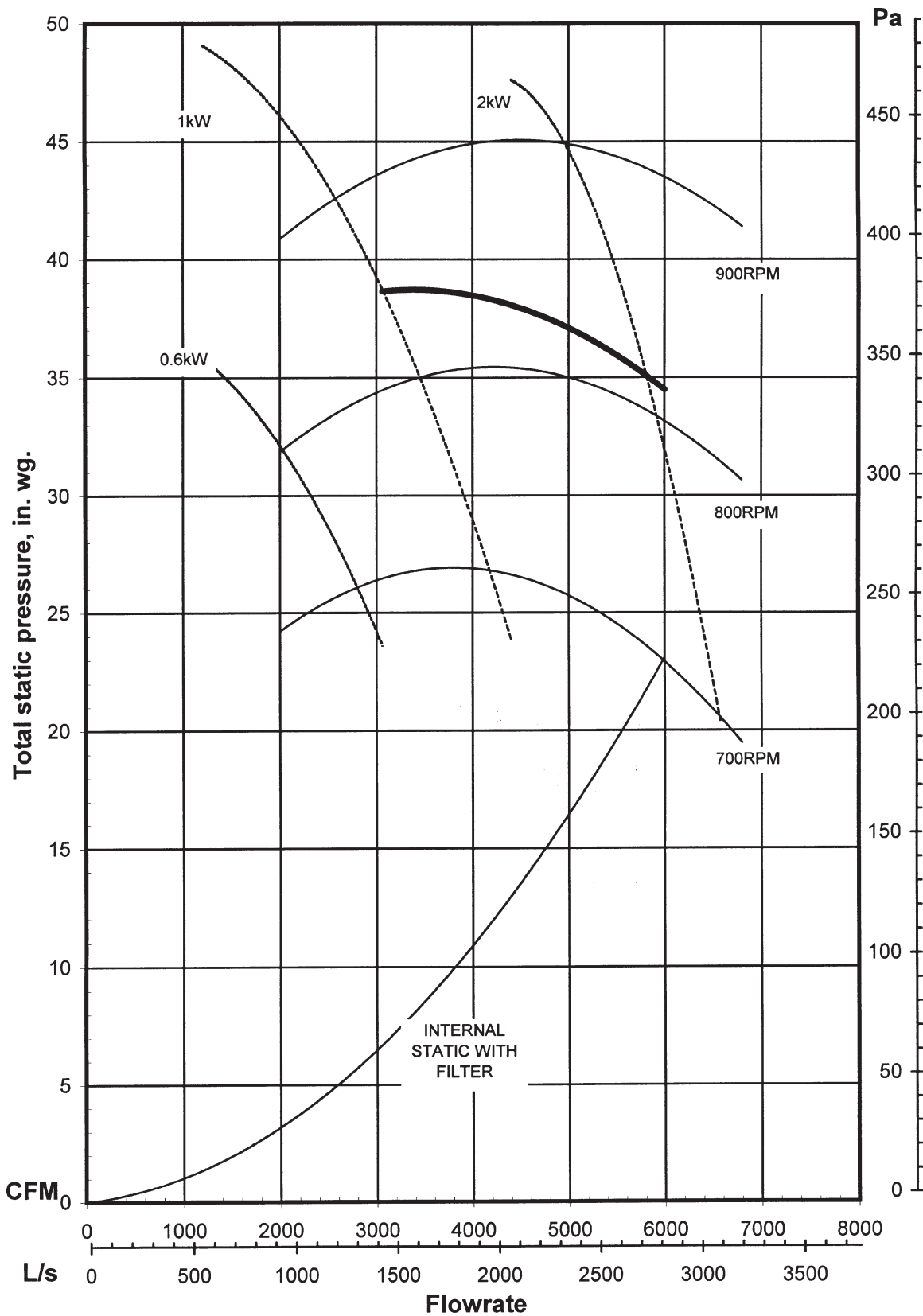
## MDB100D BLOWER PERFORMANCE CURVE VERY HIGH STATIC



## MDB125D BLOWER PERFORMANCE CURVE VERY HIGH STATIC



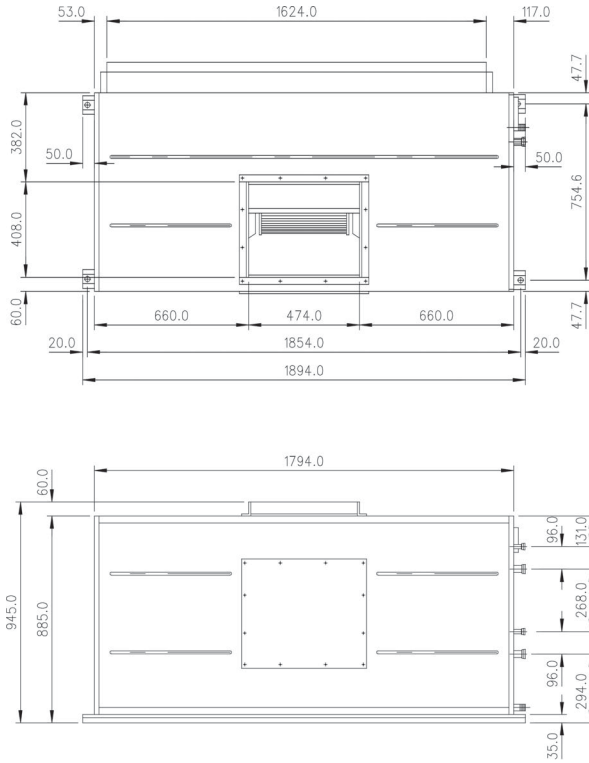
## MDB150D BLOWER PERFORMANCE CURVE VERY HIGH STATIC



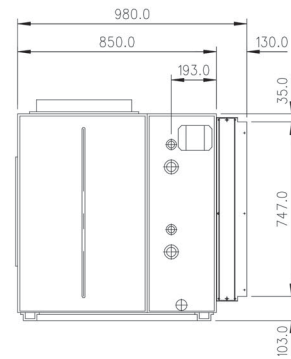


# Outlines And Dimensions (Indoor)

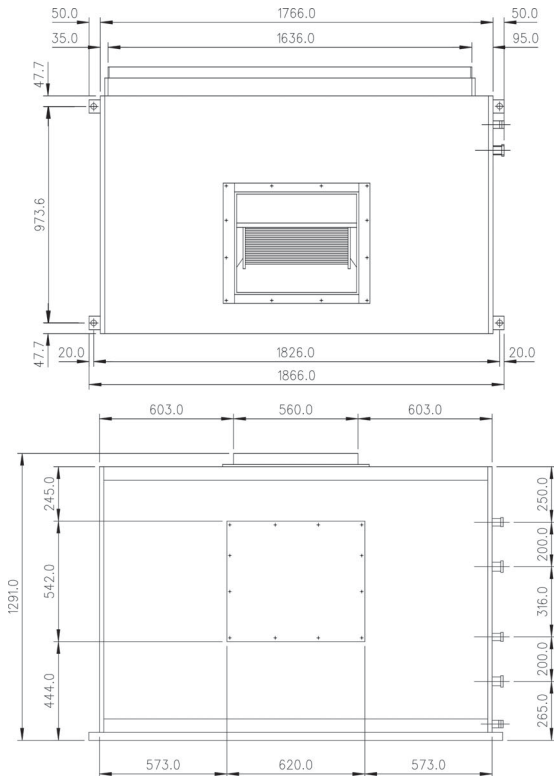
**MDB~B Series**  
**Model : MDB200B2**



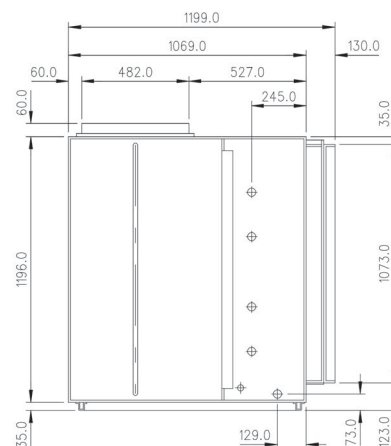
NOTE :  
 FOR VERTICAL AIR DISCHARGE



**Model : MDB250/300B2**

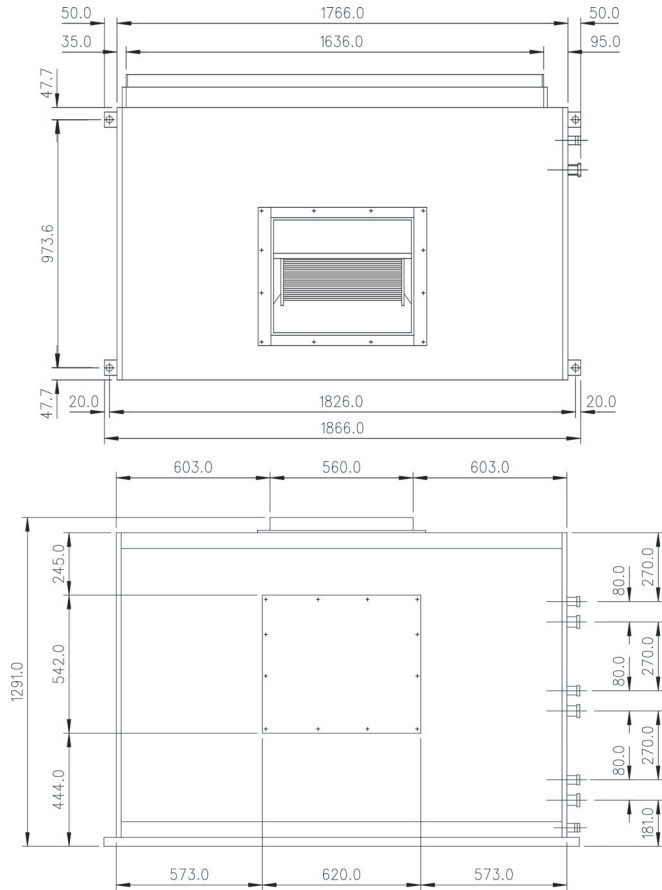


NOTE :  
 FOR VERTICAL AIR DISCHARGE

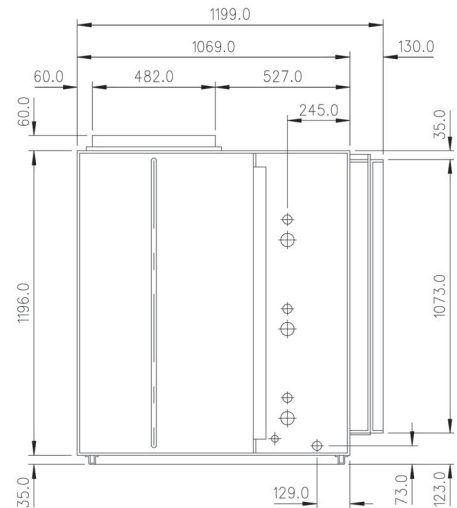


Note :All unit in mm

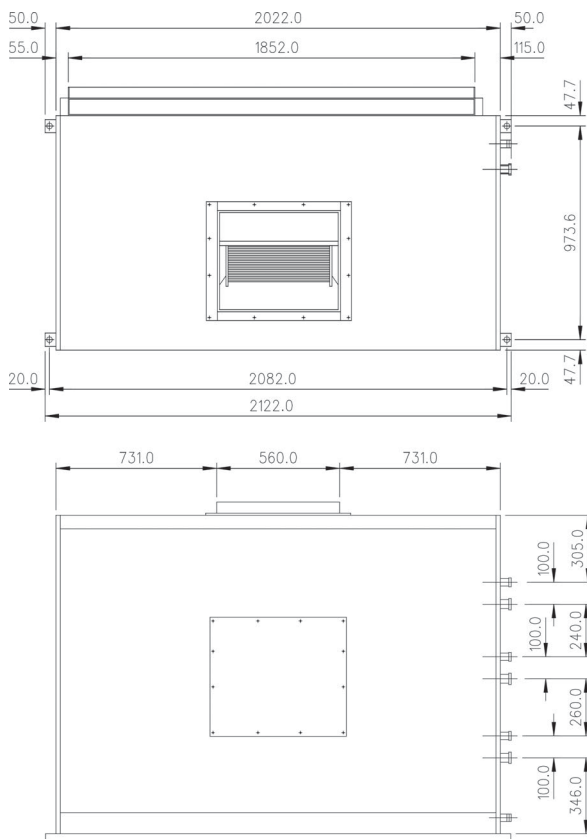
**Model : MDB300B3**



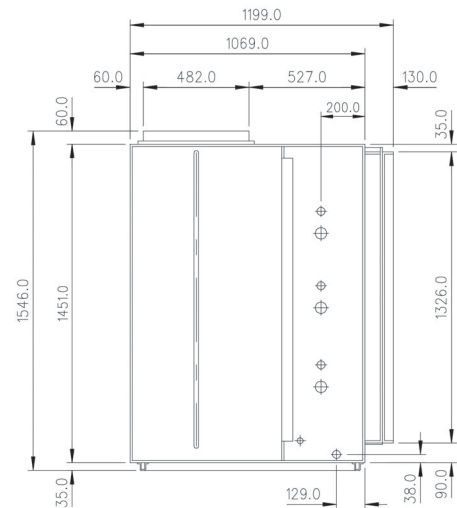
**NOTE :**  
**FOR VERTICAL AIR DISCHARGE**



**Model : MDB350B3**

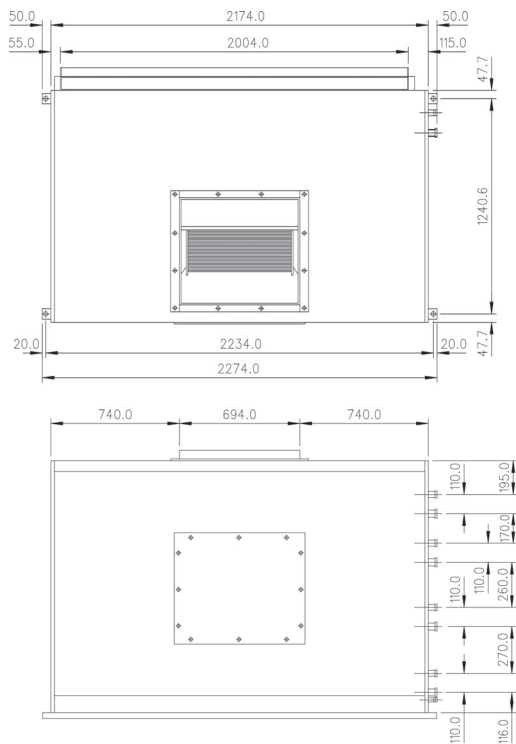


**NOTE :**  
**FOR VERTICAL AIR DISCHARGE**

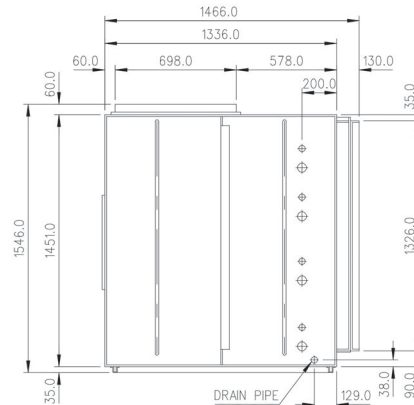


Note :All unit in mm

**Model : MDB400/500B4, MDB450B3**



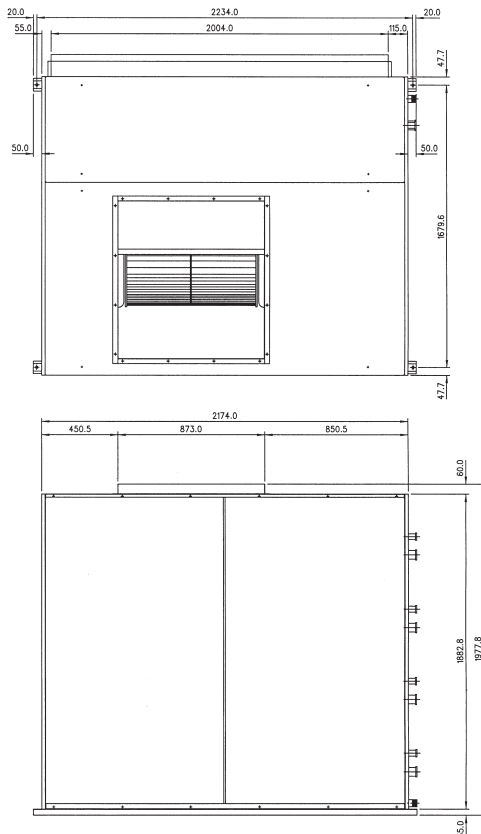
**NOTE :**  
FOR VERTICAL AIR DISCHARGE



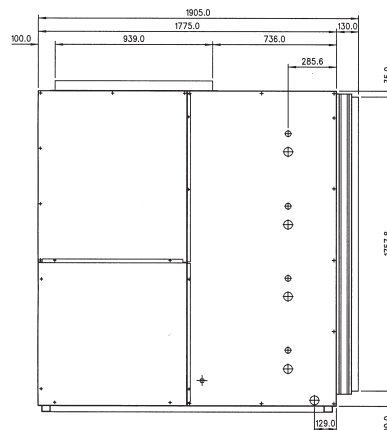
*Note : MDB200-500B models are available in vertical air discharge as standard; Convertible at field.*

**Model : MDB600B4**

**\*CAN CUSTOMIZE TO TO HORIZONTAL OR VERTICAL AIR DISCHARGE; NOT CONVERTIBLE AT FIELD**



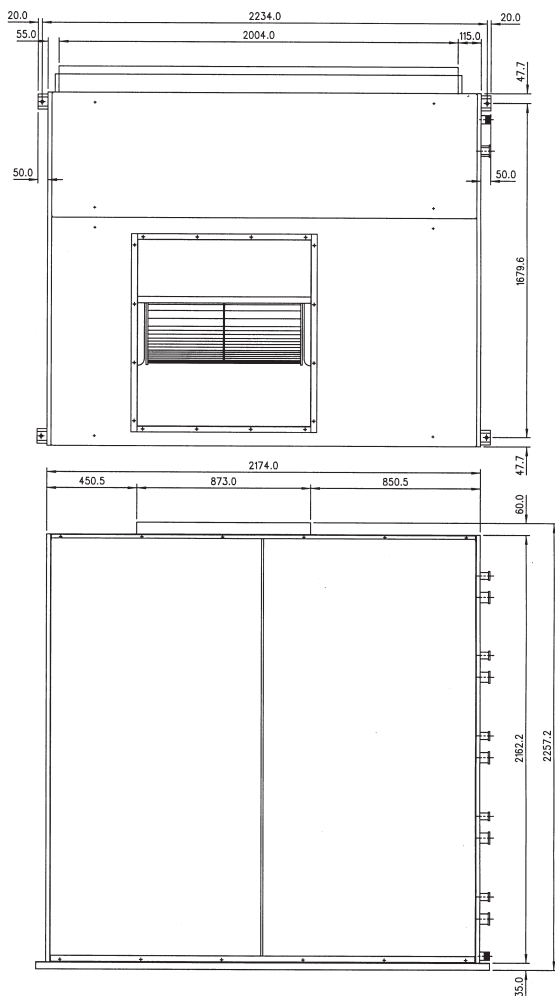
**NOTE :**  
FOR VERTICAL AIR DISCHARGE



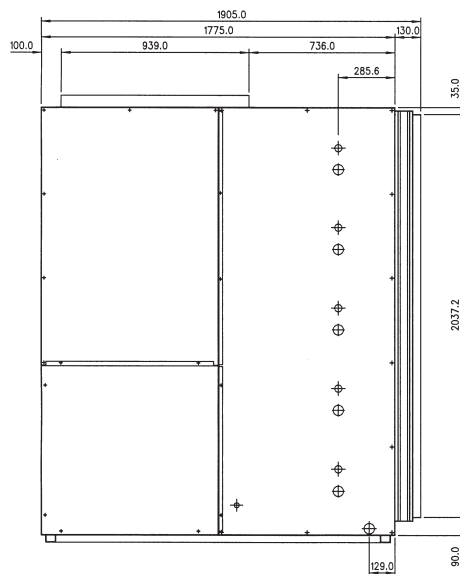
Note :All unit in mm

**Model : MDB750B5**

**\*CAN CUSTOMIZE TO TO HORIZONTAL OR VERTICAL AIR DISCHARGE; NOT CONVERTIBLE AT FIELD**

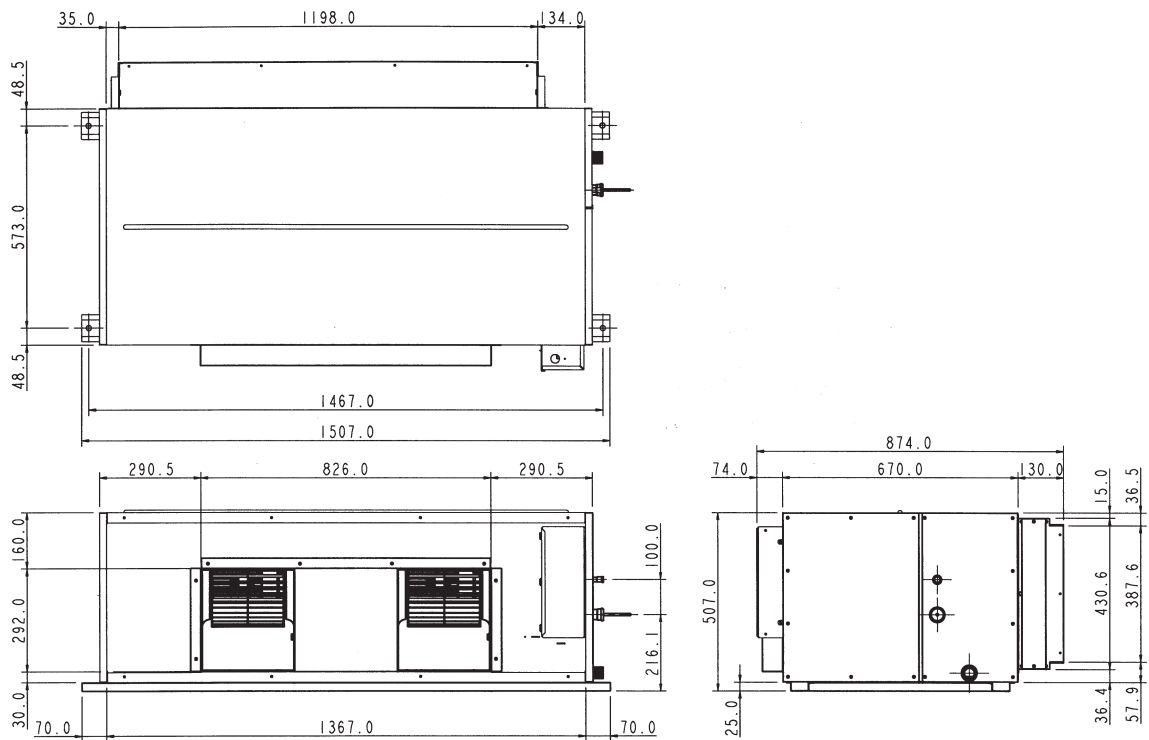


NOTE :  
FOR VERTICAL AIR DISCHARGE

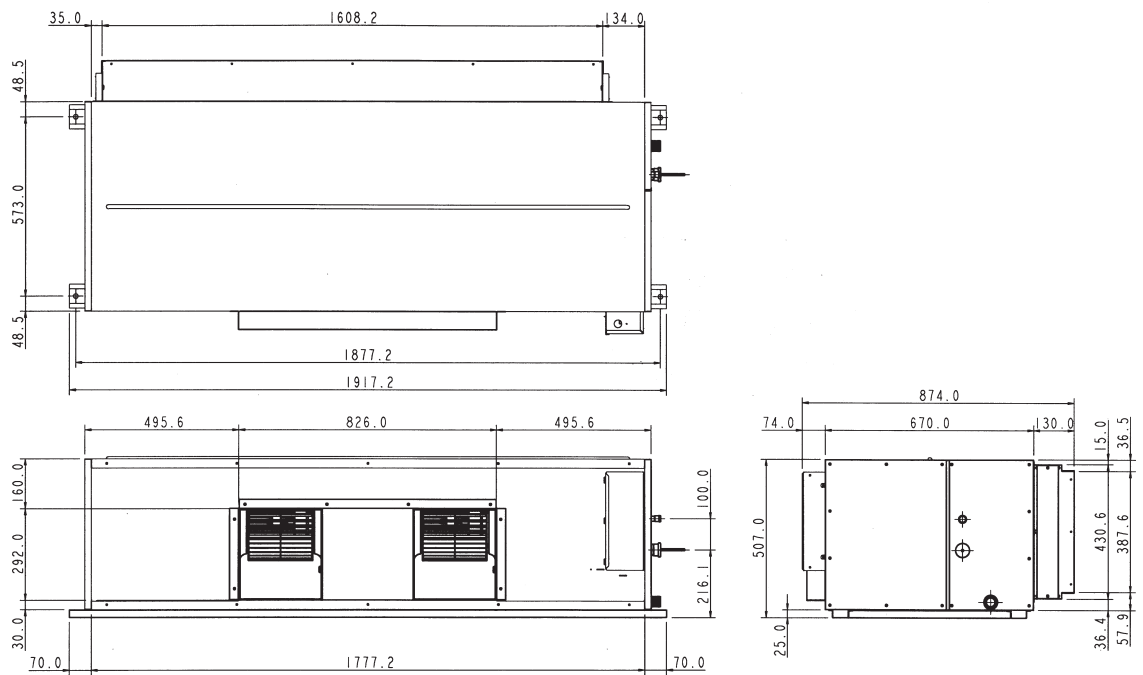


Note :All unit in mm

**MDB ~ D Series**  
**Model : MDB 075D**

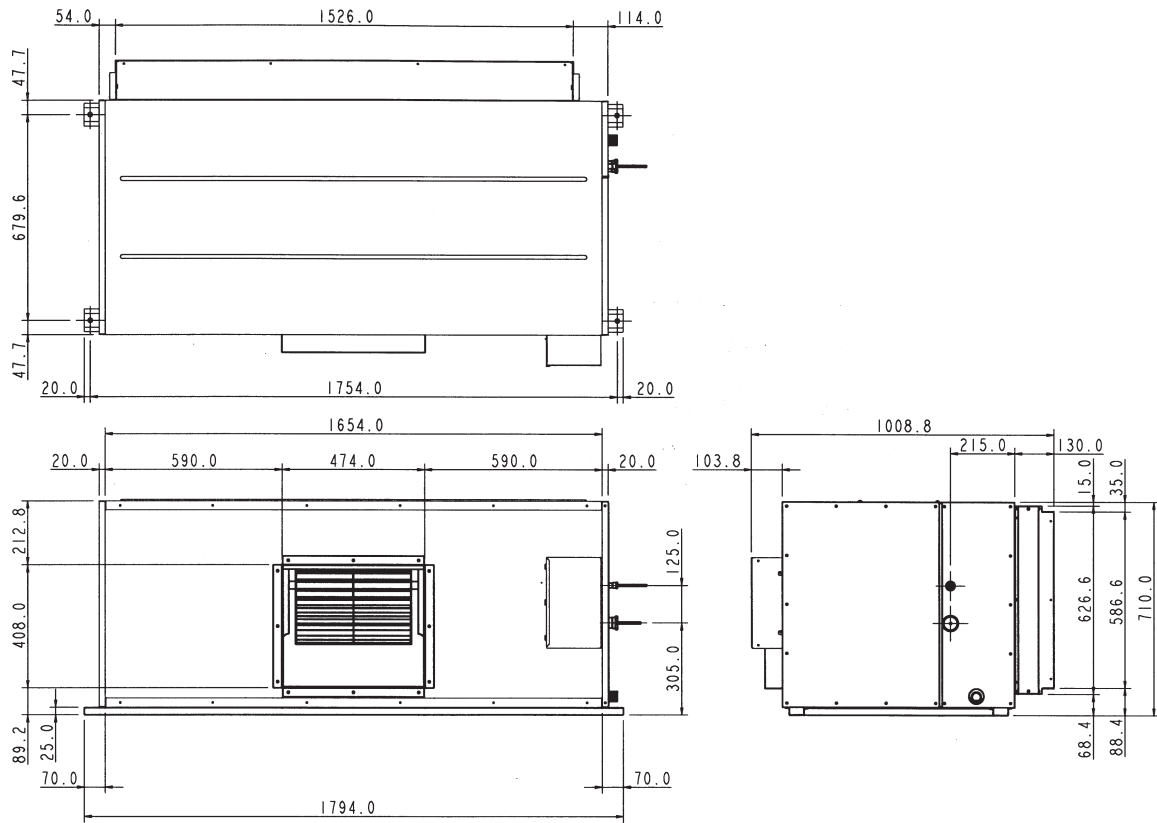


**Model : MDB 100D**

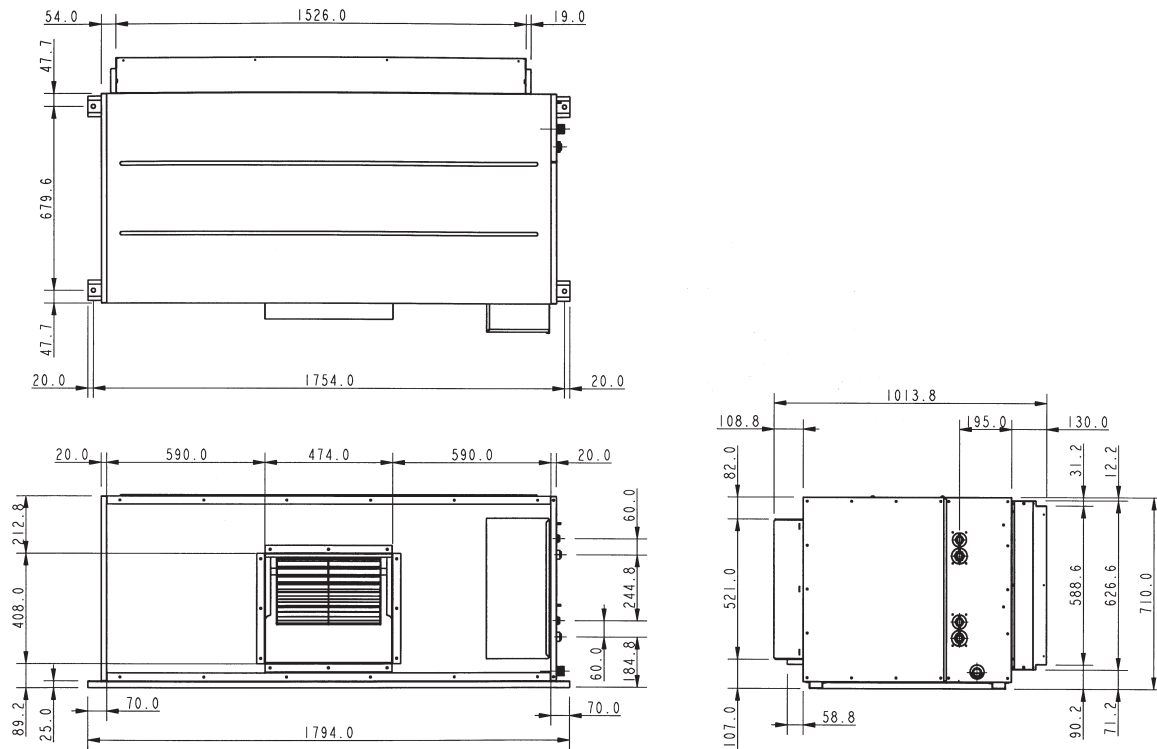


Note :All unit in mm

**Model : MDB 125D**

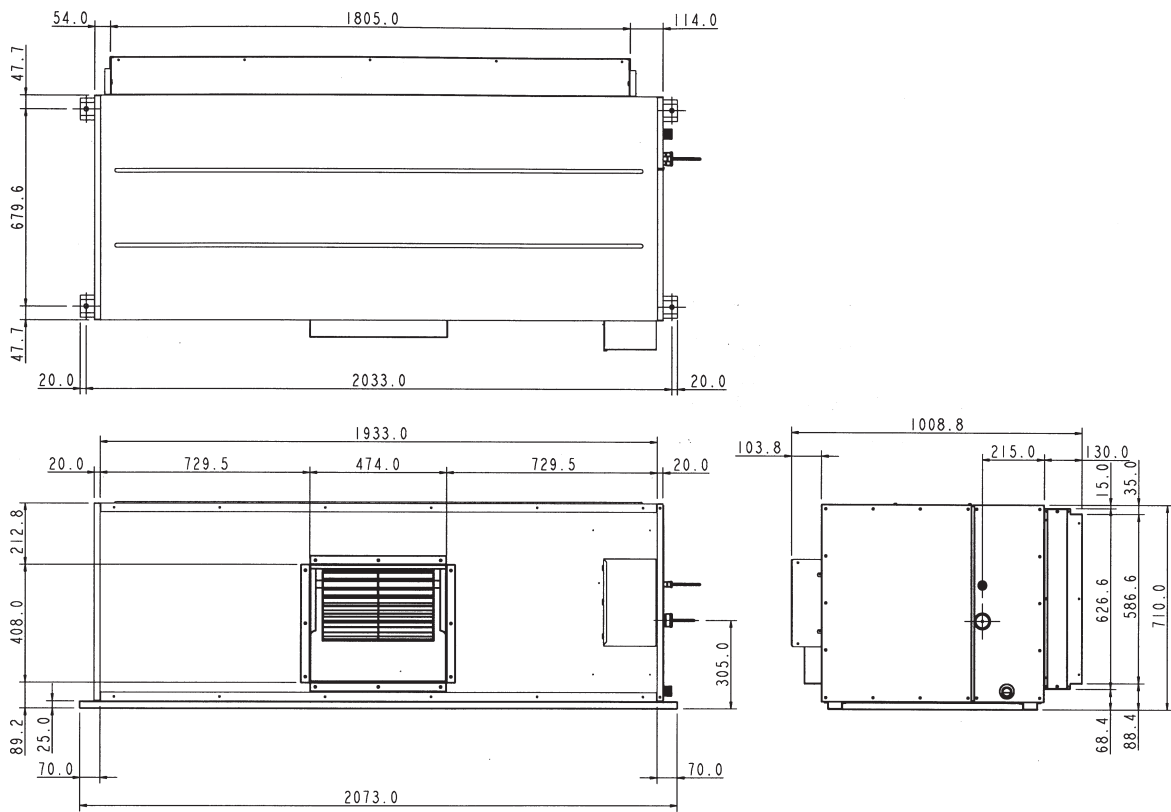


**Model : MDB 125D2**

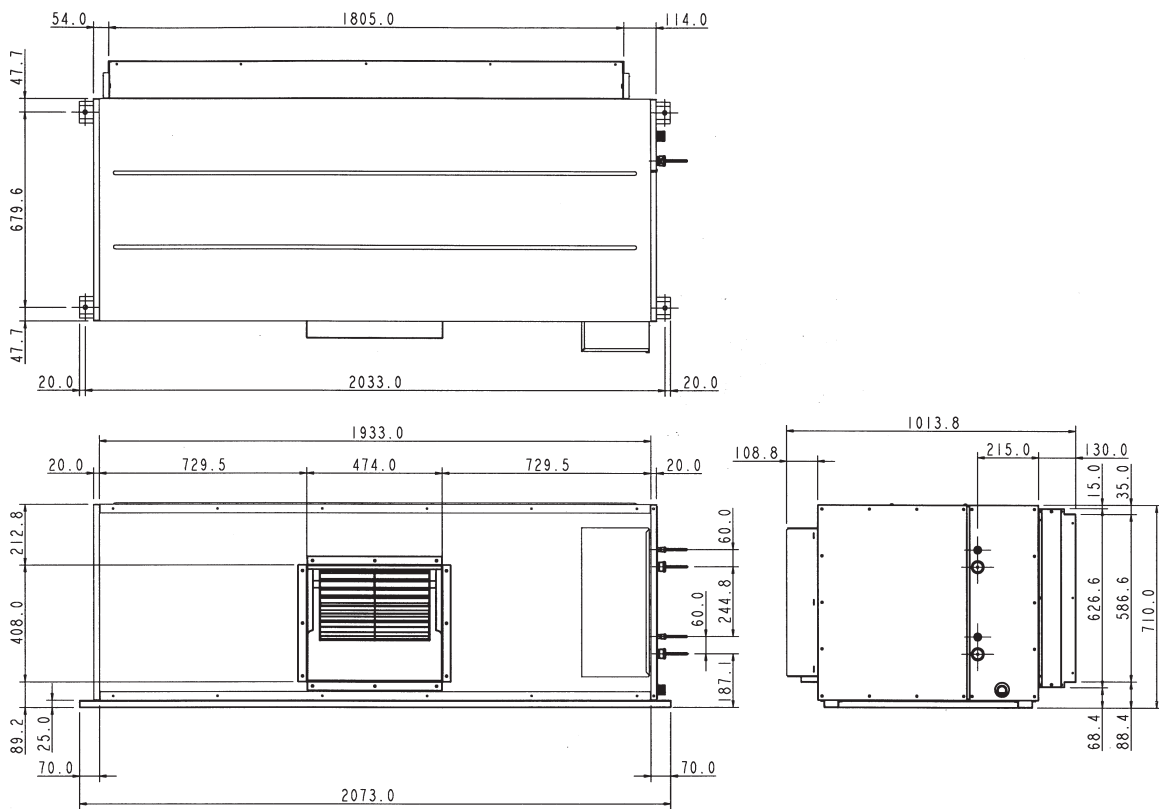


Note :All unit in mm

**Model : MDB 150D**

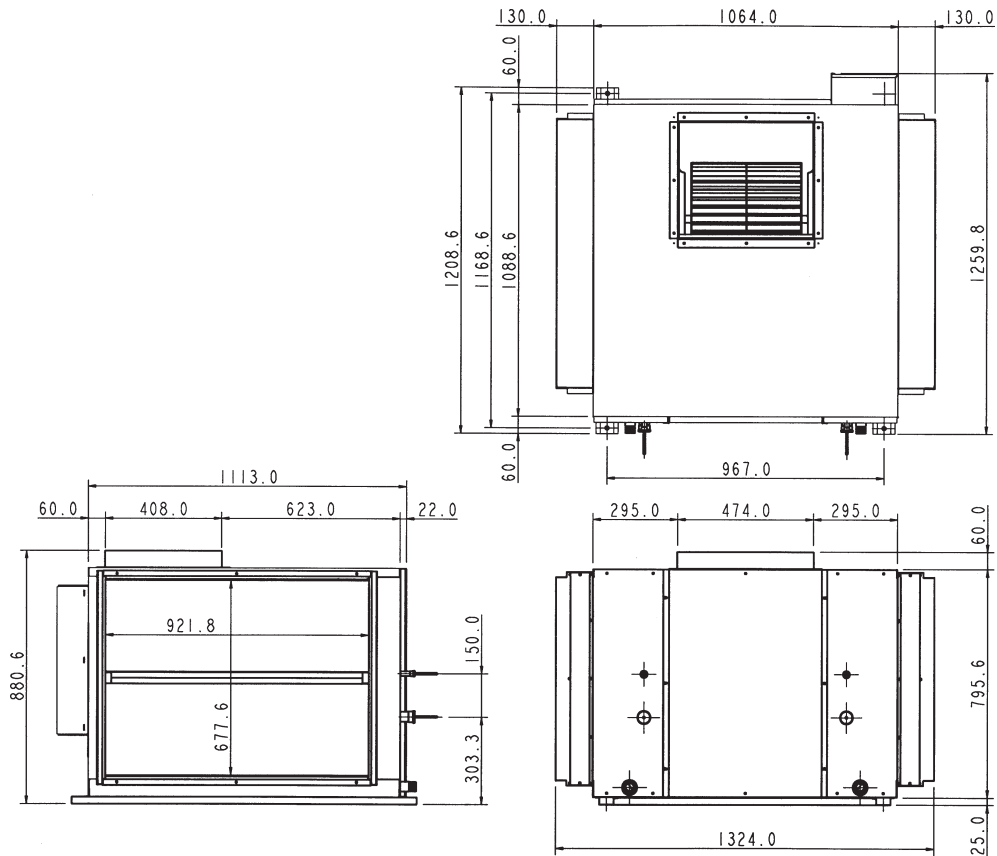


**Model : MDB 150D2**

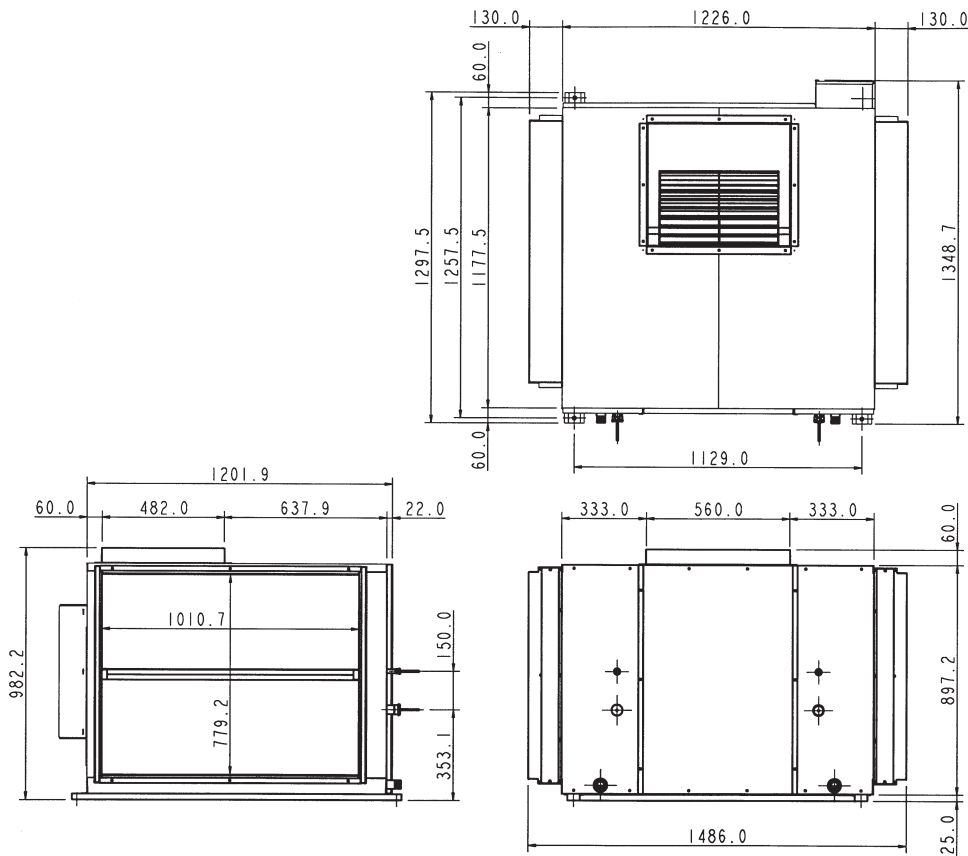


Note :All unit in mm

**Model : MDB 200D2**



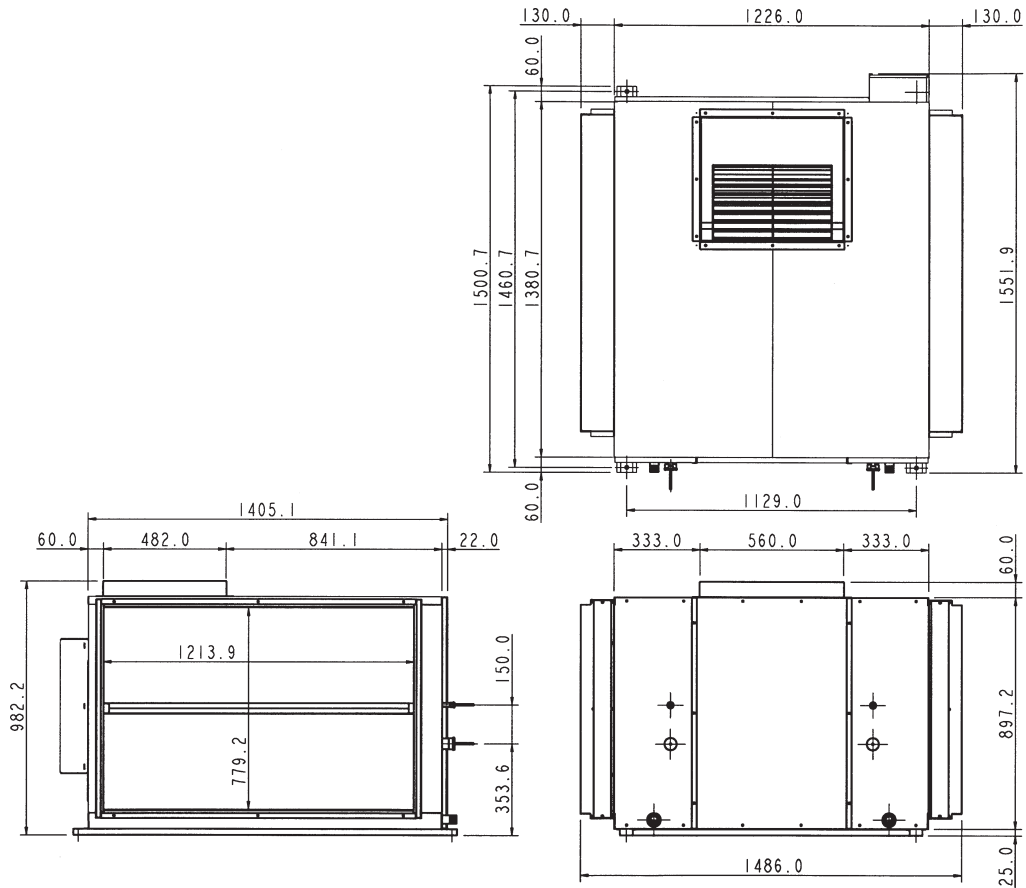
**Model : MDB 250D2**



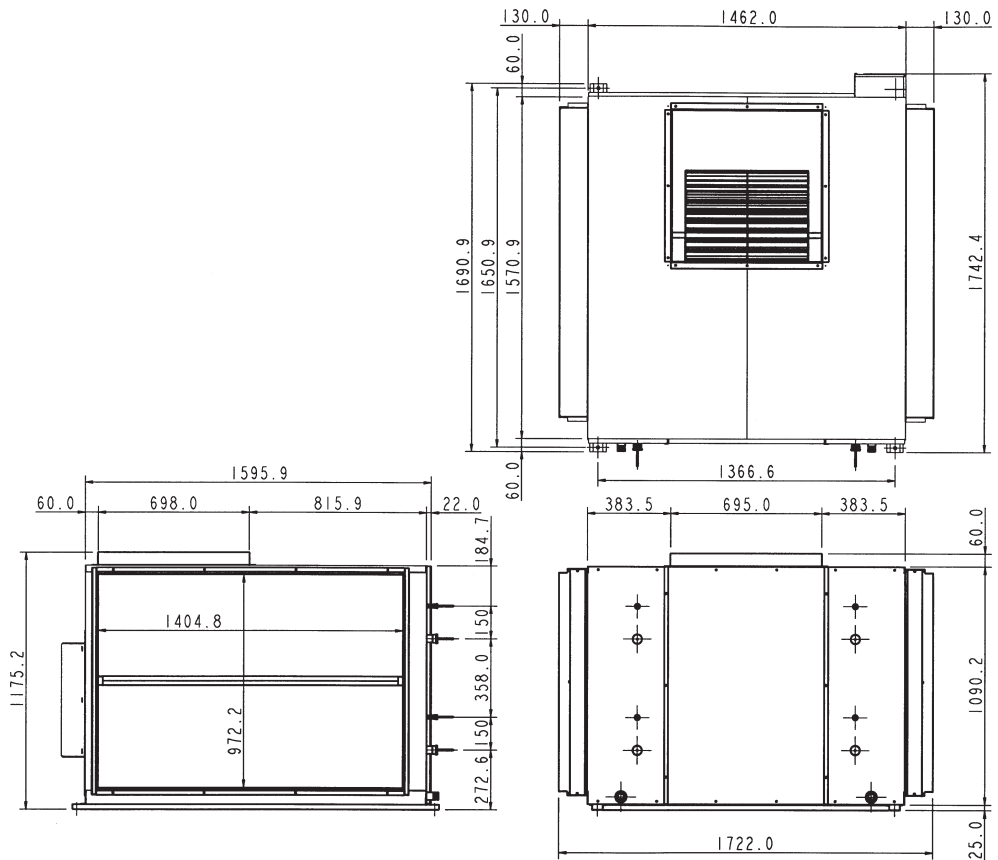
Note :All unit in mm



**Model : MDB 300D2**

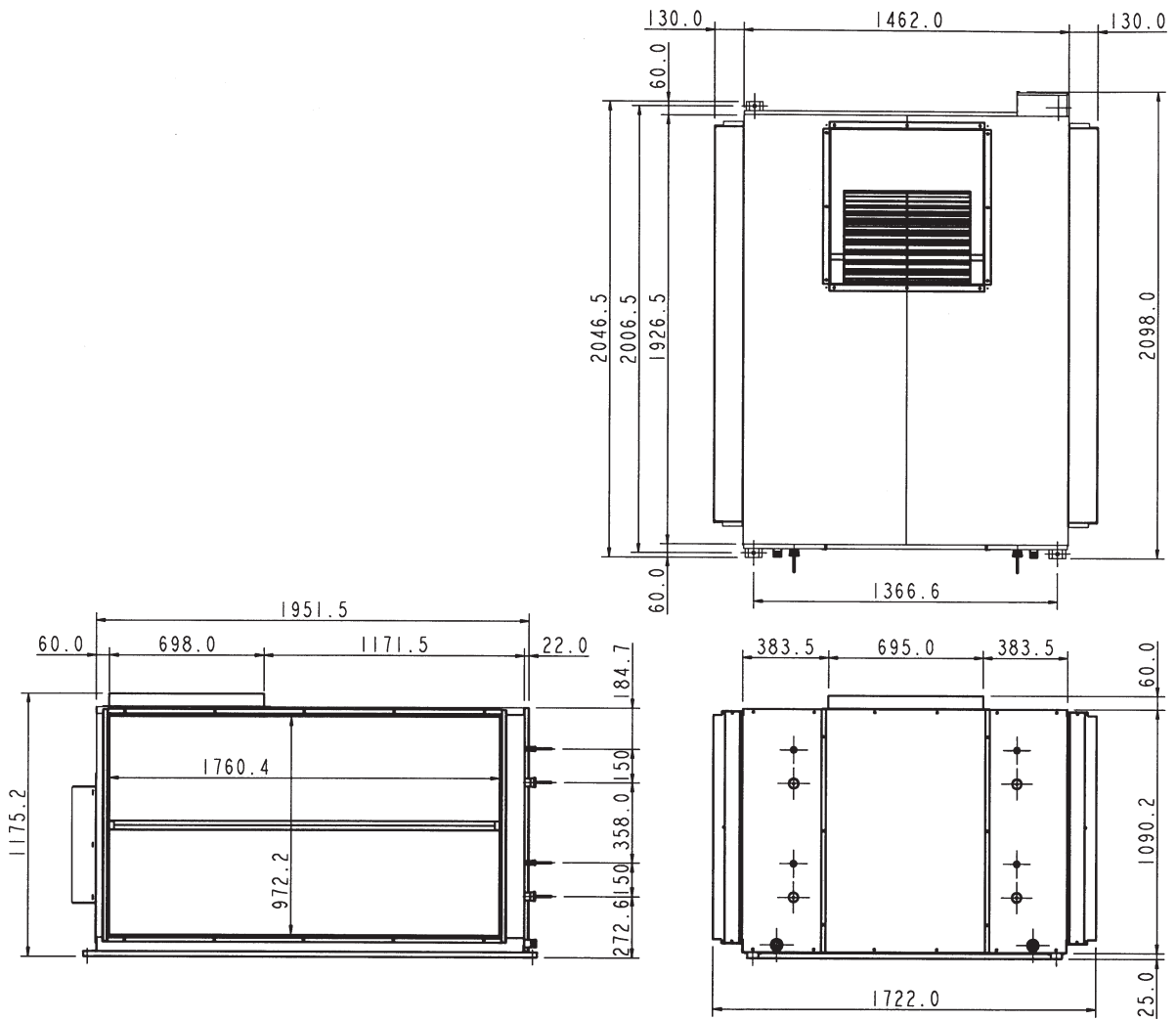


**Model : MDB 400D4**



Note :All unit in mm

**Model : MDB 500D4**

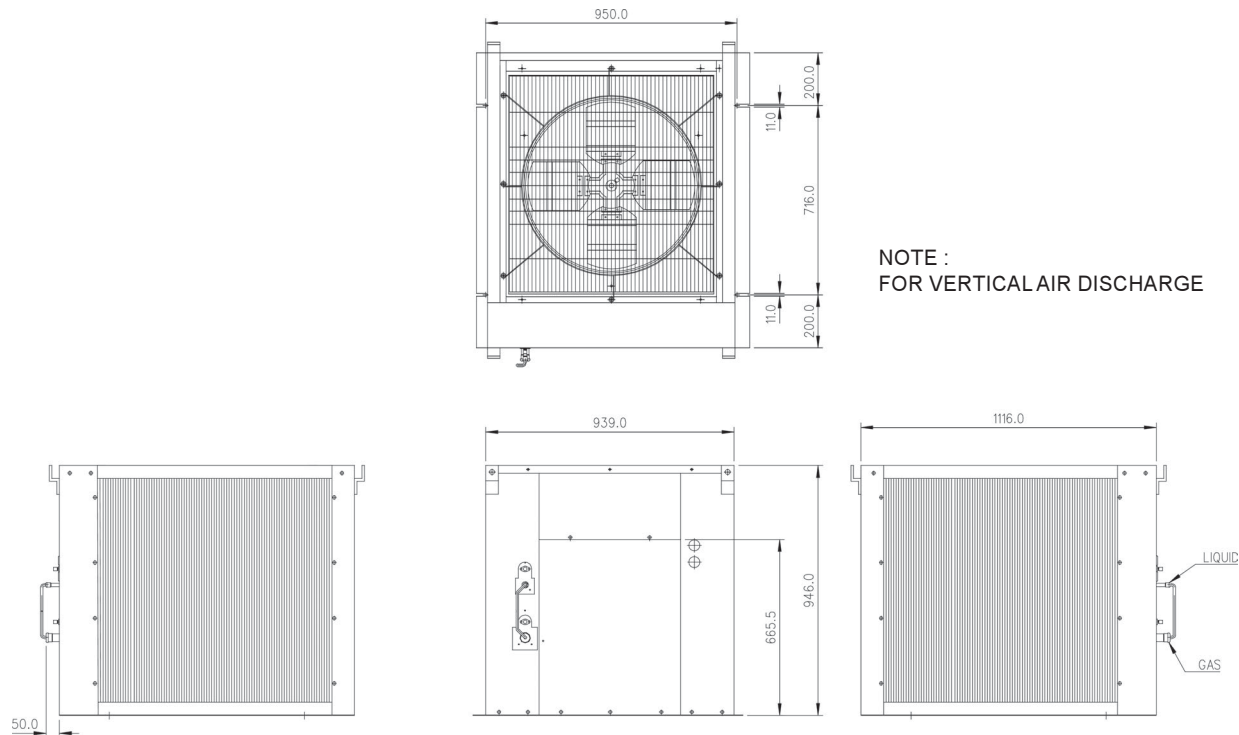


Note :All unit in mm

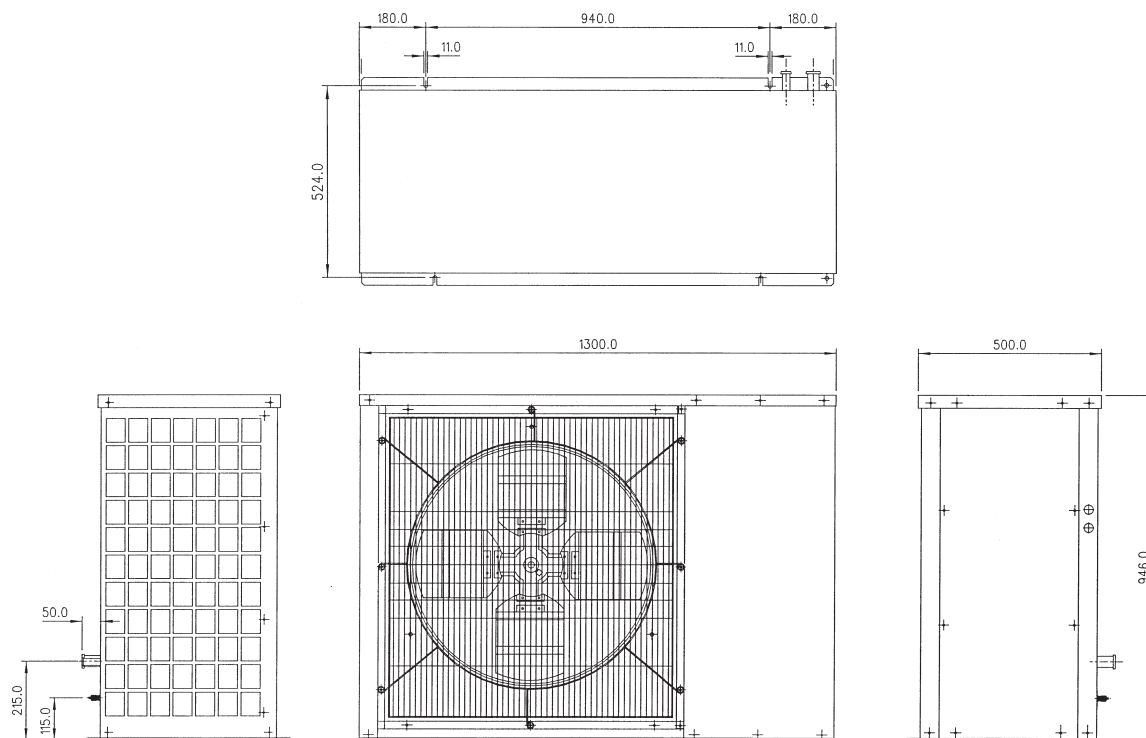
Note : MDB200-500D4 models are available in vertical air discharge as standard; Convertible at field.

# Outlines And Dimensions (Outdoor)

Model : MMC 075 / 100 / 125B

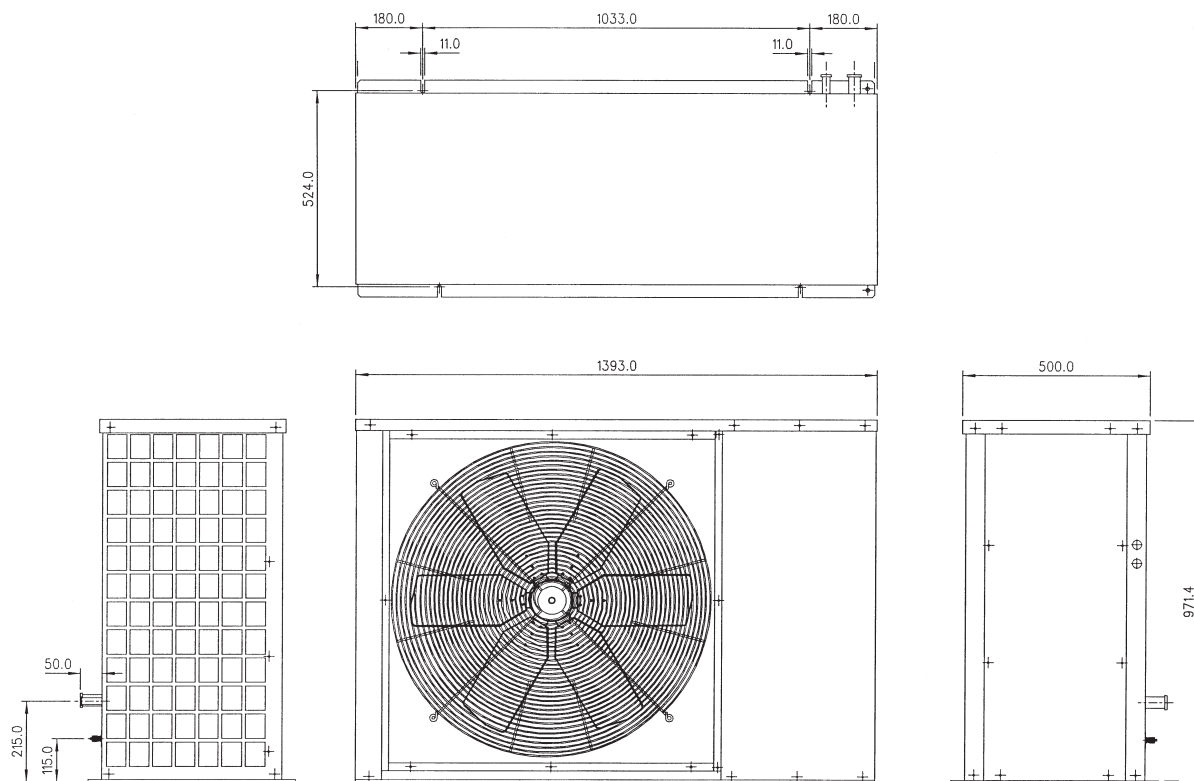


Model : MMC 075C

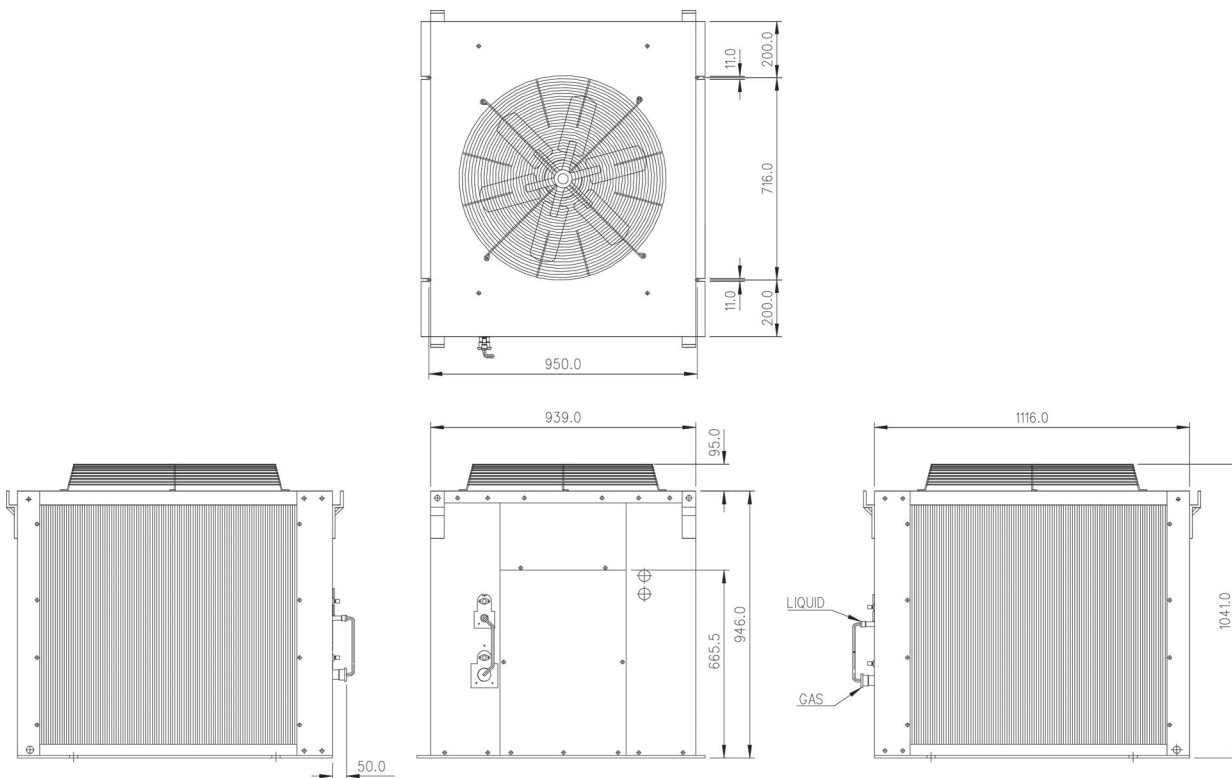


Note :All unit in mm

**Model : MMC 100C**

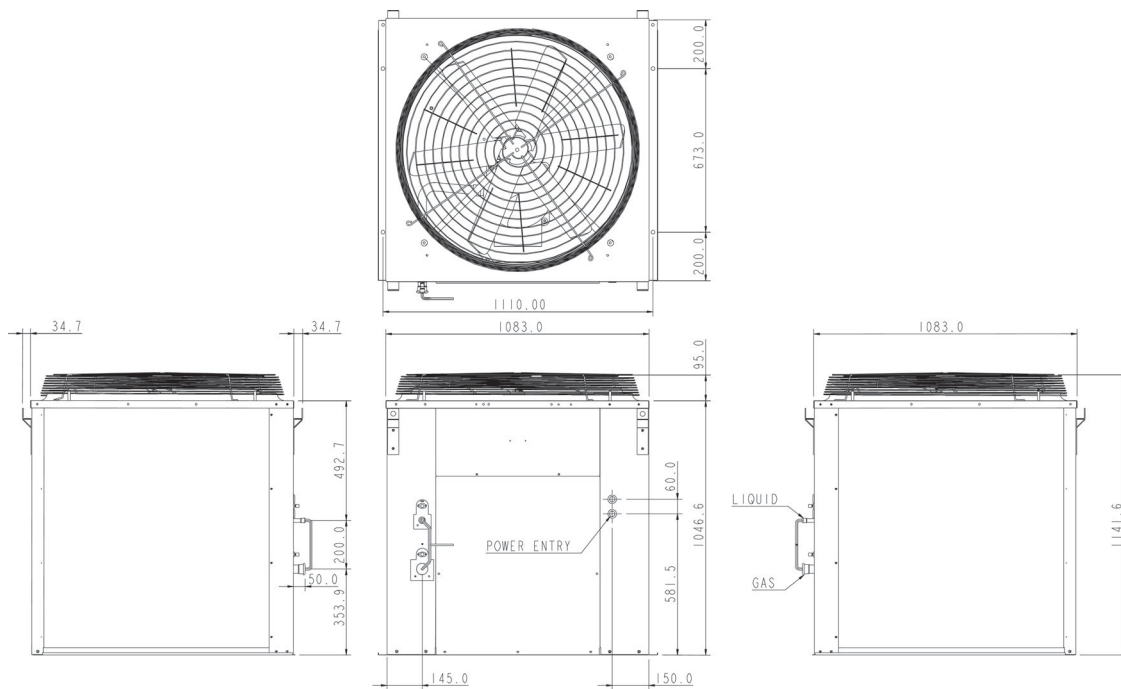


**Model : MMC 150C**

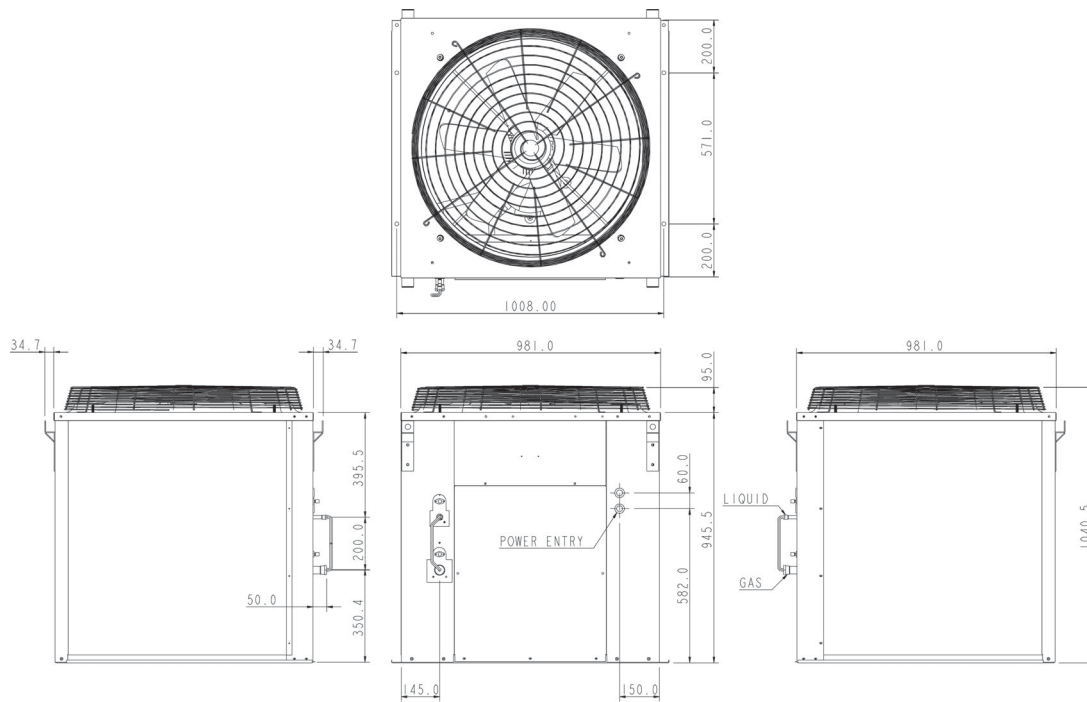


Note :All unit in mm

**Model : MMC 075 / 100D**

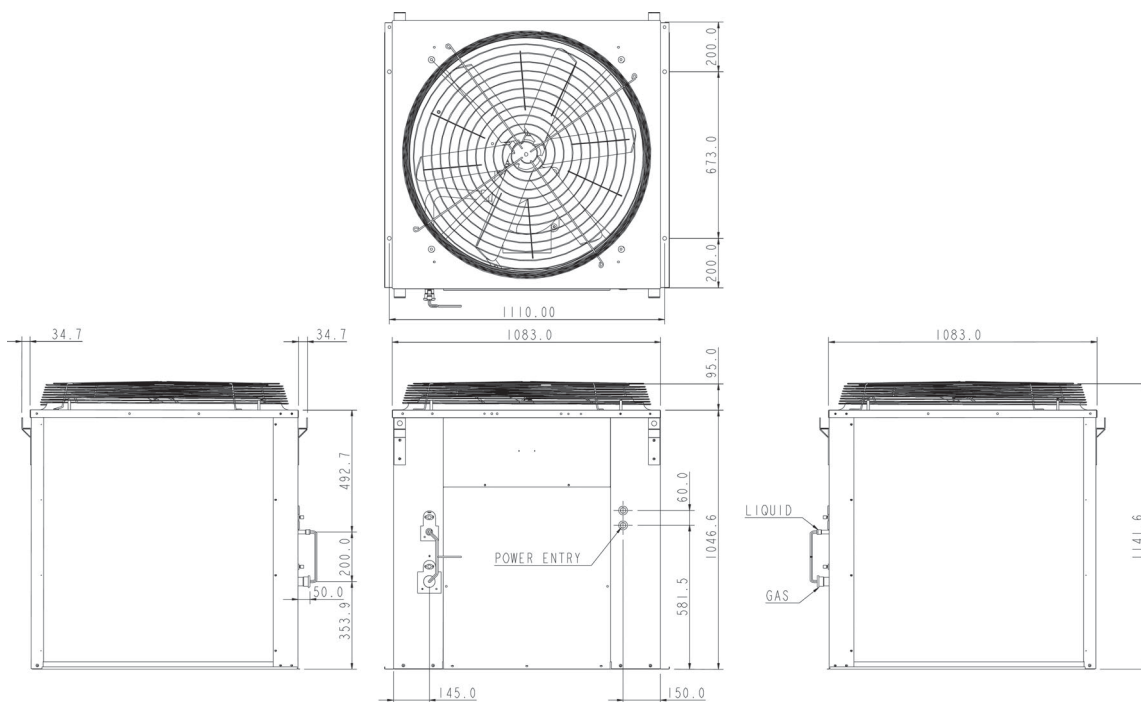


**Model : MMC 125D**

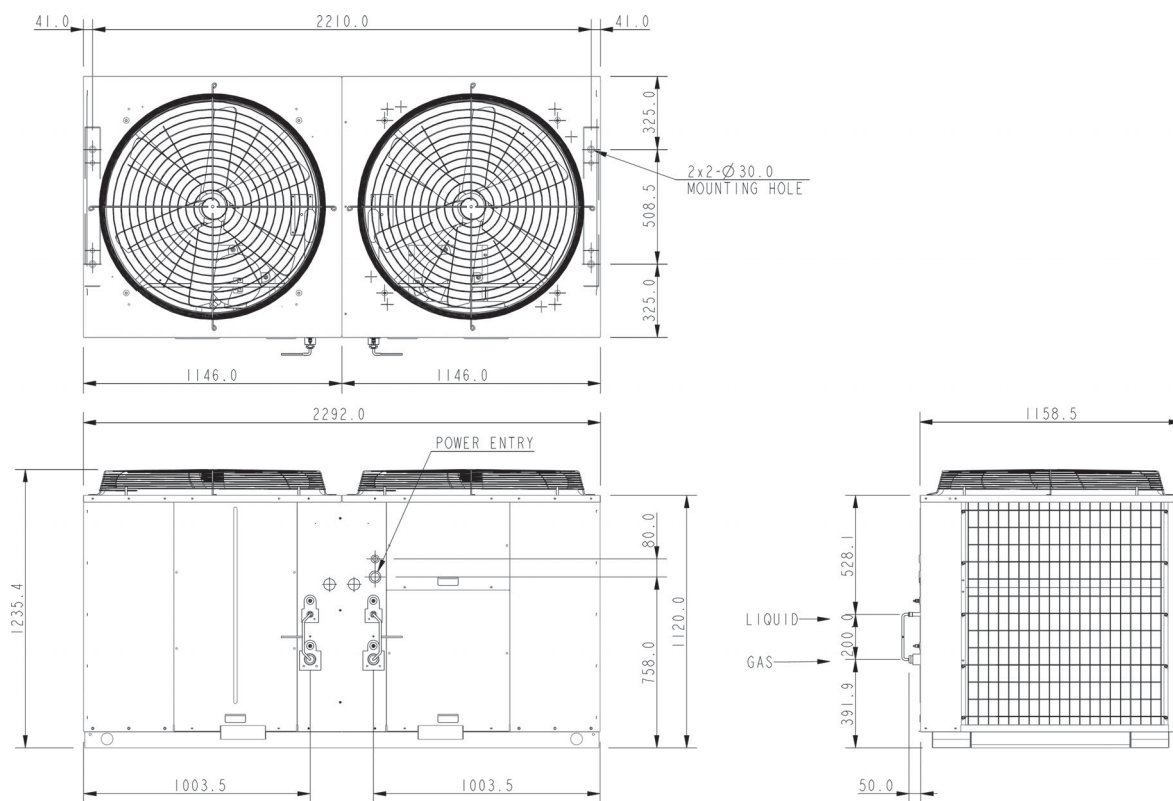


Note :All unit in mm

**Model : MMC 150D**

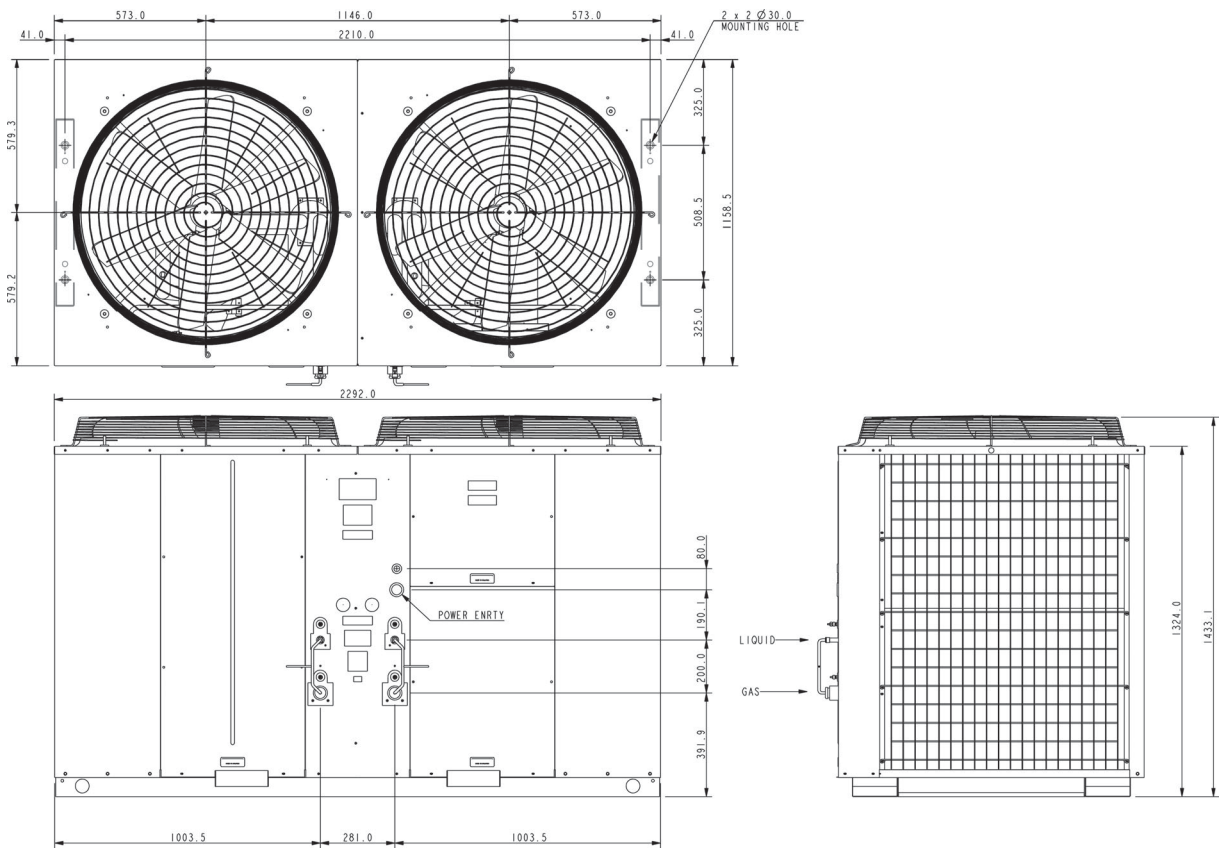


**Model : MMC 200D2**



Note :All unit in mm

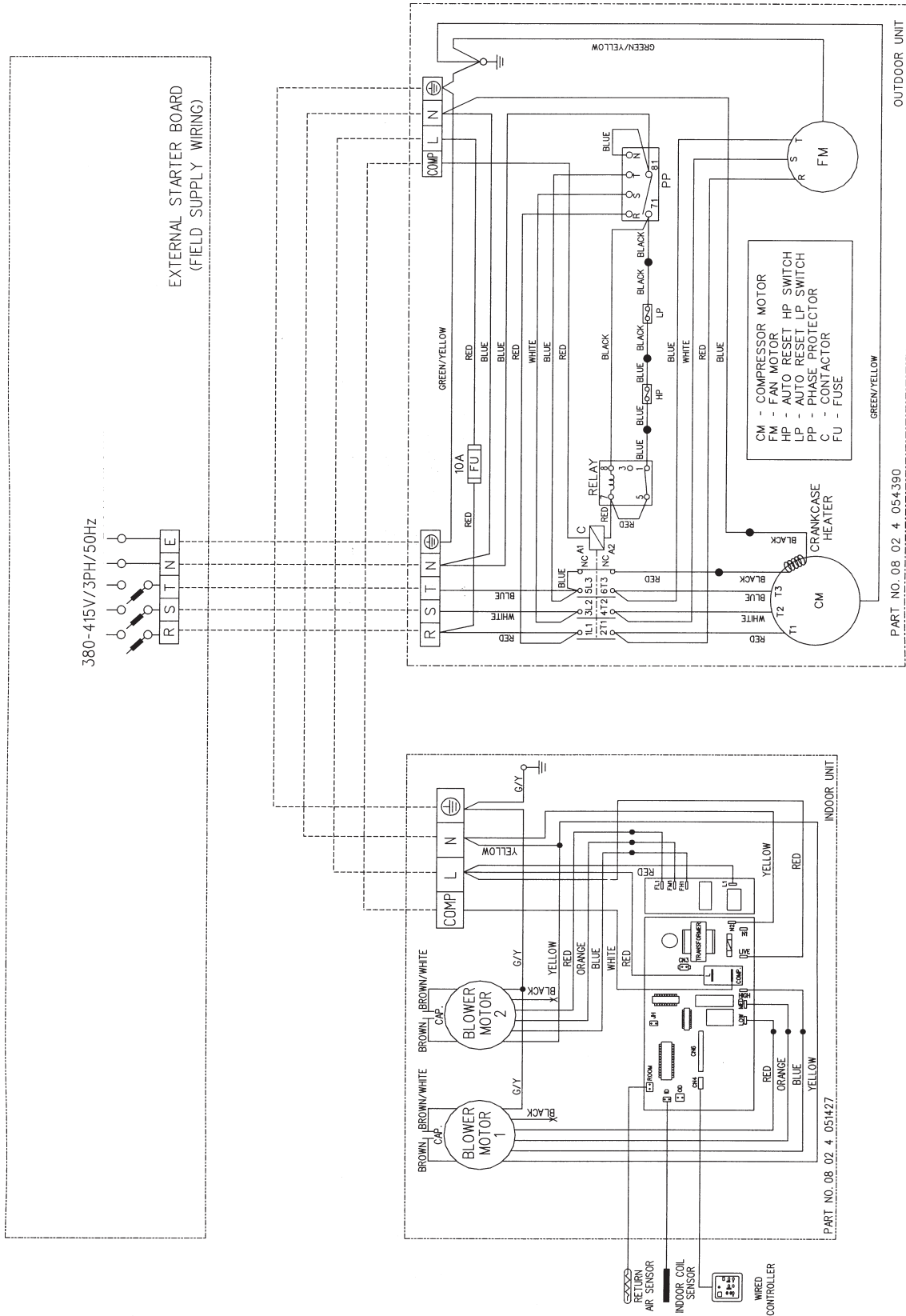
**Model : MMC 250 / 300D2**



Note :All unit in mm

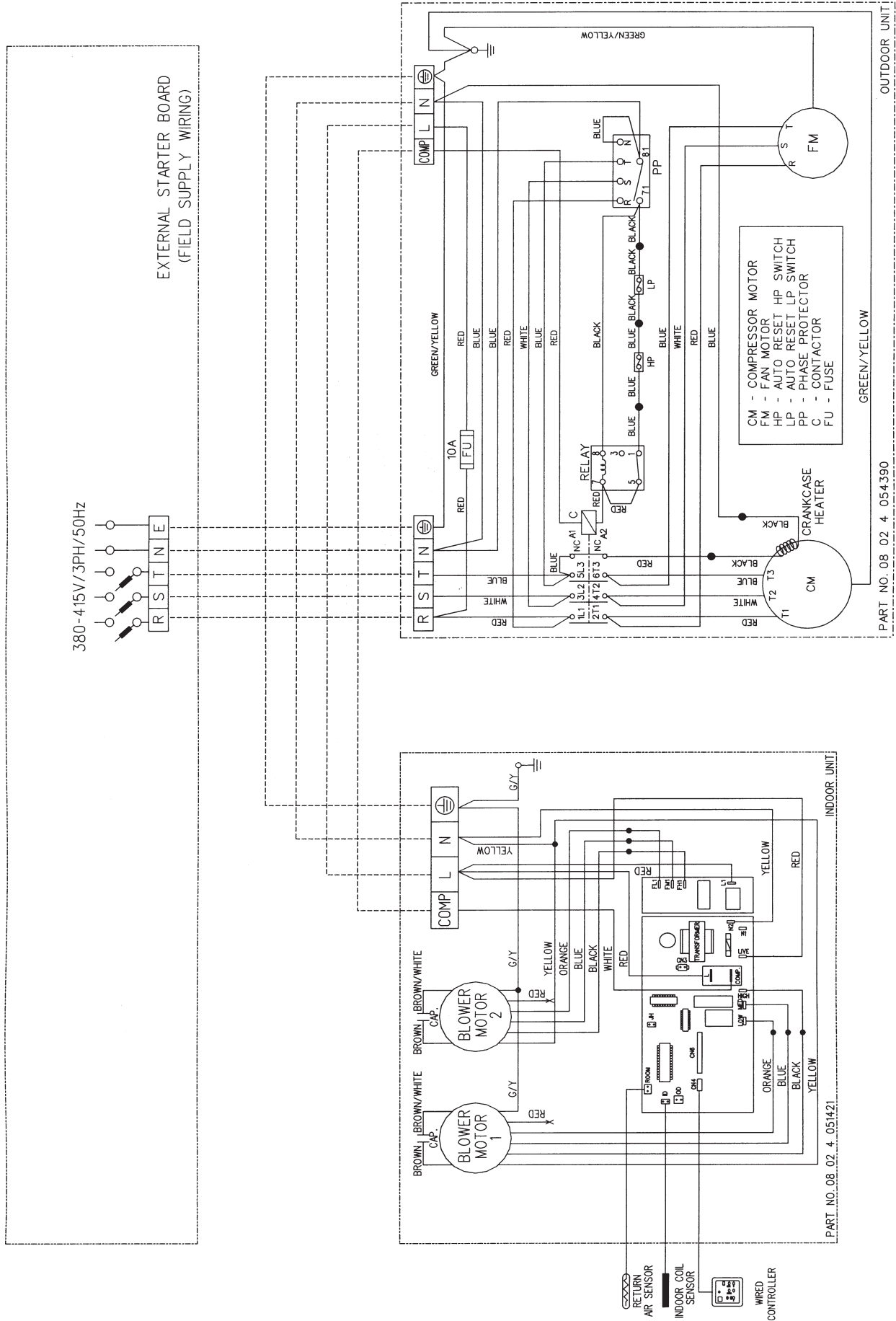
# Wiring Diagrams

Cooling Unit  
Model : MDB075D vs MMC075D

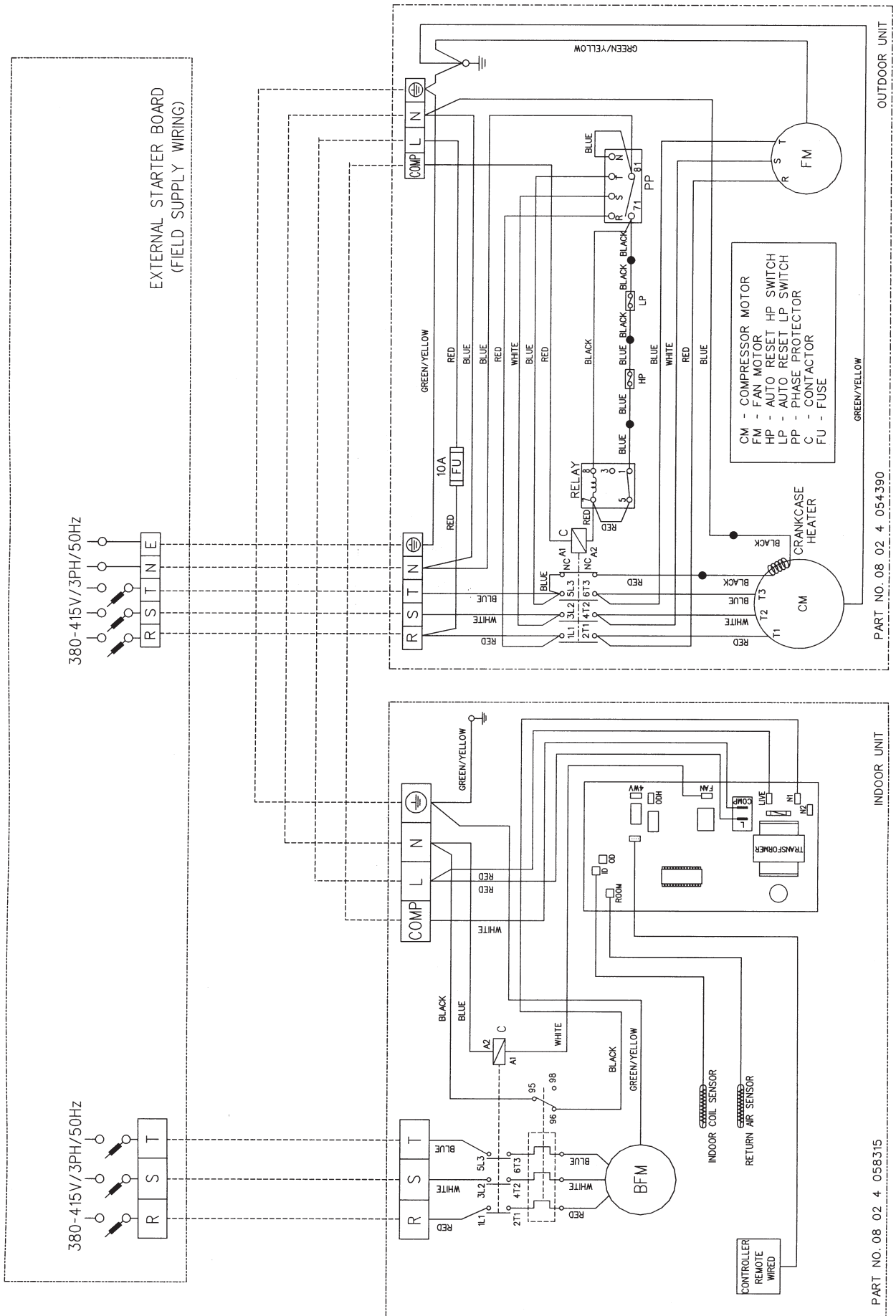




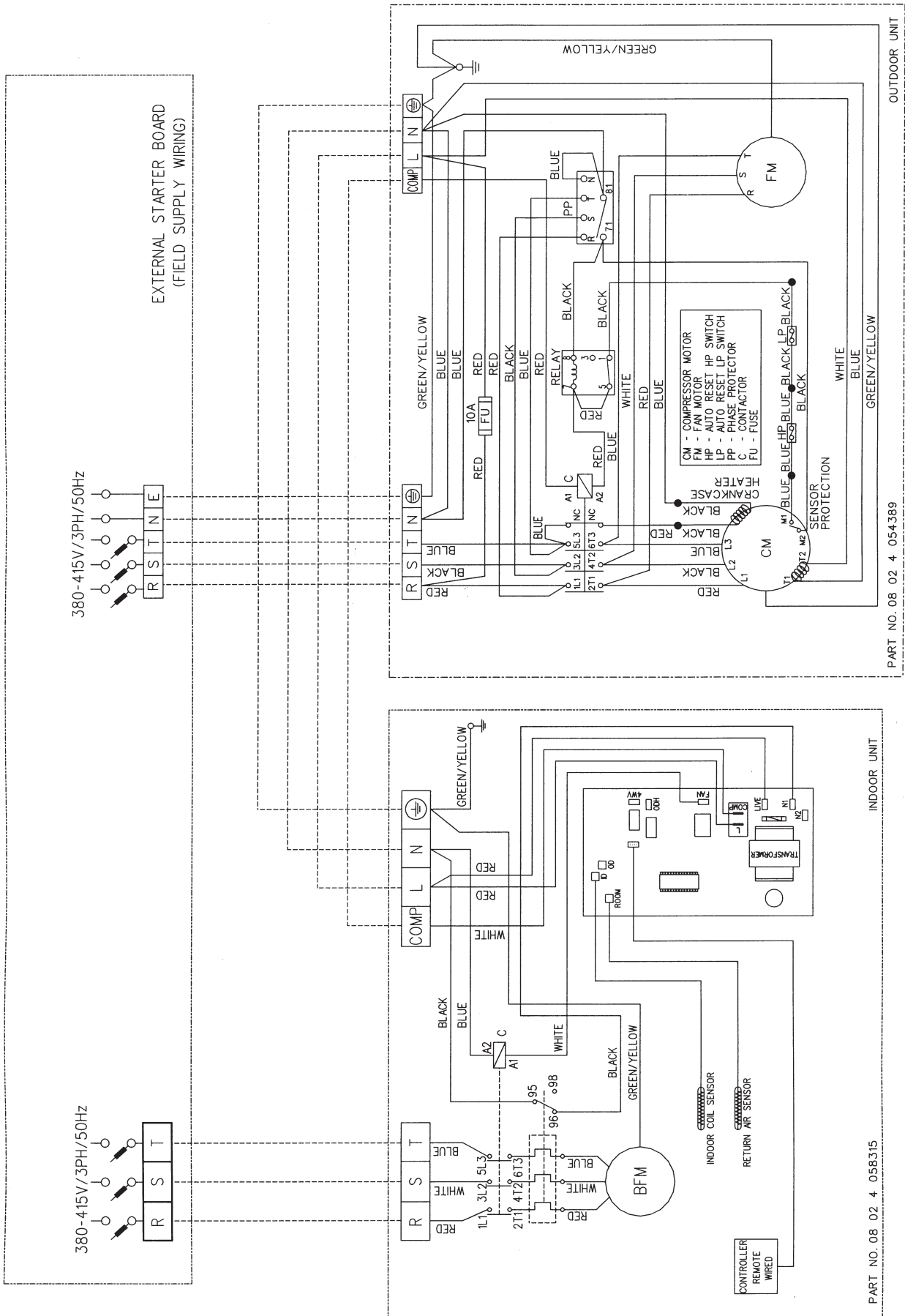
Model : MDB 100D vs MMC 100D



Model : MDB 125D vs MMC 125D

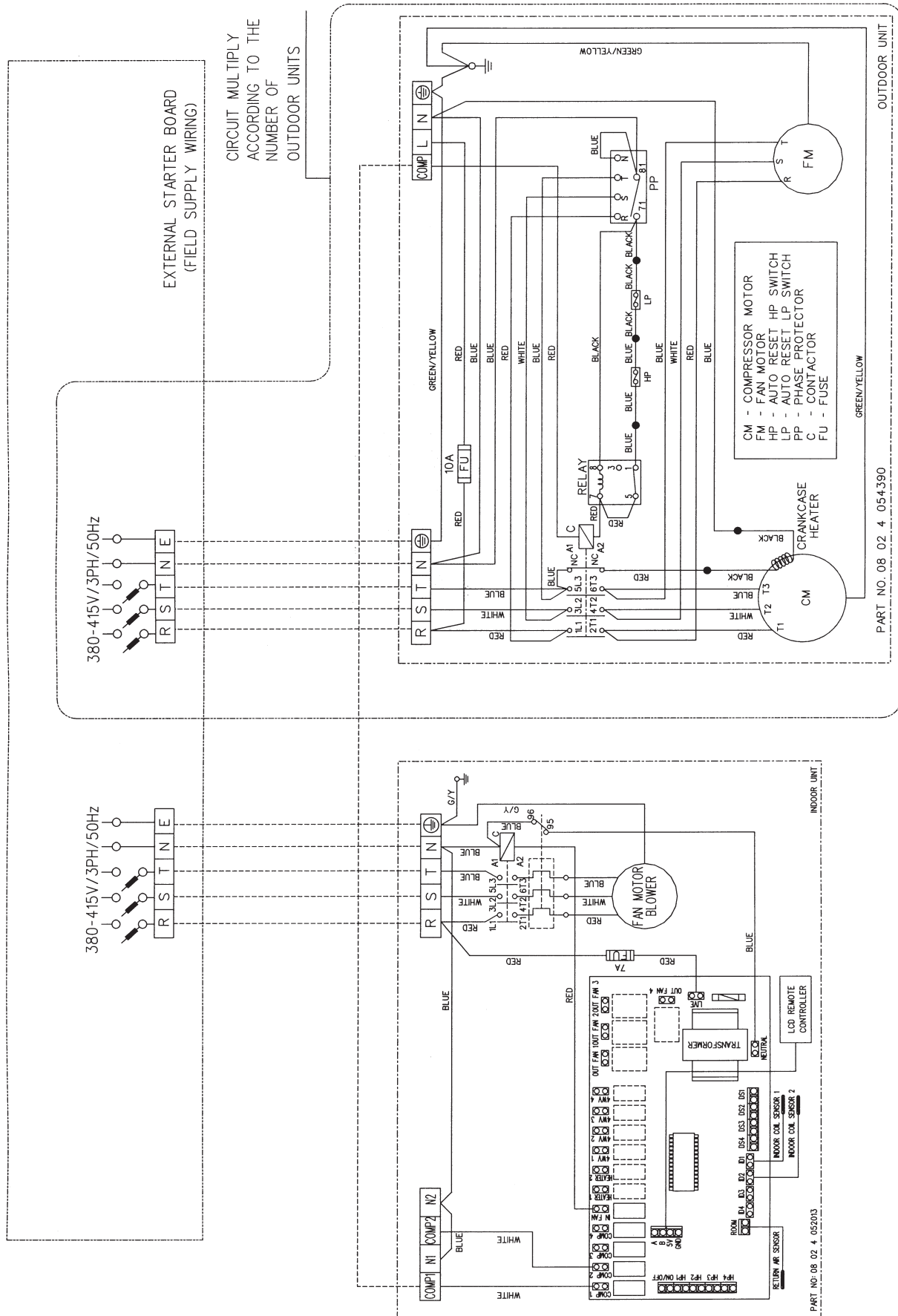


Model : MDB 150D vs MMC 150D

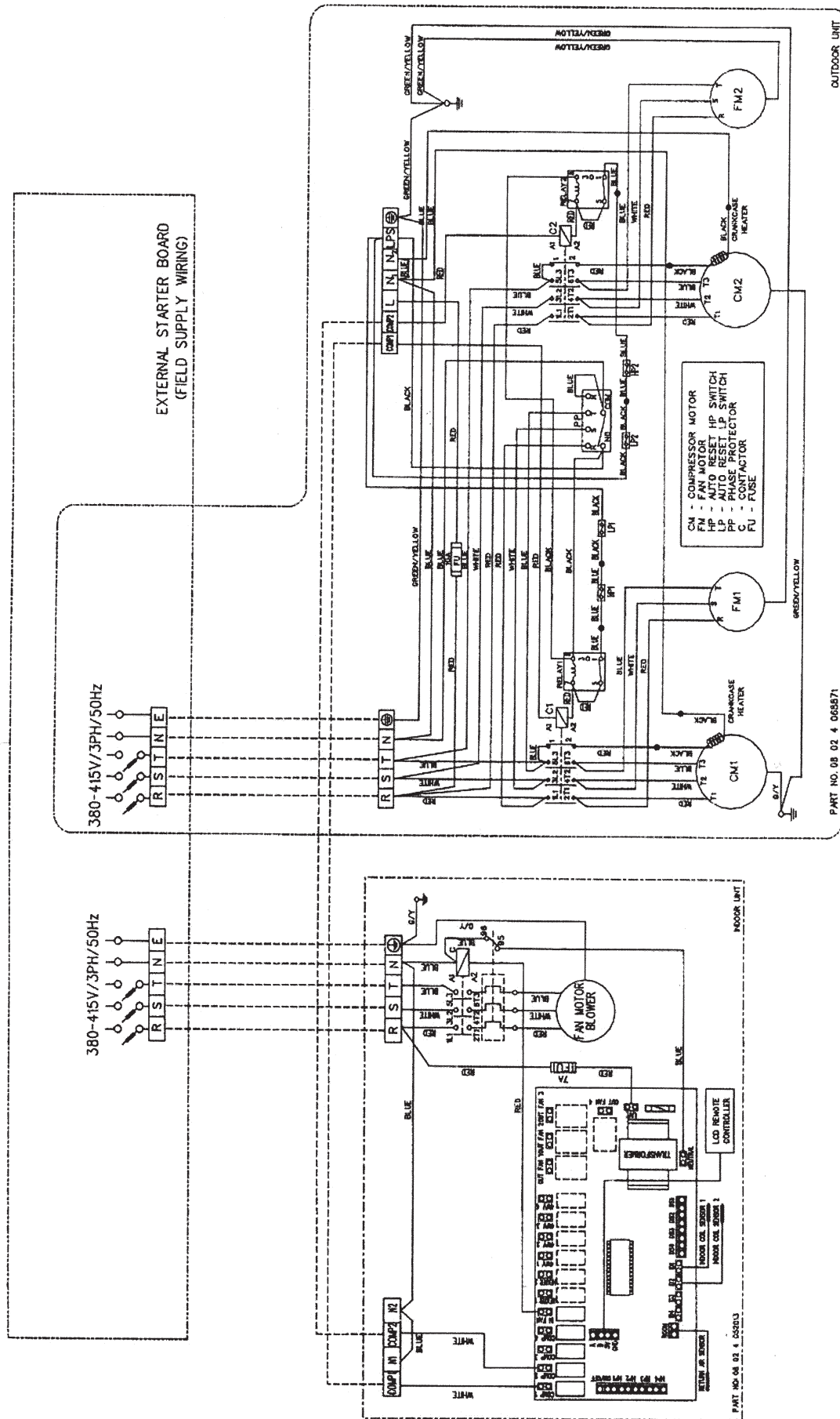


Model : MDB 200B2 vs MMC 100B x 2  
 MDB 200B2 vs MMC 100C x 2  
 MDB 250B2 vs MMC 125B x 2

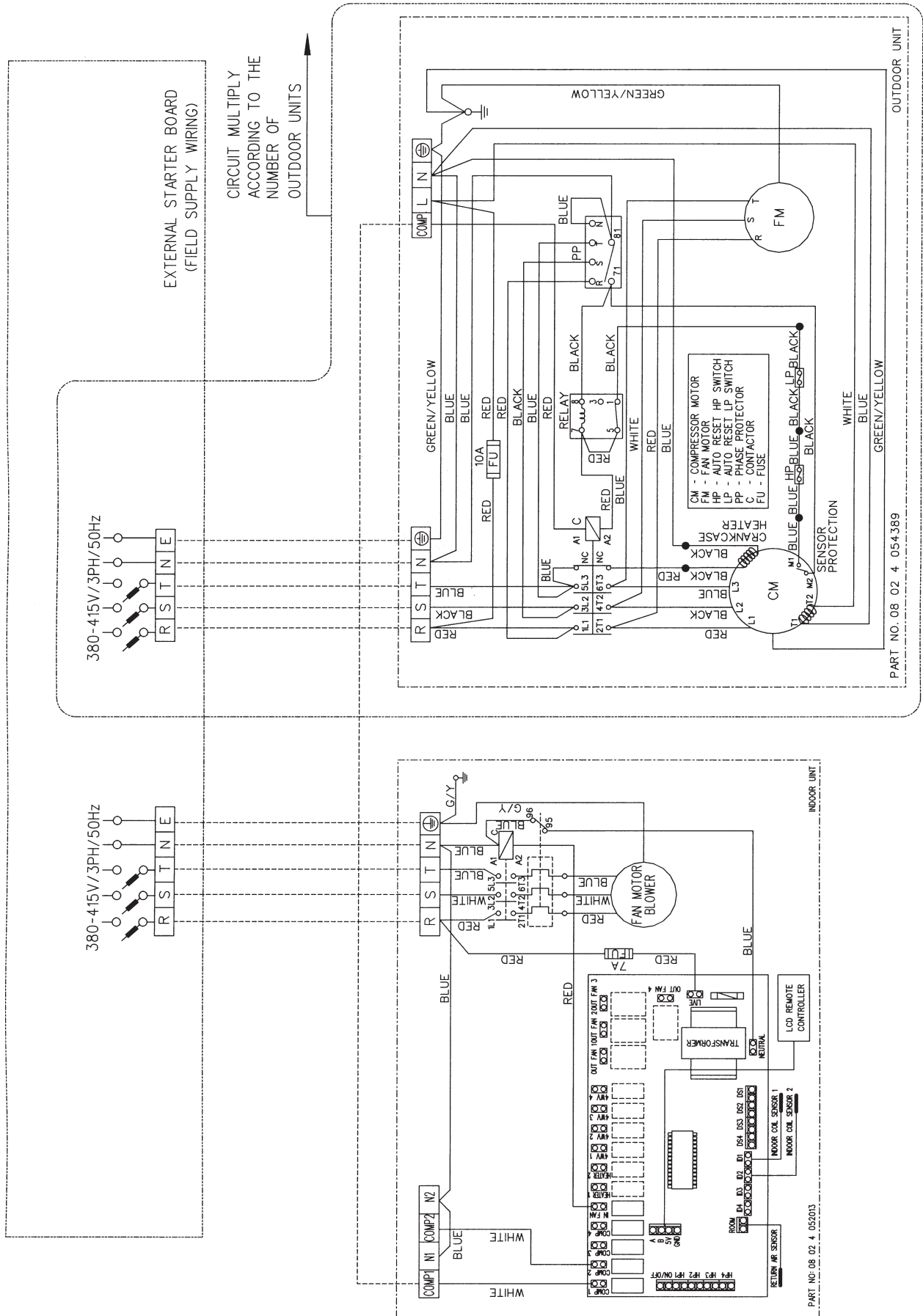
MDB 150D2 vs MMC 075D x 2  
 MDB 200D2 vs MMC 100D x 2  
 MDB 250D2 vs MMC 125D x 2



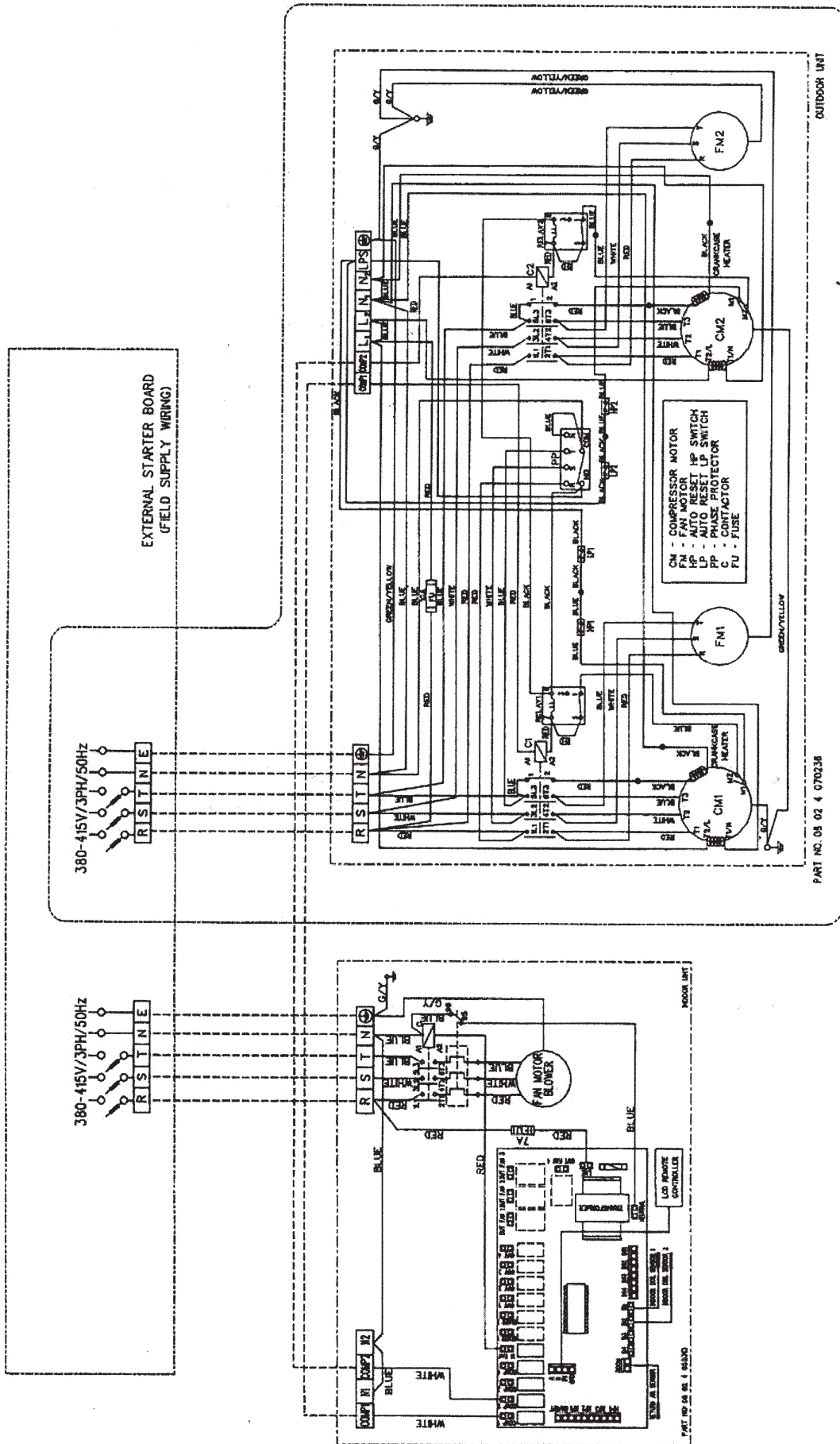
Model : MDB 200D2 vs MMC 200D2  
 MDB 250D2 vs MMC 250D2



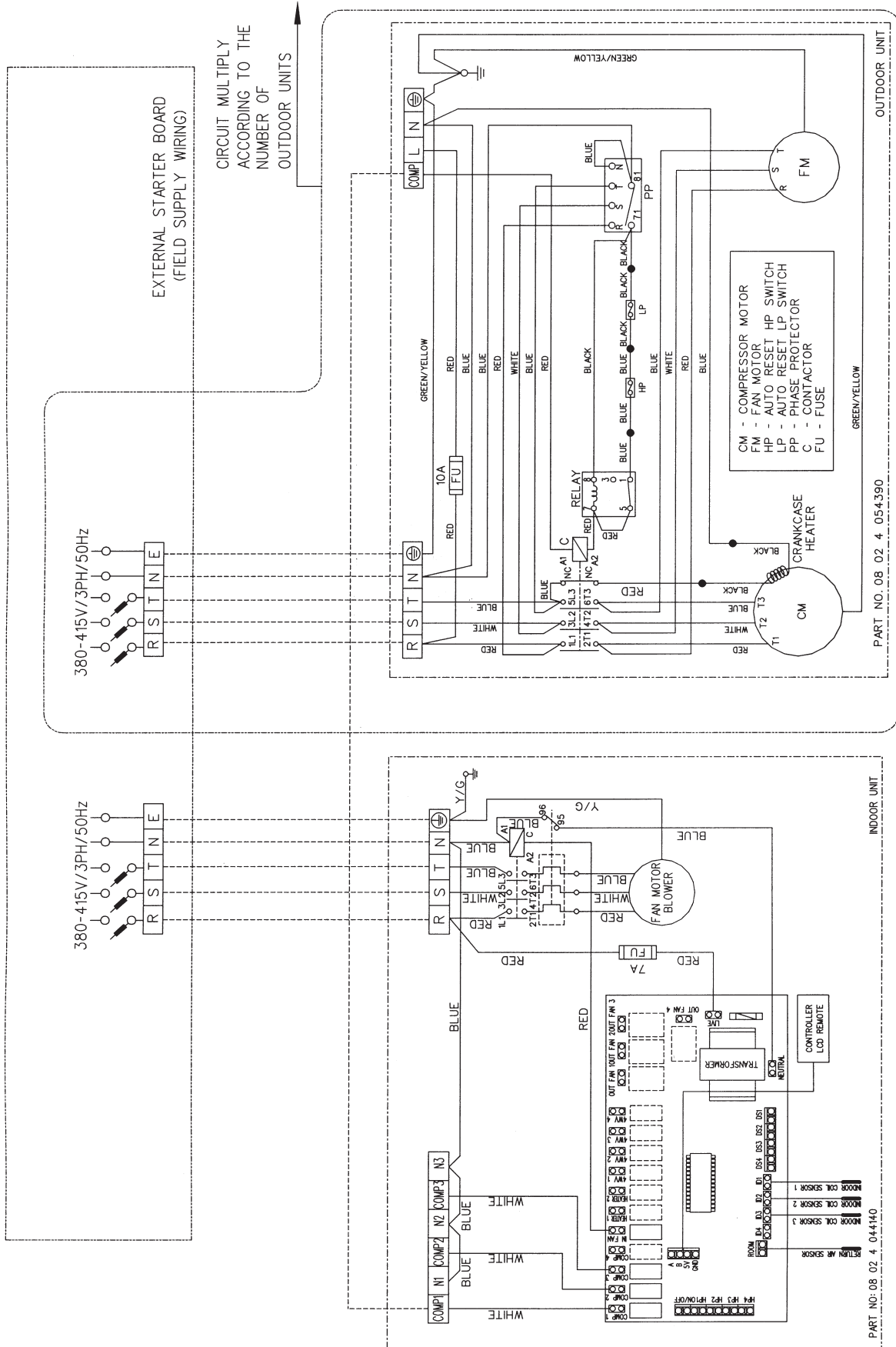
**Model : MDB 300B2 vs MMC 150C x 2**  
**MDB 300D2 vs MMC 150D x 2**



Model : MDB 300D2 vs MMC 300D2



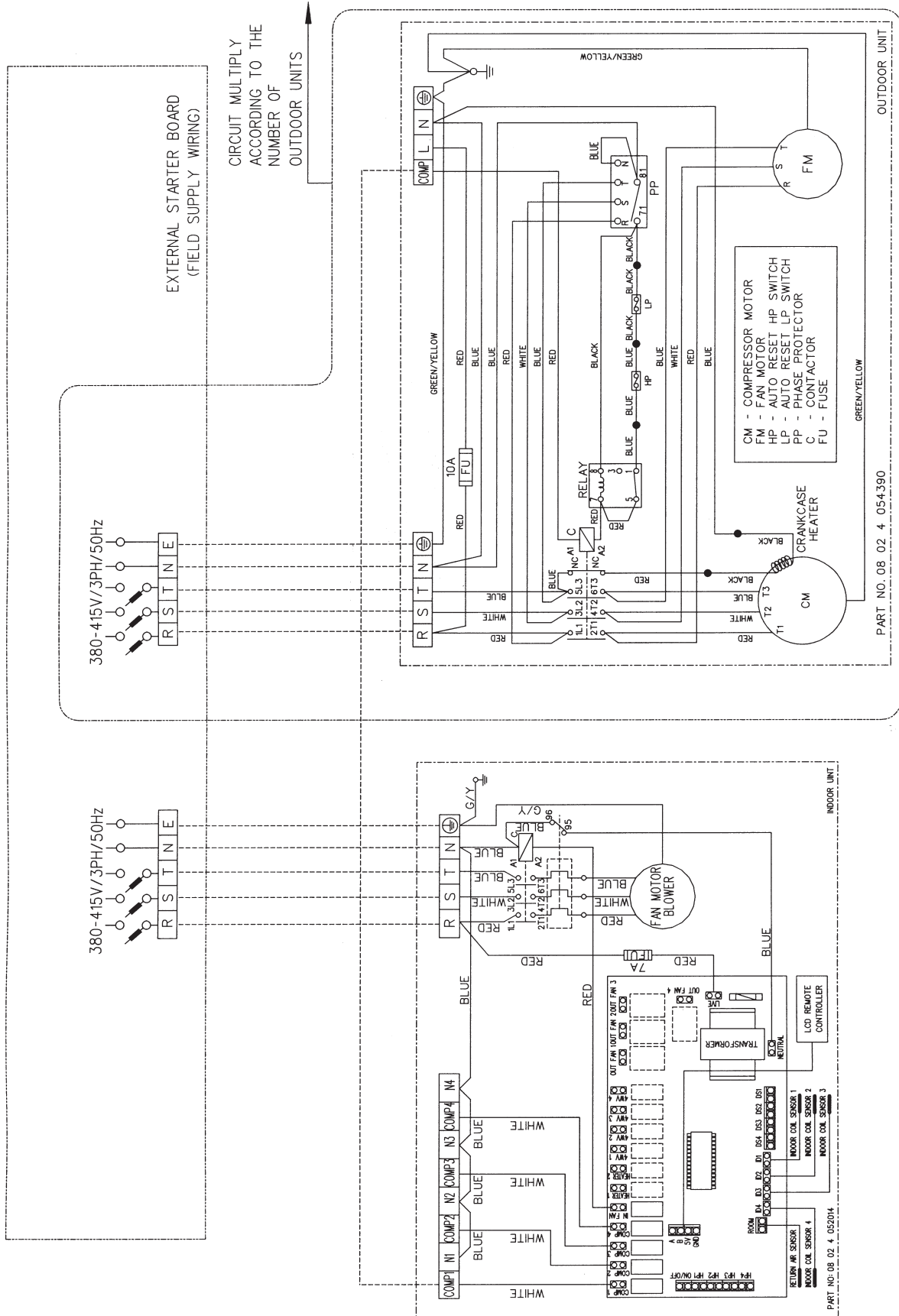
**Model : MDB 300B3 vs MMC 100B x 3**  
**MDB 300B3 vs MMC 100C x 3**  
**MDB 350B3 vs MMC 125B x 2 + MMC 100B**



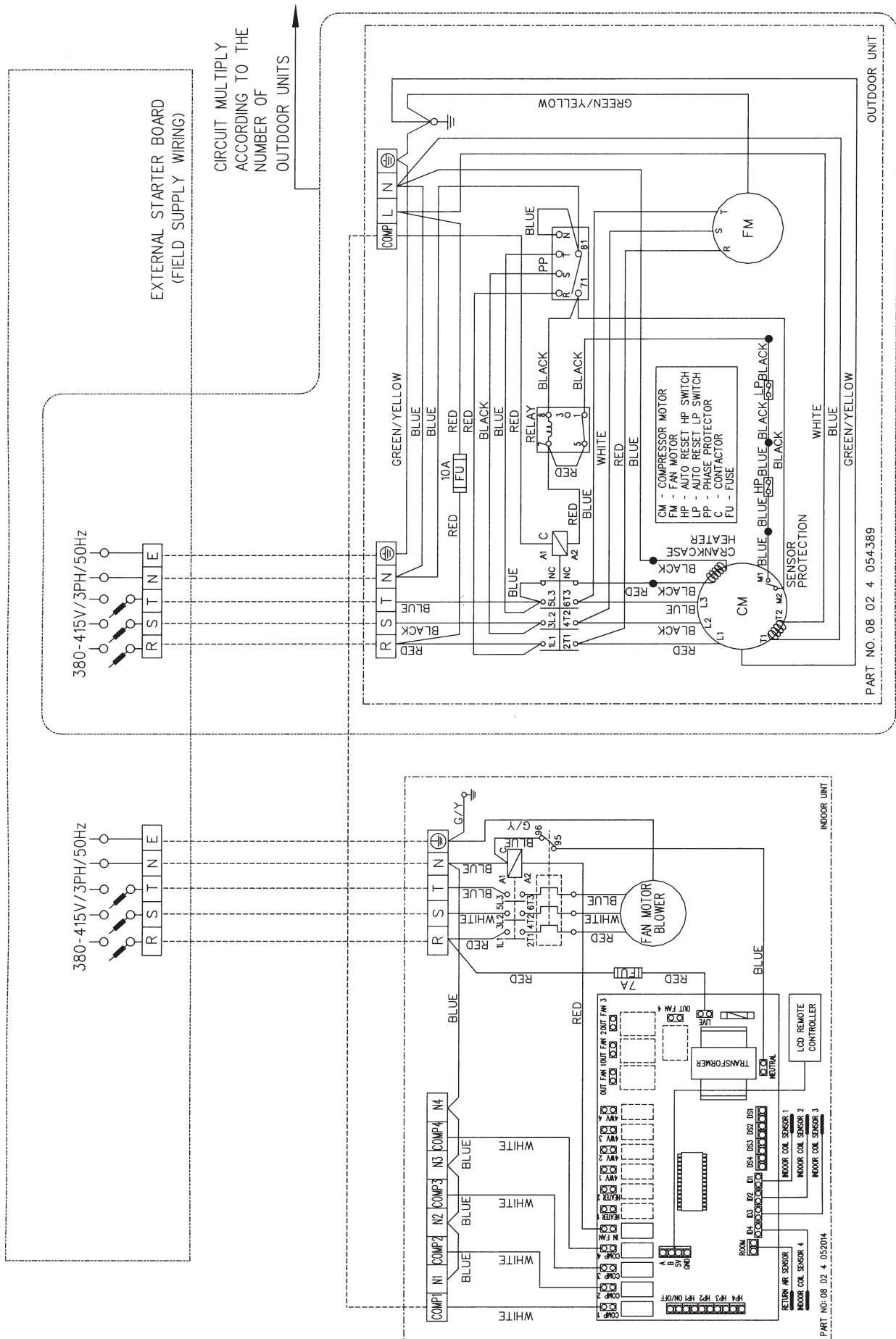




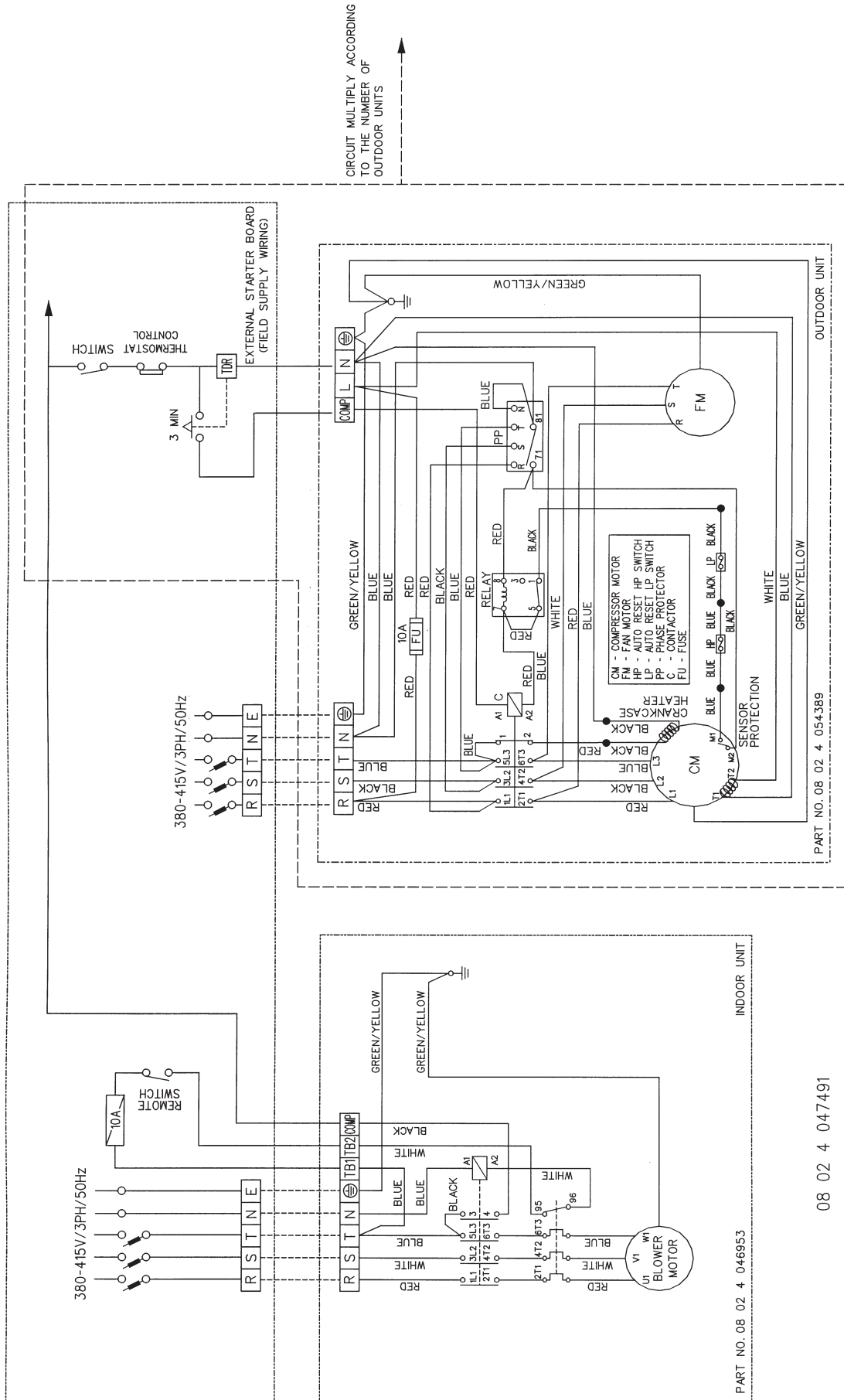
**Model : MDB 400B4 vs MMC 100B x 4**  
**MDB 400B4 vs MMC 100C x 4**  
**MDB 400D4 vs MMC 100D x 4**  
**MDB 500D4 vs MMC 125D x 4**



# Model : MDB 600B4 vs MMC 150C x 4

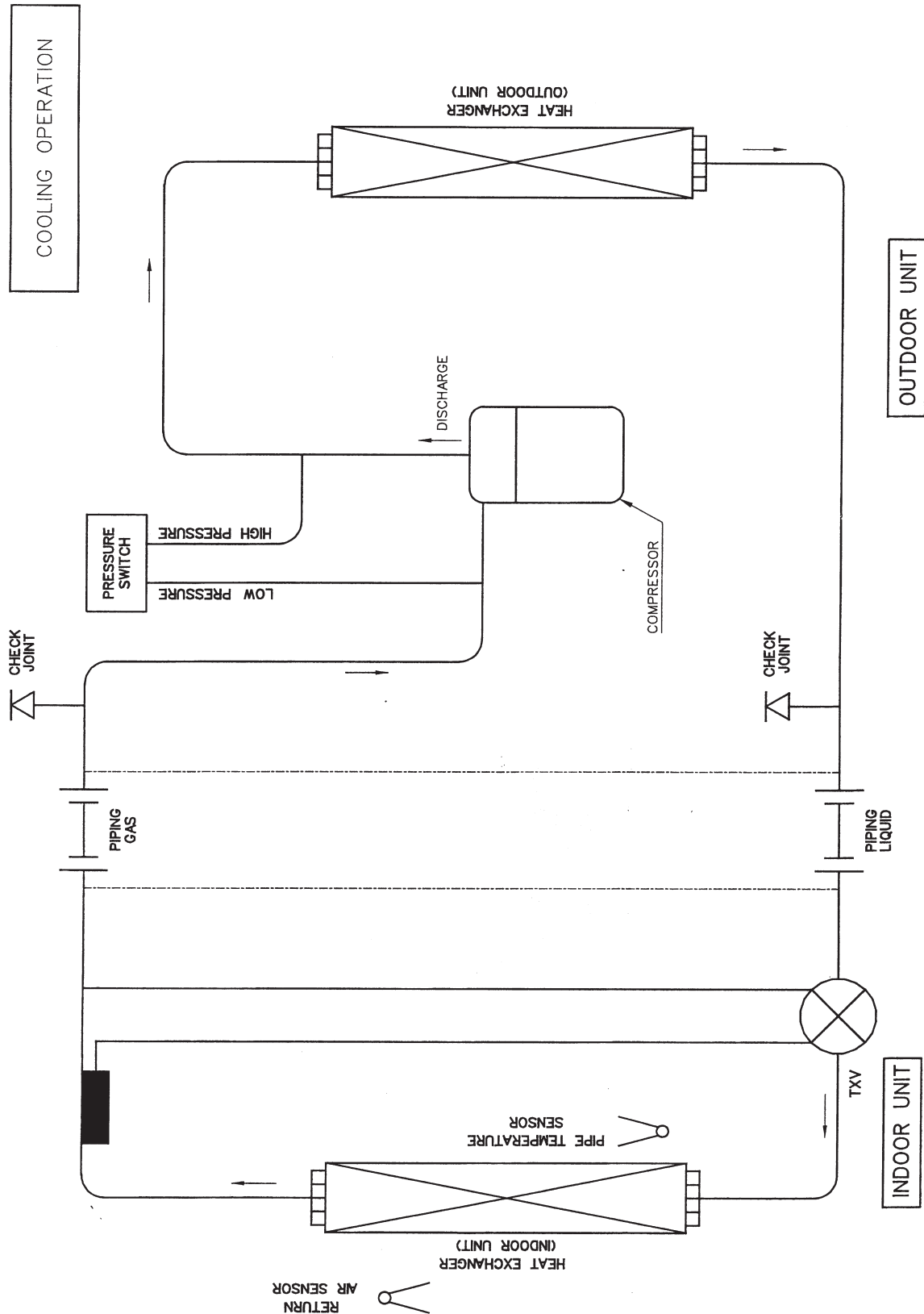


# Model : MDB 750B5 vs MMC 150C x 5 (With Magnetic Contactor As Standard)

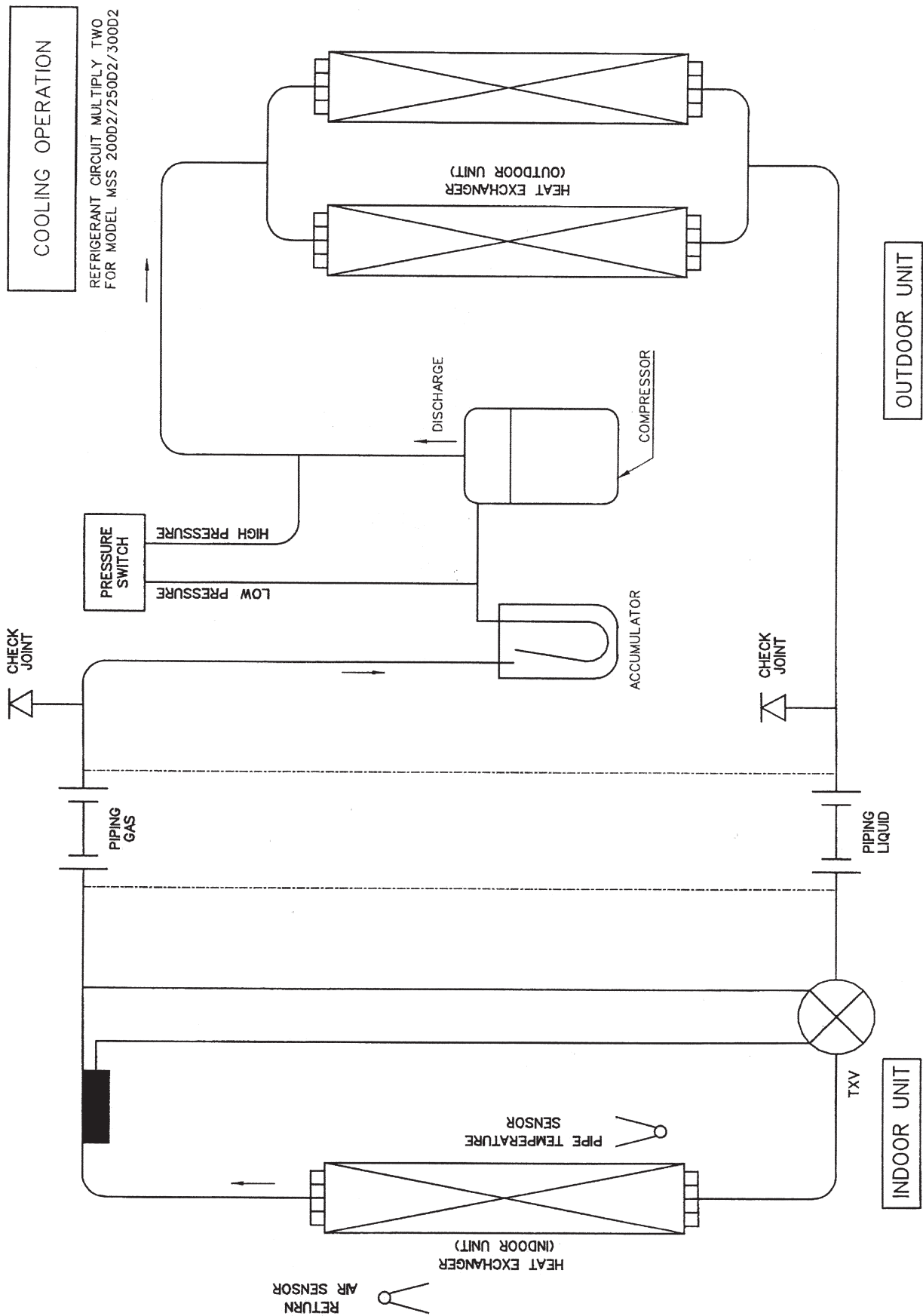


# Refrigerant Circuit Diagram

## Standard Models



Model : MMC 200D2 / 250D2 / 300D2 (With Accumulator)



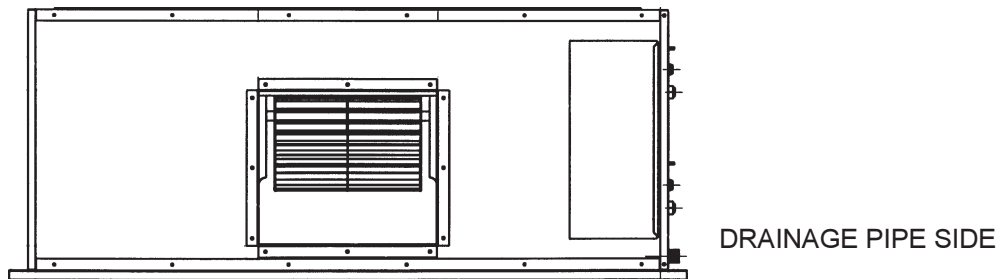
# Installation (Indoor)

## Preliminary Site Survey

- Electrical supply and installation is to confirm to local authority's (e.g. National Electricity Board) codes and regulations.
- Voltage supply fluctuation must not exceed +/- 10% of rated voltage. Electricity supply line must be independent of welding transformers which can cause supply fluctuation.
- Ensure that the location is convenient for wiring and piping.

## Mounting

- For ceiling mounted models, locate a position where piping and ducting work can be kept to a minimum. Ensure that overhead supports are strong enough to hold the unit's weight. Position hanger rods and check for alignment with the unit. Check that hangers are secure and that the base of fan-coil unit is level in two horizontal directions.



## Pipings

Do not use contaminated or damaged copper tubings. If pipings, evaporator or condenser are exposed or had been opened for 15 seconds or more, vacuum and purge with field supplied refrigerant. Generally, do not remove plastic/rubber plugs/caps from fittings, tubings and coils until ready to connect suction or liquid line into fittings.

## Operational Check

After all electrical wiring is completed and the system is charged with refrigerant, make sure unit is operating properly. Check that:

- Condenser fans are running, with warm air blowing off the condenser coil.
- Evaporator blowers are running and discharging cool air.
- Suction line inside condensing unit feels cool.
- Liquid line inside condensing unit feels warm.

## Electrical Connection

As wiring regulations differ from country to country, please refer to your LOCAL ELECTRICAL CODES for field wiring regulations and ensure that these are complied with. Besides, observe the following general precautions:

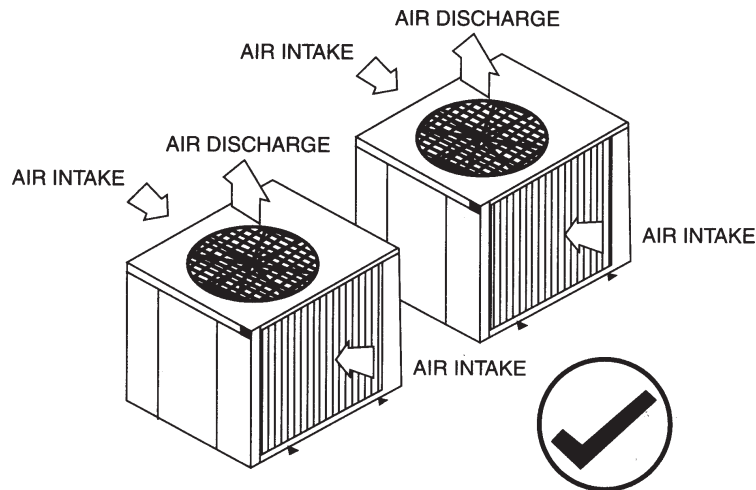
- Ensure that the rated voltage of the unit corresponds to that of the name plate before commencing wiring work.
- Provide a power outlet to be used exclusively for each unit. A power supply disconnect and a circuit breaker for over-current protection should be provided in the exclusive line.
- The unit must be GROUNDED to prevent possible hazard due to insulation failure.
- All wiring must be firmly connected.
- Electrical wiring must not touch the refrigerant piping, compressor and any moving parts of the fan motors.

# Installation (Outdoor)

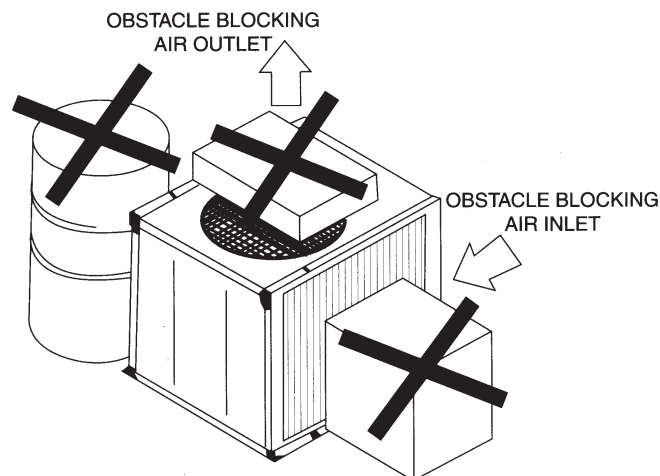
## Location For Installation Of The Condensing Units

As condensing temperature rises, evaporating temperature rises and cooling capacity drops. In order to achieve maximum cooling capacity, the location selected should fulfill the following requirements:-

- a) Install the condensing (outdoor) unit in a way such that hot air distributed by the outdoor condensing unit cannot be drawn in again (as in the case of short circuit of hot discharge air). Allow sufficient space for maintenance around the unit.



- b) Ensure that there is no obstruction of air flow into or out of the unit. Remove obstacle which block air intake or discharge.



- c) The location must be well ventilated, so that the unit can draw and distribute plenty of air thus lowering the condensing temperature.  
d) A place capable of bearing the weight of the outdoor unit and isolating noise and vibration.  
e) A place protected from direct sunlight. Otherwise use an awning for protection, if necessary.  
f) A place where the hot air discharge and operating sound level will not annoy the neighbours.  
g) The location must not be susceptible to dust or oil mist.

**CAUTION:** If the condensing unit is operated in an atmosphere containing oils (including machine oils), salt (coastal area), sulphide gas (near hot spring, oil refinery plant), such substances may lead to failure of the unit.



## Field Piping

To ensure satisfactory operation and performance, the following points should be noted for the field piping arrangements of the complete refrigerant cycle.

- Liquid loops or oil traps must be provided according to the position of the outdoor and the indoor units (depending on whether the indoor unit is above or below the outdoor unit).
- Field supplied filter dryer should be provided as close to the expansion valve(s) of the indoor unit (evaporator) as possible.
- Field supplied sight glass must be assembled and mounted next to filter dryer.

## Maximum Pipe Length And Maximum Number Of Bends

When the pipe is too long, the required refrigerant quantity increases. Both the capacity and reliability drops as a result. As the number of bends increases, system piping resistance to the refrigerant flow increases, thus lowering the cooling capacity and the compressor may become defective. If the height difference between the evaporator and the condenser is excessive, the cooling capacity drops, the lubricating oil return is retarded, affecting the compressor efficiency adversely.

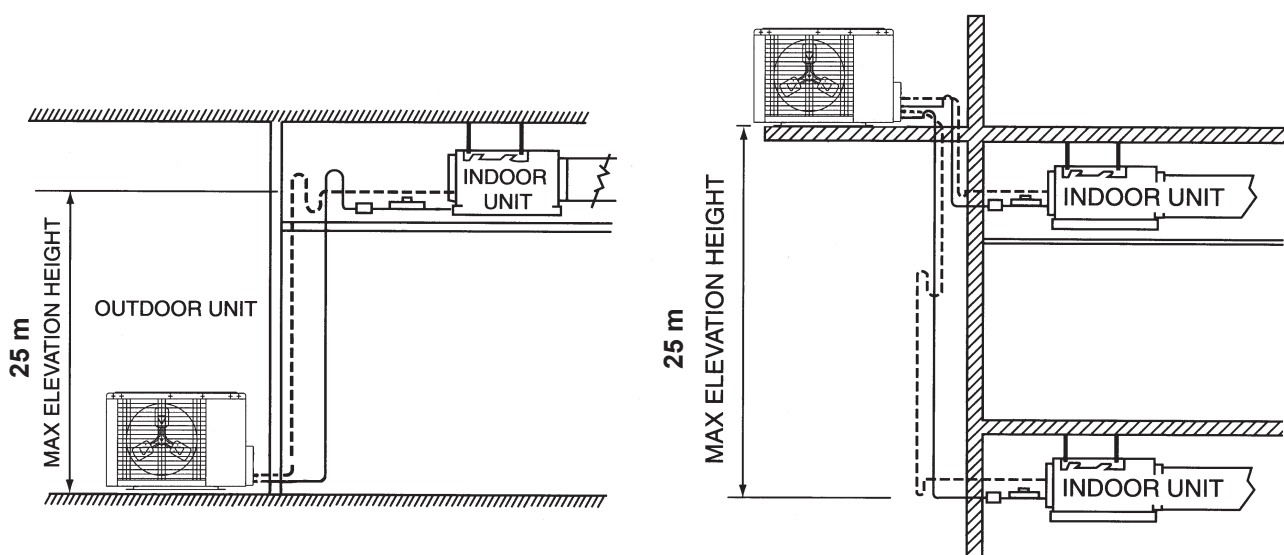
Always choose the shortest piping path and follow the recommendations as shown below :-

| Model                | Max. Elevation, m<br>(ft.) | Max. Total Length, m (ft.) | Max. of Bends |
|----------------------|----------------------------|----------------------------|---------------|
| MMC 075/100/125B     | 25 (82.0)                  | 45 (147.6)                 | 8             |
| MMC 075/100/150C     | 25 (82.0)                  | 45 (147.6)                 | 8             |
| MMC 075/100/125/150D | 25 (82.0)                  | 45 (147.6)                 | 8             |

Note : If piping is more than 100ft, it is recommended to add in a accumulator.

### CAUTION:

- Our guarantee on the performance of our air-conditioners is strictly revoked if the height, length and/or the number of bends of the refrigerant piping system installed is beyond the limit above.
- Bendings must be carefully made so as not to crush the pipe. Use a pipe bender to bend a pipe as far as possible.



Maximum Allowable Piping Length & Elevation Difference

## Installation Clearance

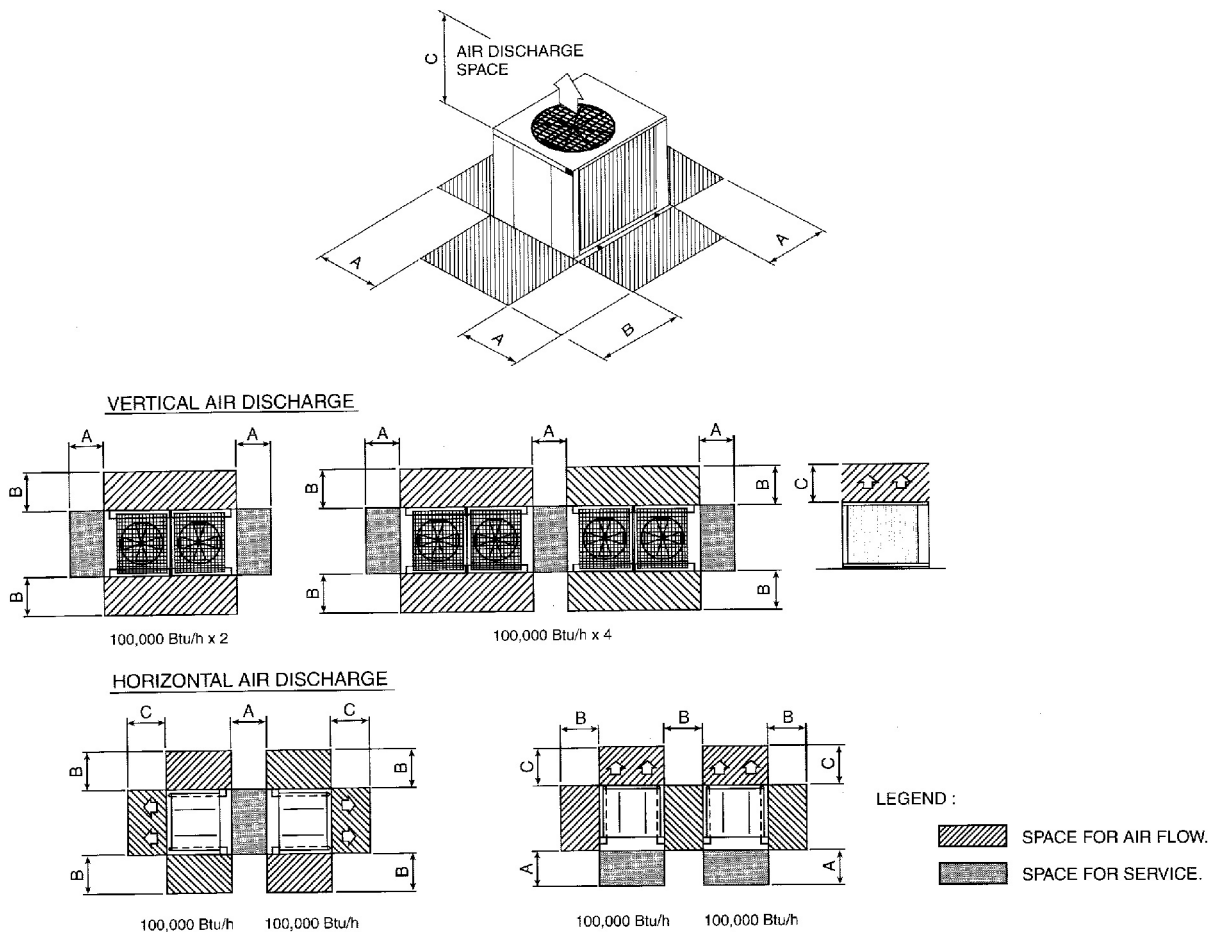
When two or more outdoor units are installed in a location, they must be positioned such that one unit will not be taking the hot discharge air from another to avoid hot air short circuiting.

This also applies when two or more units are installed one above the other. Below are the installation clearance guidelines :

| Model  | MMC 075B | MMC 100B | MMC 125B | 2 x MMC 075B | 2 x MMC 100B |
|--------|----------|----------|----------|--------------|--------------|
| A (mm) | 500      | 500      | 500      | 700          | 700          |
| B (mm) | 300      | 300      | 300      | 300          | 300          |
| C (mm) | 1,200    | 1,200    | 1,200    | 1,500        | 1,500        |

| Model  | 2 x MMC 125B | 3 x MMC 100B | MMC 100B + 2 x MMC 125B | 4 x MMC 100B | 4 x MMC 125B |
|--------|--------------|--------------|-------------------------|--------------|--------------|
| A (mm) | 700          | 1,000        | 1,000                   | 1,000        | 1,000        |
| B (mm) | 300          | 300          | 300                     | 300          | 300          |
| C (mm) | 1,500        | 2,000        | 2,000                   | 2,000        | 2,000        |

| Model  | MMC<br>075/100/125/150D | 2 x MMC<br>075/100/125/150D | 3 x MMC<br>075/100/125/150D | 4 x MMC<br>075/100/125/150D |
|--------|-------------------------|-----------------------------|-----------------------------|-----------------------------|
| A (mm) | 300                     | 600                         | 600                         | 600                         |
| B (mm) | 1000                    | 1000                        | 1000                        | 1000                        |
| C (mm) | 1500                    | 1500                        | 2000                        | 2000                        |



## Guidelines Of Field-charging Air Conditioning Systems With Scroll Compressors

These guidelines are intended for use with Scroll compressors only with R22, R407C, R134a, R404A, R507, and R410A refrigerants. They do not apply to reciprocating compressors or competitive Scroll compressors.

### Field-charging - Some Precaution Points

Scroll compressors have a very high volumetric efficiency and quickly pump a deep vacuum if there is insufficient refrigerant in the system or if refrigerant is added too slowly. Operation with low suction pressure will quickly lead to very high discharge temperatures. While this process is happening, the scrolls are not being well lubricated - scrolls depend on the oil mist in the refrigerant for lubrication. A lack of lubrication leads to high friction between the scroll flanks and tips and generates additional heat. The combination of heat of compression and heat from increased friction is concentrated in a small localized discharge area where temperatures can quickly rise to more than 300°C. These extreme temperatures damage the Scroll spirals and the orbiting Scroll bearing. This damage can occur in less than one minute especially on larger compressors. Failure may occur in the first few hours or the damage done during field charging may show up some time later.

Other typical field charging problems include undercharging, overcharging, moisture or air in the system etc. In time each one of these problems can cause compressor failure.

### Equipment

Minimal equipment is required for field charging. The minimum equipment required to do a satisfactory job is:-

- Set of service gauges
- Hoses
- Vacuum pump
- Vacuum gauge
- Scales
- Thermometer

### Charging Hoses

Most field-charging is done using standard service hoses. Hoses are made in different colors with different working pressures and with different leak rates but the most important point is the presence or absence of Shredder valve depressors. Shredder valve depressors severely restrict the flow through the service hoses. This slows evacuation and vapor charging dramatically. In most cases the Shredder depressor can be removed but it is simpler to have one set of hoses with and one set without Shredder depressors.



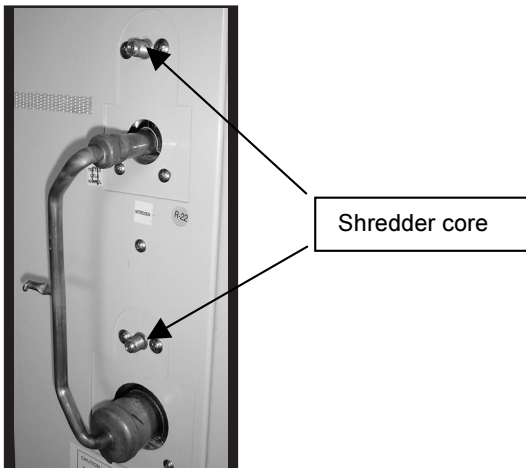
Hose with Shredder valve Depressor



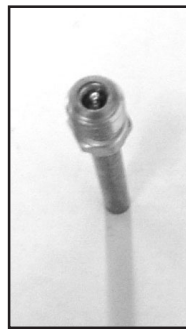
Hose without Shredder valve Depressor

Hose selection is important depending whether the system is being evacuated or charged. Charging liquid from the cylinder into the liquid line should be carried out using an open hose connected to an unrestricted fitting. This will reduce charging time.

**Typical service valves found on the outdoor unit**



**Shredder valves**



Shredder valve with core in place



Shredder valve with core removed

Most split systems have a suitable connection on the outdoor unit

Shredder valves provide easy system access for pressure reading and addition of refrigerant. On small systems, they provide a reasonable connection for evacuation also. However, Shredder valves and the hoses connected to them can cause very severe pressure drops and can multiply evacuation time by a factor of 4 or 5.

On the positive side, Shredder valves provide a restriction that slows the speed of liquid charging into the suction side. When a pressure drop is desirable (charging liquid into suction), connect via a Shredder valve. When a pressure drop is detrimental (evacuation), connect via an open fitting.

**How Much Refrigerant?**

The proper refrigerant charge should follow the volume as recommended by manufacturer and recommendation should be followed by the installer. Refer to the table of Refrigerant Charge Level.

If the installer cannot find the correct charge but the system must be started, refrigerant should be carefully added to the system until reasonable sub-cooling is measured in the liquid line and reasonable suction superheat is measured at the compressor suction. Suction and discharge pressures must be monitored carefully during the charging process.

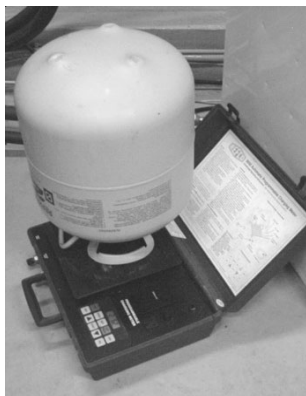
**Charge Limits**

Copeland Scroll compressors have the different charge limits for different compressor models as shown in table below. If the total charge exceeds these limits, the system should have a crankcase heater and/or pump down cycle and/or accumulator to prevent liquid damage to the compressor. Some systems may require accumulators to limit liquid floodback even though the charge is lower than the published limit.

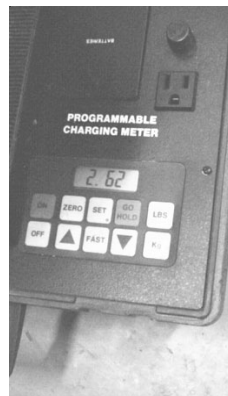
| <u>Compressor Range</u> | <u>Model</u>  | <u>lbs.</u> | <u>kg.</u> |
|-------------------------|---------------|-------------|------------|
| Quest                   | ZR46 to ZR81  | 10          | 4.5        |
| Summit                  | ZR84 to ZR144 | 16          | 7.3        |
| Specter                 | ZR90 to ZR19M | 17          | 7.7        |

## Charging Recommendations

**Charging liquid in a CONTROLLED manner into the suction side until the system is full.** This recommendation does not hold true for reciprocating compressors where liquid charging into the suction side could cause severe damage.



Charging Cylinder on Scale



Close-up of Scale

Carefully monitor the suction and discharge pressures - ensure that the suction pressure does not fall below 25 psig (1.7 bar) at any time during the charging process.

**CAUTION :** Manifold Gauge will show cylinder pressure rather than suction pressure if the cylinder valve and Manifold valve "A" are both open.



There are many ways of charging liquid in a "controlled manner" into the suction side:-

1. Use valve A on the manifold gauge set
2. Use the valve on the refrigerant cylinder
3. Charge through a Shredder valve
4. Use a hose with a Shredder valve depressor
5. Charge into the suction side at some distance from the compressor.
6. All of the above

A

## Charging Procedures - Three phase compressors

The fundamental procedure is the same as for single phase models but the compressor can run in the wrong direction on starting. If this happens reverse any two phases and start again. Short term reverse rotation will not damage the compressor.

As compressors get larger the importance of correct field charging procedures grows exponentially. Unfortunately larger systems are often field charged which leads to many infant failures. All Specter compressors have internal discharge temperature protectors which are very effective in preventing dangerously high discharge temperatures during charging. The protection module will trip and lock the compressor out for 30 minutes. It is not normally necessary to wait 30 minutes for the module to reset. When the compressor has cooled down the module can be reset by breaking the power supply to the control circuit. Very often the serviceman does not understand why the module tripped and uses a jumper wire to bypass it. He continues to charge the system and removes the jumper when charging is complete. The compressor may or may not run with the protector back in the circuit but it is certain that the compressor has been damaged and premature failure is inevitable.

## System Refrigerant Charge Level Guidelines

| Indoor   | Outdoor               | Liquid Pipe | Gas Pipe      | Refrigerant Charge (kg/7.5m pipe length) |
|----------|-----------------------|-------------|---------------|--|
| MDB200B2 | MMC100B x 2           | 5/8         | 1-1/8         | 7.60 x 2                                 |
| MDB200B2 | MMC100C x 2           | 5/8         | 1-1/8         | 7.00 x 2                                 |
| MDB250B2 | MMC125B x 2           | 5/8         | 1-3/8         | 7.95 x 2                                 |
| MDB300B3 | MMC100B x 3           | 5/8         | 1-1/8         | 7.60 x 3                                 |
| MDB300B3 | MMC100C x 3           | 5/8         | 1-1/8         | 7.00 x 3                                 |
| MDB350B3 | MMC100B + MMC125B x 2 | 5/8         | 1-1/8 & 1-3/8 | 7.60 + (7.95 x 2)                        |
| MDB400B4 | MMC100B x 4           | 5/8         | 1-1/8         | 7.60 x 4                                 |
| MDB400B4 | MMC100C x 4           | 5/8         | 1-1/8         | 7.00 x 4                                 |
| MDB450B3 | MMC150C x 3           | 5/8         | 1-3/8         | 10.10 x 3                                |
| MDB500B4 | MMC125B x 4           | 5/8         | 1-1/8         | 7.95 x 4                                 |
| MDB600B4 | MMC150C x 4           | 5/8         | 1-3/8         | 10.10 x 4                                |
| MDB750B5 | MMC150C x 5           | 5/8         | 1-3/8         | 10.10 x 5                                |
|          |                       |             |               |  |
| MDB075D  | M4MC075D              | 1/2         | 1             | 6.2                                      |
| MDB100D  | M4MC100D              | 5/8         | 1-1/8         | 9.5                                      |
| MDB125D  | M4MC125D              | 5/8         | 1-3/8         | 10.8                                     |
| MDB150D  | M4MC150D              | 5/8         | 1-3/8         | 12.1                                     |
| MDB150D2 | M4MC075D x 2          | 1/2         | 1             | 6.12 x 2                                 |
| MDB200D2 | M4MC100D x 2          | 5/8         | 1-1/8         | 9.5 x 2                                  |
| MDB200D2 | M4MC200D2             | 5/8         | 1-1/8         | 9.8 x 2                                  |
| MDB250D2 | M4MC125D x 2          | 5/8         | 1-3/8         | 10.8 x 2                                 |
| MDB250D2 | M4MC250D2             | 5/8         | 1-3/8         | 12 x 2                                   |
| MDB300D2 | M4MC150D x 2          | 5/8         | 1-3/8         | 12.1 x 2                                 |
| MDB300D2 | M4MC300D2             | 5/8         | 1-3/8         | 13.8 x 2                                 |
| MDB400D4 | M4MC100D x 4          | 5/8         | 1-1/8         | 9.5 x 4                                  |
| MDB500D4 | M4MC125D x 4          | 5/8         | 1-3/8         | 10.8 x 4                                 |

Remarks:

With scroll compressor and bi-flow TXV specification.

### Additional charge

Based on liquid pipe size per meter length:

| Liquid Pipe Size, inch | Additional Charge, kg/meter |
|------------------------|-----------------------------|
| 1/4"                   | 0.02                        |
| 5/16"                  | 0.04                        |
| 3/8"                   | 0.05                        |
| 1/2"                   | 0.10                        |
| 5/8"                   | 0.17                        |
| 3/4"                   | 0.26                        |
| 7/8"                   | 0.37                        |

Note: Refer to the table of the Recommended Maximum Pipe Length.

# Special Precautions For R407C

## Special Precautions When Dealing With Refrigerant R407C Unit

### 1) What Is New Refrigerant R407C?

R407C is a zeotropic refrigerant mixture which has Zero Ozone Depletion Potential (ODP = 0) and thus conformed to the Montreal Protocol regulation. It requires Polyol-ester oil (POE) oil for its compressor's lubricant. Its refrigerant capacity and performance are about the same as the refrigerant R22.

### 2) Components

Mixture weight composition R32(23%), R125(25%), R134a(52%)

### 3) Characteristic

- R407C liquid and vapor components have different compositions when the fluid evaporates or condenses. Hence, when leak occurs and only vapor leaks out, the composition of the refrigerant mixture left in the system will change and subsequently affect the system performance. **DO NOT** add new refrigerant to leaked system. It is recommended that the system should be evacuated thoroughly before recharging with R407C.
- When refrigerant R407C is used, the composition will differ depending on whether it is in gaseous or liquid phase. Hence when charging R407C, ensure that only liquid is being withdrawn from the cylinder or can. This is to make certain that only original composition of R407C is being charged into the system.
- POE oil is used as lubricant for R407C compressor, which is different from the mineral oil used for R22 compressor. Extra precaution must be taken not to expose the R407C system too long to moist air.

### 4) Check List Before Installation/Serviceing

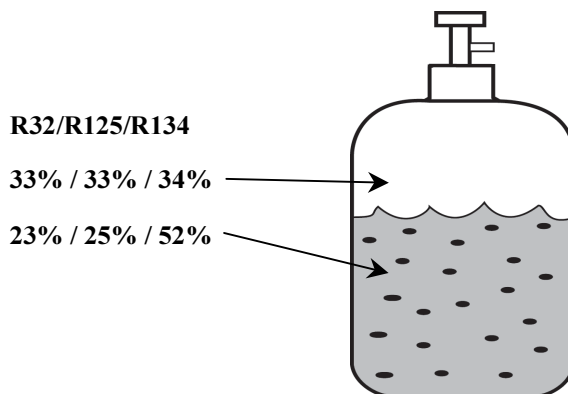
- Tubing  
Refrigerant R407C is more easily affected by dust or moisture compared with R22, make sure to temporarily cover the ends of the tubing prior to installation
- Compressor oil  
No additional charge of compressor oil is permitted.
- Refrigerant  
No other refrigerant other than R407C
- Tools  
Tools specifically for R407C only (must not be used for R22 or other refrigerant)
  - i) Manifold gauge and charging hose
  - ii) Gas leak detector
  - iii) Refrigerant cylinder/charging cylinder
  - iv) Vacuum pump c/w adapter
  - v) Flare tools
  - vi) Refrigerant recovery machine

### 5) Handling And Installation Guidelines

Like R22 system, the handling and installation of R407C system are closely similar. All precautionary measures; such as ensuring no moisture, no dirt or chips in the system, clean brazing using nitrogen, and thorough leak check and vacuuming are equally important requirements. However, due to zeotropic nature of R407C and its hygroscopic POE oil, additional precautions must be taken to ensure optimum and trouble free system operation.

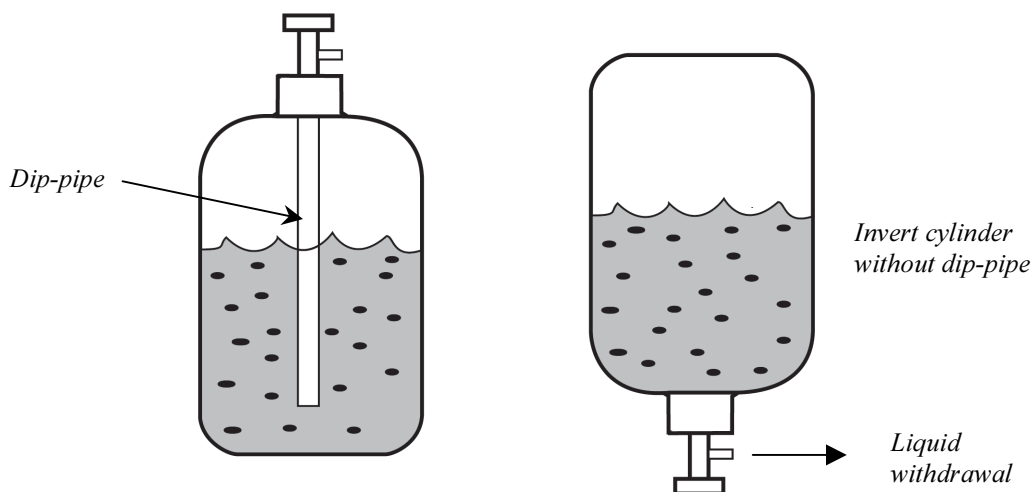
- a) Filter dryer must be installed along the liquid line for all R407C air conditioners. This is to minimise the contamination of moisture and dirt in the refrigerant system. Filter dryer must be of molecular sieve type. For a heat pump system, install a two-way flow filter dryer along the liquid line.
- b) During installation or serviceing, avoid prolong exposure of the internal part of the refrigerant system to moist air. Residual POE oil in the piping and components can absorb moisture from the air.

- c) Ensure that the compressor is not exposed to open air for more than the recommended time specified by its manufacturer (typically less than 10 minutes). Remove the seal plugs only when the compressor is about to be brazed.
- d) The system should be thoroughly vacuumed to 1.0 Pa ( 700mmHg) or lower. This vacuuming level is more stringent than R22 system so as to ensure no incompressible gas and moisture in the system.
- e) When charging R407C, ensure that only liquid is being withdrawn from the cylinder or can. This is to ensure that only the original composition of R407C is being delivered into the system. The liquid composition can be different from the vapor composition.



*Composition of R407C in vapour phase is different from liquid phase.*

- f) Normally, the R407C cylinder or can is being equipped with a dip pipe for liquid withdrawal. However, if the dip pipe is not available, invert the cylinder or can so as to withdraw liquid from the valve at the bottom.



- g) When servicing a leak, the top up method, commonly practiced for R22 system, is not recommended for R407C system. Unlike R22 where the refrigerant is of a single component, the composition of R407C, which is made up of three different components, may have changed during the leak. Consequently, a top up may not ensure that the R407C in the system is of original composition. This composition shift may adversely affect the system performance. It is recommended that the system should be evacuated thoroughly before recharging with R407C.



# Servicing And Maintenance

The design concept of the Condensing Unit is such that all servicing can be done from the front and side of the unit.

Upon removal of front and side panel, all the electrical "terminal box", fan and motor assembly and compressor are easily accessible.

Under normal circumstances, these outdoor units only require a check and cleaning of air intake coil surfaces once quarterly. However, if a unit is installed in area subjected to much oil, mist and dust, the coil must be regularly cleaned by qualified Air Conditioner Service Technicians to ensure sufficient heat exchange and proper operation. Otherwise, the systems life span might be shortened.

## CAUTION

When the compressor is to be stopped for a long time, the crankcase heater should be energized for at least 6 hours before start of operation.

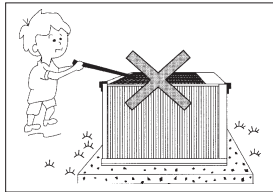
Do not charge OXYGEN, ACETYLENE or other flammable and poisonous gases into the refrigeration cycle when performing a leakage test or an airtight test. These types of gases are extremely dangerous, because explosion can occur.

It is recommended that nitrogen or refrigerant be charged for these types of tests.

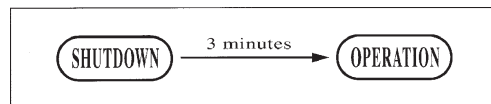
## CAUTION FOR USE

Bear the following points in mind to safeguard against malfunction and breakdown.

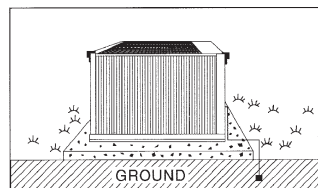
Do not stick rods or other objects through the air outlet during operation since this may result to damage or injury



The air conditioner must not re-start within 3 minutes after shutdown. (These models are equipped with a crankcase heater with the compressor).



Make sure the air conditioner is properly grounded by checking the ground terminal.

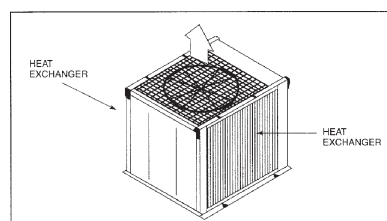


## MAINTENANCE

For superb performance and lasting durability, please do not forget to conduct proper and regular maintenance.

### Cleaning The Outdoor Unit Heat Exchanger

If you use your air conditioner for prolonged period of time, the outdoor unit heat exchanger will become dirty impairing its function and reducing the performance of the air conditioned. Consult your local dealer about the cleaning of the heat exchanger.



# Operation

## Electrical Connection

Wiring regulations about wire diameter differs from country to country. Please refer to your LOCAL ELECTRICAL CODES for field wiring rules. Be sure that installation comply with such rules and regulations.

## General Precaution

Ensure that the rated voltage of the unit correspond to the name plate before carrying out proper wiring according to the wiring diagram.

Provide a power outlet to be used exclusively for each unit. A power supply disconnect and a circuit breaker for over current protection should be provided in the exclusive line.

The unit must be GROUNDED to prevent possible hazard due to insulation failures

Every wiring must be firmly connected.

Every wiring should not touch the refrigerant piping, compressor and any moving parts of fan motor.

## Operational Check

After all wiring is completed and the system is charged with refrigerant, make sure the unit is operating properly. Check that :

Condenser fans are running with warm air blowing off the condensing unit.

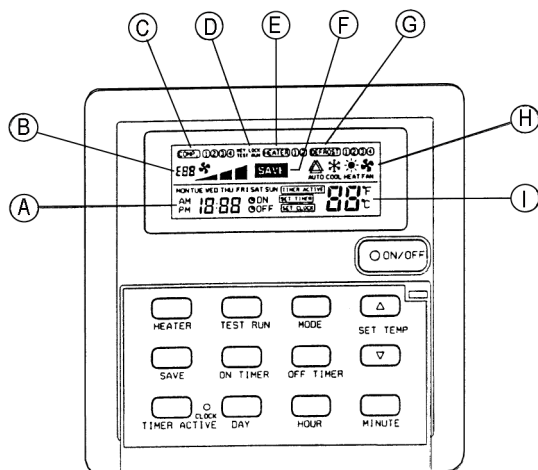
Evaporator blowers are running and discharging cool air from ducts.

Suction line and liquid line pressures are in the region of 75 psig and 275 psig respectively.

## Sequential Controller LCD Operating Instructions

(Standard for cooling and heatpump units)

### Sequential controller LCD display



- A : Time display
- B : Error indication
- C : Compressor running display (up to 4 compressors)
- D : Key lock display
- E : Heater display (up to 2 heaters)
- F : Energy saving mode display
- G : Compressor defrost cycle display (up to 4 compressors)
- H : Operation mode display
- I : Temperature set display

## 2. Operating Guide

### 2.1 ON/OFF key

Press once to start the air conditioning unit.

Press again to stop the unit.

The operation lamp next to the key lights up and goes off respectively when the unit is running or not running.

**Caution :** In the case when the ON/OFF key is pressed immediately after the operation is stopped, the unit will not restart until 3 minutes later to protect the compressor.

## 2.2 Selecting Operation Mode

Press the **MODE** key to select the type of operating mode. Consecutive press of the key switches the operation over “COOL”, “HEAT”, “AUTO” and “FAN”

## 2.3 SAVE Mode



Press the **SAVE** key to select the energy saving function. This option is only available for “COOL”, “HEAT” and “AUTO” modes.

## 2.4 Auxiliary Electric Heater

If the “HEAT” mode provides insufficient heating to a room even at the highest temperature setting (30°C), press the **HEATER** key to activate the auxiliary electric heater. For models with two heaters, consecutive press of the key allows the selection of one or both heaters active.

## 2.5 Temperature Setting

To set the desired room temperature, press  or  to increase or decrease the set temperature in the range of 16°C to 30°C.

Press both  and  simultaneously to toggle between °C and °F setting.

## 2.6 Time Setting

### Real time Clock

Press the **CLOCK** key once to activate set clock mode.

Press again to disable set clock mode.

Under set clock mode, the time of the present day can be set by pressing the respective **MINUTE**, **HOURL** and **DAY** key.

### 7 days timer

Press the **ON TIMER** key to activate auto ON timer mode. Under this mode, press the respective **MINUTE**, **HOURL** and **DAY** key to select the time of the week when the air-conditioning unit is to automatically start running. Press the **ON TIMER** key again to save the setting.

Press the **OFF TIMER** key to activate auto OFF timer mode. Under this mode, press the respective **MINUTE**, **HOURL** and **DAY** key to select the time of the week when the air-conditioning unit is to automatically stop running. Press the **ON TIMER** key again to save the setting.

Then to activate the 7 days timer, press and hold the **TIMER ACTIVE** key until the word “TIMER ACTIVE” appears on the LCD screen. Repeat the same step to disable the 7 days timer.

## 2.7 Other Function

### Key Lock

Press the **MINUTE** key 3 times consecutively to activate the key lock. A “KEY LOCK” symbol will appear on the LCD screen. At this point, only the **ON/OFF** key is valid.

To disable the key lock, again press the **MINUTE** key 3 times consecutively.

### Test run

Press the **TEST** key 2 times consecutively to test run the unit.

### 3. Error Code

When the system is on and an error occurs, the **ON/OFF** LED on the LCD panel will blink and an error code is shown. When the system is off and there is a thermistor error, the **ON/OFF** LED is off but the error code is still displayed. Each error code represents different message as below

| Error code | Possible fault                                  | Error code | Possible fault              |
|------------|---|------------|-----------------------------|
| E01        | Require manual reset (possible causes)          | E19        | Indoor coil sensor 4 short  |
| E02        | Compressor 1 high temperature (overload)        | E20        | Indoor coil sensor 1 open   |
| E03        | Compressor 2 high temperature(overload)         | E21        | Indoor coil sensor 2 open   |
| E04        | Compressor 3 high temperature(overload)         | E22        | Indoor coil sensor 3 open   |
| E05        | Compressor 4 high temperature(overload)         | E23        | Indoor coil sensor 4 open   |
| E06        | Compressor 1 high pressure trip / contact open  | E24        | Outdoor coil sensor 1 short |
| E07        | Compressor 2 high pressure trip / contact open  | E25        | Outdoor coil sensor 2 short |
| E08        | Compressor 3 high pressure trip / contact open  | E26        | Outdoor coil sensor 3 short |
| E09        | Compressor 4 high pressure trip / contact open  | E27        | Outdoor coil sensor 4 short |
| E10        | Compressor 1 trip / low R-22 / outdoor abnormal | E28        | Outdoor coil sensor 1 open  |
| E11        | Compressor 2 trip / low R-22 / outdoor abnormal | E29        | Outdoor coil sensor 2 open  |
| E12        | Compressor 3 trip / low R-22 / outdoor abnormal | E30        | Outdoor coil sensor 3 open  |
| E13        | Compressor 4 trip / low R-22 / outdoor abnormal | E31        | Outdoor coil sensor 4 open  |
| E14        | Room sensor short                               | E32        | Compressor 1 de-ice         |
| E15        | Room sensor open                                | E33        | Compressor 2 de-ice         |
| E16        | Indoor coil sensor 1 short                      | E34        | Compressor 3 de-ice         |
| E17        | Indoor coil sensor 2 short                      | E35        | Compressor 4 de-ice         |
| E18        | Indoor coil sensor 3 short                      |            |                             |

### 4. Installation of LCD remote controller

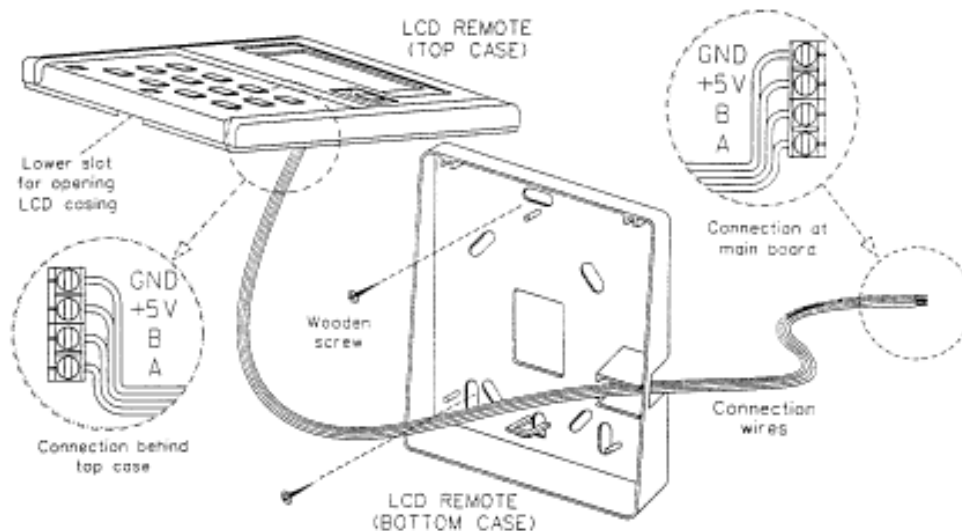
#### 4.1 Accessories

The following accessories are included. If any part is missing, contact your dealer immediately.

- ① Remote controller
- ② Wooden screw 4.1 x 16 (2 pieces)
- ③ Instruction manual

#### 4.2 Step by step guide

- i) First, open up the casing of the LCD remote controller **into its top and bottom** case using a screwdriver. To do this, insert the screwdriver into the lower slot and slide it in the outward direction.
- ii) Fix the bottom case onto the wall with the 2 wooden screws provided. Then, insert the 4 connecting wires (from the main board) through the slot on the lower right.
- iii) Connect one end in each of the 4 wires to the terminal block behind the top case as shown below. The wire that goes into the "GND" terminal at the top case must be connected at the other end to the "GND" terminal at the main board. The same goes for the "+5V", "B" and "A" connection.
- iv) Fasten back the top and bottom case into place. Hook the two upper claws into their respective slots and snap the lower part shut.



## 5. Auto Random Restart

When power resumed, the unit will automatically restart and operate at the previous setting as before power failure occurred. (Remove jumper at JH/JP1 will cancel the auto random restart function. Please refer to wiring diagram for the location of the JH/JP1).

## Sequential Controller Specifications

The controller can be configured to suit individual's need with details below :

### Model Selection

#### 1. Number of Compressor

The control can be configured into 6 main types base on number of compressors by changing "R42" values :

|    | <u>Number of Compressor</u>    | <u>R42 value</u> |
|----|--------------------------------|------------------|
| a. | Cooling / heater* 2 Compressor | 20k              |
| b. | Cooling / heater* 3 Compressor | 47k              |
| c. | Cooling / heater* 4 Compressor | Open             |
| d. | Heat pump 2 compressors        | 1k               |
| e. | Heat pump 3 compressors        | 3.3k             |
| f. | Heat pump 4 compressors        | 9.1k             |

Note : \* Cooling or heater model depending on SW1 and SW2 setting. Factory setting for number of compressor is based on air conditioner models.

#### 2. Number of Heater

|    | <u>Number of Heater</u> | <u>SW1(dip1)</u> | <u>SW2(dip2)</u> |
|----|-------------------------|------------------|------------------|
| a. | No heater (0 heater)    | off              | off              |
| b. | 1 heater                | on               | off              |
| c. | 2 heaters               | on / off         | on               |

Note : Factory preset : SW1 = off; SW2 = off ~ no heater

#### 3. Auto Mode Selection

|    |               | <u>SW5(dip 5)</u> |
|----|---------------|-------------------|
| a. | Auto mode off | off               |
| b. | Auto mode on  | on                |

Note : Factory preset : SW5 = off ~ auto mode off

#### 4. Stage Differential Temperature

Differential temperature is the temperature difference between turning on or off 1 compressor to another compressor in thermostat cycle.

The stage differential temperature can be selected from the range shown below :

|            | <u>Dip switch 3</u> | <u>Dip switch 4</u> |
|------------|---------------------|---------------------|
| a. Default | off                 | off                 |
| b. 0.5°C   | on                  | off                 |
| c. 1.0°C   | off                 | on                  |
| d. 1.5°C   | on                  | on                  |

note that 1.5°C only valid for 2 and 3 compressors model. For 4 compressors model, maximum allowed is 1.0°C.

The default differential temperature is base on number of compressor model, the setting is as below :

| Model         | Diff. Temperature |
|---------------|-------------------|
| 1 compressor  | Not applicable    |
| 2 compressor  | 1.5°C             |
| 3 compressor  | 1.0°C             |
| 4 compressors | 0.5°C             |

#### 5. Hot Keep Option

|            | Dip switch 6 |
|------------|--------------|
| a. Fan off | off          |
| b. Fan on  | on           |

#### 6. Operating Modes

The system has 4 operating modes to select with respect to each model selection:

| Model | Auto | Cool | Heat | Fan |                      |
|-------|------|------|------|-----|----------------------|
| SQCn  | -    | X    | -    | X   |                      |
| SQHnh | -    | X    | X    | X   | (Dip switch 5 = off) |
| SQHnh | X    | X    | X    | X   | (Dip switch 5 = on)  |

Where x denotes modes available  
 n = number of compressor(s)  
 h = number of heater(s)

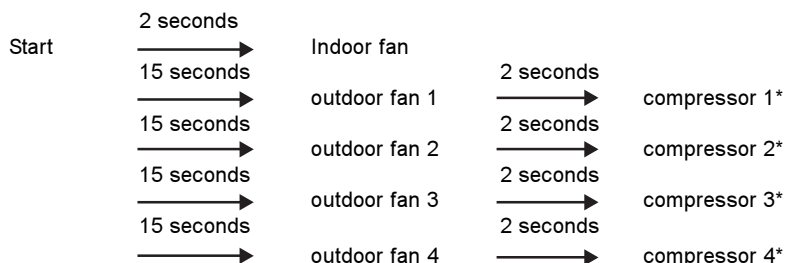
#### 7. Last Memory Functions

The power up settings for either with or without the last memory backup is based on the JH1 setting.

|                               | JH1 Setting |
|-------------------------------|-------------|
| a. Last memory backup         | JH1 Plugged |
| b. Without last memory backup | JH1 Removed |

#### 8. Sequential Control For Cool Mode

The starting sequence for indoor fan, outdoor fan and compressors is shown as below:

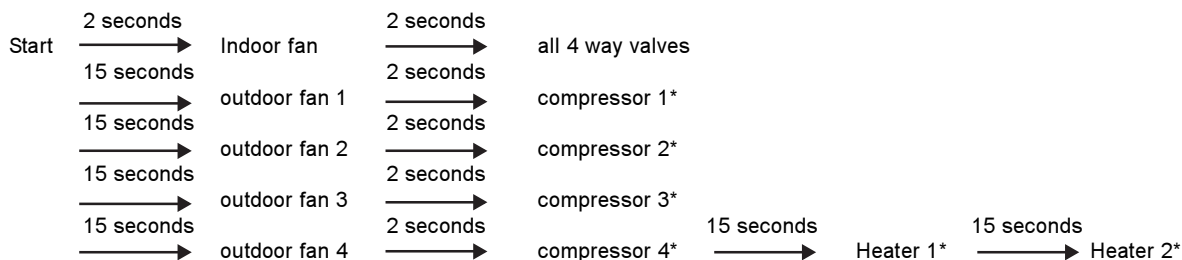


\* if available and applicable

The compressors will be turned on one by one depending on the on/off conditions shown in the above

#### 9. Sequential control for heat mode

The starting sequence for indoor fan, outdoor fan and compressors is as shown below :



\* if available and applicable

The compressors will be turned on one by one depending on the on/off conditions shown in the above.

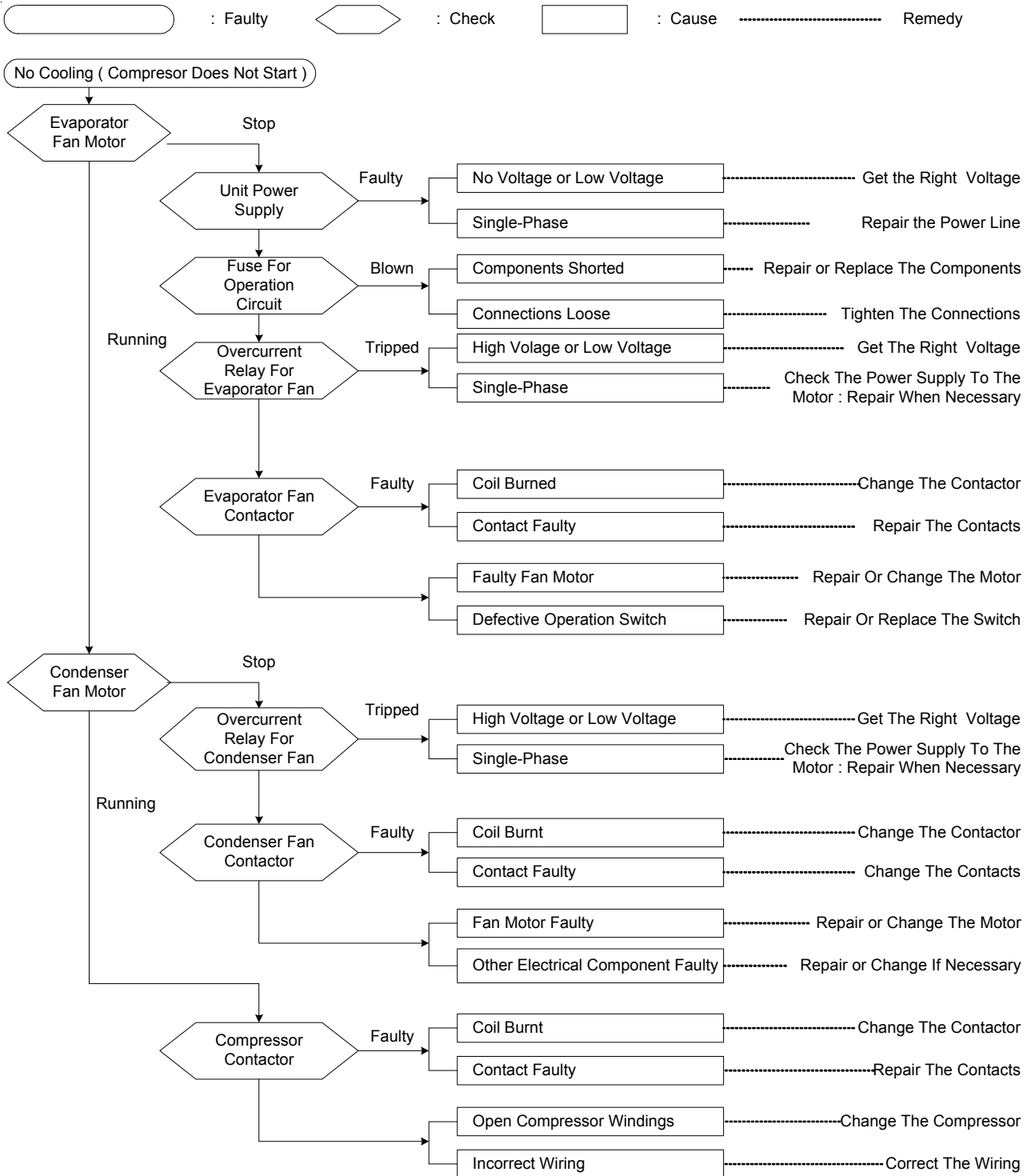
# Troubleshooting

When any air conditioner malfunction is noted, immediately switch off the power supply to the unit and contact the local dealer, if necessary. Some simple trouble shooting tips are given below :

| <b>Trouble</b>  | <b>Probable Cause</b>  | <b>Suggested Action</b>  |
|---|--|--|
| 1. Fan does not work                                  | <ol style="list-style-type: none"> <li>1. No power supply</li> <li>2. Fan capacitor faulty</li> <li>3. Fan motor faulty</li> <li>4. Switch faulty</li> </ol>   | <ol style="list-style-type: none"> <li>1. Check power supply</li> <li>2. Contact local dealer</li> <li>3. Contact local dealer</li> <li>4. Change switch</li> </ol>  |
| 2. Fan works, but compressor does not work            | <ol style="list-style-type: none"> <li>1. Thermostat setting too high</li> <li>2. Dual pressure control trip</li> <li>3. Compressor faulty</li> <li>4. Compressor contactor faulty</li> </ol>  | <ol style="list-style-type: none"> <li>1. Reset thermostat</li> <li>2. Reset Pressure Control</li> <li>3. Contact local dealer</li> <li>4. Contact local dealer</li> </ol>                                   |
| 3. Both fan and compressor does not work              | <ol style="list-style-type: none"> <li>1. Power failure</li> <li>2. Starter trip</li> <li>3. Fuse blown in power switch or operating unit</li> </ol>   | <ol style="list-style-type: none"> <li>1. Operate when power supply resume</li> <li>2. Reset starter</li> <li>3. Check and replace fuse</li> </ol>   |
| 4. Air-conditioner works but cooling not satisfactory | <ol style="list-style-type: none"> <li>1. Thermostat setting too high</li> <li>2. Doors and/or windows not closed</li> <li>3. Condenser coil dirty</li> <li>4. Some objects blocking the inlet and/or outlet of the unit</li> <li>5. Insufficient refrigerant charge.</li> </ol> | <ol style="list-style-type: none"> <li>1. Reset thermostat</li> <li>2. Close doors and/or windows</li> <li>3. Contact local dealer</li> <li>4. Remove the object</li> <li>5. Contact local dealer</li> </ol> |

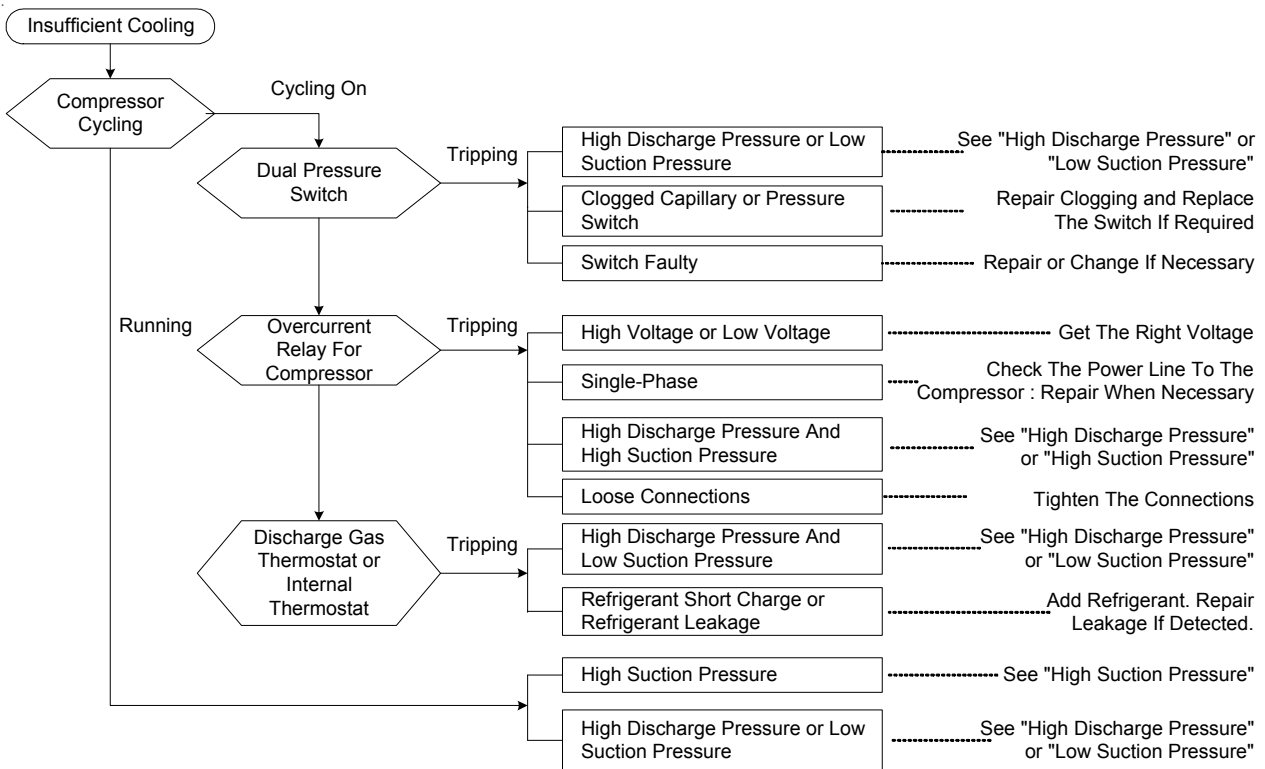
The following chart are efficient checking procedures for troubleshooting when these fan-coil units, are coupled with the condensing units using standard wiring. For dual circuited models, perform the procedures for each circuit.

## No Cooling

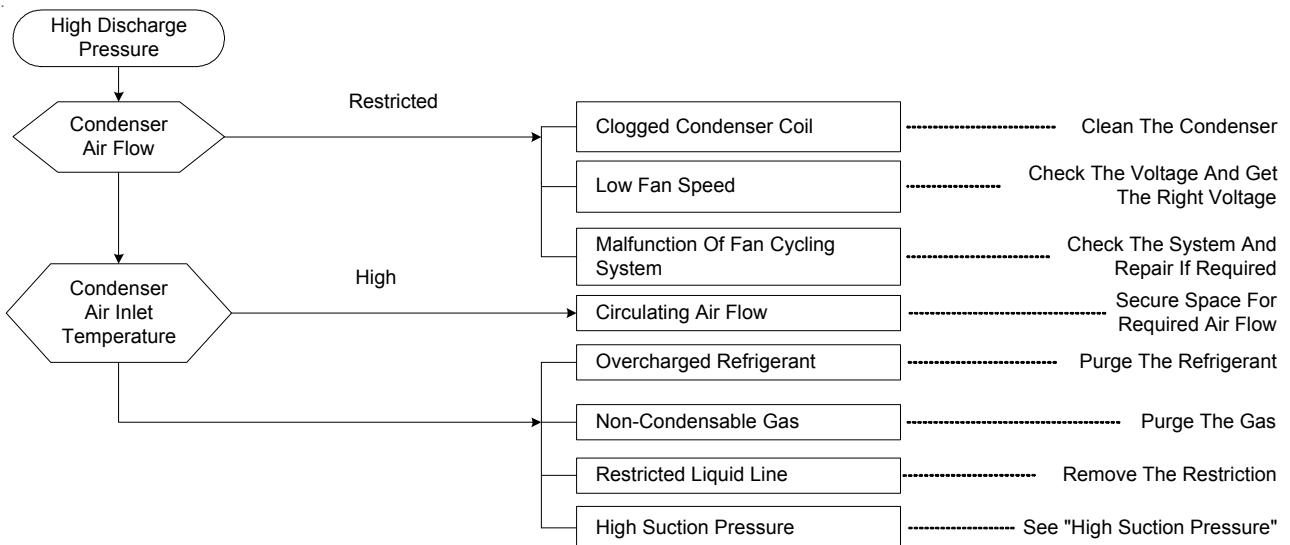




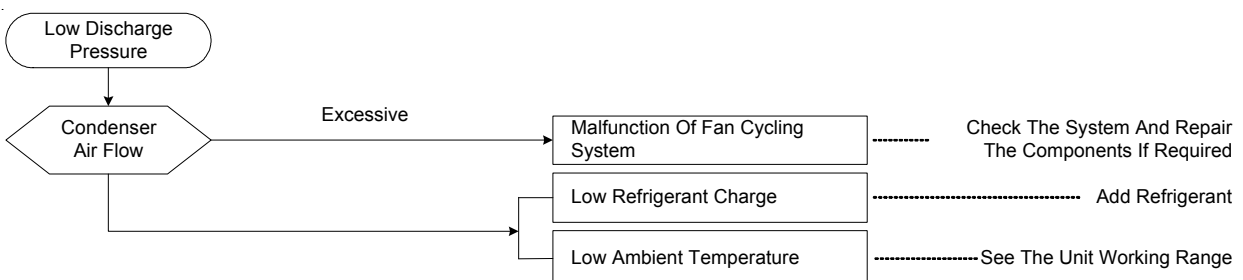
## Insufficient Cooling



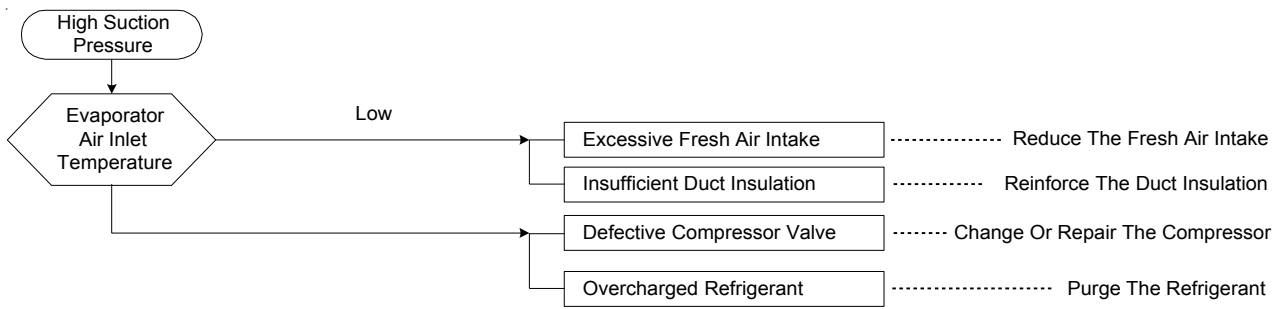
## High Discharge Pressure



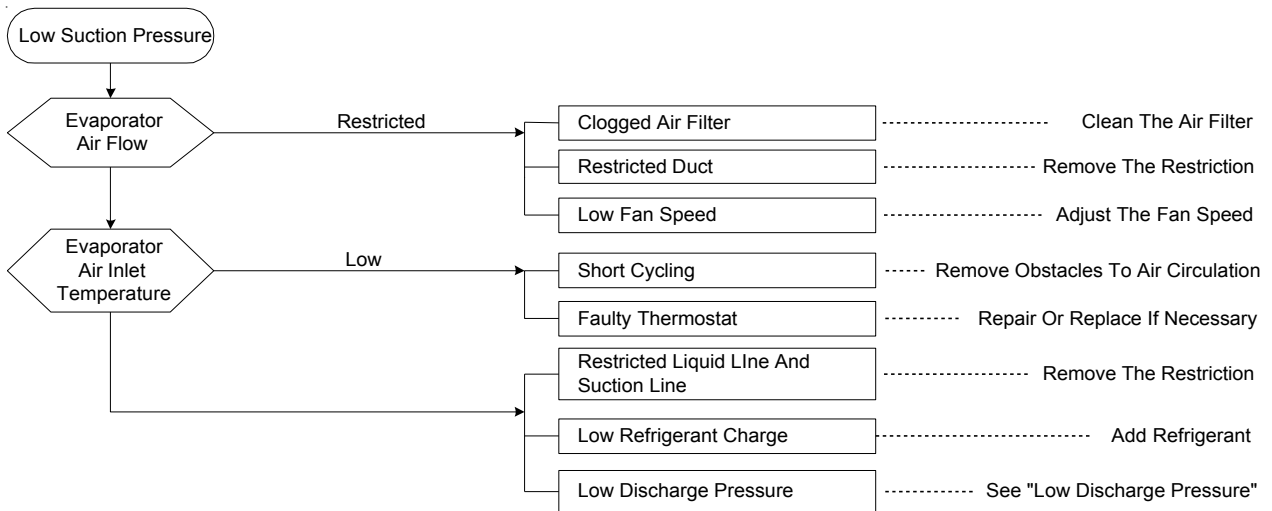
## Low Discharge Pressure



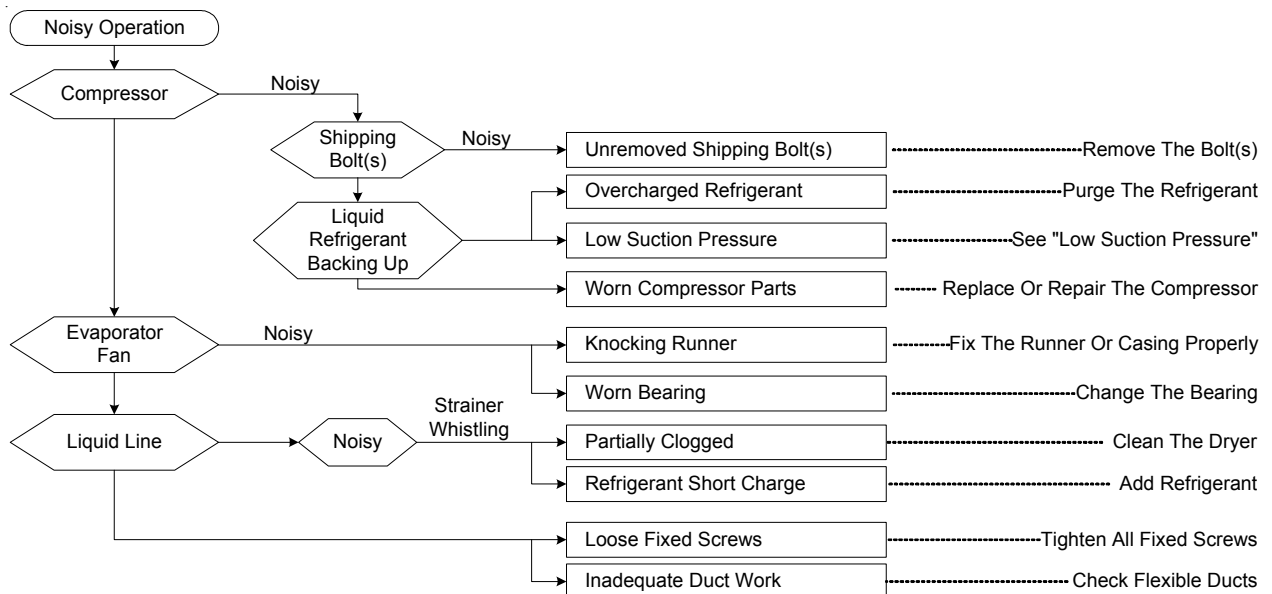
## High Suction Pressure



## Low Suction Pressure



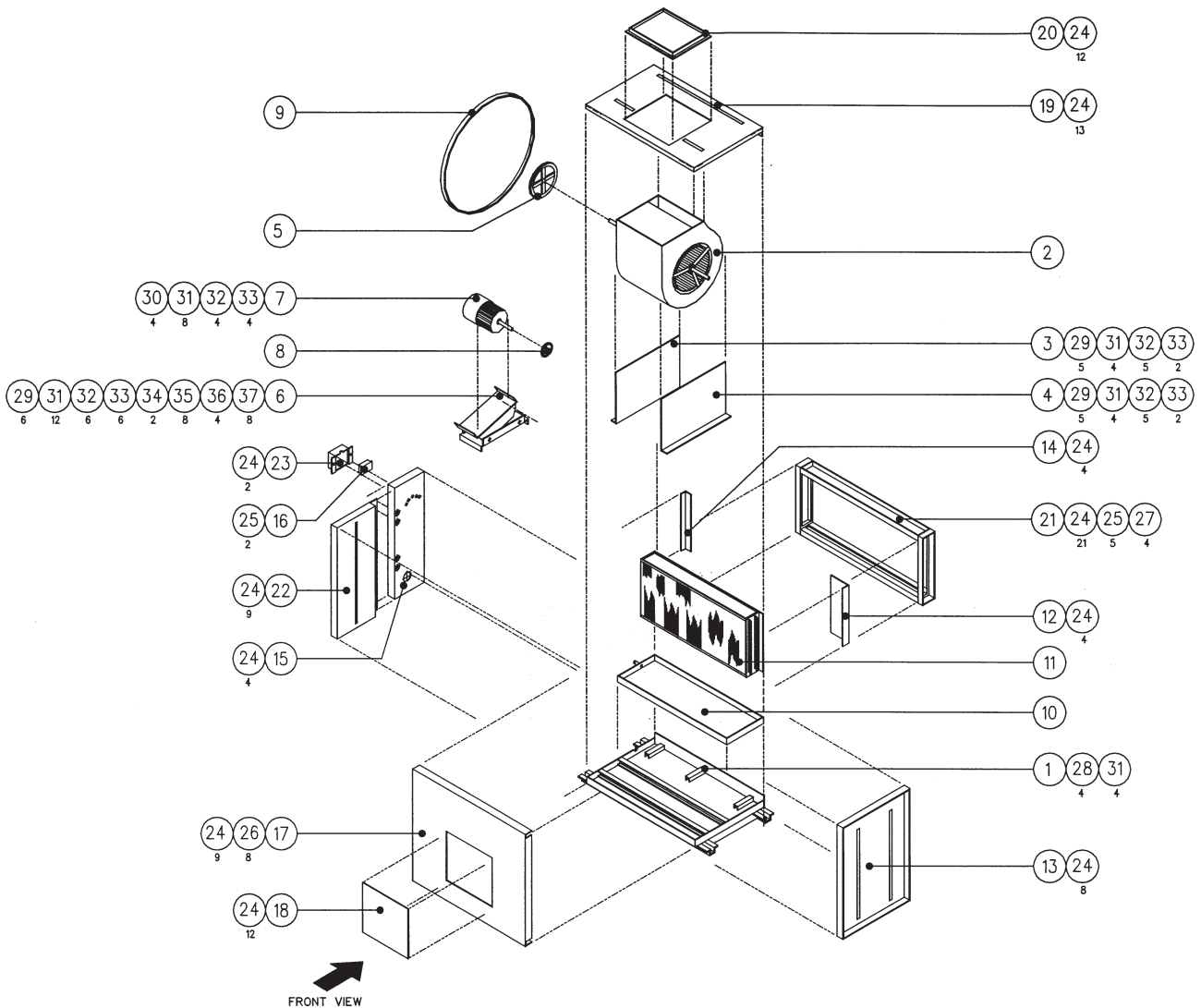
## Noisy Operation



# Parts List

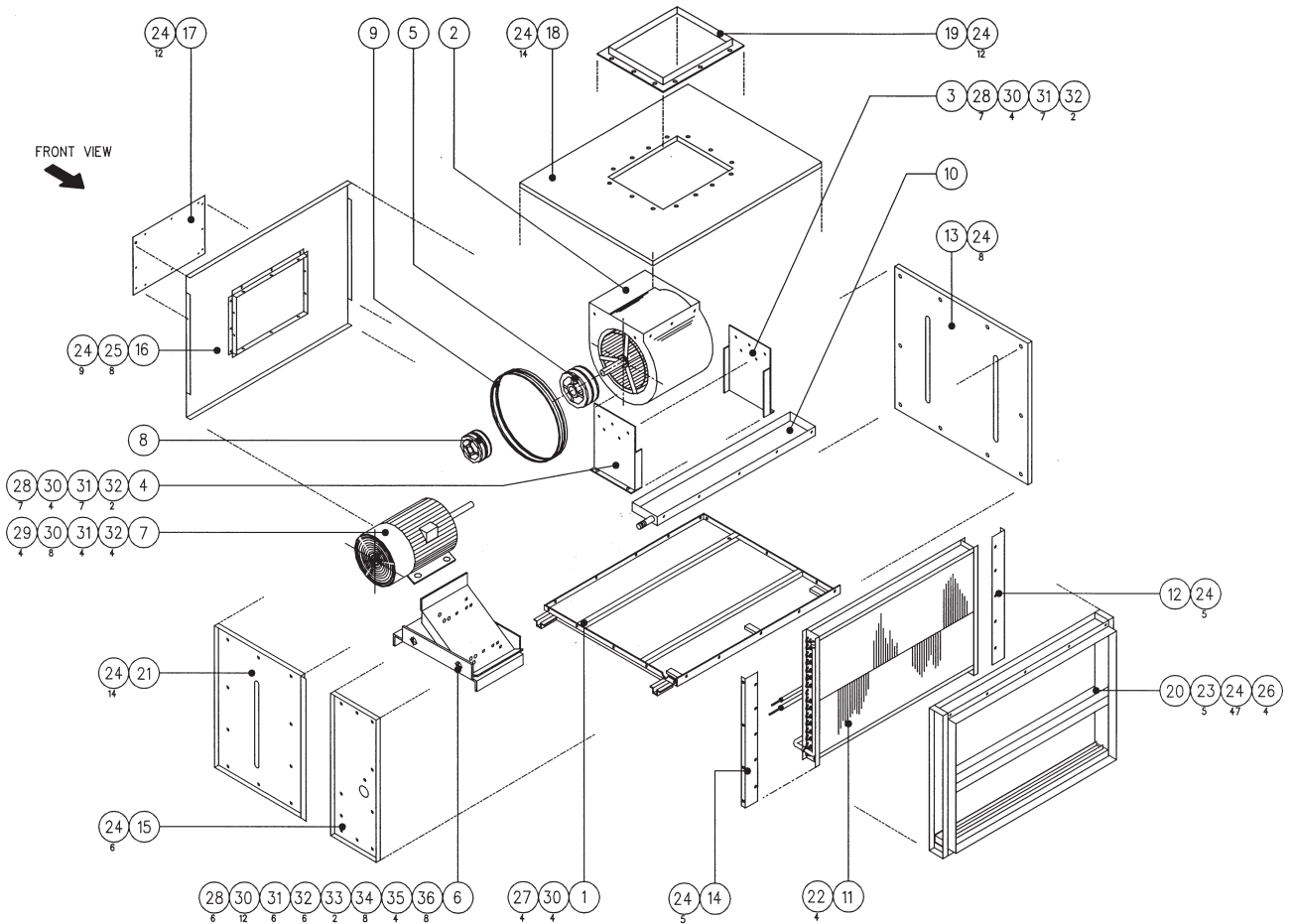
## Indoor Models

Model : MDB200B2



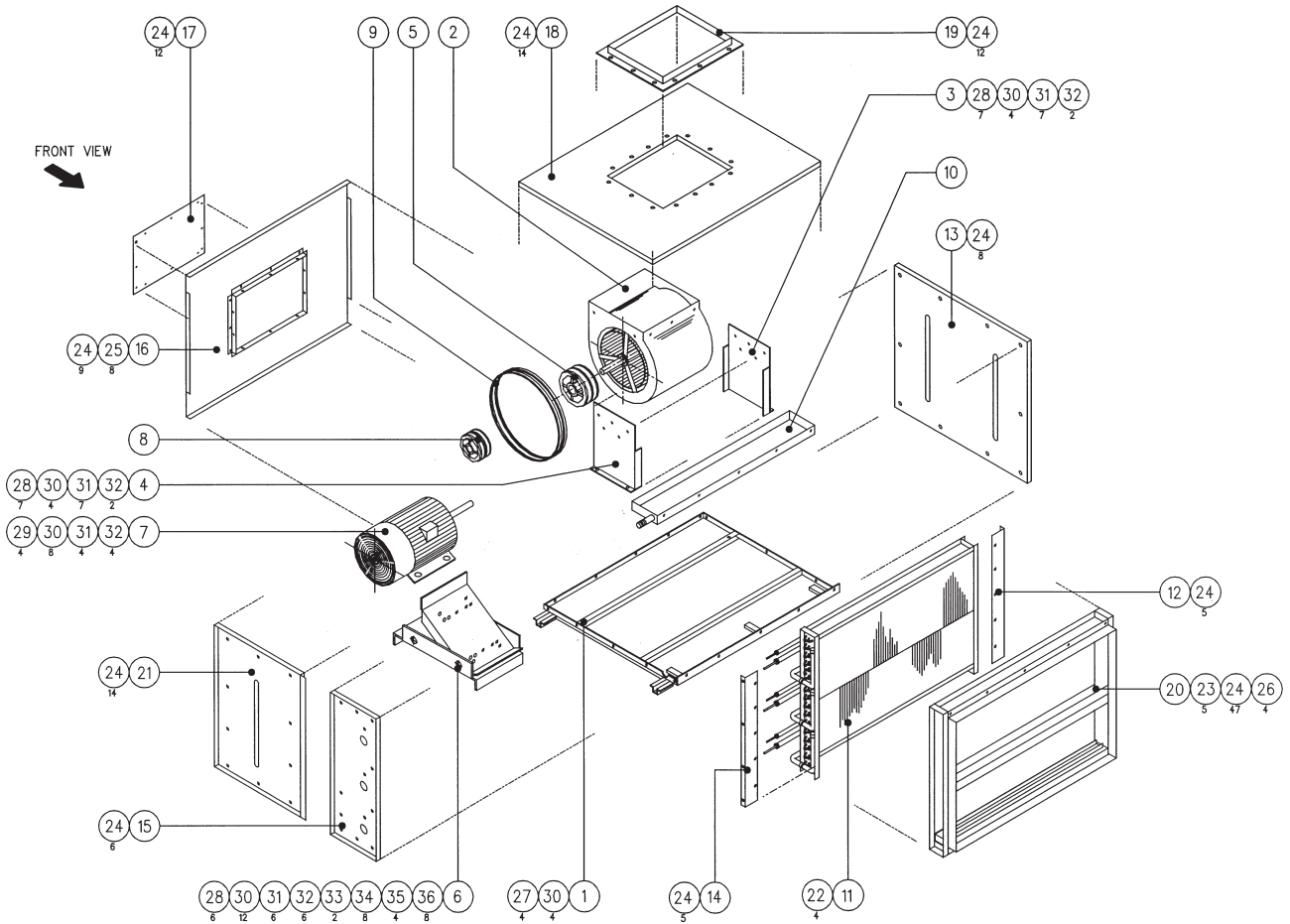
| NO | DESCRIPTION                  | NO | DESCRIPTION                   | NO | DESCRIPTION              |
|----|------------------------------|----|-------------------------------|----|--------------------------|
| 1  | ASSY., BASE PAN              | 14 | ASSY., COIL SIDE COVER LEFT   | 27 | SCREW, TRUSS HEAD PHILIP |
| 2  | ASSY., BLOWER HOUSING        | 15 | ASSY., SIDE PANEL SMALL LEFT  | 28 | SCREW, WOOD              |
| 3  | SUPPORT, BLOWER LEFT         | 16 | ASSY., TERMINAL BLOCK         | 29 | BOLT, HEXAGON            |
| 4  | SUPPORT, BLOWER RIGHT        | 17 | ASSY., FRONT PANEL            | 30 | BOLT, HEXAGON            |
| 5  | PULLEY, BLOWER               | 18 | ASSY., BLOWER FLANGE          | 31 | WASHER, PLAIN            |
| 6  | ASSY., MOTOR BRACKET         | 19 | ASSY., TOP PANEL              | 32 | WASHER, SPRING           |
| 7  | MOTOR                        | 20 | BLOWER, COVER                 | 33 | NUT, HEXAGON             |
| 8  | PULLEY, MOTOR                | 21 | ASSY., FILTER SECTION         | 34 | BOLT, ADJUSTING          |
| 9  | V-BELT                       | 22 | ASSY., SIDE PANEL BIG LEFT    | 35 | WASHER, PLAIN            |
| 10 | ASSY., DRAIN PAN             | 23 | COVER, TERMINAL               | 36 | WASHER, SPRING           |
| 11 | ASSY., COIL                  | 24 | SCREW, S.T. TRUSS HEAD PHILIP | 37 | NUT, HEXAGON             |
| 12 | ASSY., COIL SIDE COVER RIGHT | 25 | SCREW, SELF TAPPING PAN HEAD  |    |                          |
| 13 | ASSY., SIDE PANEL RIGHT      | 26 | SCREW, TRUSS HEAD PHILIP      |    |                          |

Model : MDB250B2



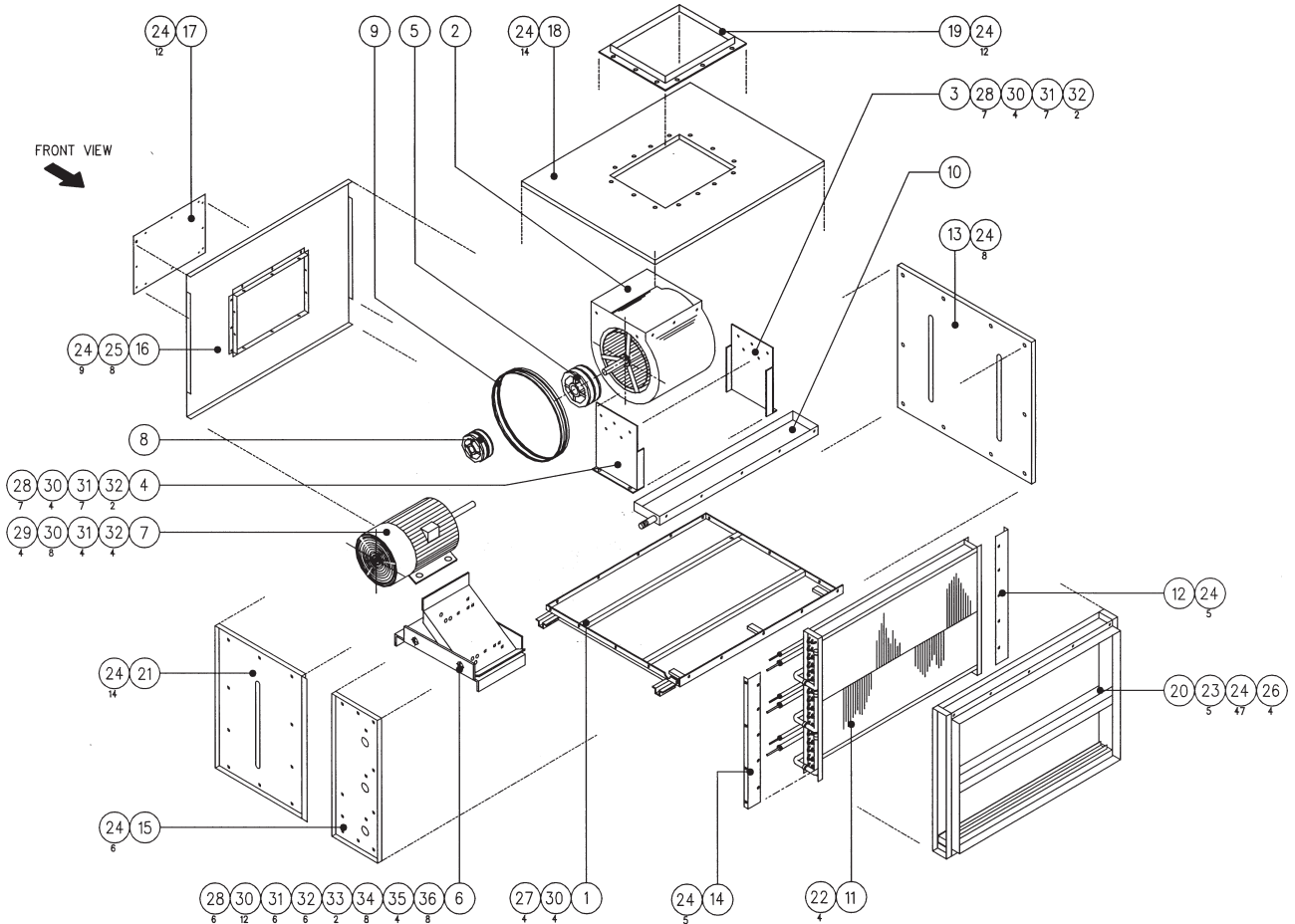
| NO | DESCRIPTION                 | NO | DESCRIPTION                   | NO | DESCRIPTION              |
|----|-----------------------------|----|-------------------------------|----|--------------------------|
| 1  | ASSY., BASE PAN             | 13 | ASSY., SIDE PANEL LEFT        | 25 | SCREW, TRUSS HEAD PHILIP |
| 2  | ASSY., BLOWER HOUSING       | 14 | ASSY., COIL SIDE COVER RIGHT  | 26 | SCREW, TRUSS HEAD PHILIP |
| 3  | SUPPORT, BLOWER LEFT        | 15 | ASSY., SIDE PANEL SMALL RIGHT | 27 | SCREW, WOOD              |
| 4  | SUPPORT, BLOWER RIGHT       | 16 | ASSY., FRONT PANEL            | 28 | BOLT, HEXAGON            |
| 5  | PULLEY, BLOWER              | 17 | ASSY., BLOWER FLANGE          | 29 | BOLT, HEXAGON            |
| 6  | ASSY., MOTOR BRACKET        | 18 | ASSY., TOP PANEL              | 30 | WASHER, PLAIN            |
| 7  | MOTOR                       | 19 | COVER, BLOWER                 | 31 | WASHER, SPRING           |
| 8  | PULLEY, MOTOR               | 20 | ASSY., FILTER SECTION         | 32 | NUT, HEXAGON             |
| 9  | V-BELT                      | 21 | ASSY., SIDE PANEL BIG RIGHT   | 33 | BOLT, ADJUSTING          |
| 10 | ASSY., DRAIN PAN            | 22 | SCREW, S.T. TRUSS HEAD PHILIP | 34 | WASHER, PLAIN            |
| 11 | ASSY., COIL                 | 23 | SCREW, SELF TAPPING PAN HEAD  | 35 | WASHER, SPRING           |
| 12 | ASSY., COIL SIDE COVER LEFT | 24 | SCREW, TRUSS HEAD PHILIP      | 36 | NUT, HEXAGON             |

Model : MDB300B3



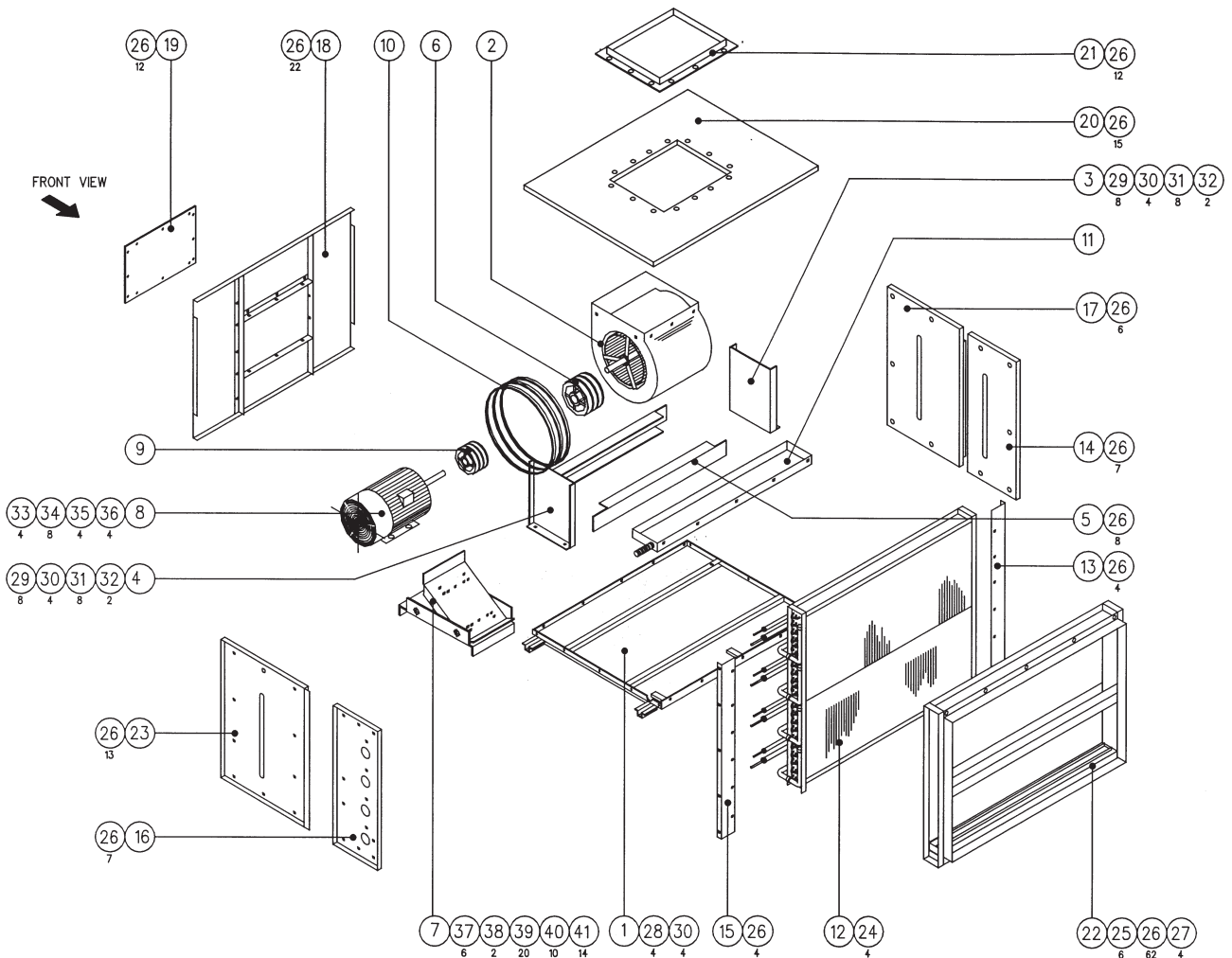
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|----|-----------------------------|----|-------------------------------|----|--------------------------|
| 1  | ASSY., BASE PAN             | 13 | ASSY., SIDE PANEL LEFT        | 25 | SCREW, TRUSS HEAD PHILIP |
| 2  | ASSY., BLOWER HOUSING       | 14 | ASSY., COIL SIDE COVER RIGHT  | 26 | SCREW, TRUSS HEAD PHILIP |
| 3  | SUPPORT, BLOWER LEFT        | 15 | ASSY., SIDE PANEL SMALL RIGHT | 27 | SCREW, WOOD              |
| 4  | SUPPORT, BLOWER RIGHT       | 16 | ASSY., FRONT PANEL            | 28 | BOLT, HEXAGON            |
| 5  | PULLEY, BLOWER              | 17 | ASSY., BLOWER FLANGE          | 29 | BOLT, HEXAGON            |
| 6  | ASSY., MOTOR BRACKET        | 18 | ASSY., TOP PANEL              | 30 | WASHER, PLAIN            |
| 7  | MOTOR                       | 19 | COVER, BLOWER                 | 31 | WASHER, SPRING           |
| 8  | PULLEY, MOTOR               | 20 | ASSY., FILTER SECTION         | 32 | NUT, HEXAGON             |
| 9  | V-BELT                      | 21 | ASSY., SIDE PANEL BIG RIGHT   | 33 | BOLT, ADJUSTING          |
| 10 | ASSY., DRAIN PAN            | 22 | SCREW, S.T. TRUSS HEAD PHILIP | 34 | WASHER, PLAIN            |
| 11 | ASSY., COIL                 | 23 | SCREW, SELF TAPPING PAN HEAD  | 35 | WASHER, SPRING           |
| 12 | ASSY., COIL SIDE COVER LEFT | 24 | SCREW, TRUSS HEAD PHILIP      | 36 | NUT, HEXAGON             |

Model : MDB350B3



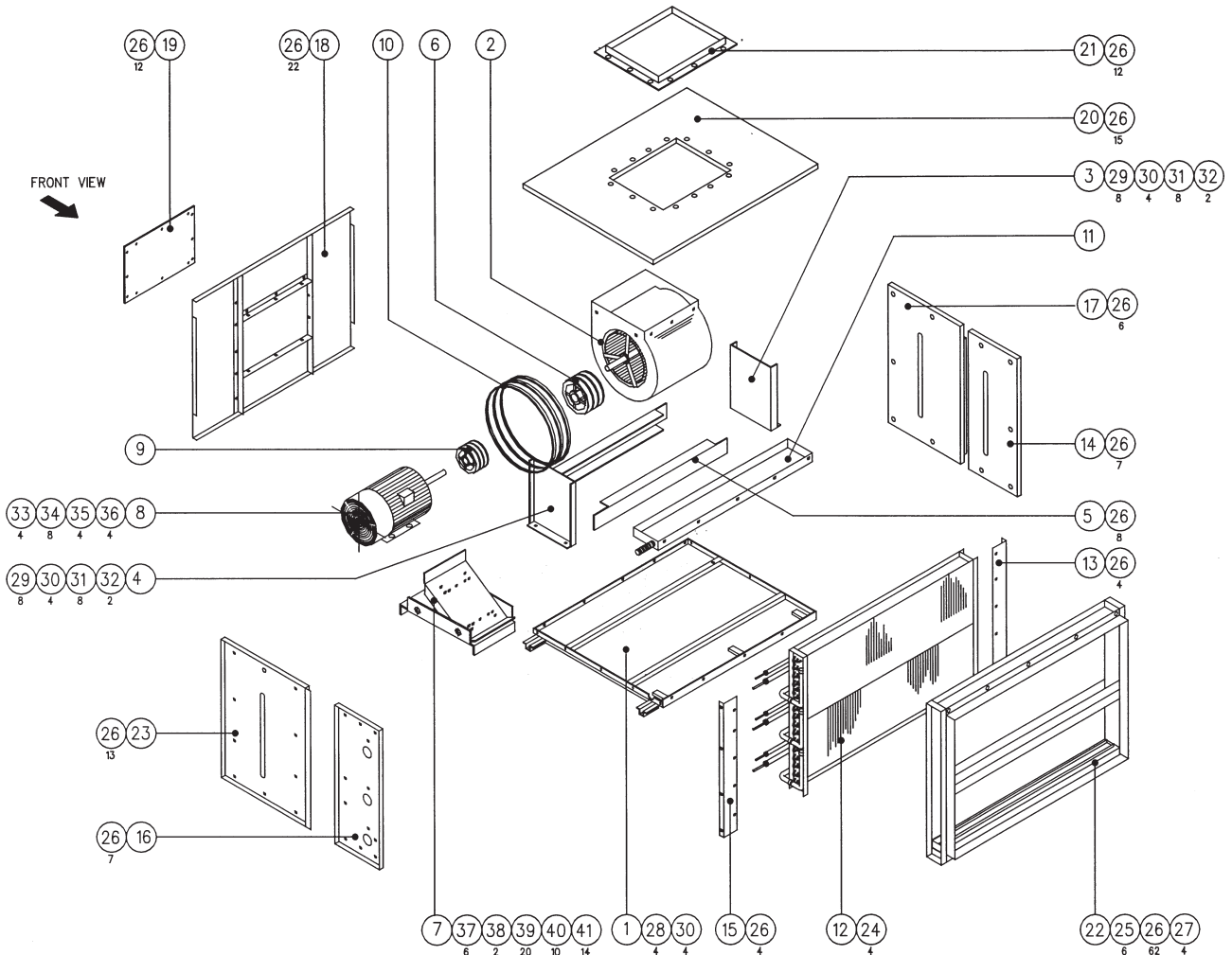
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|----|-----------------------------|----|-------------------------------|----|--------------------------|
| 1  | ASSY., BASE PAN             | 13 | ASSY., SIDE PANEL LEFT        | 25 | SCREW, TRUSS HEAD PHILIP |
| 2  | ASSY., BLOWER HOUSING       | 14 | ASSY., COIL SIDE COVER RIGHT  | 26 | SCREW, TRUSS HEAD PHILIP |
| 3  | SUPPORT, BLOWER LEFT        | 15 | ASSY., SIDE PANEL SMALL RIGHT | 27 | SCREW, WOOD              |
| 4  | SUPPORT, BLOWER RIGHT       | 16 | ASSY., FRONT PANEL            | 28 | BOLT, HEXAGON            |
| 5  | PULLEY, BLOWER              | 17 | ASSY., BLOWER FLANGE          | 29 | BOLT, HEXAGON            |
| 6  | ASSY., MOTOR BRACKET        | 18 | ASSY., TOP PANEL              | 30 | WASHER, PLAIN            |
| 7  | MOTOR                       | 19 | COVER, BLOWER                 | 31 | WASHER, SPRING           |
| 8  | PULLEY, MOTOR               | 20 | ASSY., FILTER SECTION         | 32 | NUT, HEXAGON             |
| 9  | V-BELT                      | 21 | ASSY., SIDE PANEL BIG RIGHT   | 33 | BOLT, ADJUSTING          |
| 10 | ASSY., DRAIN PAN            | 22 | SCREW, S.T. TRUSS HEAD PHILIP | 34 | WASHER, PLAIN            |
| 11 | ASSY., COIL                 | 23 | SCREW, SELF TAPPING PAN HEAD  | 35 | WASHER, SPRING           |
| 12 | ASSY., COIL SIDE COVER LEFT | 24 | SCREW, TRUSS HEAD PHILIP      | 36 | NUT, HEXAGON             |

Model : MDB400B4



| NO | DESCRIPTION                 | NO | DESCRIPTION                   | NO | DESCRIPTION    |
|----|-----------------------------|----|-------------------------------|----|----------------|
| 1  | ASSY., BASE PAN             | 15 | ASSY., COIL SIDE COVER RIGHT  | 29 | BOLT, HEXAGON  |
| 2  | ASSY., BLOWER HOUSING       | 16 | ASSY., SIDE PANEL BACK RIGHT  | 30 | WASHER, PLAIN  |
| 3  | SUPPORT, BLOWER LEFT        | 17 | ASSY., SIDE PANEL FRONT LEFT  | 31 | WASHER, SPRING |
| 4  | SUPPORT, BLOWER RIGHT       | 18 | ASSY., FRONT PANEL            | 32 | NUT, HEXAGON   |
| 5  | SUPPORT, BLOWER STRUC. F/B  | 19 | ASSY., BLOWER FLANGE          | 33 | BOLT, HEXAGON  |
| 6  | PULLEY, BLOWER              | 20 | ASSY., TOP PANEL              | 34 | WASHER, PLAIN  |
| 7  | ASSY., MOTOR BRACKET        | 21 | BLOWER, COVER                 | 35 | WASHER, SPRING |
| 8  | MOTOR                       | 22 | ASSY., FILTER SECTION         | 36 | NUT, HEXAGON   |
| 9  | PULLEY, MOTOR               | 23 | ASSY., SIDE PANEL FRONT RIGHT | 37 | BOLT, HEXAGON  |
| 10 | V-BELT                      | 24 | SCREW, S.T. TRUSS HEAD PHILIP | 38 | BOLT, HEXAGON  |
| 11 | ASSY., DRAIN PAN            | 25 | SCREW, SELF TAPPING PAN HEAD  | 39 | WASHER, PLAIN  |
| 12 | ASSY., COIL                 | 26 | SCREW, TRUSS HEAD PHILIP      | 40 | WASHER, SPRING |
| 13 | ASSY., COIL SIDE COVER LEFT | 27 | SCREW, TRUSS HEAD PHILIP      |    |                |
| 14 | ASSY., SIDE PANEL BACK LEFT | 28 | SCREW, WOOD                   |    |                |

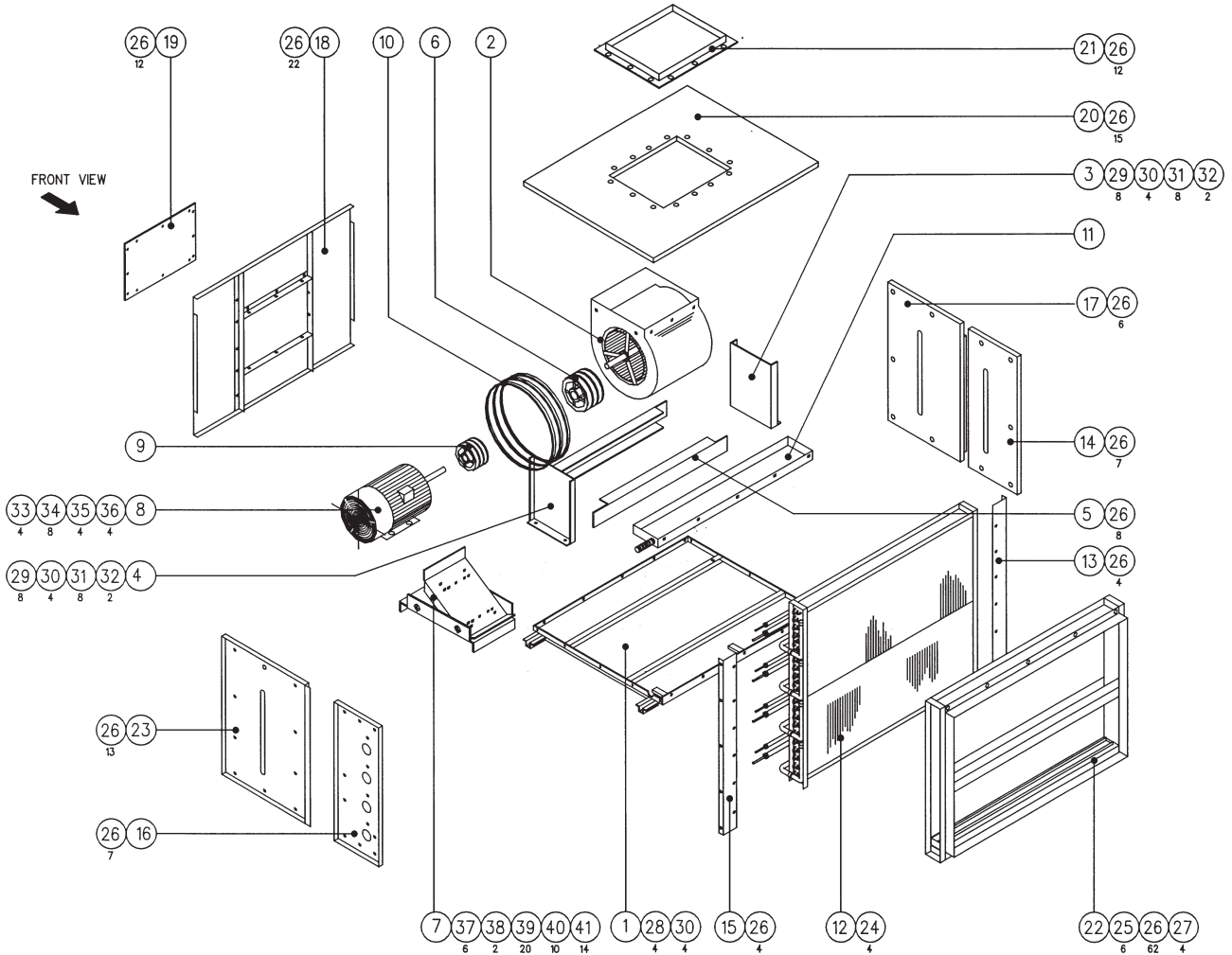
Model : MDB450B3



| NO | DESCRIPTION                 | NO | DESCRIPTION                   | NO | DESCRIPTION    |
|----|-----------------------------|----|-------------------------------|----|----------------|
| 1  | ASSY., BASE PAN             | 15 | ASSY., COIL SIDE COVER RIGHT  | 29 | BOLT, HEXAGON  |
| 2  | ASSY., BLOWER HOUSING       | 16 | ASSY., SIDE PANEL BACK RIGHT  | 30 | WASHER, PLAIN  |
| 3  | SUPPORT, BLOWER LEFT        | 17 | ASSY., SIDE PANEL FRONT LEFT  | 31 | WASHER, SPRING |
| 4  | SUPPORT, BLOWER RIGHT       | 18 | ASSY., FRONT PANEL            | 32 | NUT, HEXAGON   |
| 5  | SUPPORT, BLOWER STRUC. F/B  | 19 | ASSY., BLOWER FLANGE          | 33 | BOLT, HEXAGON  |
| 6  | PULLEY, BLOWER              | 20 | ASSY., TOP PANEL              | 34 | WASHER, PLAIN  |
| 7  | ASSY., MOTOR BRACKET        | 21 | BLOWER, COVER                 | 35 | WASHER, SPRING |
| 8  | MOTOR                       | 22 | ASSY., FILTER SECTION         | 36 | NUT, HEXAGON   |
| 9  | PULLEY, MOTOR               | 23 | ASSY., SIDE PANEL FRONT RIGHT | 37 | BOLT, HEXAGON  |
| 10 | V-BELT                      | 24 | SCREW, S.T. TRUSS HEAD PHILIP | 38 | BOLT, HEXAGON  |
| 11 | ASSY., DRAIN PAN            | 25 | SCREW, SELF TAPPING PAN HEAD  | 39 | WASHER, PLAIN  |
| 12 | ASSY., COIL                 | 26 | SCREW, TRUSS HEAD PHILIP      | 40 | WASHER, SPRING |
| 13 | ASSY., COIL SIDE COVER LEFT | 27 | SCREW, TRUSS HEAD PHILIP      | 41 | NUT, HEXAGON   |
| 14 | ASSY., SIDE PANEL BACK LEFT | 28 | SCREW, WOOD                   |    |                |

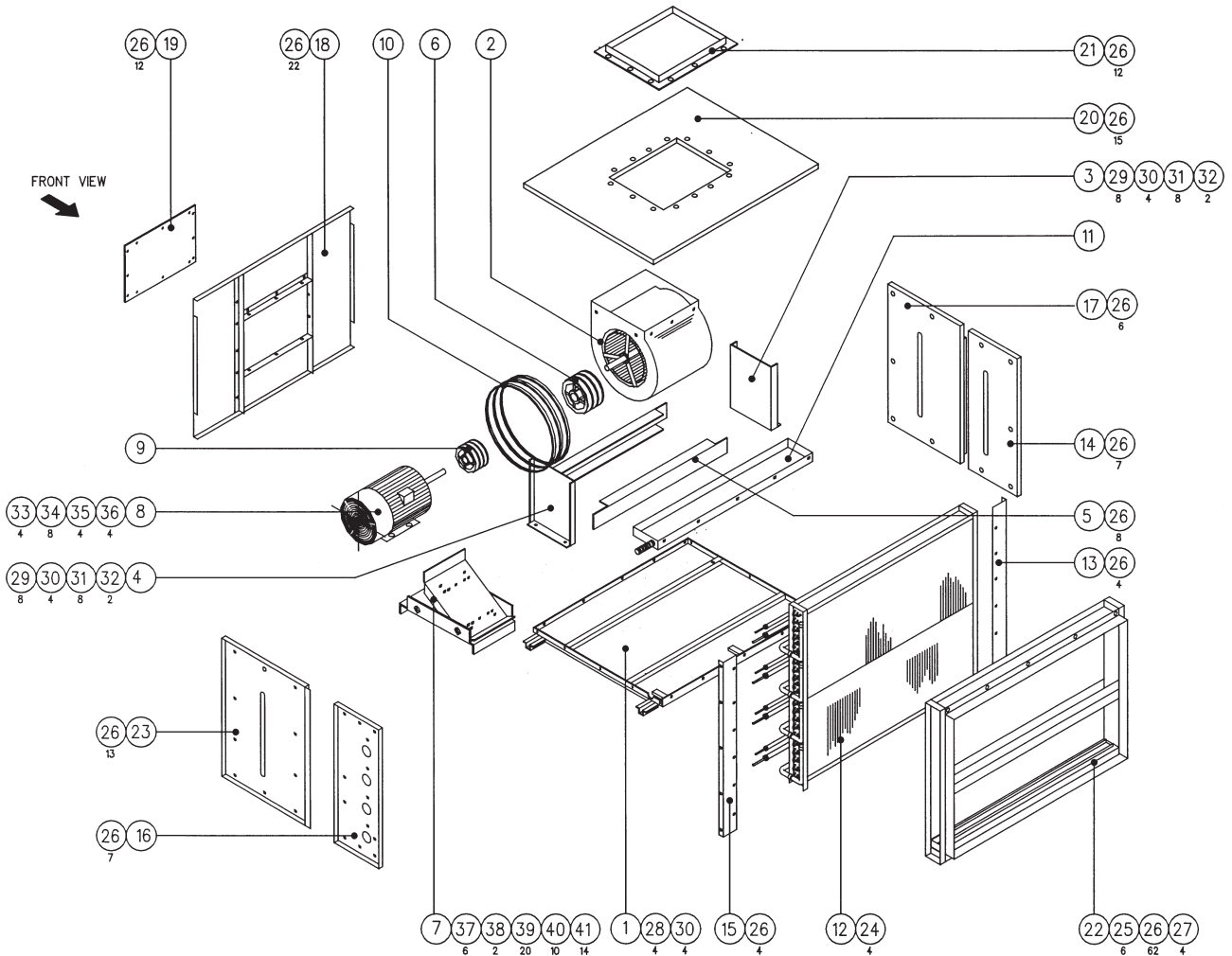


Model : MDB500B4



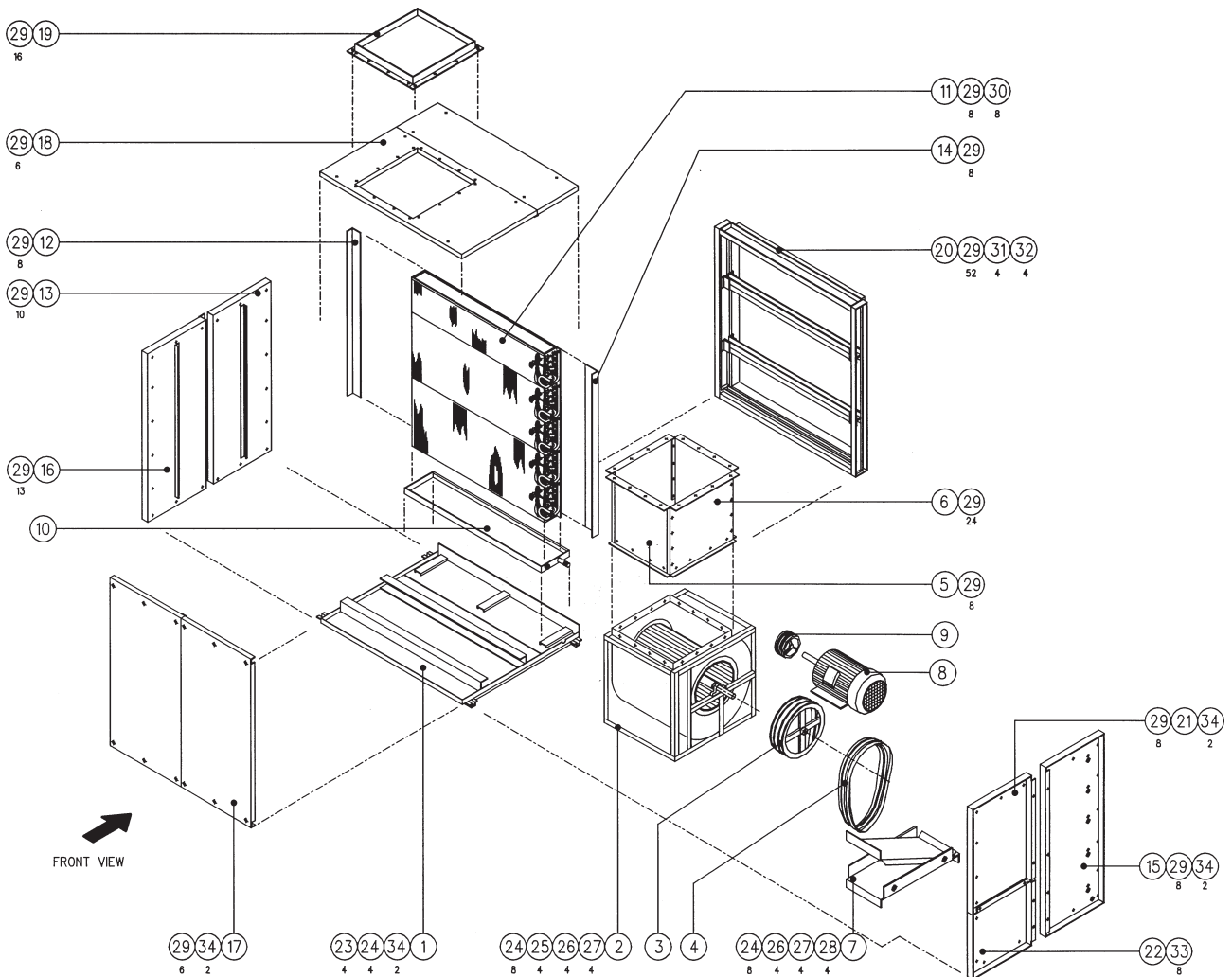
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|----|-----------------------------|----|-------------------------------|----|----------------|
| 1  | ASSY., BASE PAN             | 15 | ASSY., COIL SIDE COVER RIGHT  | 29 | BOLT, HEXAGON  |
| 2  | ASSY., BLOWER HOUSING       | 16 | ASSY., SIDE PANEL BACK RIGHT  | 30 | WASHER, PLAIN  |
| 3  | SUPPORT, BLOWER LEFT        | 17 | ASSY., SIDE PANEL FRONT LEFT  | 31 | WASHER, SPRING |
| 4  | SUPPORT, BLOWER RIGHT       | 18 | ASSY., FRONT PANEL            | 32 | NUT, HEXAGON   |
| 5  | SUPPORT, BLOWER STRUC. F/B  | 19 | ASSY., BLOWER FLANGE          | 33 | BOLT, HEXAGON  |
| 6  | PULLEY, BLOWER              | 20 | ASSY., TOP PANEL              | 34 | WASHER, PLAIN  |
| 7  | ASSY., MOTOR BRACKET        | 21 | BLOWER, COVER                 | 35 | WASHER, SPRING |
| 8  | MOTOR                       | 22 | ASSY., FILTER SECTION         | 36 | NUT, HEXAGON   |
| 9  | PULLEY, MOTOR               | 23 | ASSY., SIDE PANEL FRONT RIGHT | 37 | BOLT, HEXAGON  |
| 10 | V-BELT                      | 24 | SCREW, S.T. TRUSS HEAD PHILIP | 38 | BOLT, HEXAGON  |
| 11 | ASSY., DRAIN PAN            | 25 | SCREW, SELF TAPPING PAN HEAD  | 39 | WASHER, PLAIN  |
| 12 | ASSY., COIL                 | 26 | SCREW, TRUSS HEAD PHILIP      | 40 | WASHER, SPRING |
| 13 | ASSY., COIL SIDE COVER LEFT | 27 | SCREW, TRUSS HEAD PHILIP      | 41 | NUT, HEXAGON   |
| 14 | ASSY., SIDE PANEL BACK LEFT | 28 | SCREW, WOOD                   |    |                |

Model : MDB600B4



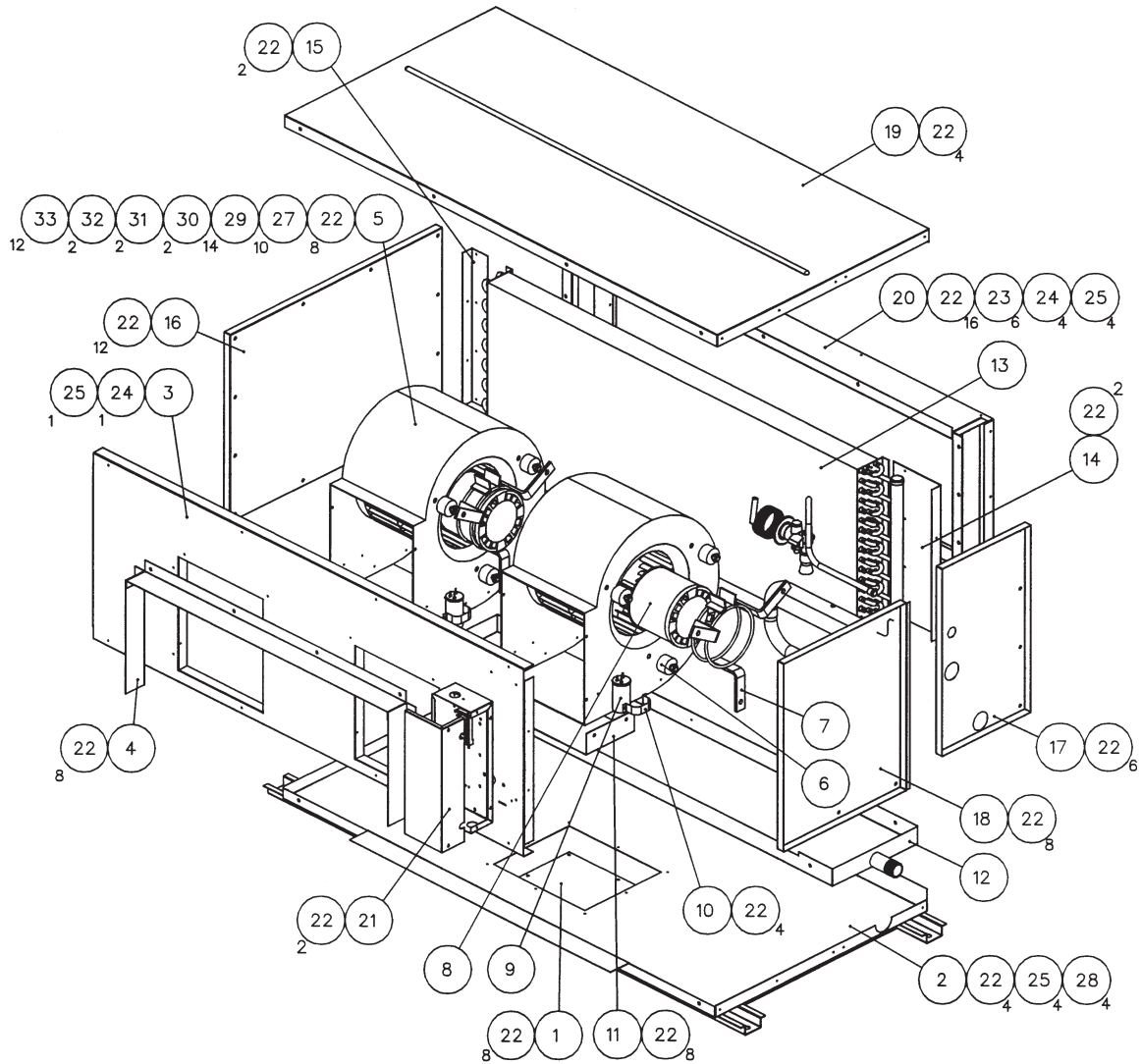
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| 1  | ASSY., BASE PAN               | 13 | ASSY., SIDE PANEL BACK LEFT          | 25 | BOLT, HEXAGON            |
| 2  | ASSY., BLOWER HOUSING         | 14 | ASSY., COIL SIDE COVER RIGHT         | 26 | WASHER, SPRING           |
| 3  | PULLEY, BLOWER                | 15 | ASSY., SIDE PANEL BACK RIGHT         | 27 | NUT, HEXAGON             |
| 4  | V-BELT                        | 16 | ASSY., SIDE PANEL FRONT LEFT         | 28 | BOLT, HEXAGON            |
| 5  | PANEL, BLOWER DUCT FRONT/BACK | 17 | ASSY., FRONT PANEL                   | 29 | SCREW, TRUSS HEAD PHILIP |
| 6  | PANEL, BLOWER DUCT LEFT/RIGHT | 18 | ASSY., TOP PANEL                     | 30 | SCREW, TRUSS HEAD PHILIP |
| 7  | ASSY., MOTOR BRACKET          | 19 | ASSY., BLOWER FLANGE                 | 31 | SCREW, TRUSS HEAD PHILIP |
| 8  | MOTOR                         | 20 | ASSY., FILTER SECTION                | 32 | SCREW, TRUSS HEAD PHILIP |
| 9  | PULLEY, MOTOR                 | 21 | ASSY., SIDE PANEL FRONT TOP/RIGHT    | 33 | SCREW, BUTTERFLY         |
| 10 | ASSY., DRAIN PAN              | 22 | ASSY., SIDE PANEL FRONT BOTTOM/RIGHT | 34 | NUT, WELD                |
| 11 | ASSY., COIL                   | 23 | SCREW, WOOD                          |    |                          |
| 12 | ASSY., COIL SIDE COVER LEFT   | 24 | WASHER, PLAIN                        |    |                          |

Model : MDB750B5



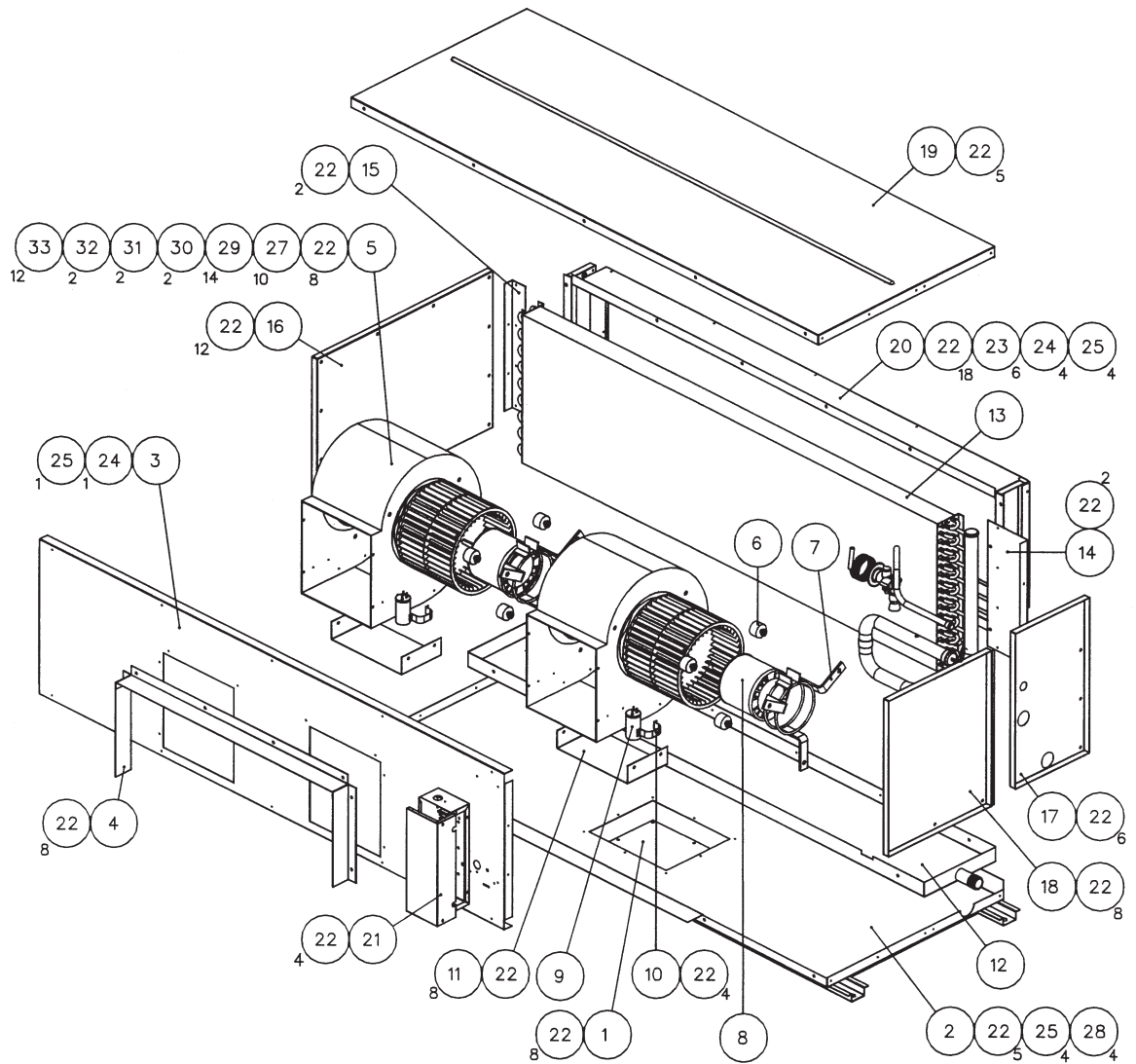
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| 1  | ASSY., BASE PAN               | 13 | ASSY., SIDE PANEL BACK LEFT          | 25 | BOLT, HEXAGON            |
| 2  | ASSY., BLOWER HOUSING         | 14 | ASSY., COIL SIDE COVER RIGHT         | 26 | WASHER, SPRING           |
| 3  | PULLEY, BLOWER                | 15 | ASSY., SIDE PANEL BACK RIGHT         | 27 | NUT, HEXAGON             |
| 4  | V-BELT                        | 16 | ASSY., SIDE PANEL FRONT LEFT         | 28 | BOLT, HEXAGON            |
| 5  | PANEL, BLOWER DUCT FRONT/BACK | 17 | ASSY., FRONT PANEL                   | 29 | SCREW, TRUSS HEAD PHILIP |
| 6  | PANEL, BLOWER DUCT LEFT/RIGHT | 18 | ASSY., TOP PANEL                     | 30 | SCREW, TRUSS HEAD PHILIP |
| 7  | ASSY., MOTOR BRACKET          | 19 | ASSY., BLOWER FLANGE                 | 31 | SCREW, TRUSS HEAD PHILIP |
| 8  | MOTOR                         | 20 | ASSY., FILTER SECTION                | 32 | SCREW, TRUSS HEAD PHILIP |
| 9  | PULLEY, MOTOR                 | 21 | ASSY., SIDE PANEL FRONT TOP/RIGHT    | 33 | SCREW, BUTTERFLY         |
| 10 | ASSY., DRAIN PAN              | 22 | ASSY., SIDE PANEL FRONT BOTTOM/RIGHT | 34 | NUT, WELD                |
| 11 | ASSY., COIL                   | 23 | SCREW, WOOD                          |    |                          |
| 12 | ASSY., COIL SIDE COVER LEFT   | 24 | WASHER, PLAIN                        |    |                          |

Model : MDB075D



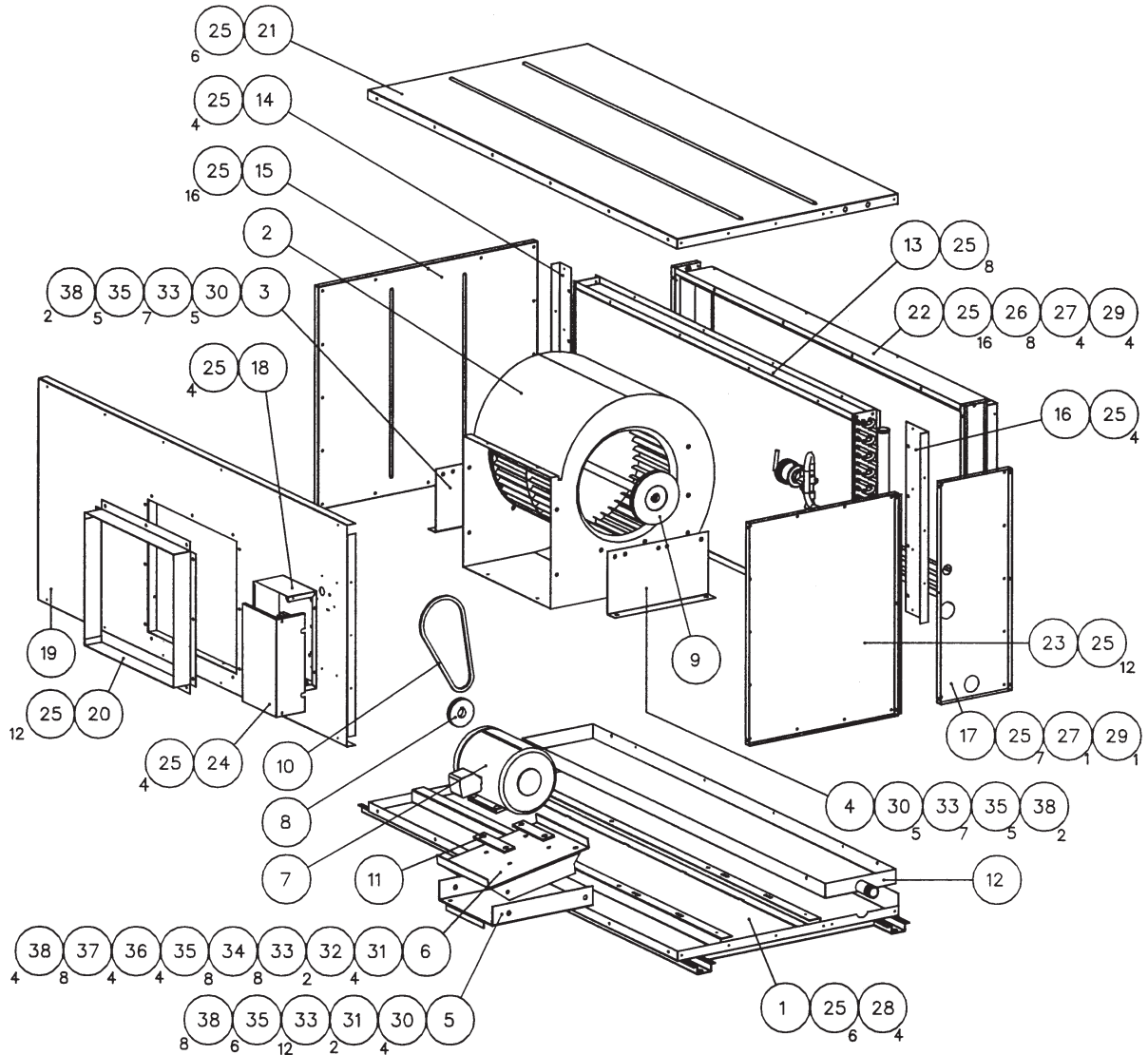
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| 1  | ASSY, BASE PAN COVER INS.      | 12 | ASSY, DRAIN PAN INS.             | 23 | SCREW, SELF TAPPING PAN HEAD |
| 2  | ASSY, BASE PAN INS.            | 13 | ASSY, COIL TUBING                | 24 | SCREW, TRUSS HEAD PHILIP     |
| 3  | ASSY, FRONT PANEL INS.         | 14 | ASSY, COIL SIDE COVER RIGHT INS. | 25 | NUT, WELD M5                 |
| 4  | ASSY, FLANGE BLOWER            | 15 | ASSY, COIL SIDE COVER LEFT INS.  | 26 | SCREW, WOOD                  |
| 5  | ASSY, BLOWER                   | 16 | ASSY, SIDE PANEL LEFT INS.       | 27 | WASHER, PLAIN                |
| 6  | GROMET, MNTG COMPLETE WITH NUT | 17 | ASSY, SIDE PANEL SML RIGHT INS.  | 28 | WASHER, PLAIN                |
| 7  | ASSY, BRACKET FAN MOTOR        | 18 | ASSY, SIDE PANEL BIG RIGHT INS.  | 29 | WASHER, SPRING               |
| 8  | MOTOR                          | 19 | ASSY, TOP PANEL INS.             | 30 | WASHER, SPRING               |
| 9  | CAPACITOR, 6 $\mu$ F/440V      | 20 | ASSY, SECTION FILTER             | 31 | BOLT, HEXAGON PAN HEAD       |
| 10 | CLAMP, CAPACITOR               | 21 | ASSY, TERMINAL BOX               | 32 | NUT, HEXAGON                 |
| 11 | SUPPORT, BLOWER BRACKET        | 22 | SCREW, S.T. TRUSS HEAD PHILIP    | 33 | NUT, HEXAGON                 |

Model : MDB100D



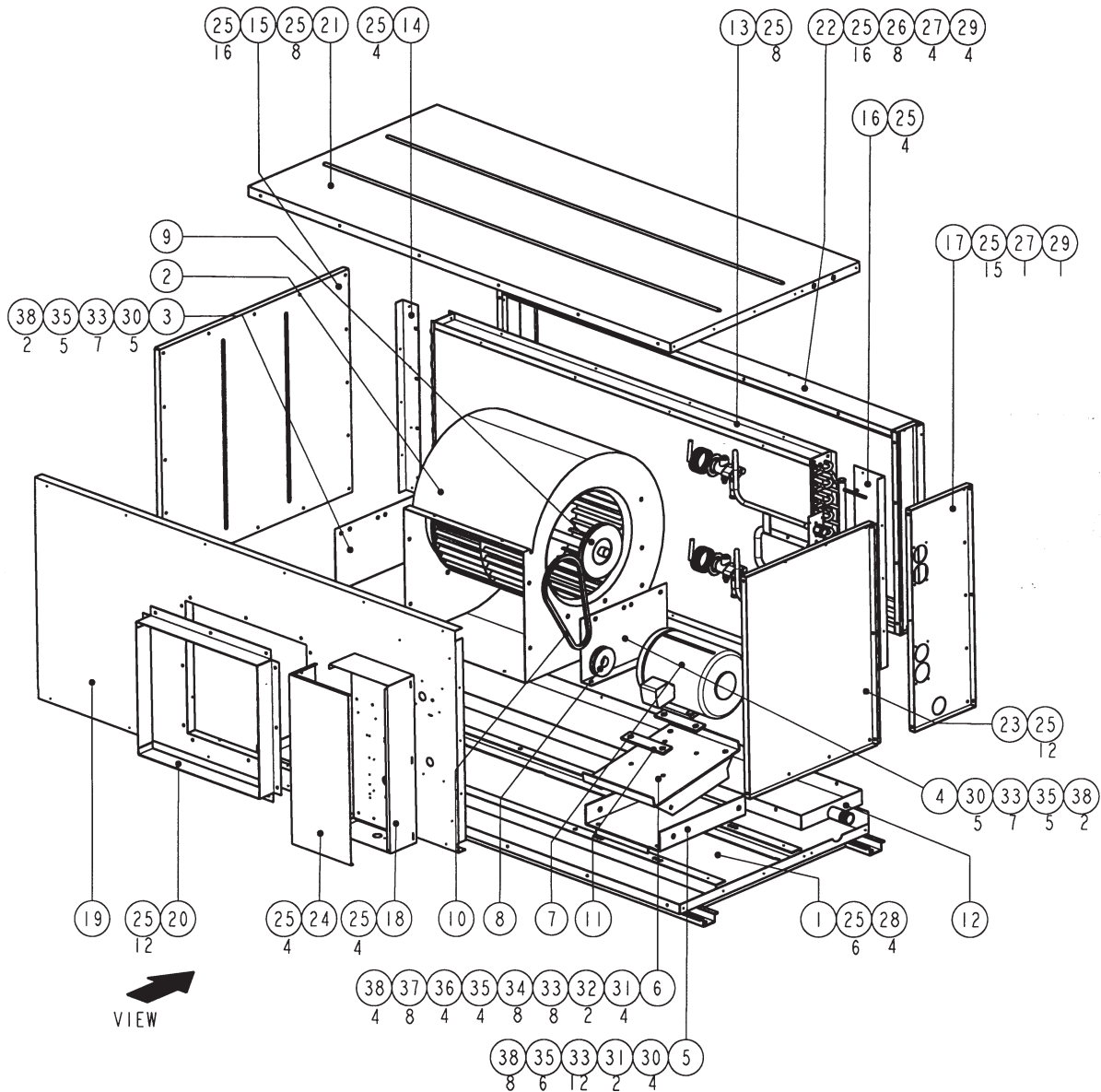
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|----|---------------------------------|----|----------------------------------|----|------------------------------|
| 1  | ASSY, BASE PAN COVER INS.       | 12 | ASSY, DRAIN PAN INS.             | 23 | SCREW, SELF TAPPING PAN HEAD |
| 2  | ASSY, BASE PAN INS.             | 13 | ASSY, COIL TUBING                | 24 | SCREW, TRUSS HEAD PHILIP     |
| 3  | ASSY, FRONT PANEL INS.          | 14 | ASSY, COIL SIDE COVER RIGHT INS. | 25 | NUT, WELD M5                 |
| 4  | ASSY, FLANGE BLOWER             | 15 | ASSY, COIL SIDE COVER LEFT INS.  | 26 | SCREW, WOOD                  |
| 5  | ASSY, BLOWER                    | 16 | ASSY, SIDE PANEL LEFT INS.       | 27 | WASHER, PLAIN                |
| 6  | GROMMET, MNTG COMPLETE WITH NUT | 17 | ASSY, SIDE PANEL SML RIGHT INS.  | 28 | WASHER, PLAIN                |
| 7  | ASSY, BRACKET FAN MOTOR         | 18 | ASSY, SIDE PANEL BIG RIGHT INS.  | 29 | WASHER, SPRING               |
| 8  | MOTOR                           | 19 | ASSY, TOP PANEL INS.             | 30 | WASHER, SPRING               |
| 9  | CAPACITOR, 7.5 uF/440V          | 20 | ASSY, SECTION FILTER             | 31 | BOLT, HEXAGON PAN HEAD       |
| 10 | CLAMP, CAPACITOR                | 21 | ASSY, TERMINAL BOX               | 32 | NUT, HEXAGON                 |
| 11 | SUPPORT, BLOWER BRACKET         | 22 | SCREW, S.T. TRUSS HEAD PHILIP    | 33 | NUT, HEXAGON                 |

Model : MDB125D



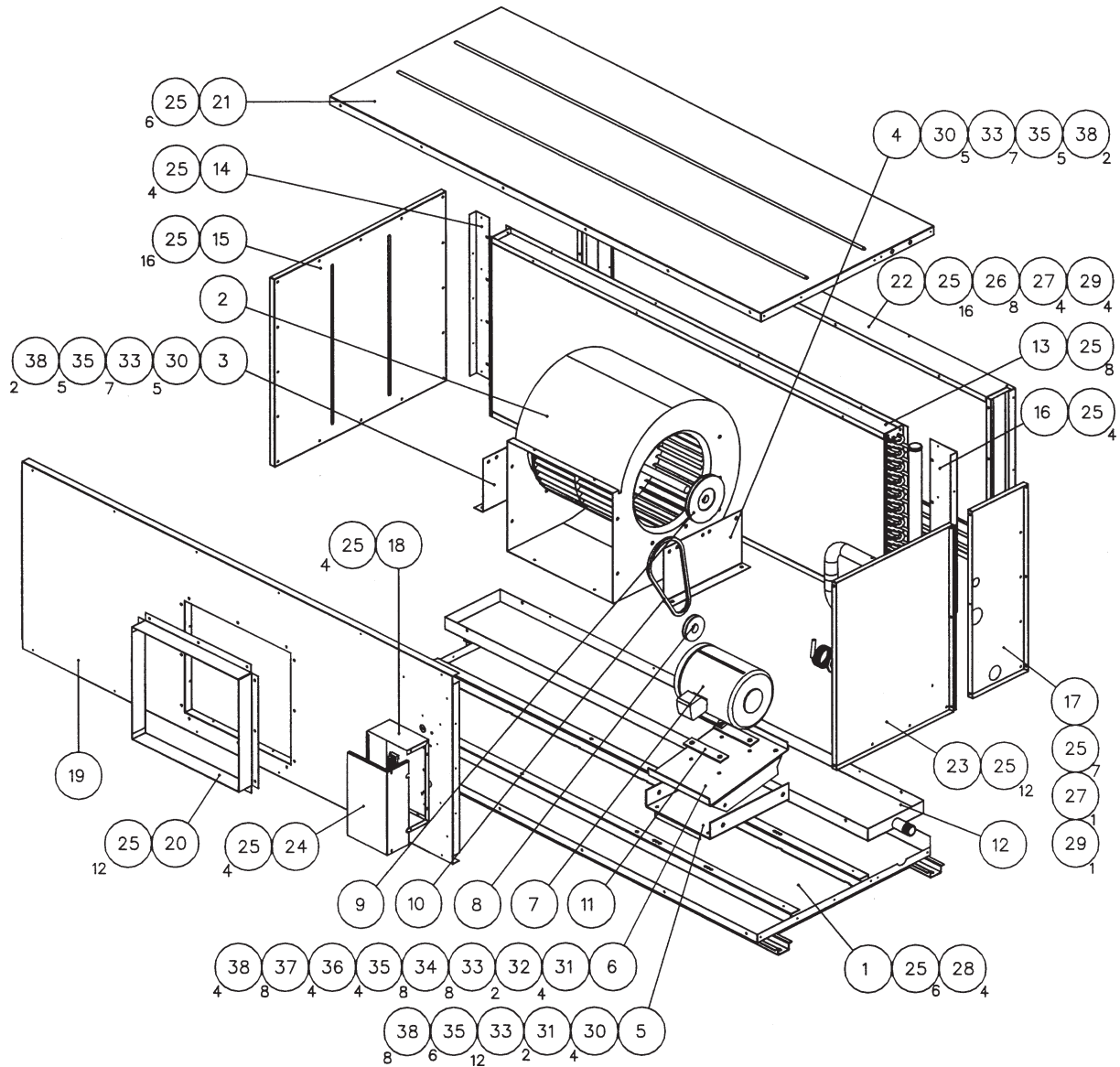
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|----|-------------------------------|----|--|----|---------------------------|
| 1  | ASSY, BASE PAN INS.           | 14 | ASSY, COIL SIDE COVER LEFT INS.          | 27 | SCREW, TRUSS HEAD PHILIP  |
| 2  | ASSY, BLOWER                  | 15 | ASSY, SIDE PANEL LEFT INS.               | 28 | SCREW, WOOD               |
| 3  | SUPPORT, BLOWER BRACKET LEFT  | 16 | ASSY, COIL SIDE COVER RIGHT INS.         | 29 | NUT, WELD M5              |
| 4  | SUPPORT, BLOWER BRACKET RIGHT | 17 | ASSY, SIDE PANEL SML RIGHT INS.          | 30 | BOLT, HEXAGON (M8 x 20.0) |
| 5  | BASE, MOTOR LOWER             | 18 | ASSY, TERMINAL BOARD MAIN                | 31 | BOLT, HEXAGON (M8 x 30.0) |
| 6  | BASE, MOTOR UPPER             | 19 | ASSY, FRONT PANEL INS.                   | 32 | BOLT, HEXAGON (1/2")      |
| 7  | MOTOR                         | 20 | ASSY, FLANGE BLOWER                      | 33 | WASHER, PLAIN (M8)        |
| 8  | PULLEY, MOTOR                 | 21 | ASSY, TOP PANEL INS.                     | 34 | WASHER, PLAIN (1/2")      |
| 9  | PULLEY, BLOWER                | 22 | ASSY, SECTION FILTER                     | 35 | WASHER, SPRING (M8)       |
| 10 | V-BELT                        | 23 | ASSY, SIDE PANEL BIG RIGHT INS.          | 36 | WASHER, SPRING (1/2")     |
| 11 | RUBBER SHEET                  | 24 | COVER, TERMINAL BOARD                    | 37 | NUT, HEXAGON (1/2")       |
| 12 | ASSY, DRAIN PAN INS.          | 25 | SCREW, S.T.T.H. PHILIP (8 x 3/8" A)      | 38 | NUT, HEXAGON (M8)         |
| 13 | ASSY, COIL TUBING             | 26 | SCREW, SELF TAPPING PAN HEAD (M5 x 16.0) |    |                           |

Model : MDB125D2



| NO | DESCRIPTION                   | NO | DESCRIPTION                           | NO | DESCRIPTION                          |
|----|-------------------------------|----|---------------------------------------|----|--------------------------------------|
| 1  | ASSY, BASE PAN INS.           | 14 | ASSY, COIL SIDE COVER LEFT INS.       | 27 | SCREW, TRUSS HEAD PHILIP (M5 x 16.0) |
| 2  | ASSY, BLOWER                  | 15 | ASSY, SIDE PANEL LEFT INS.            | 28 | SCREW, WOOD                          |
| 3  | SUPPORT, BLOWER BRACKET LEFT  | 16 | ASSY, COIL SIDE COVER RIGHT INS.      | 29 | NUT, WELD M5                         |
| 4  | SUPPORT, BLOWER BRACKET RIGHT | 17 | ASSY, SIDE PANEL SML RIGHT INS.       | 30 | BOLT, HEXAGON (M8 x 20.0)            |
| 5  | BASE, MOTOR LOWER             | 18 | ASSY, TERMINAL BOARD MAIN             | 31 | BOLT, HEXAGON (M8 x 30.0)            |
| 6  | BASE, MOTOR UPPER             | 19 | ASSY, FRONT PANEL INS.                | 32 | BOLT, HEXAGON (1/2")                 |
| 7  | MOTOR                         | 20 | ASSY, FLANGE BLOWER                   | 33 | WASHER, PLAIN (M8)                   |
| 8  | PULLEY, MOTOR                 | 21 | ASSY, TOP PANEL INS.                  | 34 | WASHER, PLAIN (1/2")                 |
| 9  | PULLEY, BLOWER                | 22 | ASSY, SECTION FILTER                  | 35 | WASHER, SPRING (M8)                  |
| 10 | V-BELT                        | 23 | ASSY, SIDE PANEL BIG RIGHT INS.       | 36 | WASHER, SPRING (1/2")                |
| 11 | RUBBER SHEET                  | 24 | COVER, TERMINAL BOARD                 | 37 | NUT, HEXAGON (1/2")                  |
| 12 | ASSY, DRAIN PAN INS.          | 25 | SCREW, S.T.T.H. PHILIP (8 x 3/8" A)   | 38 | NUT, HEXAGON (M8)                    |
| 13 | ASSY, COIL TUBING             | 26 | SCREW, SELF TAPPING PAN HEAD 8 x 3/4" |    |                                      |

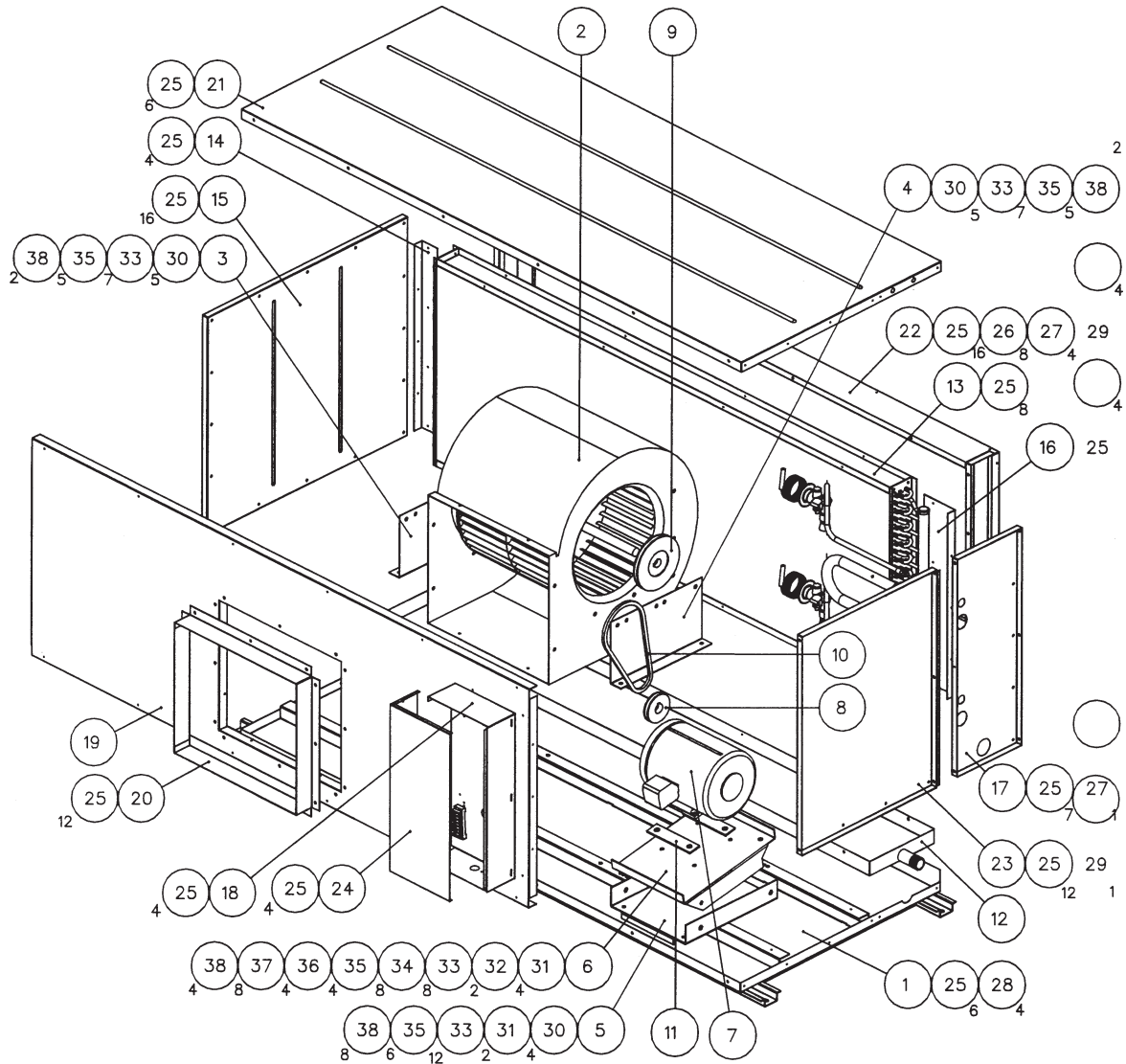
Model : MDB150D



| NO | DESCRIPTION                   | NO | DESCRIPTION                             | NO | DESCRIPTION                          |
|----|-------------------------------|----|---|----|--------------------------------------|
| 1  | ASSY, BASE PAN INS.           | 14 | ASSY, COIL SIDE COVER LEFT INS.         | 27 | SCREW, TRUSS HEAD PHILIP (M5 x 16.0) |
| 2  | ASSY, BLOWER                  | 15 | ASSY, SIDE PANEL LEFT INS.              | 28 | SCREW, WOOD                          |
| 3  | SUPPORT, BLOWER BRACKET LEFT  | 16 | ASSY, COIL SIDE COVER RIGHT INS.        | 29 | NUT, WELD M5                         |
| 4  | SUPPORT, BLOWER BRACKET RIGHT | 17 | ASSY, SIDE PANEL SML RIGHT INS.         | 30 | BOLT, HEXAGON (M8 x 20.0)            |
| 5  | BASE, MOTOR LOWER             | 18 | ASSY, TERMINAL BOARD MAIN               | 31 | BOLT, HEXAGON (M8 x 30.0)            |
| 6  | BASE, MOTOR UPPER             | 19 | ASSY, FRONT PANEL INS.                  | 32 | BOLT, HEXAGON (1/2")                 |
| 7  | MOTOR                         | 20 | ASSY, FLANGE BLOWER                     | 33 | WASHER, PLAIN (M8)                   |
| 8  | PULLEY, MOTOR                 | 21 | ASSY, TOP PANEL INS.                    | 34 | WASHER, PLAIN (1/2")                 |
| 9  | PULLEY, BLOWER                | 22 | ASSY, SECTION FILTER                    | 35 | WASHER, SPRING (M8)                  |
| 10 | V-BELT                        | 23 | ASSY, SIDE PANEL BIG RIGHT INS.         | 36 | WASHER, SPRING (1/2")                |
| 11 | RUBBER SHEET                  | 24 | COVER, TERMINAL BOARD                   | 37 | NUT, HEXAGON (1/2")                  |
| 12 | ASSY, DRAIN PAN INS.          | 25 | SCREW, S.T.T.H. PHILIP (8 x 3/8" A)     | 38 | NUT, HEXAGON (M8)                    |
| 13 | ASSY, COIL TUBING             | 26 | SCREW, SELF TAPPING PAN HEAD (8 x 3/4") |    |                                      |

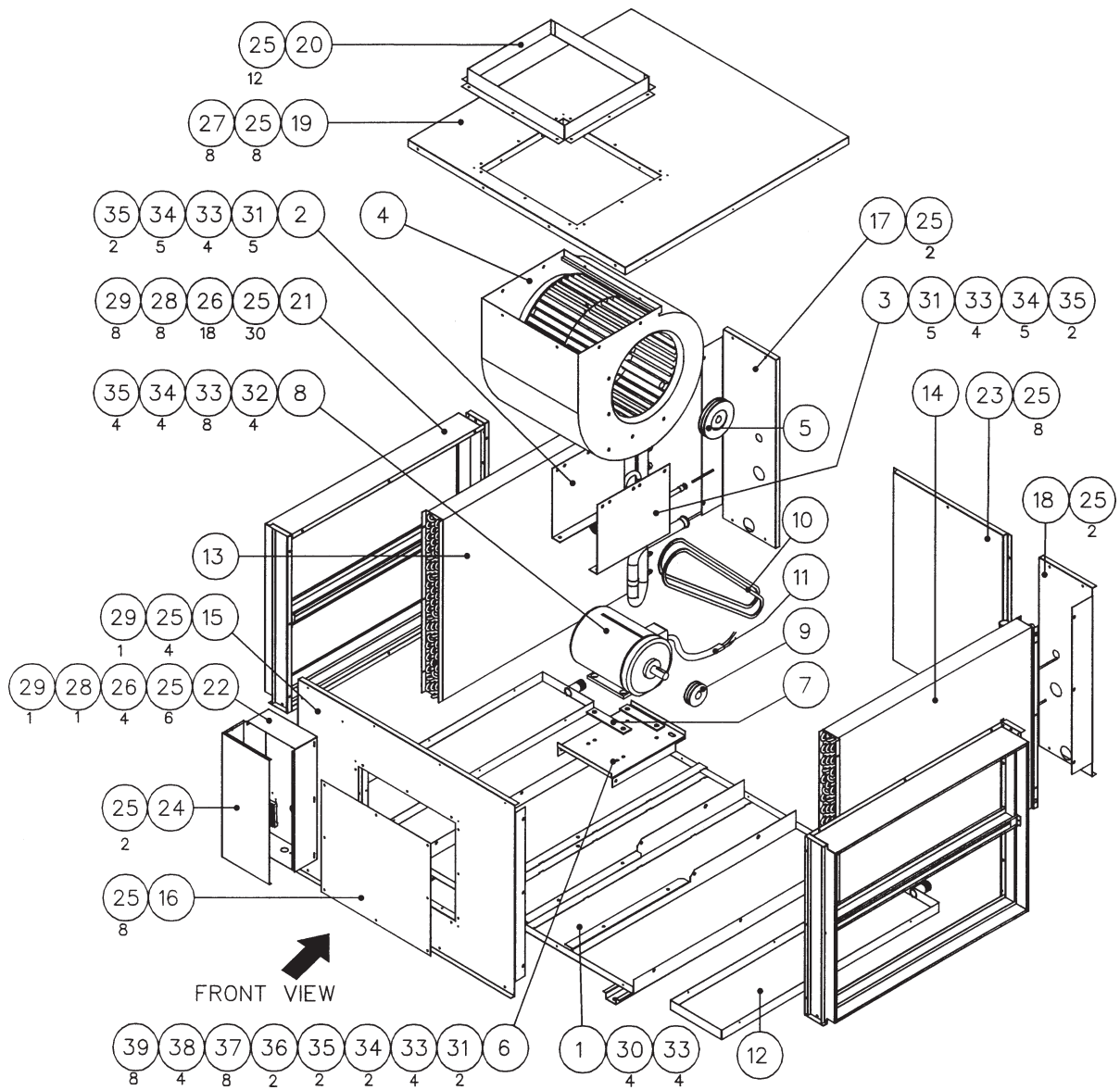


Model : MDB150D2



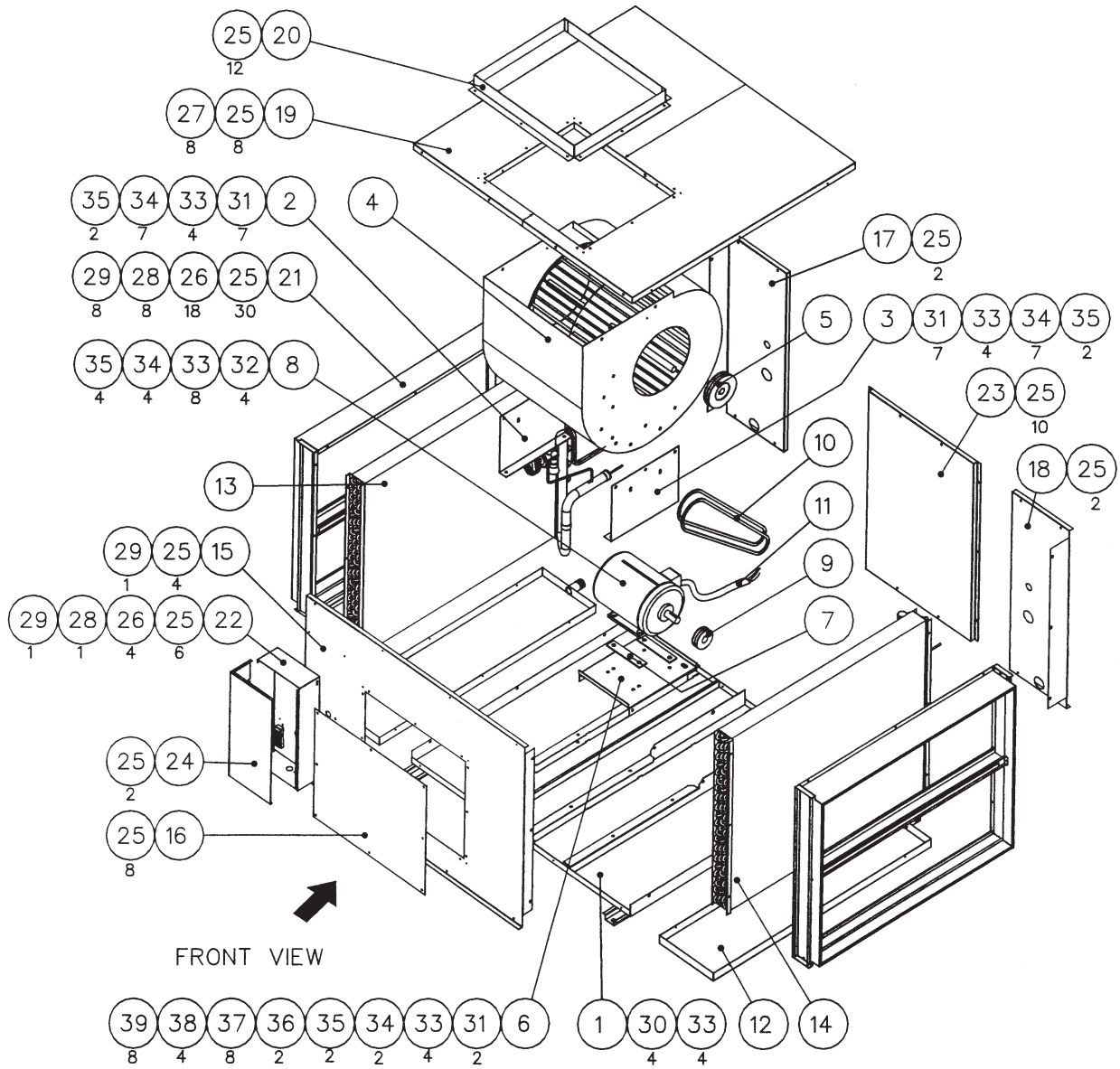
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|----|-------------------------------|----|---|----|--------------------------------------|
| 1  | ASSY, BASE PAN INS.           | 14 | ASSY, COIL SIDE COVER LEFT INS.         | 27 | SCREW, TRUSS HEAD PHILIP (M5 x 16.0) |
| 2  | ASSY, BLOWER                  | 15 | ASSY, SIDE PANEL LEFT INS.              | 28 | SCREW, WOOD                          |
| 3  | SUPPORT, BLOWER BRACKET LEFT  | 16 | ASSY, COIL SIDE COVER RIGHT INS.        | 29 | NUT, WELD M5                         |
| 4  | SUPPORT, BLOWER BRACKET RIGHT | 17 | ASSY, SIDE PANEL SML RIGHT INS.         | 30 | BOLT, HEXAGON (M8 x 20.0)            |
| 5  | BASE, MOTOR LOWER             | 18 | ASSY, TERMINAL BOARD MAIN               | 31 | BOLT, HEXAGON (M8 x 30.0)            |
| 6  | BASE, MOTOR UPPER             | 19 | ASSY, FRONT PANEL INS.                  | 32 | BOLT, HEXAGON (1/2")                 |
| 7  | MOTOR                         | 20 | ASSY, FLANGE BLOWER                     | 33 | WASHER, PLAIN (M8)                   |
| 8  | PULLEY, MOTOR                 | 21 | ASSY, TOP PANEL INS.                    | 34 | WASHER, PLAIN (1/2")                 |
| 9  | PULLEY, BLOWER                | 22 | ASSY, SECTION FILTER                    | 35 | WASHER, SPRING (M8)                  |
| 10 | V-BELT                        | 23 | ASSY, SIDE PANEL BIG RIGHT INS.         | 36 | WASHER, SPRING (1/2")                |
| 11 | RUBBER SHEET                  | 24 | COVER, TERMINAL BOARD                   | 37 | NUT, HEXAGON (1/2")                  |
| 12 | ASSY, DRAIN PAN INS.          | 25 | SCREW, S.T.T.H. PHILIP (8 x 3/8" A)     | 38 | NUT, HEXAGON (M8)                    |
| 13 | ASSY, COIL TUBING             | 26 | SCREW, SELF TAPPING PAN HEAD (8 x 3/4") |    |                                      |

Model : MDB200D2



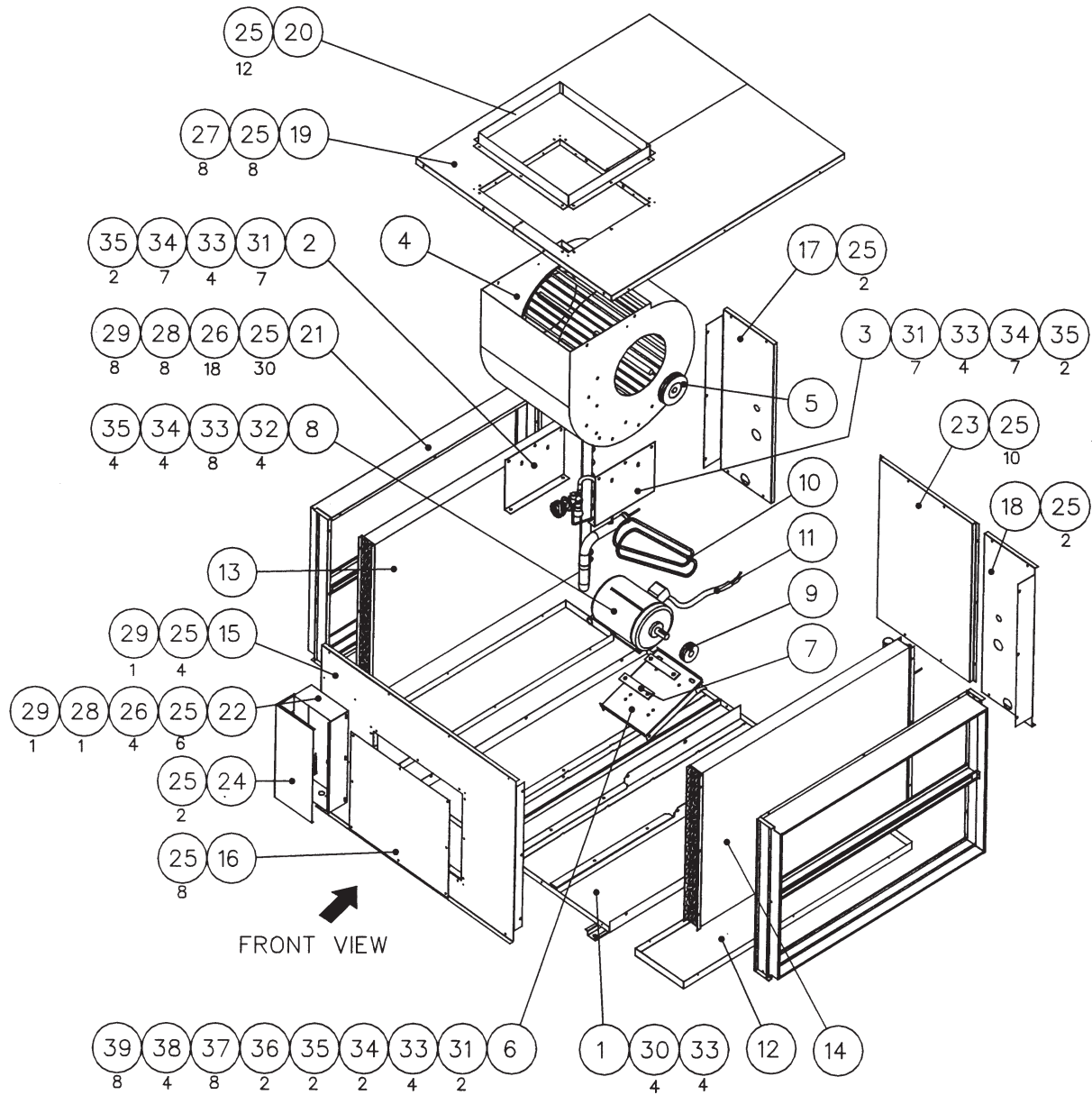
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| 1  | ASSY, BASE PAN INS.          | 14 | ASSY, COIL RIGHT              | 27 | SCREW, TRUSS HEAD PHILIP |
| 2  | SUPPORT, BLOWER LEFT         | 15 | ASSY, PANEL FRONT INS.        | 28 | SCREW, TRUSS HEAD PHILIP |
| 3  | SUPPORT, BLOWER RIGHT        | 16 | COVER, BLOWER                 | 29 | NUT, WELD                |
| 4  | ASSY, BLOWER HOUSING         | 17 | ASSY, PANEL HEADER LEFT INS.  | 30 | SCREW, WOOD              |
| 5  | PULLEY, BLOWER               | 18 | ASSY, PANEL HEADER RIGHT INS. | 31 | BOLT, HEXAGON            |
| 6  | BASE, MOTOR UPPER            | 19 | ASSY, TOP PANEL INS.          | 32 | BOLT, HEXAGON            |
| 7  | RUBBER SHEET                 | 20 | ASSY, FLANGE BLOWER           | 33 | WASHER, PLAIN            |
| 8  | MOTOR                        | 21 | ASSY, SECTION FILTER          | 34 | WASHER, SPRING           |
| 9  | PULLEY, MOTOR                | 22 | ASSY, TERMINAL BOX            | 35 | NUT, HEXAGON             |
| 10 | V-BELT                       | 23 | ASSY, PANEL SERVICE INS.      | 36 | BOLT, ADJUSTING          |
| 11 | ASSY, FAN MOTOR HARNESS WIRE | 24 | COVER, TERMINAL BOX           | 37 | WASHER, PLAIN            |
| 12 | ASSY, DRAIN PAN INS.         | 25 | SCREW, S.T.TRUSS HEAD PHILIP  | 38 | WASHER, SPRING           |
| 13 | ASSY, COIL LEFT              | 26 | SCREW, SELF TAPPING PAN HEAD  | 39 | NUT, HEXAGON             |

Model : MDB250D2



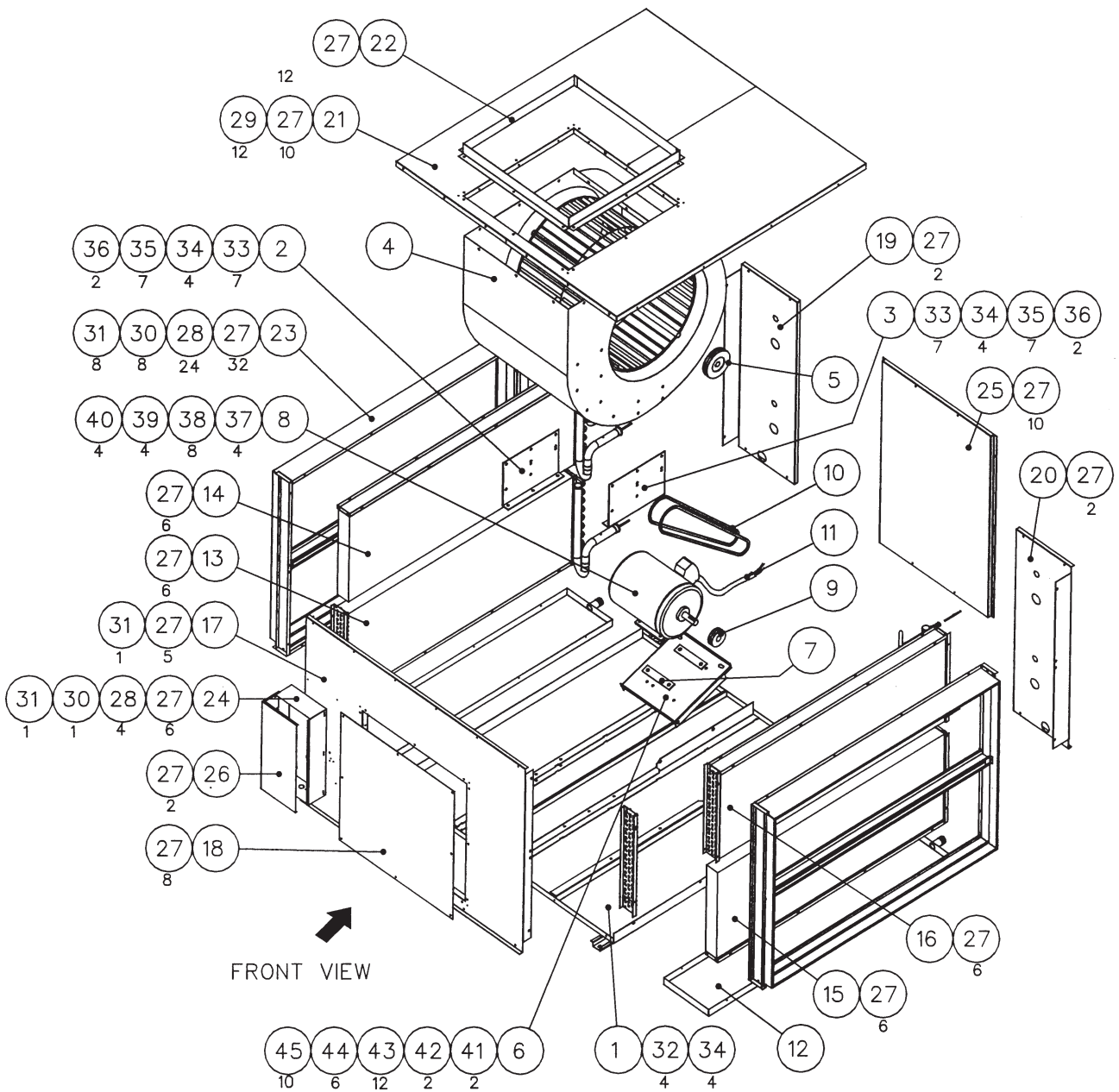
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| 1  | ASSY, BASE PAN INS.          | 14 | ASSY, COIL RIGHT              | 27 | SCREW, TRUSS HEAD PHILIP |
| 2  | SUPPORT, BLOWER LEFT         | 15 | ASSY, PANEL FRONT INS.        | 28 | SCREW, TRUSS HEAD PHILIP |
| 3  | SUPPORT, BLOWER RIGHT        | 16 | COVER, BLOWER                 | 29 | NUT, WELD                |
| 4  | ASSY, BLOWER HOUSING         | 17 | ASSY, PANEL HEADER LEFT INS.  | 30 | SCREW, WOOD              |
| 5  | PULLEY, BLOWER               | 18 | ASSY, PANEL HEADER RIGHT INS. | 31 | BOLT, HEXAGON            |
| 6  | BASE, MOTOR UPPER            | 19 | ASSY, TOP PANEL INS.          | 32 | BOLT, HEXAGON            |
| 7  | RUBBER SHEET                 | 20 | ASSY, FLANGE BLOWER           | 33 | WASHER, PLAIN            |
| 8  | MOTOR                        | 21 | ASSY, SECTION FILTER          | 34 | WASHER, SPRING           |
| 9  | PULLEY, MOTOR                | 22 | ASSY, TERMINAL BOX            | 35 | NUT, HEXAGON             |
| 10 | V-BELT                       | 23 | ASSY, PANEL SERVICE INS.      | 36 | BOLT, ADJUSTING          |
| 11 | ASSY, FAN MOTOR HARNESS WIRE | 24 | COVER, TERMINAL BOX           | 37 | WASHER, PLAIN            |
| 12 | ASSY, DRAIN PAN INS.         | 25 | SCREW, S.T.TRUSS HEAD PHILIP  | 38 | WASHER, SPRING           |
| 13 | ASSY, COIL LEFT              | 26 | SCREW, SELF TAPPING PAN HEAD  | 39 | NUT, HEXAGON             |

Model : MDB300D2



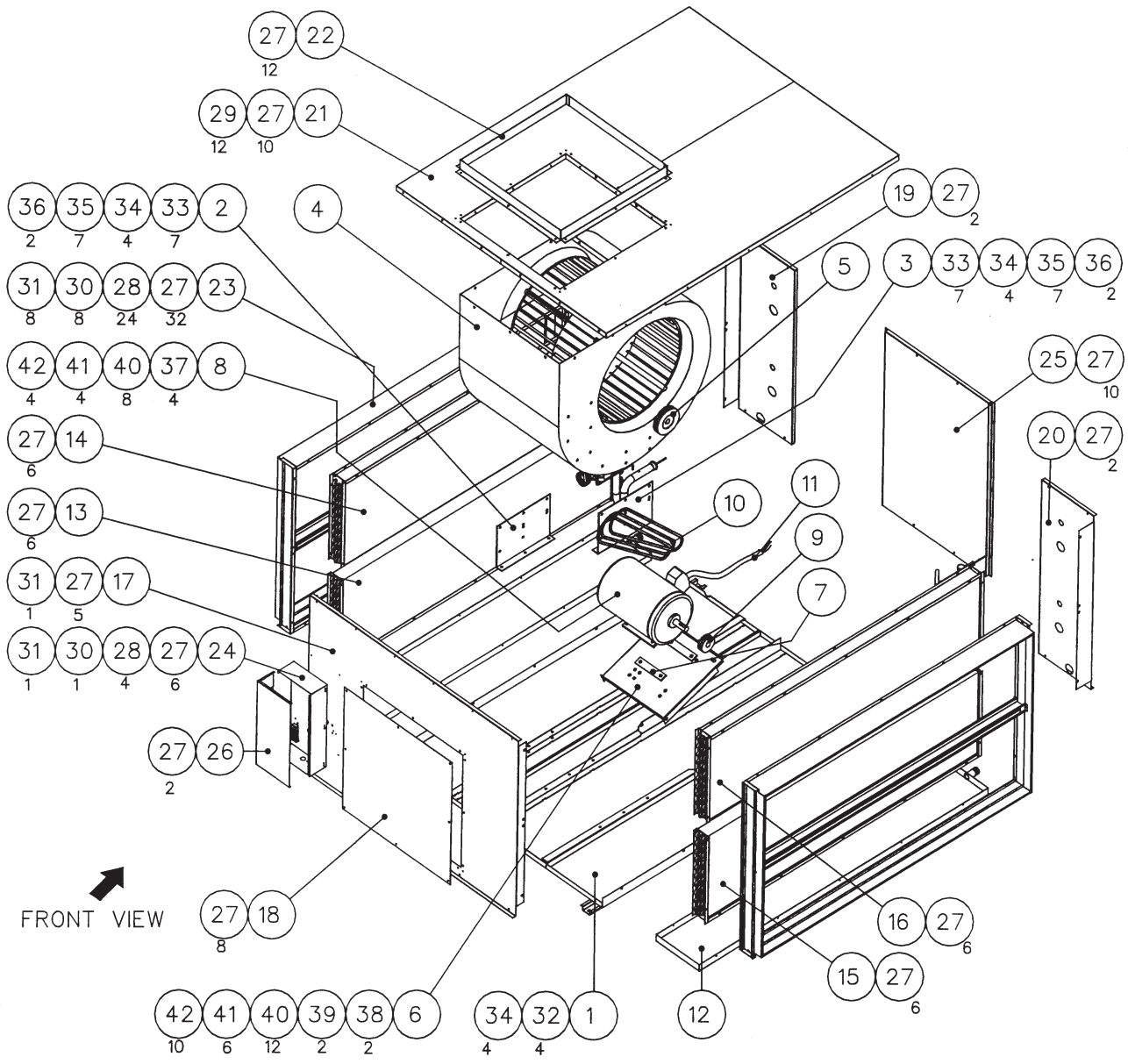
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|----|------------------------------|----|-------------------------------|----|--------------------------|
| 1  | ASSY, BASE PAN INS.          | 14 | ASSY, COIL RIGHT              | 27 | SCREW, TRUSS HEAD PHILIP |
| 2  | SUPPORT, BLOWER LEFT         | 15 | ASSY, PANEL FRONT INS.        | 28 | SCREW, TRUSS HEAD PHILIP |
| 3  | SUPPORT, BLOWER RIGHT        | 16 | COVER, BLOWER                 | 29 | NUT, WELD                |
| 4  | ASSY, BLOWER HOUSING         | 17 | ASSY, PANEL HEADER LEFT INS.  | 30 | SCREW, WOOD              |
| 5  | PULLEY, BLOWER               | 18 | ASSY, PANEL HEADER RIGHT INS. | 31 | BOLT, HEXAGON            |
| 6  | BASE, MOTOR UPPER            | 19 | ASSY, TOP PANEL INS.          | 32 | BOLT, HEXAGON            |
| 7  | RUBBER SHEET                 | 20 | ASSY, FLANGE BLOWER           | 33 | WASHER, PLAIN            |
| 8  | MOTOR                        | 21 | ASSY, SECTION FILTER          | 34 | WASHER, SPRING           |
| 9  | PULLEY, MOTOR                | 22 | ASSY, TERMINAL BOX            | 35 | NUT, HEXAGON             |
| 10 | V-BELT                       | 23 | ASSY, PANEL SERVICE INS.      | 36 | BOLT, ADJUSTING          |
| 11 | ASSY, FAN MOTOR HARNESS WIRE | 24 | COVER, TERMINAL BOX           | 37 | WASHER, PLAIN            |
| 12 | ASSY, DRAIN PAN INS.         | 25 | SCREW, S.T.TRUSS HEAD PHILIP  | 38 | WASHER, SPRING           |
| 13 | ASSY, COIL LEFT              | 26 | SCREW, SELF TAPPING PAN HEAD  | 39 | NUT, HEXAGON             |

Model : MDB400D4



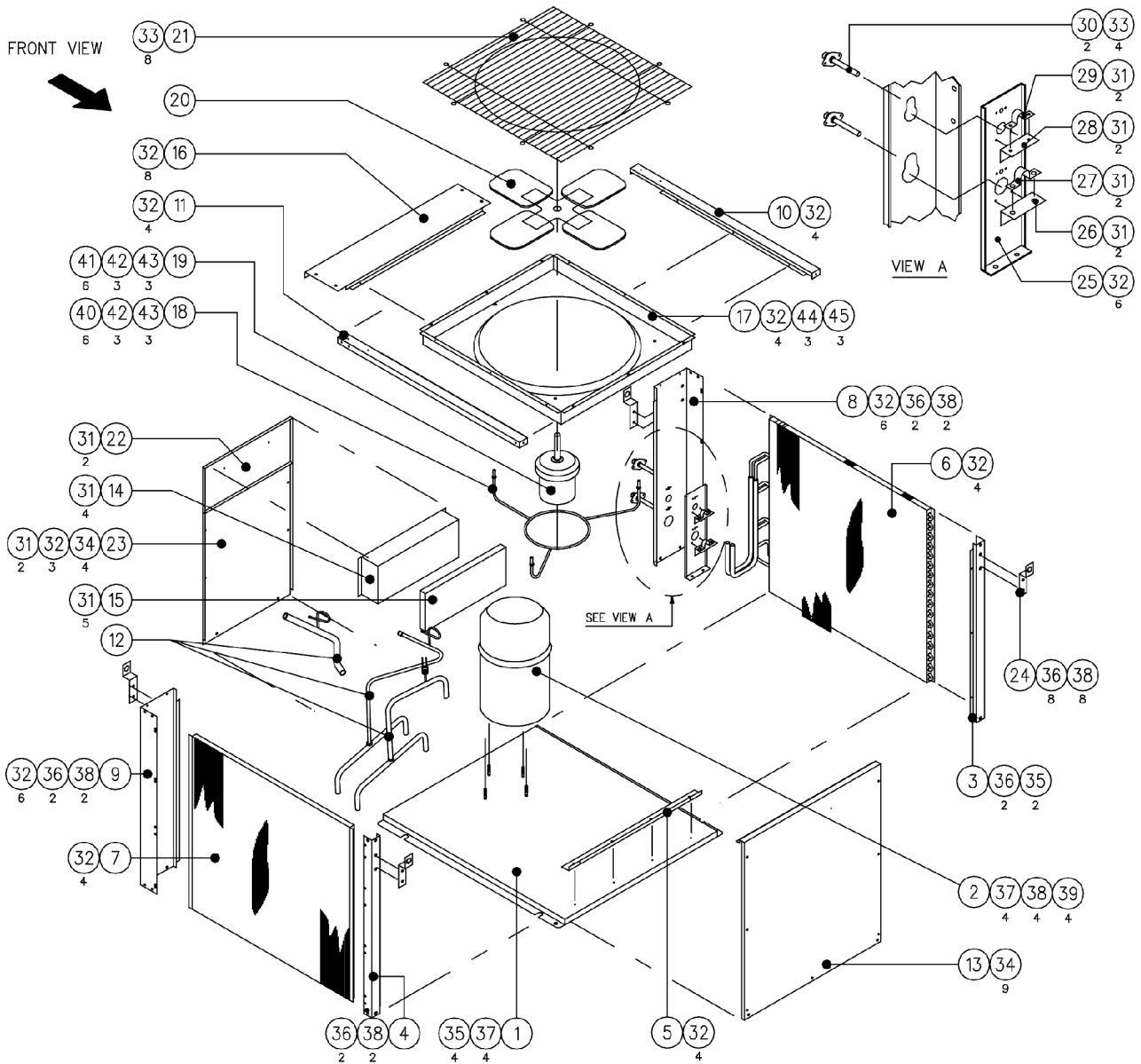
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| 1  | ASSY, BASE PAN INS.          | 16 | ASSY, COIL RIGHT UPPER        | 31 | NUT, WELD       |
| 2  | SUPPORT, BLOWER LEFT         | 17 | ASSY, PANEL FRONT INS.        | 32 | SCREW, WOOD     |
| 3  | SUPPORT, BLOWER RIGHT        | 18 | COVER, BLOWER                 | 33 | BOLT, HEXAGON   |
| 4  | ASSY, BLOWER HOUSING         | 19 | ASSY, PANEL HEADER LEFT INS.  | 34 | WASHER, PLAIN   |
| 5  | PULLEY, BLOWER               | 20 | ASSY, PANEL HEADER RIGHT INS. | 35 | WASHER, SPRING  |
| 6  | BASE, MOTOR UPPER            | 21 | ASSY, TOP PANEL INS.          | 36 | NUT, HEXAGON    |
| 7  | RUBBER SHEET                 | 22 | ASSY, FLANGE BLOWER           | 37 | BOLT, HEXAGON   |
| 8  | MOTOR                        | 23 | ASSY, SECTION FILTER          | 38 | WASHER, PLAIN   |
| 9  | PULLEY, MOTOR                | 24 | ASSY, TERMINAL BOX            | 39 | WASHER, SPRING  |
| 10 | V-BELT                       | 25 | ASSY, PANEL SERVICE INS.      | 40 | NUT, HEXAGON    |
| 11 | ASSY, FAN MOTOR HARNESS WIRE | 26 | COVER, TERMINAL BOX           | 41 | BOLT, HEXAGON   |
| 12 | ASSY, DRAIN PAN INS.         | 27 | SCREW, S.T.TRUSS HEAD PHILIP  | 42 | BOLT, ADJUSTING |
| 13 | ASSY, COIL LEFT LOWER        | 28 | SCREW, SELF TAPPING PAN HEAD  | 43 | WASHER, PLAIN   |
| 14 | ASSY, COIL LEFT UPPER        | 29 | SCREW, TRUSS HEAD PHILIP      | 44 | WASHER, SPRING  |
| 15 | ASSY, COIL RIGHT LOWER       | 30 | SCREW, TRUSS HEAD PHILIP      | 45 | NUT, HEXAGON    |

Model : MDB500D4



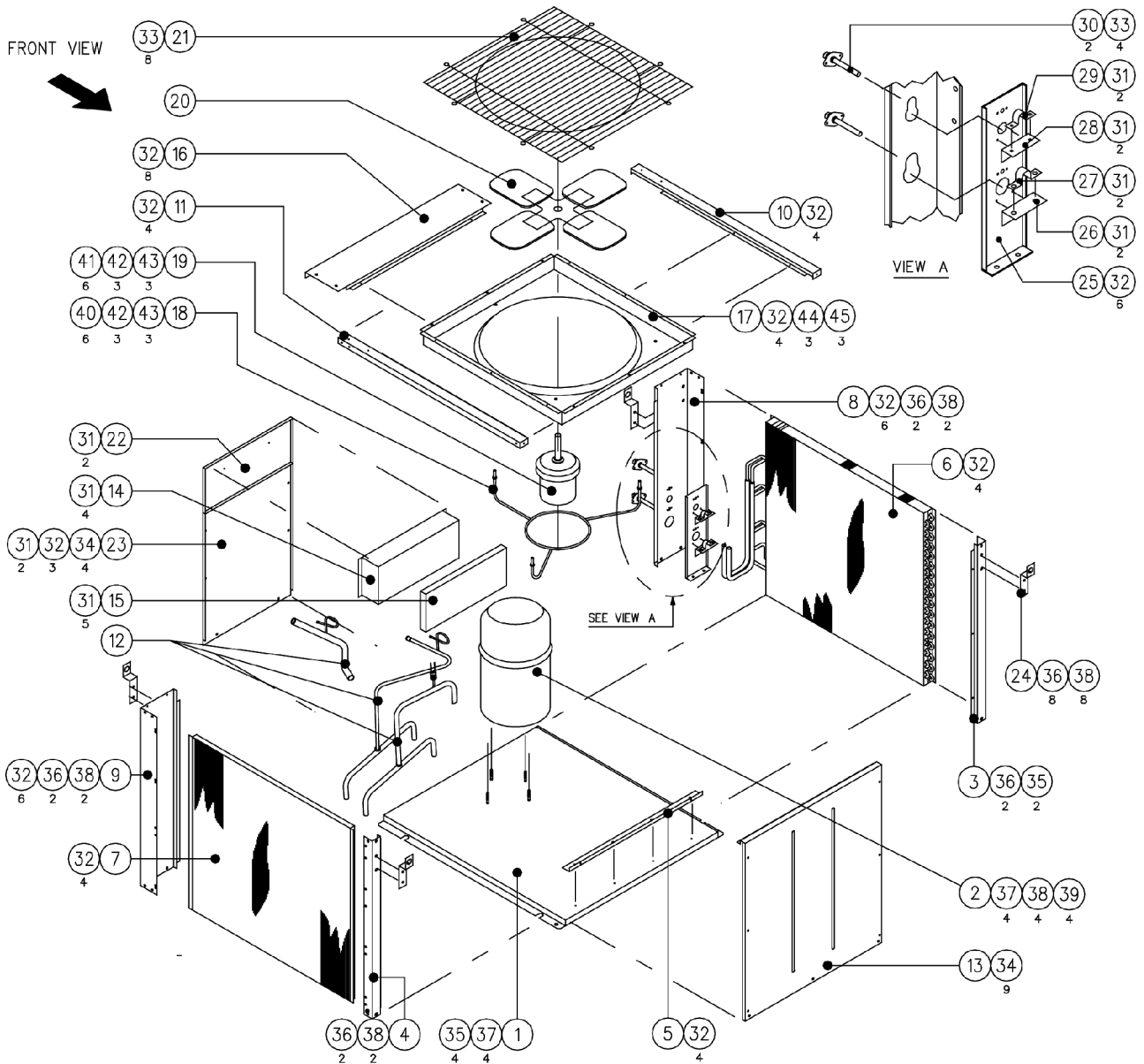
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|----|------------------------------|----|-------------------------------|----|--------------------------|
| 1  | ASSY, BASE PAN INS.          | 15 | ASSY, COIL RIGHT LOWER        | 29 | SCREW, TRUSS HEAD PHILIP |
| 2  | SUPPORT, BLOWER LEFT         | 16 | ASSY, COIL RIGHT UPPER        | 30 | SCREW, TRUSS HEAD PHILIP |
| 3  | SUPPORT, BLOWER RIGHT        | 17 | ASSY, PANEL FRONT INS.        | 31 | NUT, WELD                |
| 4  | ASSY, BLOWER HOUSING         | 18 | COVER, BLOWER                 | 32 | SCREW, WOOD              |
| 5  | PULLEY, BLOWER               | 19 | ASSY, PANEL HEADER LEFT INS.  | 33 | BOLT, HEXAGON            |
| 6  | BASE, MOTOR UPPER            | 20 | ASSY, PANEL HEADER RIGHT INS. | 34 | WASHER, PLAIN            |
| 7  | RUBBER SHEET                 | 21 | ASSY, TOP PANEL INS.          | 35 | WASHER, SPRING           |
| 8  | MOTOR                        | 22 | ASSY, FLANGE BLOWER           | 36 | NUT, HEXAGON             |
| 9  | PULLEY, MOTOR                | 23 | ASSY, SECTION FILTER          | 37 | BOLT, HEXAGON            |
| 10 | V-BELT                       | 24 | ASSY, TERMINAL BOX            | 38 | BOLT, HEXAGON            |
| 11 | ASSY, FAN MOTOR HARNESS WIRE | 25 | ASSY, PANEL SERVICE INS.      | 39 | BOLT, ADJUSTING          |
| 12 | ASSY, DRAIN PAN INS.         | 26 | COVER, TERMINAL BOX           | 40 | WASHER, PLAIN            |
| 13 | ASSY, COIL LEFT LOWER        | 27 | SCREW, S.T.TRUSS HEAD PHILIP  | 41 | WASHER, SPRING           |
| 14 | ASSY, COIL LEFT UPPER        | 28 | SCREW, SELF TAPPING PAN HEAD  | 42 | NUT, HEXAGON             |

**Outdoor Models**  
**Model : MMC075B**



| NO | DESCRIPTION                  | NO | DESCRIPTION                  | NO | DESCRIPTION                   |
|----|------------------------------|----|------------------------------|----|-------------------------------|
| 1  | ASSY., BASE PAN              | 16 | PANEL, TOP FRONT             | 31 | SCREW, S.T. TRUSS HEAD PHILIP |
| 2  | ASSY., COMPRESSOR            | 17 | PLATE, ORIFICE               | 32 | SCREW, TRUSS HEAD PHILIP      |
| 3  | ASSY., STRUCTURE BACK LEFT   | 18 | BACKET, FAN MOTOR            | 33 | SCREW, TRUSS HEAD PHILIP      |
| 4  | ASSY., STRUCTURE BACK RIGHT  | 19 | MOTOR, FAN                   | 34 | SCREW, SELF TAPPING           |
| 5  | PANEL, ORIFICE SUPPORT       | 20 | BLADE, FAN                   | 35 | SCREW, WOOD                   |
| 6  | ASSY., COIL LEFT             | 21 | GUARD, FAN                   | 36 | BOLT, HEXAGON                 |
| 7  | ASSY., COIL RIGHT            | 22 | COVER, TERMINAL BOARD FRONT  | 37 | WASHER, PLAIN                 |
| 8  | ASSY., STRUCTURE FRONT LEFT  | 23 | PANEL, FRONT                 | 38 | WASHER, SPRING                |
| 9  | ASSY., STRUCTURE FRONT RIGHT | 24 | BRACKET, HOISTING            | 39 | NUT, HEXAGON                  |
| 10 | STURCTURE, TOP LEFT          | 25 | STRUCTURE, TUBE SUPPORT      | 40 | WASHER, ISOLATOR              |
| 11 | STURCTURE, TOP RIGHT         | 26 | SUPPORT, TUBE GAS OD 1"      | 41 | WASHER, PLAIN                 |
| 12 | ASSY., UNIT TUBING           | 27 | CLAMP, GAS TUBE OD 1"        | 42 | WASHER, SPRING                |
| 13 | PANEL, TOP OR BACK           | 28 | SUPPORT, TUBE LIQUID OD 1/2" | 43 | NUT, HEXAGON                  |
| 14 | ASSY., TERMINAL BOARD MAIN   | 29 | CLAMP, TUBE LIQUID OD 1/2"   | 44 | ISOLATOR, DURO 40             |
| 15 | COVER, TERMINAL BOARD BACK   | 30 | ASSY., ACCESS VALVE 1/4"     | 45 | ISOLATOR SLEEVE               |

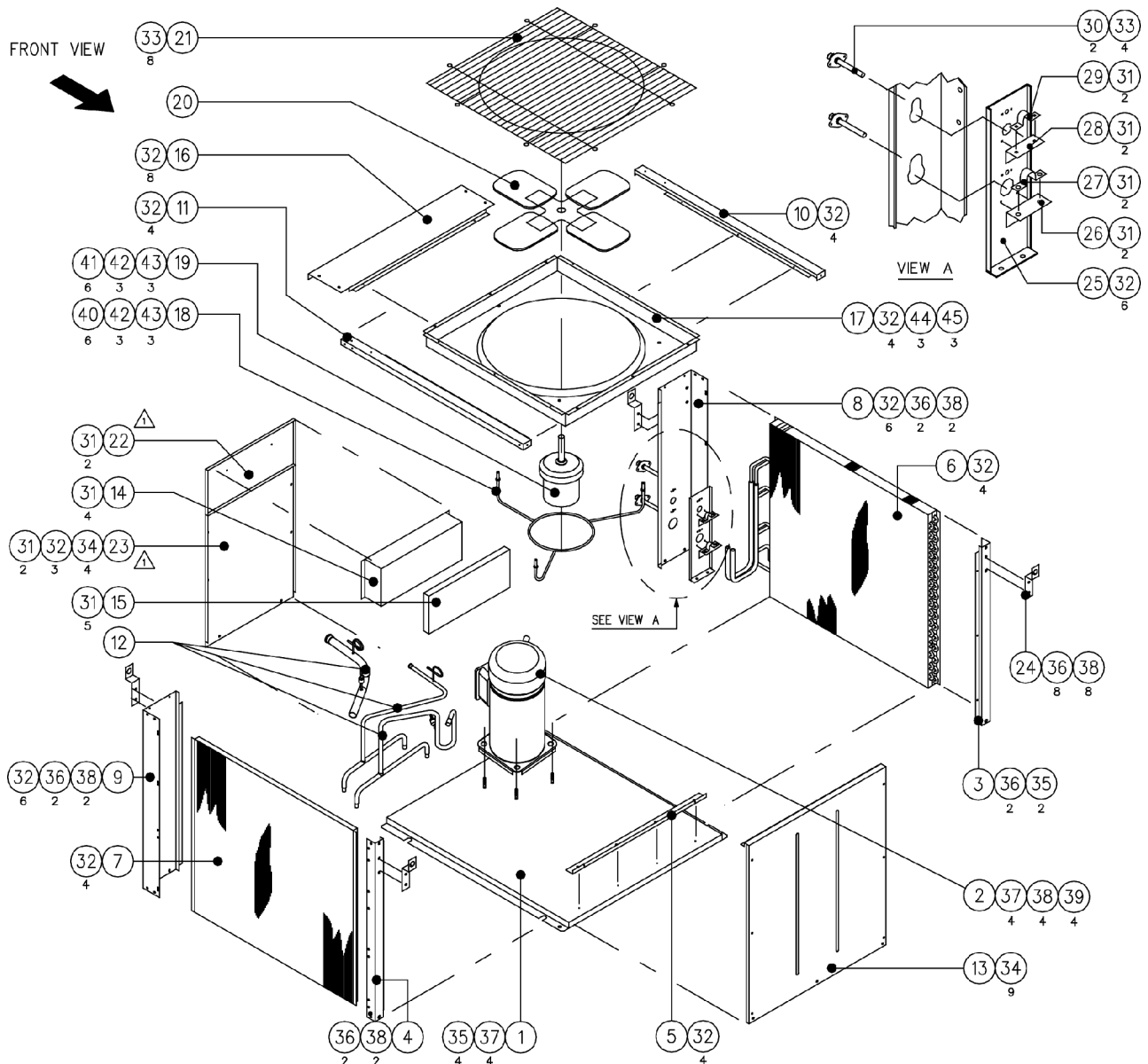
Model : MMC100B



| NO | DESCRIPTION                  | NO | DESCRIPTION                  | NO | DESCRIPTION                   |
|----|------------------------------|----|------------------------------|----|-------------------------------|
| 1  | ASSY., BASE PAN              | 16 | PANEL, TOP FRONT             | 31 | SCREW, S.T. TRUSS HEAD PHILIP |
| 2  | ASSY., COMPRESSOR            | 17 | PLATE, ORIFICE               | 32 | SCREW, TRUSS HEAD PHILIP      |
| 3  | ASSY., STRUCTURE BACK LEFT   | 18 | BUCKET, FAN MOTOR            | 33 | SCREW, TRUSS HEAD PHILIP      |
| 4  | ASSY., STRUCTURE BACK RIGHT  | 19 | MOTOR, FAN                   | 34 | SCREW, SELF TAPPING           |
| 5  | PANEL, ORIFICE SUPPORT       | 20 | BLADE, FAN                   | 35 | SCREW, WOOD                   |
| 6  | ASSY., COIL LEFT             | 21 | GUARD, FAN                   | 36 | BOLT, HEXAGON                 |
| 7  | ASSY., COIL RIGHT            | 22 | COVER, TERMINAL BOARD FRONT  | 37 | WASHER, PLAIN                 |
| 8  | ASSY., STRUCTURE FRONT LEFT  | 23 | PANEL, FRONT                 | 38 | WASHER, SPRING                |
| 9  | ASSY., STRUCTURE FRONT RIGHT | 24 | BRACKET, HOISTING            | 39 | NUT, HEXAGON                  |
| 10 | STURCTURE, TOP LEFT          | 25 | STRUCTURE, TUBE SUPPORT      | 40 | WASHER, ISOLATOR              |
| 11 | STURCTURE, TOP RIGHT         | 26 | SUPPORT, TUBE GAS OD 1 1/8"  | 41 | WASHER, PLAIN                 |
| 12 | ASSY., UNIT TUBING           | 27 | CLAMP, GAS TUBE OD 1 1/8"    | 42 | WASHER, SPRING                |
| 13 | PANEL, TOP OR BACK           | 28 | SUPPORT, TUBE LIQUID OD 5/8" | 43 | NUT, HEXAGON                  |
| 14 | ASSY., TERMINAL BOARD MAIN   | 29 | CLAMP, TUBE LIQUID OD 5/8"   | 44 | ISOLATOR, DURO 40             |
| 15 | COVER, TERMINAL BOARD BACK   | 30 | ASSY., ACCESS VALVE 1/4"     | 45 | ISOLATOR SLEEVE               |

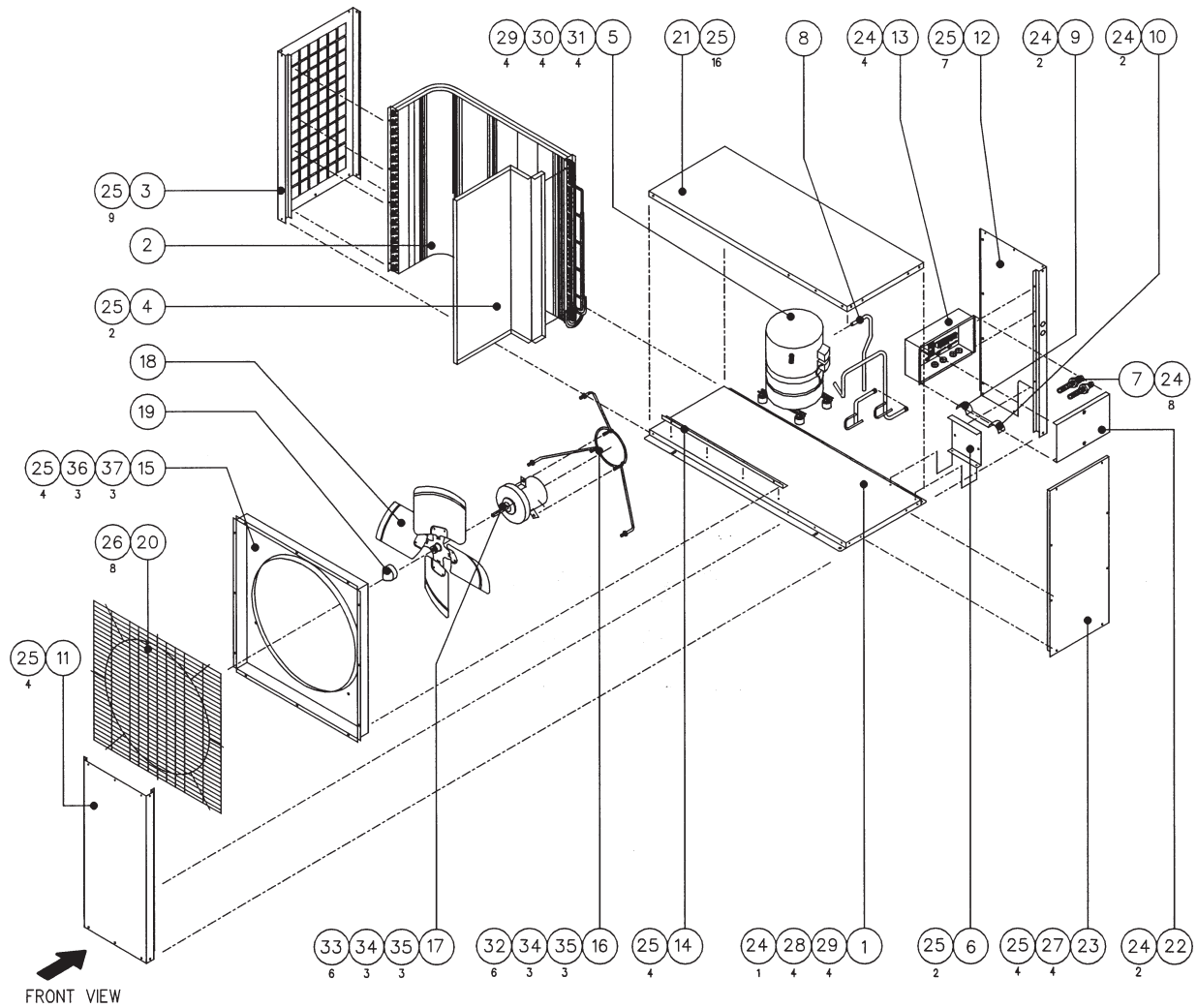


**Model : MMC125B**



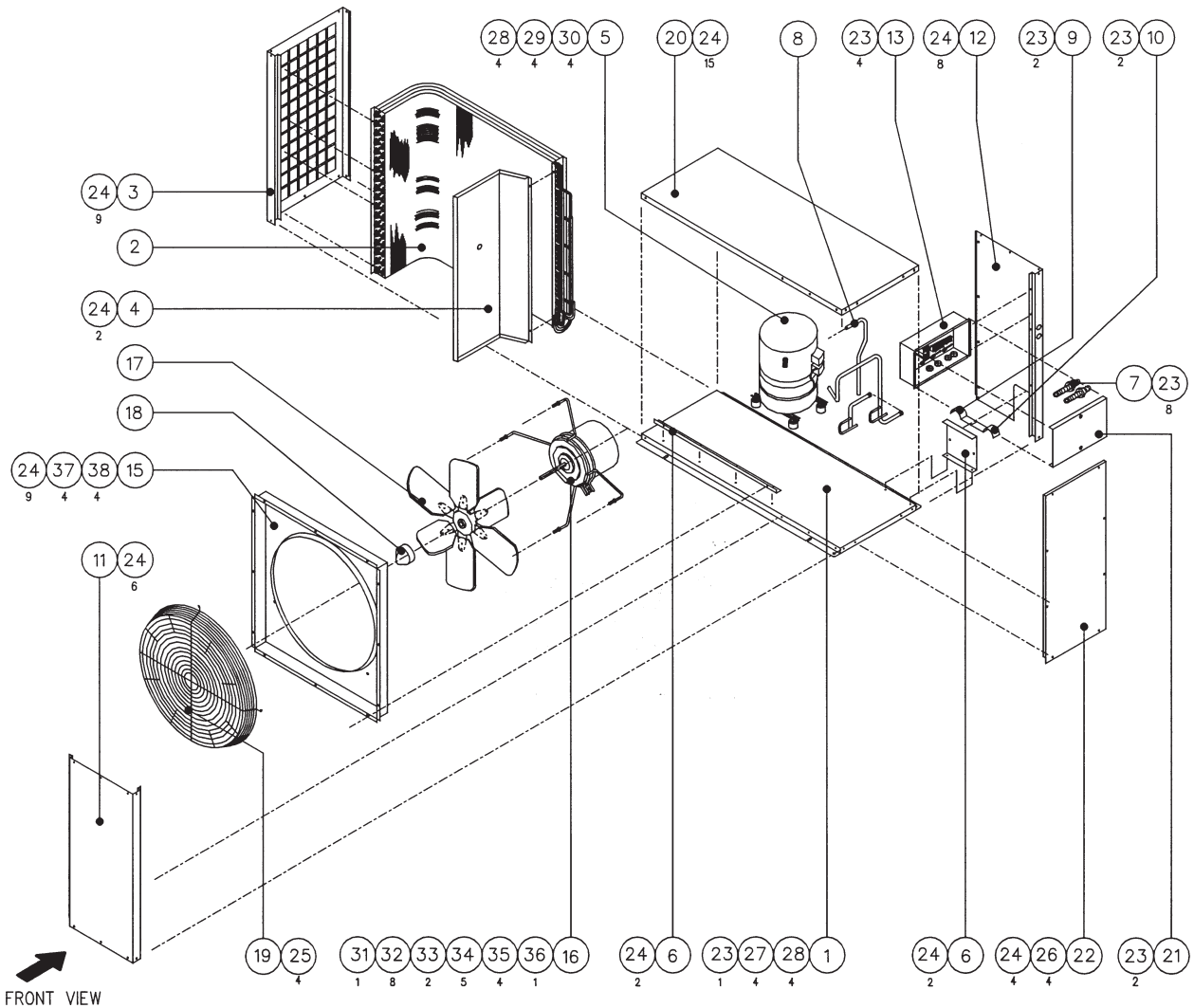
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|----|------------------------------|----|------------------------------|----|-------------------------------|
| 1  | ASSY., BASE PAN              | 16 | PANEL, TOP FRONT             | 31 | SCREW, S.T. TRUSS HEAD PHILIP |
| 2  | ASSY., COMPRESSOR            | 17 | PLATE, ORIFICE               | 32 | SCREW, TRUSS HEAD PHILIP      |
| 3  | ASSY., STRUCTURE BACK LEFT   | 18 | BACKET, FAN MOTOR            | 33 | SCREW, TRUSS HEAD PHILIP      |
| 4  | ASSY., STRUCTURE BACK RIGHT  | 19 | MOTOR, FAN                   | 34 | SCREW, SELF TAPPING           |
| 5  | PANEL, ORIFICE SUPPORT       | 20 | BLADE, FAN                   | 35 | SCREW, WOOD                   |
| 6  | ASSY., COIL LEFT             | 21 | GUARD, FAN                   | 36 | BOLT, HEXAGON                 |
| 7  | ASSY., COIL RIGHT            | 22 | COVER, TERMINAL BOARD FRONT  | 37 | WASHER, PLAIN                 |
| 8  | ASSY., STRUCTURE FRONT LEFT  | 23 | PANEL, FRONT                 | 38 | WASHER, SPRING                |
| 9  | ASSY., STRUCTURE FRONT RIGHT | 24 | BRACKET, HOISTING            | 39 | NUT, HEXAGON                  |
| 10 | STURCTURE, TOP LEFT          | 25 | STRUCTURE, TUBE SUPPORT      | 40 | WASHER, ISOLATOR              |
| 11 | STURCTURE, TOP RIGHT         | 26 | SUPPORT, TUBE GAS OD 1 3/8"  | 41 | WASHER, PLAIN                 |
| 12 | ASSY., UNIT TUBING           | 27 | CLAMP, GAS TUBE OD 1 3/8"    | 42 | WASHER, SPRING                |
| 13 | PANEL, TOP OR BACK           | 28 | SUPPORT, TUBE LIQUID OD 5/8" | 43 | NUT, HEXAGON                  |
| 14 | ASSY., TERMINAL BOARD MAIN   | 29 | CLAMP, TUBE LIQUID OD 5/8"   | 44 | ISOLATOR, DURO 40             |
| 15 | COVER, TERMINAL BOARD BACK   | 30 | ASSY., ACCESS VALVE 1/4"     | 45 | ISOLATOR SLEEVE               |

Model : MMC075C



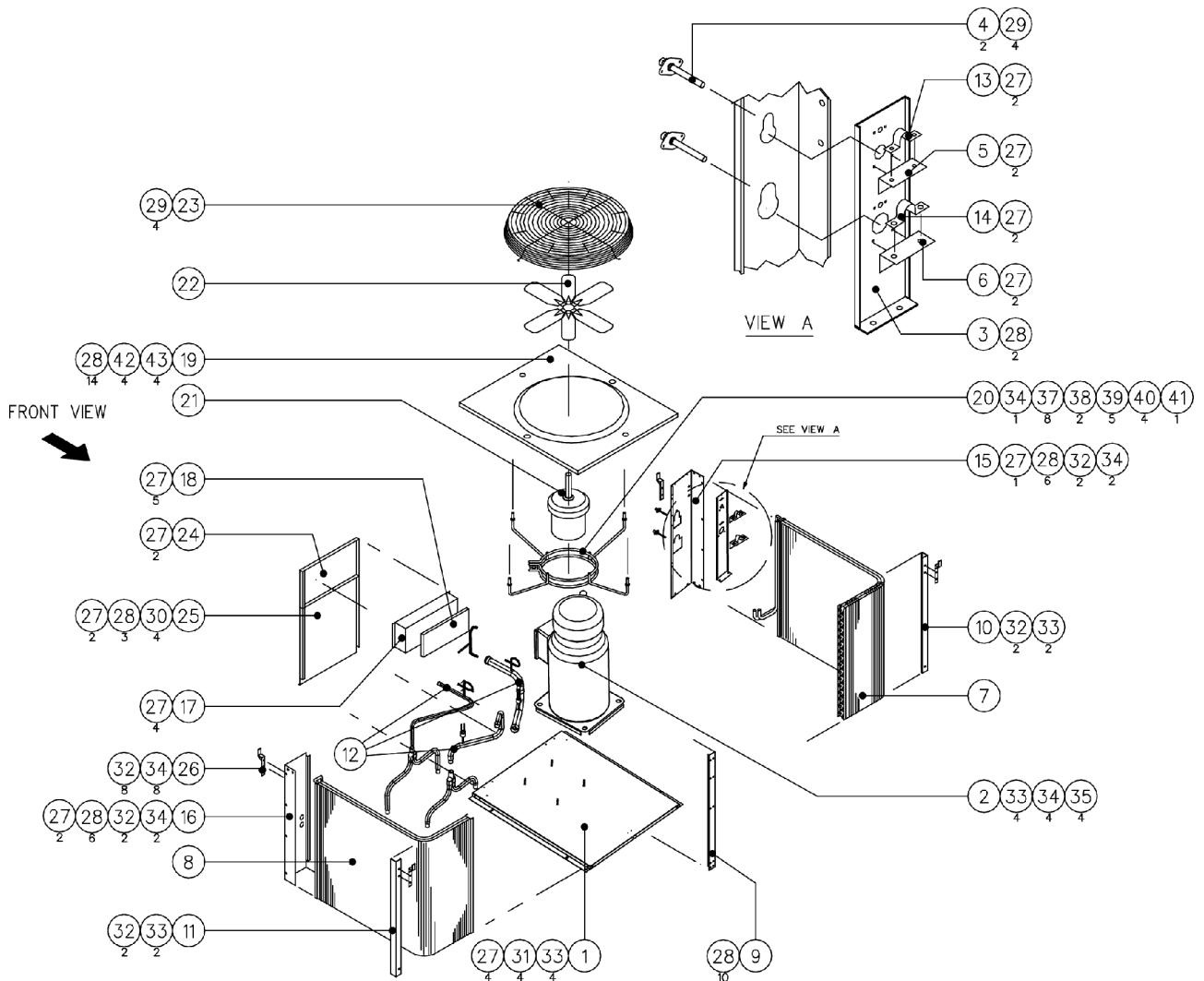
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| 1  | ASSY., BASE PAN              | 14 | PLATE, ORIFICE SUPPORT      | 27 | SCREW, SELF TAPPING |
| 2  | ASSY., COIL                  | 15 | ASSY., ORIFICE PLATE        | 28 | SCREW, WOOD         |
| 3  | STRUCTURE FRONT LEFT         | 16 | BRACKET, FAN MOTOR          | 29 | WASHER, PLAIN       |
| 4  | ASSY., PARTITION             | 17 | MOTOR, FAN                  | 30 | WASHER, SPRING      |
| 5  | ASSY., COMPRESSOR            | 18 | FAN, BLADE 26"              | 31 | NUT, HEXAGON        |
| 6  | ASSY., VALVE PLATE           | 19 | CAP, FOR FAN BLADE          | 32 | WASHER, ISOLATOR    |
| 7  | ASSY., ACCESS VALVE          | 20 | GUARD, FAN                  | 33 | WASHER, PLAIN       |
| 8  | ASSY., UNIT TUBING           | 21 | PANEL, TOP                  | 34 | WASHER, SPRING      |
| 9  | CLAMP, DISCHARGE TUBE        | 22 | PANEL, TERMINAL BOARD COVER | 35 | NUT, HEXAGON        |
| 10 | CLAMP, SUCTION TUBE          | 23 | ASSY., SERVICE PANEL        | 36 | ISOLATOR DURO 40    |
| 11 | ASSY., STRUCTURE FRONT RIGHT | 24 | SCREW, TRUSS HEAD PHILIP    | 37 | ISOLATOR SLEEVE     |
| 12 | ASSY., STRUCTURE BACK RIGHT  | 25 | SCREW, TRUSS HEAD PHILIP    |    |                     |
| 13 | ASSY., TERMINAL BOARD MAIN   | 26 | SCREW, TRUSS HEAD PHILIP    |    |                     |

Model : MMC100C



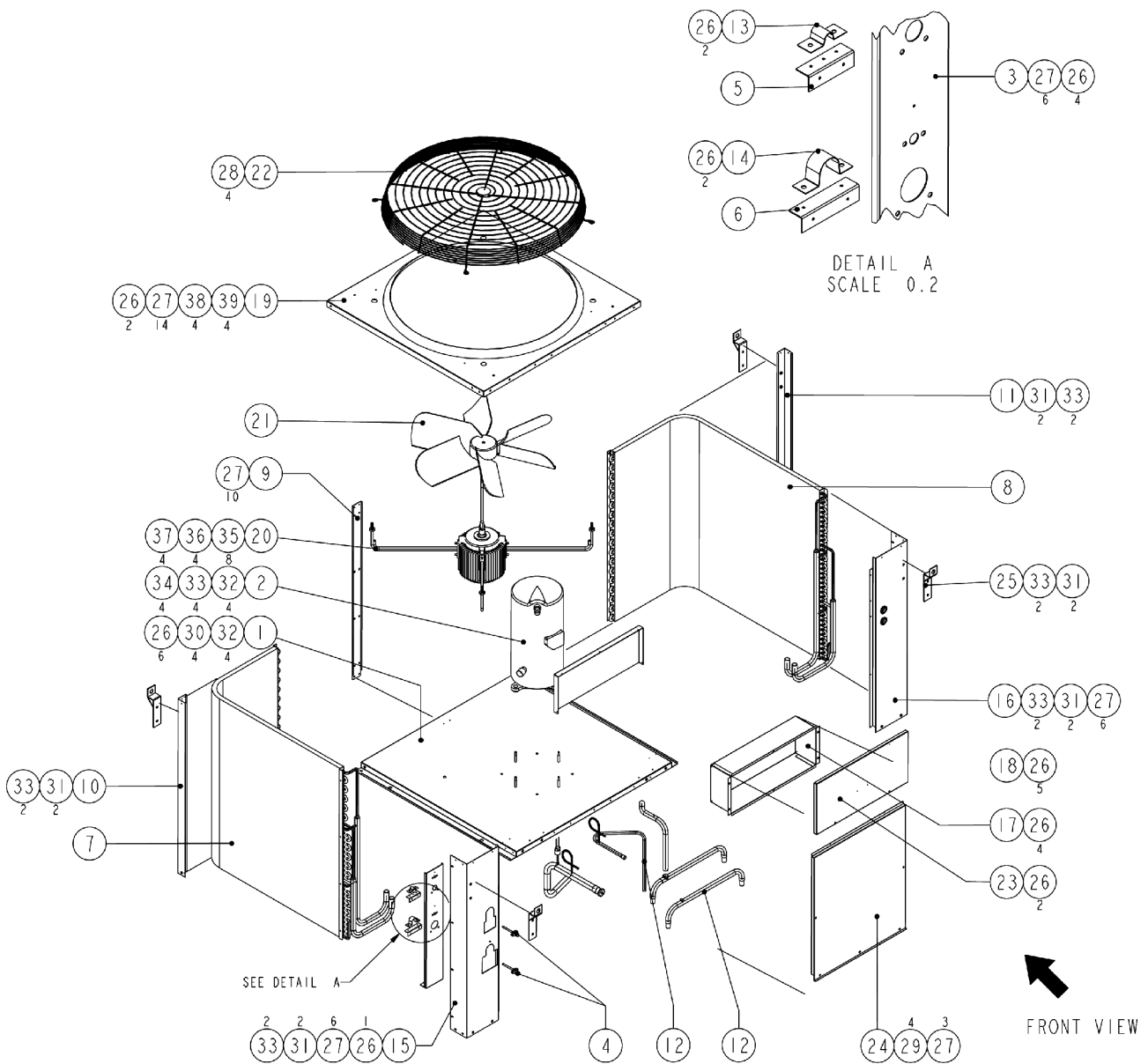
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| 1  | ASSY., BASE PAN            | 14 | STRUCTURE, ORIFICE SUPPORT    | 27 | SCREW, WOOD      |
| 2  | ASSY., COIL                | 15 | ASSY., PANEL ORIFICE          | 28 | WASHER, PLAIN    |
| 3  | PANEL FRONT LEFT           | 16 | ASSY., MOTOR                  | 29 | WASHER, SPRING   |
| 4  | ASSY., PANEL PARTITION     | 17 | FAN BLADE                     | 30 | NUT, HEXAGON     |
| 5  | ASSY., COMPRESSOR          | 18 | CAP, FOR FAN BLADE            | 31 | BOLT, HEXAGON    |
| 6  | PANEL, VALVE               | 19 | FAN GUARD 30°                 | 32 | WASHER, ISOLATOR |
| 7  | ASSY., ACCESS VALVE        | 20 | PANEL, TOP                    | 33 | WASHER, PLAIN    |
| 8  | ASSY., UNIT TUBING         | 21 | PANEL, TERMINAL BOARD COVER   | 34 | WASHER, SPRING   |
| 9  | CLAMP, Ø 5/8" LIQUID PIPE  | 22 | ASSY., PANEL SERVICE          | 35 | NUT, HEXAGON     |
| 10 | CLAMP, Ø 1 1/8" GAS PIPE   | 23 | SCREW, S.T. TRUSS HEAD PHILIP | 36 | NUT, HEXAGON     |
| 11 | ASSY., PANEL FRONT RIGHT   | 24 | SCREW, TRUSS HEAD PHILIP      | 37 | ISOLATOR DURO 40 |
| 12 | ASSY., PANEL FRONT RIGHT   | 25 | SCREW, TRUSS HEAD PHILIP      | 38 | ISOLATOR SLEEVE  |
| 13 | ASSY., TERMINAL BOARD MAIN | 26 | SCREW, SELF TAPPING           |    |                  |

Model : MMC150C



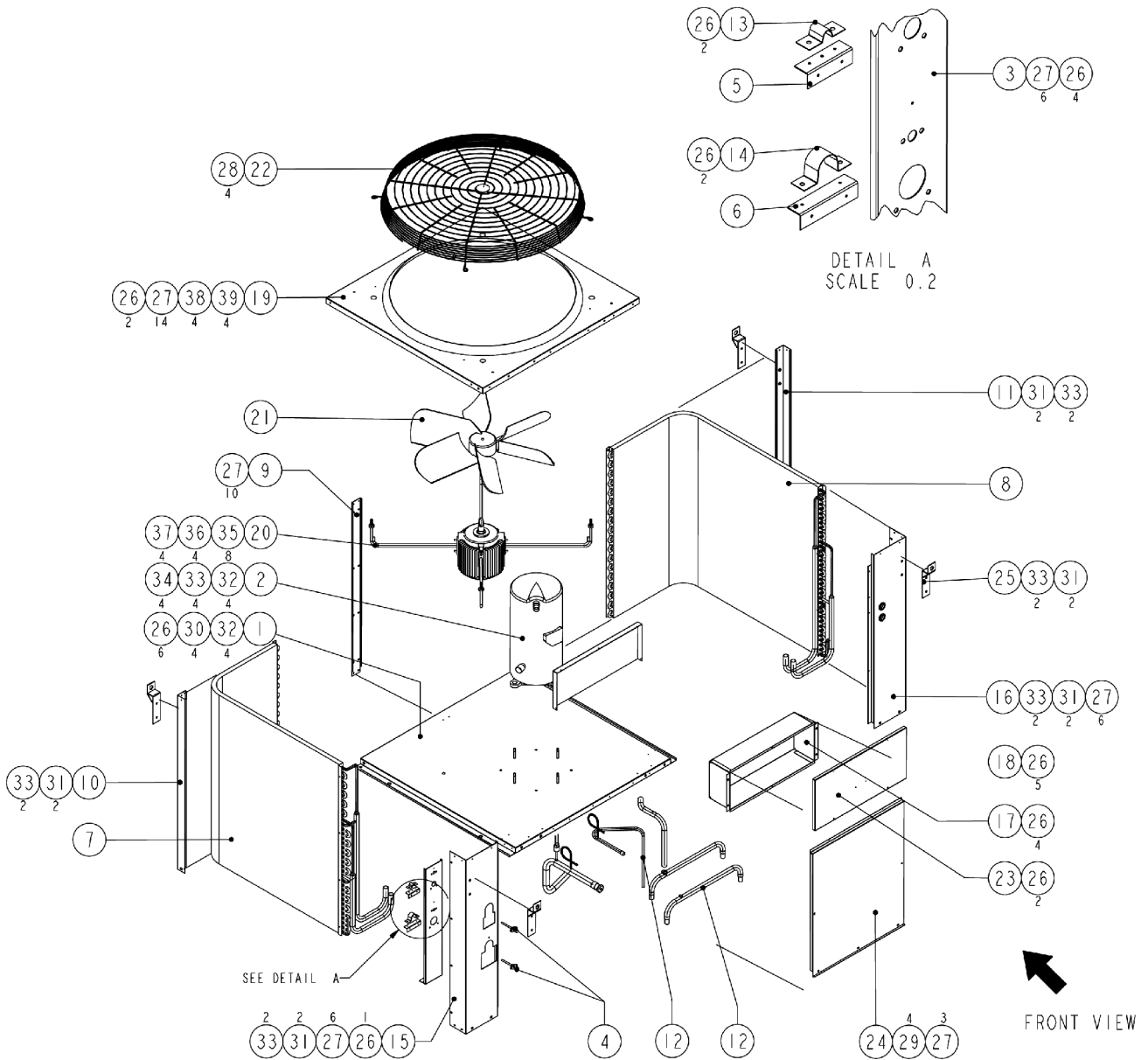
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| 1  | ASSY., BASE PAN             | 16 | ASSY., STRUCTURE FRONT RIGHT | 31 | SCREW, WOOD       |
| 2  | ASSY., COMPRESSOR           | 17 | ASSY., TERMINAL BOARD MAIN   | 32 | BOLT, HEXAGON     |
| 3  | STRUCTURE, TUBE SUPPORT     | 18 | COVER, TERMINAL BOARD BACK   | 33 | WASHER, PLAIN     |
| 4  | ASSY., ACCESS VALVE         | 19 | PLATE, ORIFICE               | 34 | WASHER, SPRING    |
| 5  | SUPPORT, LIQUID TUBE 5/8"   | 20 | BRACKET, FAN MOTOR           | 35 | NUT, HEXAGON      |
| 6  | SUPPORT, TUBE GAS 1 3/8"    | 21 | MOTOR, FAN                   | 36 | BOLT, HEXAGON     |
| 7  | ASSY., COIL LEFT MAIN       | 22 | BLADE, FAN                   | 37 | WASHER, ISOLATOR  |
| 8  | ASSY., COIL RIGHT MAIN      | 23 | GUARD, FAN                   | 38 | WASHER, PLAIN     |
| 9  | ASTRUCTURE, COIL            | 24 | COVER, TERMINAL BOARD FRONT  | 39 | WASHER, SPRING    |
| 10 | ASSY., STURCTURE BACK LEFT  | 25 | ASSY., FRONT PANEL           | 40 | NUT, HEXAGON      |
| 11 | ASSY., STURCTURE BACK RIGHT | 26 | ASSY., HOISTING BRACKET      | 41 | NUT, HEXAGON      |
| 12 | ASSY., UNIT TUBING          | 27 | SCREW, TRUSS HEAD PHILIP     | 42 | ISOLATOR, DURO 40 |
| 13 | CLAMP, TUBE LIQUID OD 5/8"  | 28 | SCREW, TRUSS HEAD PHILIP     | 43 | ISOLATOR SLEEVE   |
| 14 | CLAMP, GAS TUBE OD 1 3/8"   | 29 | SCREW, TRUSS HEAD PHILIP     |    |                   |
| 15 | ASSY., STRUCTURE FRONT LEFT | 30 | SCREW, TRUSS HEAD PHILIP     |    |                   |

Model : MMC075D



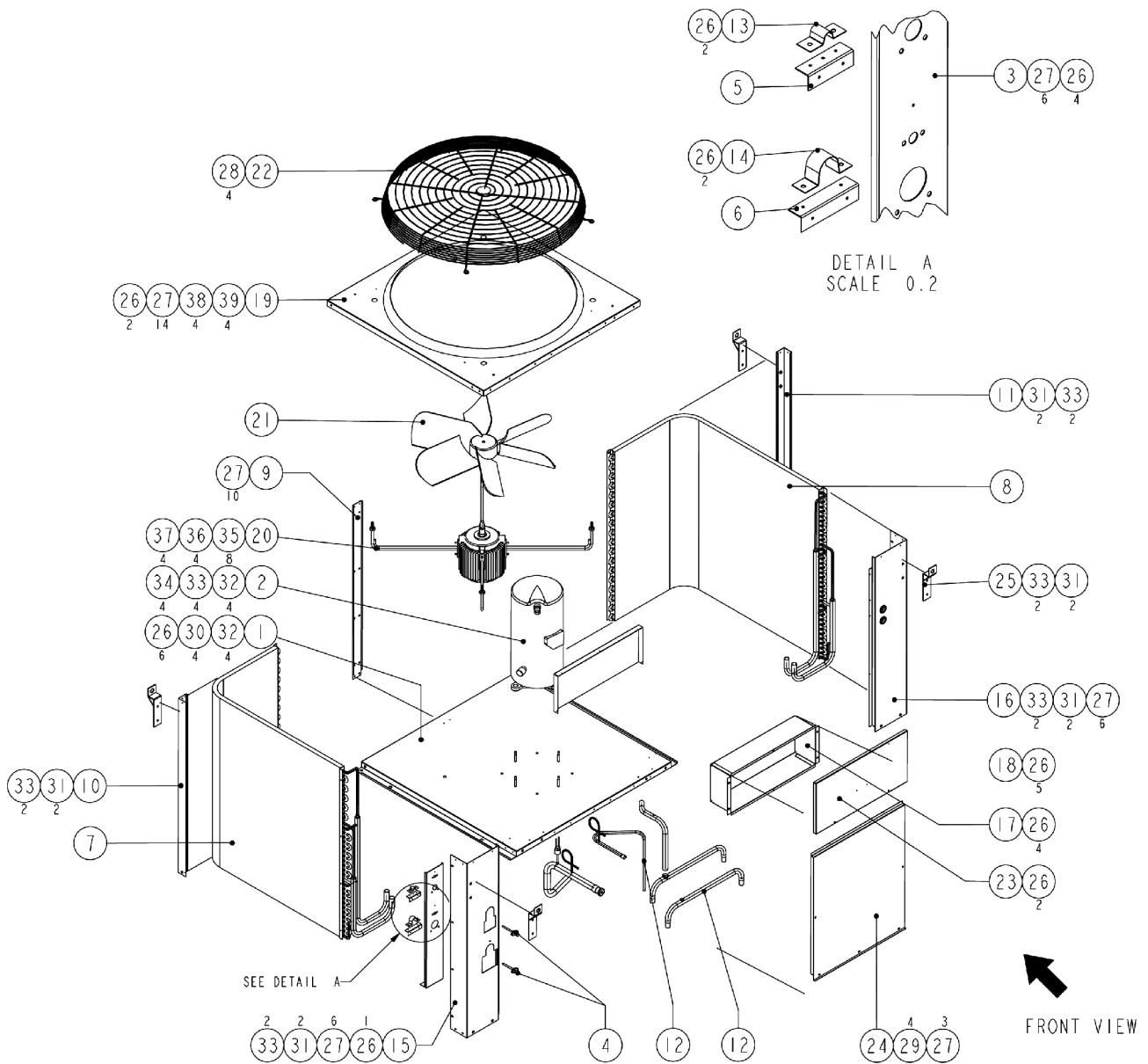
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| 1  | ASSY, PANEL BASE MAIN      | 14 | CLAMP, GASS TUBE ±1"        | 27 | SCREW, TRUSS HEAD PHILIP |
| 2  | ASSY, COMPRESSOR           | 15 | ASSY, STRUCTURE FRONT LEFT  | 28 | SCREW, TRUSS HEAD PHILIP |
| 3  | STRUCTURE, TUBE SUPPORT    | 16 | ASSY, STRUCTURE FRONT RIGHT | 29 | SCREW, TRUSS HEAD PHILIP |
| 4  | ASSY, ACCESS VALVE         | 17 | ASSY, TERMINAL BOX MAIN     | 30 | SCREW, WOOD              |
| 5  | SUPPORT, TUBE LIQUID ±1/2" | 18 | COVER, TERMINAL BOARD BACK  | 31 | BOLT, HEXAGON            |
| 6  | SUPPORT, GAS TUBE ±1"      | 19 | PLATE, ORIFICE              | 32 | WASHER,PLAIN             |
| 7  | ASSY, COIL LEFT MAIN       | 20 | ASSY, MOTOR                 | 33 | WASHER, SPRING           |
| 8  | ASSY, COIL RIGHT MAIN      | 21 | BLADE, FAN                  | 34 | NUT, HEXAGON             |
| 9  | STRUCTURE, COIL            | 22 | GUARD, FAN 32"              | 35 | WASHER,PLAIN             |
| 10 | ASSY, STRUCTURE BACK LEFT  | 23 | PANEL, SERVICE TOP          | 36 | WASHER, SPRING           |
| 11 | ASSY, STRUCTURE BACK RIGHT | 24 | PANEL, SERVICE BOTTOM       | 37 | NUT, HEXAGON             |
| 12 | ASSY, UNIT TUBING          | 25 | ASSY, HOISTING BRACKET      | 38 | ISOLATOR DURO 40         |
| 13 | CLAMP, LIQUID TUBE ±1/2"   | 26 | SCREW, TRUSS HEAD PHILIP    | 39 | ISOLATOR, SLEEVE         |

Model : MMC100D



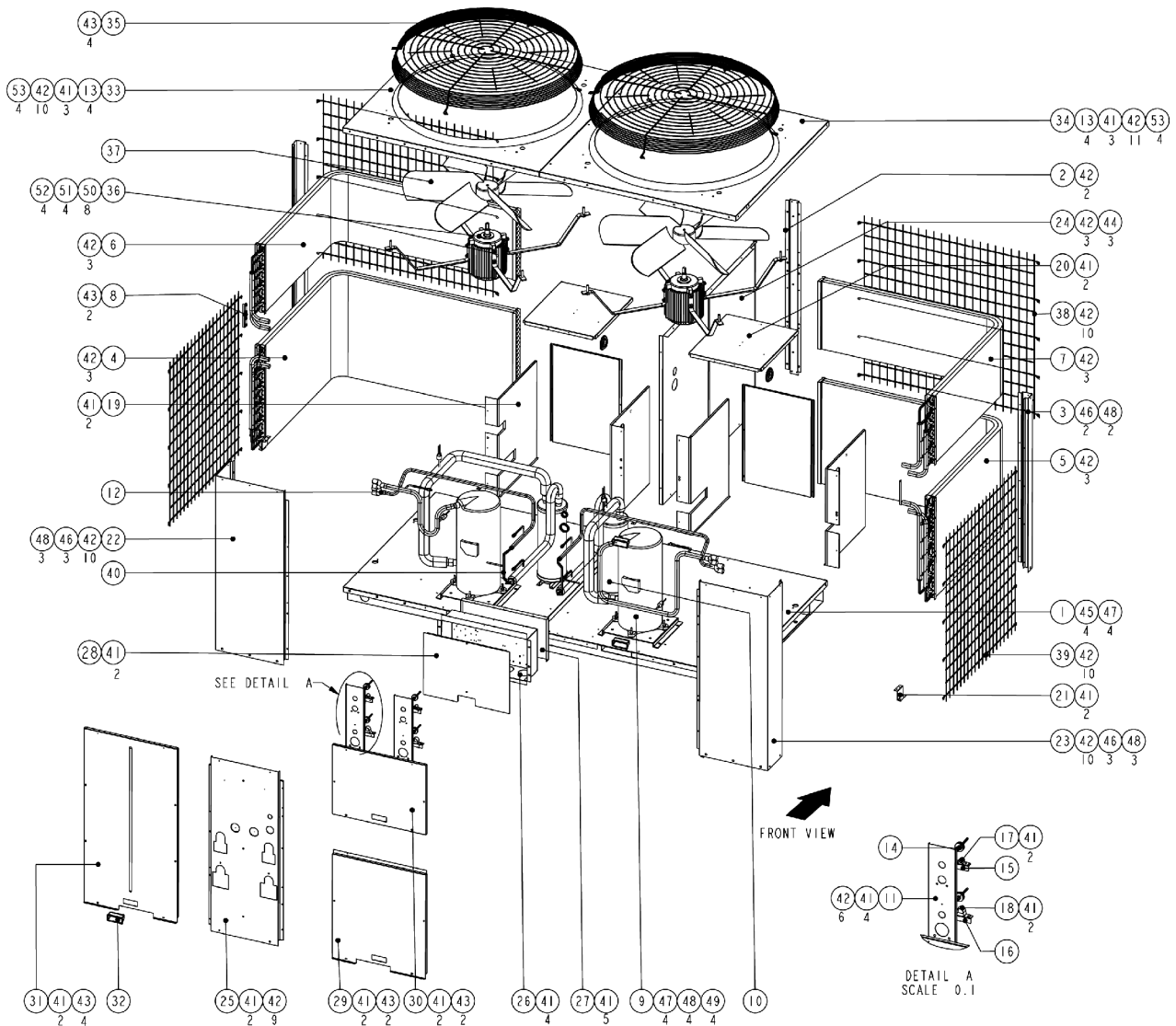
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|----|---------------------------------|----|-----------------------------|----|--------------------------|
| 1  | ASSY, PANEL BASE MAIN           | 14 | CLAMP, GASS TUBE $\pm 1/8"$ | 27 | SCREW, TRUSS HEAD PHILIP |
| 2  | ASSY, COMPRESSOR                | 15 | ASSY, STRUCTURE FRONT LEFT  | 28 | SCREW, TRUSS HEAD PHILIP |
| 3  | STRUCTURE, TUBE SUPPORT         | 16 | ASSY, STRUCTURE FRONT RIGHT | 29 | SCREW, TRUSS HEAD PHILIP |
| 4  | ASSY, ACCESS VALVE              | 17 | ASSY, TERMINAL BOX MAIN     | 30 | SCREW, WOOD              |
| 5  | SUPPORT, TUBE LIQUID $\pm 5/8"$ | 18 | COVER, TERMINAL BOARD BACK  | 31 | BOLT, HEXAGON            |
| 6  | SUPPORT, GAS TUBE $\pm 1/8"$    | 19 | PLATE, ORIFICE              | 32 | WASHER, PLAIN            |
| 7  | ASSY, COIL LEFT MAIN            | 20 | ASSY, MOTOR                 | 33 | WASHER, SPRING           |
| 8  | ASSY, COIL RIGHT MAIN           | 21 | BLADE, FAN                  | 34 | NUT, HEXAGON             |
| 9  | STRUCTURE, COIL                 | 22 | GUARD, FAN 32"              | 35 | WASHER, PLAIN            |
| 10 | ASSY, STRUCTURE BACK LEFT       | 23 | PANEL, SERVICE TOP          | 36 | WASHER, SPRING           |
| 11 | ASSY, STRUCTURE BACK RIGHT      | 24 | PANEL, SERVICE BOTTOM       | 37 | NUT, HEXAGON             |
| 12 | ASSY, UNIT TUBING               | 25 | ASSY, HOISTING BRACKET      | 38 | ISOLATOR DURO 40         |
| 13 | CLAMP, LIQUID TUBE $\pm 5/8"$   | 26 | SCREW, TRUSS HEAD PHILIP    | 39 | ISOLATOR, SLEEVE         |

Model : MMC125 / 150D



| NO | DESCRIPTION                     | NO | DESCRIPTION                   | NO | DESCRIPTION              |
|----|---------------------------------|----|-------------------------------|----|--------------------------|
| 1  | ASSY, PANEL BASE MAIN           | 14 | CLAMP, GASS TUBE $\pm 1-3/8"$ | 27 | SCREW, TRUSS HEAD PHILIP |
| 2  | ASSY, COMPRESSOR                | 15 | ASSY, STRUCTURE FRONT LEFT    | 28 | SCREW, TRUSS HEAD PHILIP |
| 3  | STRUCTURE, TUBE SUPPORT         | 16 | ASSY, STRUCTURE FRONT RIGHT   | 29 | SCREW, TRUSS HEAD PHILIP |
| 4  | ASSY, ACCESS VALVE              | 17 | ASSY, TERMINAL BOX MAIN       | 30 | SCREW, WOOD              |
| 5  | SUPPORT, TUBE LIQUID $\pm 5/8"$ | 18 | COVER, TERMINAL BOARD BACK    | 31 | BOLT, HEXAGON            |
| 6  | SUPPORT, GAS TUBE $\pm 1-3/8"$  | 19 | PLATE, ORIFICE                | 32 | WASHER, PLAIN            |
| 7  | ASSY, COIL LEFT MAIN            | 20 | ASSY, MOTOR                   | 33 | WASHER, SPRING           |
| 8  | ASSY, COIL RIGHT MAIN           | 21 | BLADE, FAN                    | 34 | NUT, HEXAGON             |
| 9  | STRUCTURE, COIL                 | 22 | GUARD, FAN 36"                | 35 | WASHER, PLAIN            |
| 10 | ASSY, STRUCTURE BACK LEFT       | 23 | COVER, TERMINAL BOARD FRONT   | 36 | WASHER, SPRING           |
| 11 | ASSY, STRUCTURE BACK RIGHT      | 24 | PANEL, FRONT                  | 37 | NUT, HEXAGON             |
| 12 | ASSY, UNIT TUBING               | 25 | ASSY, HOISTING BRACKET        | 38 | ISOLATOR DURO 40         |
| 13 | CLAMP, LIQUID TUBE $\pm 5/8"$   | 26 | SCREW, TRUSS HEAD PHILIP      | 39 | ISOLATOR, SLEEVE         |

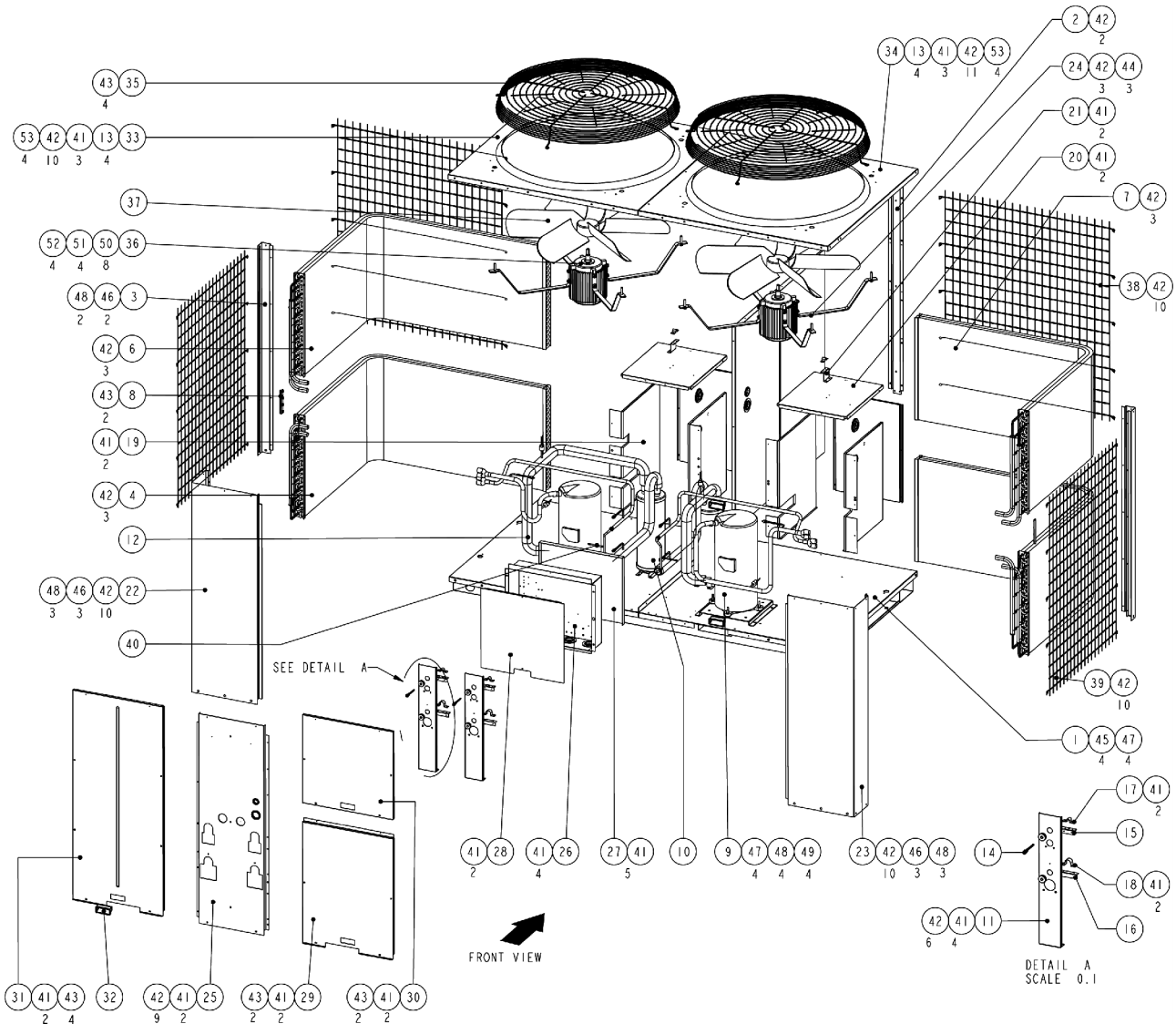
Model : MMC200D2



| NO | DESCRIPTION                           | NO | DESCRIPTION                    | NO | DESCRIPTION              |
|----|---------------------------------------|----|--------------------------------|----|--------------------------|
| 1  | ASSY., PANEL BASE                     | 18 | CLAMP, TUBE GAS                | 35 | GUARD, FAN 36"           |
| 2  | STRUCTURE, COIL                       | 19 | ASSY., COMP. BOX LEFT          | 36 | ASSY., MOTOR             |
| 3  | STRUCTURE, BACK LEFT/RIGHT            | 20 | ASSY., COMP. BOX RIGHT         | 37 | BLADE, FAN               |
| 4  | ASSY., COIL LEFT BOTTOM               | 21 | SUPPORT, TUBE LIQUID           | 38 | ASSY., TUBE BYPASS       |
| 5  | ASSY., COIL RIGHT BOTTOM              | 22 | ASSY., STRUC. FRONT LEFT INS.  | 39 | SCREW, TRUST HEAD PHILIP |
| 6  | ASSY., COIL LEFT TOP                  | 23 | ASSY., STRUC. FRONT RIGHT INS. | 40 | SCREW, TRUST HEAD PHILIP |
| 7  | ASSY., COIL RIGHT TOP                 | 24 | ASSY., SEPARATOR               | 41 | SCREW, TRUST HEAD PHILIP |
| 8  | ASSY., COIL STRUC. COIL SUPPORT PLATE | 25 | ASSY., STRUC. CENTRE INS.      | 42 | SCREW, TRUST HEAD PHILIP |
| 9  | ASSY., COMPRESSOR (ZR125KC-TFD)       | 26 | ASSY., TERMINAL BOARD MAIN     | 43 | SCREW WOOD               |
| 10 | ACCUMULATOR (A-AS 61711)              | 27 | COVER, TERMINAL, BOARD BACK    | 44 | BOLT HEXAGON             |
| 11 | STRUCTURE, TUBE SUPPORT               | 28 | COVER                          | 45 | WASHER, PLAIN            |
| 12 | ASSY., UNIT TUBING                    | 29 | PANEL, FRONT R/B               | 46 | WASHER, SPRING           |
| 13 | ISOLATOR DURO 40                      | 30 | PANEL, FRONT R/T               | 47 | NUT, HEXAGON             |
| 14 | VALVE, ACCESS                         | 31 | PANEL, FRONT LEFT              | 48 | WASHER, PLAIN            |
| 15 | SUPPORT, TUBE LIQUID 5/8" TUBE        | 32 | HANDLE                         | 49 | WASHER, SPRING           |
| 16 | SUPPORT, GAS TUBE                     | 33 | PLATE, ORIFICE LEFT            | 50 | NUT, HEXAGON             |
| 17 | CLAMP, LIQUID TUBE 5/8" TUBE          | 34 | PLATE, ORIFICE RIGHT           | 51 | ISOLATOR, SLEEVE         |

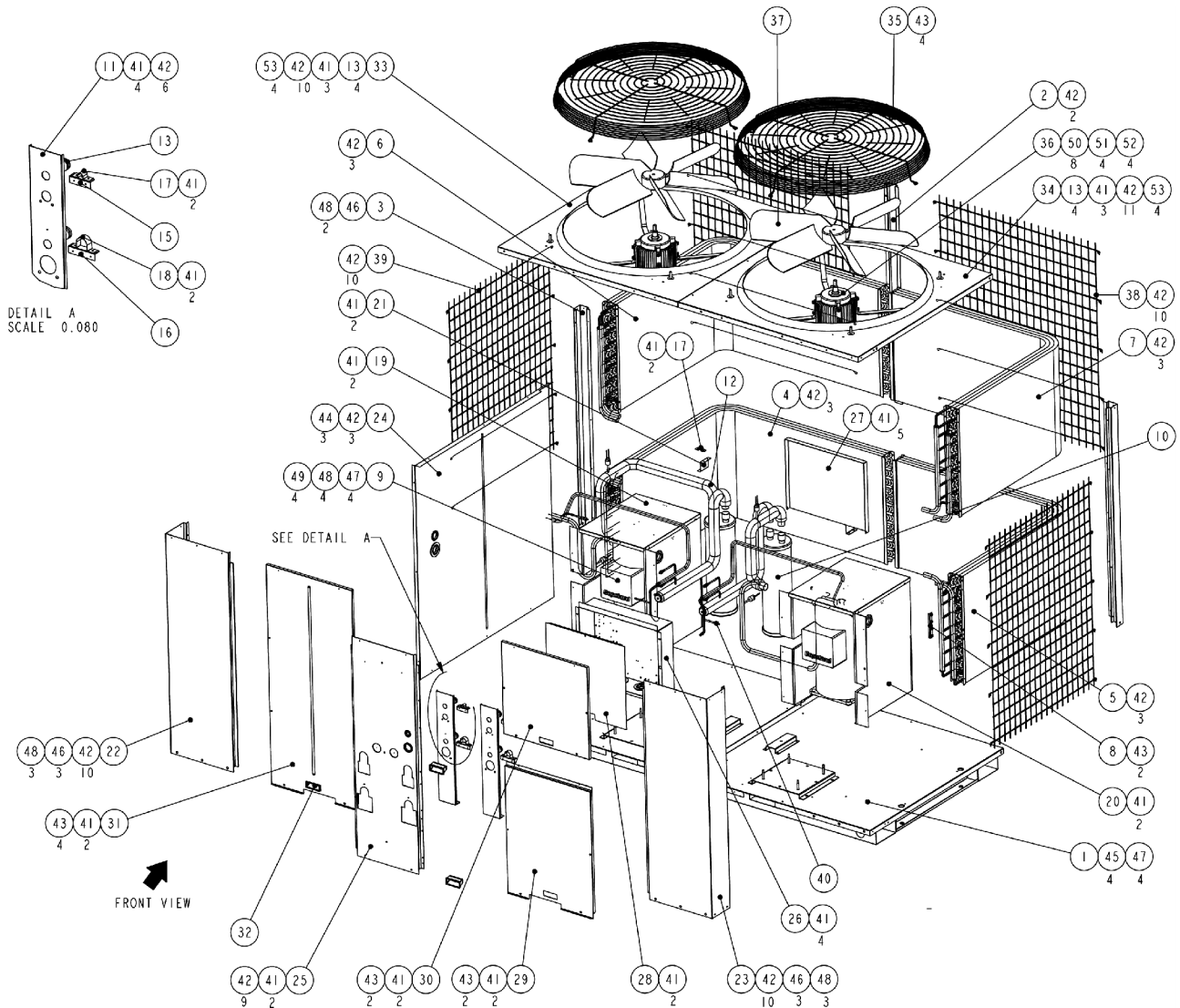


Model : MMC250D2



| NO | DESCRIPTION                           | NO | DESCRIPTION                    | NO | DESCRIPTION              |
|----|---------------------------------------|----|--------------------------------|----|--------------------------|
| 1  | ASSY., PANEL BASE                     | 18 | CLAMP, TUBE GAS                | 35 | GUARD, FAN 36"           |
| 2  | STRUCTURE, COIL                       | 19 | ASSY., COMP. BOX LEFT          | 36 | ASSY., MOTOR             |
| 3  | STRUCTURE, BACK LEFT/RIGHT            | 20 | ASSY., COMP. BOX RIGHT         | 37 | BLADE, FAN               |
| 4  | ASSY., COIL LEFT BOTTOM               | 21 | SUPPORT, TUBE LIQUID           | 38 | ASSY., TUBE BYPASS       |
| 5  | ASSY., COIL RIGHT BOTTOM              | 22 | ASSY., STRUC. FRONT LEFT INS.  | 39 | SCREW, TRUST HEAD PHILIP |
| 6  | ASSY., COIL LEFT TOP                  | 23 | ASSY., STRUC. FRONT RIGHT INS. | 40 | SCREW, TRUST HEAD PHILIP |
| 7  | ASSY., COIL RIGHT TOP                 | 24 | ASSY., SEPARATOR               | 41 | SCREW, TRUST HEAD PHILIP |
| 8  | ASSY., COIL STRUC. COIL SUPPORT PLATE | 25 | ASSY., STRUC. CENTRE INS.      | 42 | SCREW, TRUST HEAD PHILIP |
| 9  | ASSY., COMPRESSOR (ZR144KC-TFD)       | 26 | ASSY., TERMINAL BOARD MAIN     | 43 | SCREW WOOD               |
| 10 | ACCUMULATOR (A-AS 61711)              | 27 | COVER, TERMINAL, BOARD BACK    | 44 | BOLT HEXAGON             |
| 11 | STRUCTURE, TUBE SUPPORT               | 28 | COVER                          | 45 | WASHER, PLAIN            |
| 12 | ASSY., UNIT TUBING                    | 29 | PANEL, FRONT R/B               | 46 | WASHER, SPRING           |
| 13 | ISOLATOR DURO 40                      | 30 | PANEL, FRONT R/T               | 47 | NUT, HEXAGON             |
| 14 | VALVE, ACCESS                         | 31 | PANEL, FRONT LEFT              | 48 | WASHER, PLAIN            |
| 15 | SUPPORT, TUBE LIQUID 5/8" TUBE        | 32 | HANDLE                         | 49 | WASHER, SPRING           |
| 16 | SUPPORT, GAS TUBE                     | 33 | PLATE, ORIFICE LEFT            | 50 | NUT, HEXAGON             |
| 17 | CLAMP, LIQUID TUBE 5/8" TUBE          | 34 | PLATE, ORIFICE RIGHT           | 51 | ISOLATOR, SLEEVE         |

Model : MMC300D2



| NO | DESCRIPTION                           | NO | DESCRIPTION                    | NO | DESCRIPTION              |
|----|---------------------------------------|----|--------------------------------|----|--------------------------|
| 1  | ASSY., PANEL BASE                     | 18 | CLAMP, TUBE GAS                | 35 | GUARD, FAN 36"           |
| 2  | STRUCTURE, COIL                       | 19 | ASSY., COMP. BOX LEFT          | 36 | ASSY., MOTOR             |
| 3  | STRUCTURE, BACK LEFT/RIGHT            | 20 | ASSY., COMP. BOX RIGHT         | 37 | BLADE, FAN               |
| 4  | ASSY., COIL LEFT BOTTOM               | 21 | SUPPORT, TUBE LIQUID           | 38 | ASSY., TUBE BYPASS       |
| 5  | ASSY., COIL RIGHT BOTTOM              | 22 | ASSY., STRUC. FRONT LEFT INS.  | 39 | SCREW, TRUST HEAD PHILIP |
| 6  | ASSY., COIL LEFT TOP                  | 23 | ASSY., STRUC. FRONT RIGHT INS. | 40 | SCREW, TRUST HEAD PHILIP |
| 7  | ASSY., COIL RIGHT TOP                 | 24 | ASSY., SEPARATOR               | 41 | SCREW, TRUST HEAD PHILIP |
| 8  | ASSY., COIL STRUC. COIL SUPPORT PLATE | 25 | ASSY., STRUC. CENTRE INS.      | 42 | SCREW, TRUST HEAD PHILIP |
| 9  | ASSY., COMPRESSOR (ZR19M3-TWD)        | 26 | ASSY., TERMINAL BOARD MAIN     | 43 | SCREW WOOD               |
| 10 | ACCUMULATOR (A-AS 62011)              | 27 | COVER, TERMINAL, BOARD BACK    | 44 | BOLT HEXAGON             |
| 11 | STRUCTURE, TUBE SUPPORT               | 28 | COVER                          | 45 | WASHER, PLAIN            |
| 12 | ASSY., UNIT TUBING                    | 29 | PANEL, FRONT R/B               | 46 | WASHER, SPRING           |
| 13 | ISOLATOR DURO 40                      | 30 | PANEL, FRONT R/T               | 47 | NUT, HEXAGON             |
| 14 | VALVE, ACCESS                         | 31 | PANEL, FRONT LEFT              | 48 | WASHER, PLAIN            |
| 15 | SUPPORT, TUBE LIQUID 5/8" TUBE        | 32 | HANDLE                         | 49 | WASHER, SPRING           |
| 16 | SUPPORT, GAS TUBE 1 3/8"              | 33 | PLATE, ORIFICE LEFT            | 50 | NUT, HEXAGON             |
| 17 | CLAMP, LIQUID TUBE 5/8" TUBE          | 34 | PLATE, ORIFICE RIGHT           | 51 | ISOLATOR, SLEEVE         |

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