



Bcase

Single piston compressor condensing unit for refrigeration

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каталоги, инструкции, сервисные мануалы, схемы.



Bcase

Condensing unit for Air Handling Unit

Cooling capacity range
from 0,27 kW to 58 kW

Condensing units are designed for small and medium size commercial refrigeration and air conditioning applications. Bcase could be equipped with reciprocating or variable speed reciprocating and scroll or digital scroll compressors designed for MT and LT applications. Unit features are: energy efficiency, low sound, good appearance, easy installation and variety of additional options such as EC fans instead of AC, oil and pipe line features available for selection in Refra Selection Tool.

UNIT DESCRIPTION



FUNCTIONS AND FEATURES

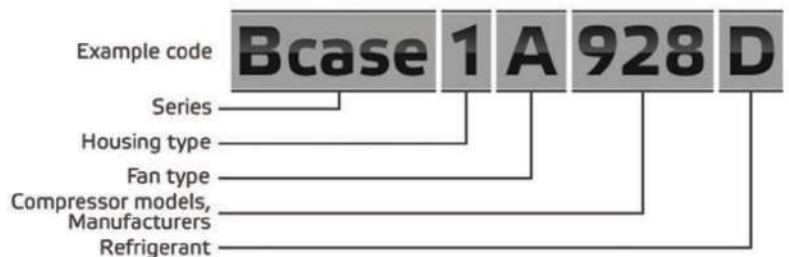


BASIC UNIT EQUIPMENT

- » Polymer powder coated sheet steel casing RAL7044 with condenser protection grid
- » Plastic locks and hinges
- » Reciprocating compressor with crankcase heater
- » Copper aluminium fin condenser
- » High efficiency axial fans
- » Pressure limiters on HP/LP lines
- » Pressure gauges on HP/LP lines
- » Suction line liquid separator
- » Vibration absorbers on suction and liquid lines
- » Check valve on condensing line
- » Liquid receiver with single safety valve
- » Filter-dryer and sight glass on liquid line
- * Forced compressors section ventilation if needed

ADDITIONAL OPTIONS

- Pressure limiter for system protection (Automatic reset)
- Pressure limiter for system protection (Automatic reset)
- Low pressure probe
- Sound jacket for compressor (Sound pressure level reduced ~5dB(A))
- Electronic Oil Level Control
- Condensing pressure regulator on hot gas side
- Fan speed regulator
- Electrical cabinet with electronic controller
- Oil separator



LOW TEMPERATURE BCASE UNIT TECHNICAL DATA

R404A/R507 - Hermetic reciprocating

Bcase		1E087A	1E090A	1E091A	1E093A	1E095A	1E097A	1E099A	2E001A	2E003A	
Cooling capacity [1]	kW	0,63	1,02	1,24	1,61	1,97	2,51	2,72	3,44	4,1	
Unit power consumption	kW	0,65	0,96	1,18	1,28	1,58	2	2,22	2,75	3,27	
COP		0,97	1,06	1,05	1,26	1,25	1,26	1,23	1,25	1,25	
Compressors	Quantity	no									
	Type	1									
	Refrigerant	Reciprocating									
Condenser	Type	R404A/R507									
	Surface area	Aluminum fin copper tube							46,2		92,4
	Fan type	AC axial fans									
	Fan	no							1		2
	Air flow	m3/h							4950		9900
Connections	Liquid line	mm			12		16			28	
	Suction line	mm			16		22			28	
Electrical characteristics	Power supply	V/Ph/Hz									
	Max. operating current	380-420/3~/50									
	Starting current	A	3,7	5	5,3	6	7,5	9,1	9,5	12,2	14,5
Sound pressure [2]	STD	dB(A)									
		41,5	41,5	42,2	43,0	43,5	44,1	44,8	46,2	47,8	
Dimensions	Picture	no								1	2
	Length	mm									
	Width	1330									
	Height	mm							650		740
Unit weight [3]	kg	143	145	145	168	168	170	182	259	261	

[1] Calculations made due to -35 °C evaporating and +32 °C ambient temperatures.

[2] Sound pressure level measured at 10 m from the unit according to ISO 3744.

[3] Basic equipment unit weight.

[4] No starting current peaks at compressor start due to the frequency inverter.

[5] Technical data of compressors with frequency inverters indicated at 50 Hz.

MEDIUM TEMPERATURE BCASE UNIT TECHNICAL DATA

R404A/R507 - Hermetic reciprocating

Bcase		1E087A	1E090A	1E091A	1E093A	1E095A	1E097A	1E099A	2E001A	2E003A	
Cooling capacity [1]	kW	2,63	3,89	4,68	5,82	6,74	7,87	8,39	11,8	13,63	
Unit power consumption	kW	1,11	1,66	2,1	2,45	3,03	3,8	4,15	5,06	6,08	
COP		2,37	2,34	2,23	2,38	2,22	2,07	2,02	2,33	2,24	
Compressors	Quantity	no									
	Type	1									
	Refrigerant	Reciprocating									
Condenser	Type	R404A/R507									
	Surface area	Aluminum fin copper tube							46,2		92,4
	Fan type	AC axial fans									
	Fan	no							1		2
	Air flow	m3/h							4950		9900
Connections	Liquid line	mm			12		16			28	
	Suction line	mm			16		22			28	
Electrical characteristics	Power supply	V/Ph/Hz									
	Max. operating current	380-420/3~/50									
	Starting current	A	3,7	5	5,3	6	7,5	9,1	9,5	12,2	14,5
Sound pressure [2]	STD	dB(A)									
		41,5	41,2	42,2	42,2	42,5	42,5	43,5	45,5	46,9	
Dimensions	Picture	no								1	2
	Length	mm									
	Width	1330									
	Height	mm							650		740
Unit weight [3]	kg	143	145	145	168	168	170	182	259	261	

[1] Calculations made due to -10 °C evaporating and +32 °C ambient temperatures.

[2] Sound pressure level measured at 10 m from the unit according to ISO 3744.

[3] Basic equipment unit weight.

[4] No starting current peaks at compressor start due to the frequency inverter.

[5] Technical data of compressors with frequency inverters indicated at 50 Hz.

LOW TEMPERATURE BCASE UNIT TECHNICAL DATA

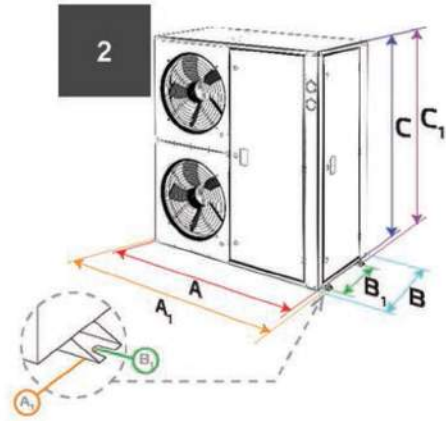
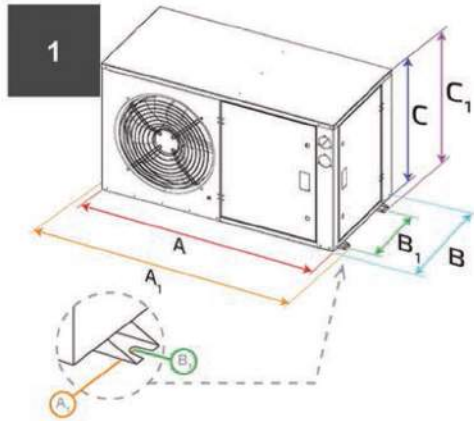
2E005A	2E023A	2E025A	2E027A	2E408A[5]	2E409A[5]	2E411A[5]	2E413A[5]	2E111A	2E112A	2E113A	2E114A	2E115A			
4,87	5,88	6,39	7,65	5,78	5,83	6,88	8,32	1,92	2,57	3,18	3,67	4,71			
3,83	4,42	4,77	6,04	3,7	4,72	5,66	7	1,8	2,36	2,86	3,34	4,14			
1,27	1,33	1,34	1,27	1,56	1,24	1,22	1,19	1,07	1,09	1,11	1,10	1,14			
1															
Reciprocating															
R404A/R407															
Aluminum fin copper tube															
92,4															
AC axial fans															
2															
9900															
16			18			16			18			16			18
28	35			28	35			42	22	28		35			
380-420/3~/50															
17,7	19,9	22,7	26,6	31,2	20	24	29	15	20	22	28	34			
82,4	81	99	113	132	75	107	107	NA [4]	NA [4]	NA [4]	NA [4]	NA [4]			
48,6	51,0	52,3	55,1	47,8	45,5	46,9	49,5	44,4	44,8	46,2	47,0	48,6			
2															
1330															
650															
1450															
266	309	314	316	271	323	325	327	263	280	280	281	281			

MEDIUM TEMPERATURE BCASE UNIT TECHNICAL DATA

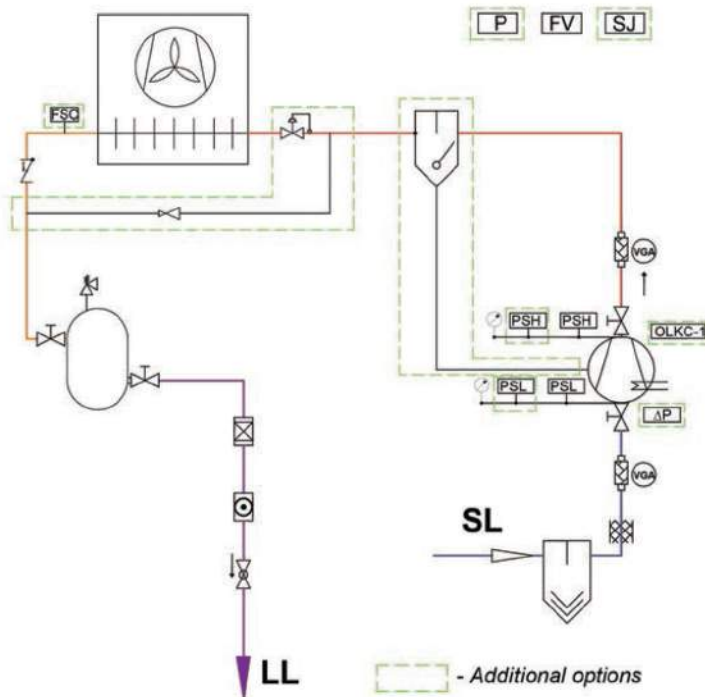
2E005A	2E023A	2E025A	2E027A	2E408A[5]	2E409A[5]	2E411A[5]	2E413A[5]	2E111A	2E112A	2E113A	2E114A	2E115A			
15,76	18,65	20,34	22,47	18,2	18,08	20,31	23,12	6,85	8,94	10,91	12,48	14,49			
7,4	9,37	11,83	12,97	7,47	9,8	11,73	14,46	3,26	4,42	5,6	6,64	8,25			
2,13	1,99	1,72	1,73	2,44	1,84	1,73	1,60	2,10	2,02	1,95	1,88	1,76			
1															
Reciprocating															
R404A/R407															
Aluminum fin copper tube															
92,4															
AC axial fans															
2															
9900															
16			18			16			18			16			18
28	35			28	35			42	22	28		35			
380-420/3~/50															
17,7	19,9	22,7	26,6	31,2	20	24	29	15	20	22	28	34			
82,4	81	99	113	132	75	107	107	NA [4]	NA [4]	NA [4]	NA [4]	NA [4]			
47,0	47,0	48,6	50,4	47,8	45,5	46,9	49,5	43,0	43,5	45,5	46,9	46,2			
2															
1330															
650															
1450															
266	309	314	316	271	323	325	327	263	280	280	281	281			

DIMENSIONS AND CLEARANCES

Picture	A (mm)	B (mm)	C (mm)	A1 (mm)	B1 (mm)	C1 (mm)
1	1260	600	720	1280	400	740
2	1260	600	1430	1280	400	281



HYDRAULIC DIAGRAM OF REFRIGERATION UNIT (PACK)



- Air-cooled condenser
- Compressor
- Filter-drier
- Suction line filter
- Ball valve
- Sight glass
- Check valve
- Shut off valve
- Liquid receiver
- Oil separator
- Pilot valve or KVR
- Differential valve
- Liquid separator
- Delta P
- Electronic oil level control
- Fan speed controller
- Pressure gauge
- Pressure relief valve
- Pressure limiter for high pressure protection
- Pressure limiter for low pressure protection
- CL - Condensing line
- DL - Discharge line
- LL - Liquid line
- SL - Suction line

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