

Refra[®]

Refrigeration & Air Conditioning



Bcase

Condensing unit for Air Handling Unit

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Bcase

Condensing unit for Air Handling Unit

Cooling capacity range
from 6 kW to 57 kW



UNIT DESCRIPTION

Condensing units are designed to satisfy the needs of medium-sized commercial or industrial air conditioning systems. Our units are equipped with high efficiency scroll compressors and work on R410A refrigerant which does not contribute to ozone depletion. The latest Scroll® compressors provide the highest annual energy efficiency levels, due to ESEER up to 4, along with superior reliability. When combined with EC high efficiency fans and oversized condenser coil the unit delivers the lowest annual electricity bills.

Bcase line condensing units are designed for operating in +46°C — +5°C ambient temperature range with basic unit equipment. Also we provide a variety of options which can improve an air conditioning system work.

BASIC UNIT EQUIPMENT:

- > Polymer powder coated sheet steel casing with condenser protection grid
- > Plastic locks and hinges
- > Scroll compressor with crankcase heater
- > Copper aluminium fin condenser
- > High efficiency AC axial fans
- > Cartridge pressostats on HP/LP lines
- > Pressure gauges on HP/LP lines
- > Electric panel includes:
 - phase rotation and phase loss monitoring relay, compressor and fan motor overheat protection, contactor and main switch

FUNCTIONS AND FEATURES



Cooling



Scroll



R-410A



Air cooled



ADDITIONAL OPTIONS

- BS — Suction line shut-off valve with service valve.
- EC — Fans with permanent magnet motor, reduces energy consumption and noise level.
- R — Liquid receiver with shut-off valve on outlet and pressure relief valve
- FDB — Filter drier, sight glass and shut-off valve on liquid line
- CHC — Check valve on condensing line stops unwanted migration of refrigerant from liquid receiver to condenser.
- FSC — Fan speed control provides operation down to -10°C.

Example code

Bcase 1 A 928 D

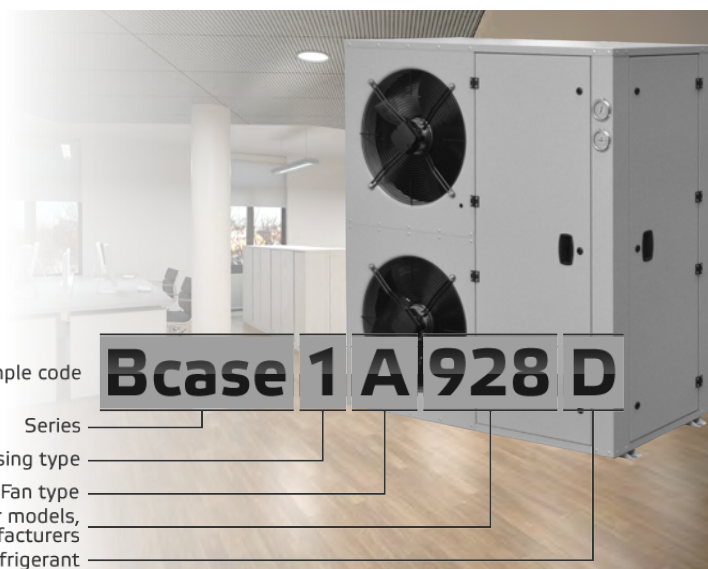
Series

Housing type

Fan type

Compressor models,
Manufacturers

Refrigerant



Technical data													
Bcase		1E920D	1E921D	1E923D	1E924D	1E925D	1E926D	2E926D	2E927D	2E928D	2E931D	2E932D	
Cooling capacity [1]	kW	6,00	7,23	8,92	9,96	12,40	13,55	15,10	17,30	19,65	23,90	27,20	
Unit power consumption	kW	1,68	2,04	2,58	2,94	3,83	4,57	4,18	4,93	5,71	7,24	8,69	
EER		3,59	3,55	3,46	3,39	3,24	2,97	3,61	3,51	3,44	3,30	3,13	
ESEER		4,65	4,52	4,36	4,31	4,19	3,88	4,42	4,33	4,25	4,08	3,95	
Compressors	Quantity	n° 1											
	Type	scroll											
	Refrigerant	R410A											
Condenser	Type	aluminum fin copper tube											
	Surface area	m² 46,2					92,4						
	Fan type	AC axial fans											
	Fan	n° 1					2						
	Air flow	m³/s 4950					9900						
Connections	Liquid line	Ø mm 12	15					18					
	Suction line	Ø mm 18	22					35					
Electrical	Power supply	V/Ph/Hz	380-420/3~/50										
	Max. operating current	A	5,9	7,2	8,2	9,2	11,5	13,0	14,2	17,4	23,4	24,4	
	Starting current	A	30,3	40,3	48,3	45,3	53,8	66,3	68,6	79,6	105,6	115,6	122,6
Sound pressure [2]	STD	dB(A) 39	40				42	43	45	43	44		
Dimensions	Picture	n°	1					2					
	Length	mm	1330										
	Width		650										
	Height		740					1450					

Note:

- [1] Calculations made due to +6 °C evaporating and +35 °C ambient temperatures.
- [2] Sound pressure level measured at 10 m from the unit according to ISO 3744.
- [3] Basic equipment unit weight.

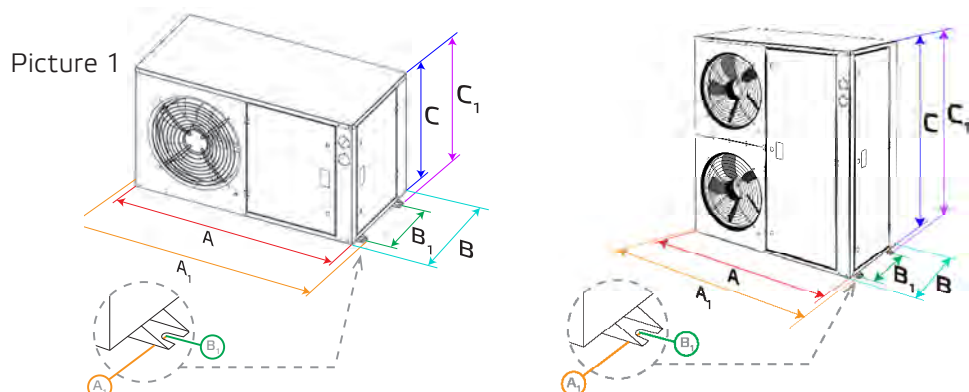
DIMENSIONS AND CLEARANCES

Picture n°	A (mm)	B (mm)	C (mm)	A1 (mm)	B1 (mm)	C1 (mm)
Picture 1	1260	600	720	1280	400	740
Picture 2	1260	600	1430	1280	400	1450

Note:

Dimension A1 marks distance between installation holes in A side.

Dimension B1 marks distance between installation holes in B side.



Technical data										
Bcase		3E932D	3E933D	3E934D	3E935D	4E935D	4D935D	4E936D	4D936D	
Cooling capacity [1]		kW	29,40	32,00	35,40	40,70	42,90	45,30	53,30	57,50
Unit power consumption		kW	8,03	9,15	10,79	12,89	12,28	12,96	16,58	16,56
EER			3,66	3,50	3,28	3,16	3,49	3,49	3,21	3,47
ESEER			4,51	4,32	4,01	3,85	4,21	4,30	3,92	4,17
Compressors	Quantity	n°	1							
	Type		scroll							
	Refrigerant		R410A							
Condenser	Type		aluminum fin copper tube							
	Surface area	m ²	138,6				184,8			
	Fan type		AC axial fans							
	Fan	n°	3				4			
	Air flow	m ³ /s	14850				19800	30200	19800	30200
Connections	Liquid line	Ø mm	18		22			28		
	Suction line	Ø mm	35						42	
Electrical characteristics	Power supply	V/Ph/Hz	380-420/3~/50							
	Max. operating current	A	25,5	28,5	34,5	37,5	38,7	39,6	44,7	45,6
	Starting current	A	124,9		146,9	180,9	183,2	192,4	234,2	243,4
Sound pressure [2]	STD	dB(A)	45		46	47	48	56	51	58
Dimensions	Picture	n°	3				4			
	Length		1330				1970			
	Width	mm	650							
	Height		2160				1450			
Unit weight [3]		kg	310	312	315	315	363	365	435	438

Note:

- [1] Calculations made due to +6 °C evaporating and +35 °C ambient temperatures.
- [2] Sound pressure level measured at 10 m from the unit according to ISO 3744.
- [3] Basic equipment unit weight.

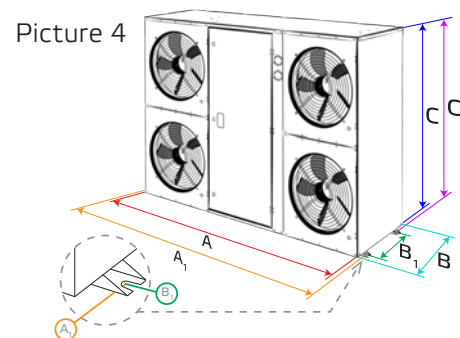
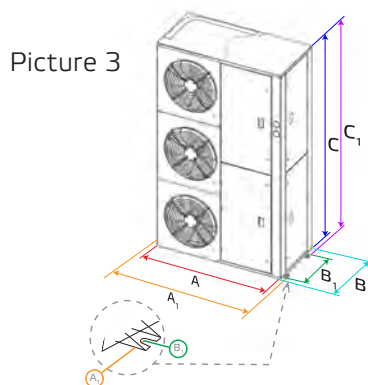
DIMENSIONS AND CLEARANCES

Picture n°	A (mm)	B (mm)	C (mm)	A1 (mm)	B1 (mm)	C1 (mm)
Picture 3	1260	600	2140	1280	400	2160
Picture 4	1910	600	1430	1930	400	1450

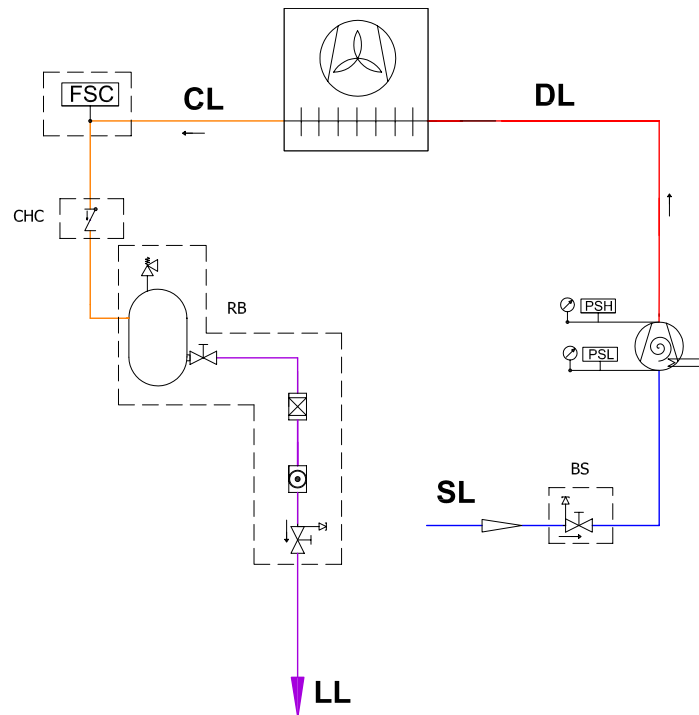
Note:

Dimension A1 marks distance between installation holes in A side.

Dimension B1 marks distance between installation holes in B side.



HYDRAULIC DIAGRAM OF THE UNIT



- | | | | |
|--|----------------------------------|-----------|---|
| | - Air-cooled condenser | | - Safety valve |
| | - Scroll compressor | | - Pressure limiter for high pressure protection |
| | - Filter - drier | | - Pressure limiter for low pressure protection |
| | - Ball valve with access fitting | CL | - Condensing line |
| | - Sight glass | DL | - Discharge line |
| | - Check valve | LL | - Liquid line |
| | - Shut off valve | SL | - Suction line |
| | - Crankcase heater | | - An additional option marking |
| | - HP/LP gauge | | |