

B43CB Technical Data Sheet

Compressor model **B43CB**
 Voltage **220-240V 50/60Hz ~1**
 Refrigerant **R600a**

APPLICATION

Application Low Back Pressure
 Refrigerant R600a
 Evaporating Temp. -35,0 °C to -15,0 °C
 Expansion Capillar
 Comp. Cooling Static
 Max. ambient temp. 43,0 °C

COMPRESSOR

Displacement 3,80 cm³
 Diameter 19,00 mm
 Stroke 13,40 mm
 Net Weight 4,60 Kg
 Oil type ISO VG 10 MINER
 Oil charge 120 cm³

MOTOR

Nominal Power 1/20 hp
 Voltage/Frequency 220-240V 50Hz
 Voltage range 187-255 V
 Type RSIR
 Phase number 1 PH
 Locked Rotor Amps (LRA) 2,23 A
 Max. Cont. Current (MCC) 0,55 A
 Main W. resist. at 25°C 53,30 Q
 Start W. resist. at 25°C 21,62 Q

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	50 kCal/h	44 W
COP	1,10 W/W	0,87 W/W
EER	0,95 kCal/Wh	0,75 kCal/Wh
Input Power	53 W	50 W
Current	0,42 A	0,41 A

TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T _e)	-23,3 °C	-25,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	32,0 °C	55,0 °C
Ambient temp. (T _{amb.})	32,0 °C	32,0 °C
Suction temp. (T _{suction})	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

	Option 1	Option 2		
Relay				
Reference	JPQII-15 A (003)	QP2-15 A (003)		
Voltage	V	V		
Resistance	Q	Q		
Protector			Option 3	
Reference	BT20-120 (210)	BT20-120A61D3 (210)	DRB10N61A1 (210)	
Current				
Time check				
Disc temp. (Open/Close)				

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ASHRAE

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	kCal/h	W	A	W/W	kCal/Wh
40	-35	32	39	0,36	0,97	0,83
40	-30	41	44	0,38	1,09	0,94
40	-25	53	50	0,40	1,25	1,07
40	-23,3	58	52	0,41	1,31	1,12
40	-20	68	56	0,44	1,42	1,22
40	-15	86	62	0,47	1,60	1,38
40	-10	106	69	0,51	1,79	1,54

45	-35	30	38	0,35	0,92	0,79
45	-30	39	44	0,38	1,04	0,89
45	-25	51	50	0,41	1,18	1,02
45	-23,3	55	52	0,42	1,24	1,06
45	-20	65	56	0,44	1,35	1,16
45	-15	83	63	0,48	1,52	1,31
45	-10	103	70	0,52	1,70	1,46

50	-35	28	38	0,35	0,87	0,75
50	-30	37	44	0,38	0,98	0,84
50	-25	48	50	0,41	1,12	0,96
50	-23,3	53	52	0,42	1,17	1,01
50	-20	62	57	0,44	1,27	1,10
50	-15	79	64	0,48	1,44	1,24
50	-10	99	72	0,53	1,61	1,38

55	-35	26	37	0,35	0,82	0,70
55	-30	34	43	0,38	0,92	0,79
55	-25	46	50	0,41	1,05	0,91
55	-23,3	50	53	0,42	1,10	0,95
55	-20	60	58	0,45	1,20	1,04
55	-15	76	65	0,49	1,36	1,17
55	-10	96	73	0,54	1,53	1,31

60	-35	24	37	0,35	0,76	0,66
60	-30	32	43	0,38	0,86	0,74
60	-25	43	51	0,41	0,99	0,85
60	-23,3	47	53	0,42	1,04	0,89
60	-20	57	58	0,45	1,13	0,98
60	-15	73	66	0,50	1,29	1,11
60	-10	93	75	0,55	1,44	1,24

CECOMAF

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	W	W	A	W/W	kCal/Wh
40	-35	35	39	0,36	0,91	0,79
40	-30	46	44	0,38	1,05	0,90
40	-25	59	50	0,40	1,20	1,03
40	-23,3	64	52	0,41	1,25	1,08
40	-20	75	56	0,44	1,36	1,17
40	-15	94	62	0,47	1,52	1,31
40	-10	116	69	0,51	1,68	1,45

45	-35	32	38	0,35	0,83	0,72
45	-30	42	44	0,38	0,95	0,82
45	-25	54	50	0,41	1,09	0,94
45	-23,3	59	52	0,42	1,14	0,98
45	-20	69	56	0,44	1,23	1,06
45	-15	87	63	0,48	1,38	1,19
45	-10	108	70	0,52	1,53	1,32

50	-35	28	38	0,35	0,75	0,65
50	-30	37	44	0,38	0,85	0,74
50	-25	49	50	0,41	0,98	0,84
50	-23,3	53	52	0,42	1,02	0,88
50	-20	63	57	0,44	1,11	0,96
50	-15	80	64	0,48	1,25	1,08
50	-10	100	72	0,53	1,39	1,20

55	-35	25	37	0,35	0,67	0,58
55	-30	33	43	0,38	0,76	0,66
55	-25	44	50	0,41	0,87	0,75
55	-23,3	48	53	0,42	0,91	0,79
55	-20	57	58	0,45	0,99	0,86
55	-15	73	65	0,49	1,12	0,97
55	-10	92	73	0,54	1,26	1,08

60	-35	22	37	0,35	0,59	0,51
60	-30	29	43	0,38	0,66	0,57
60	-25	38	51	0,41	0,76	0,66
60	-23,3	42	53	0,42	0,80	0,69
60	-20	51	58	0,45	0,88	0,76
60	-15	66	66	0,50	1,00	0,86
60	-10	84	75	0,55	1,12	0,97

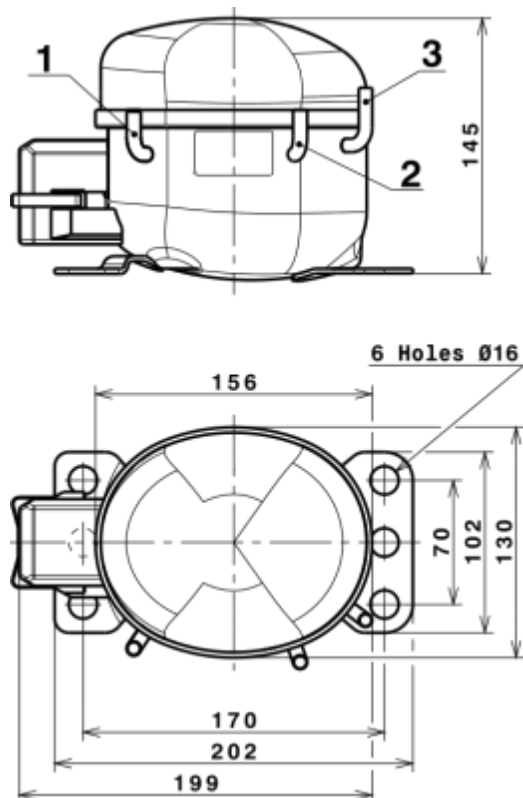
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	243,0537309949	68,2811582471	0,5204441770	2,4507849405923
2	7,0243554787	1,0010303908	0,0086191056	0,078596041722811
3	-2,0007166781	0,4416581379	0,0028096550	-0,010164783505997
4	0,0520512285	0,0082873424	0,0001278115	0,00075382952261913
5	-0,0380065906	0,0155362553	0,0000918663	-0,00014200223219458

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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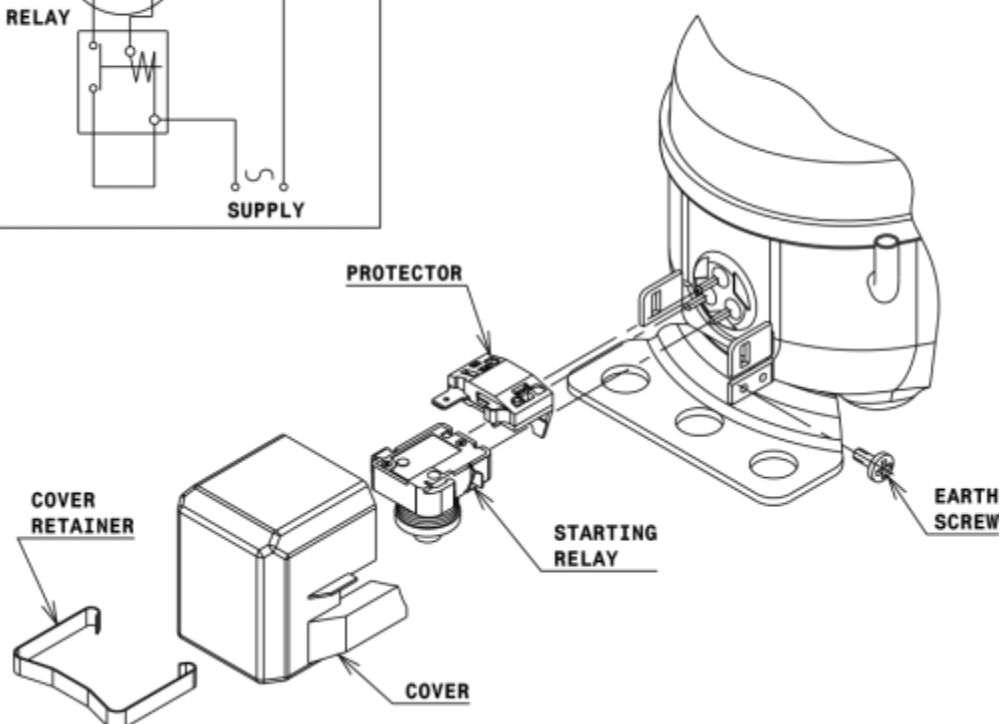
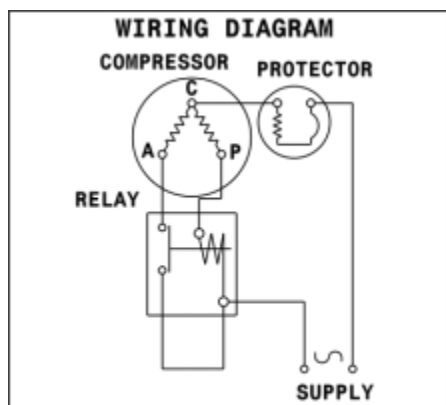
COMPRESSOR DIMENSIONS



	DESIGNATION	INTERNAL DIAM.
1	Suction	6,1 mm
2	Service	6,1 mm
3	Discharge	5,1 mm

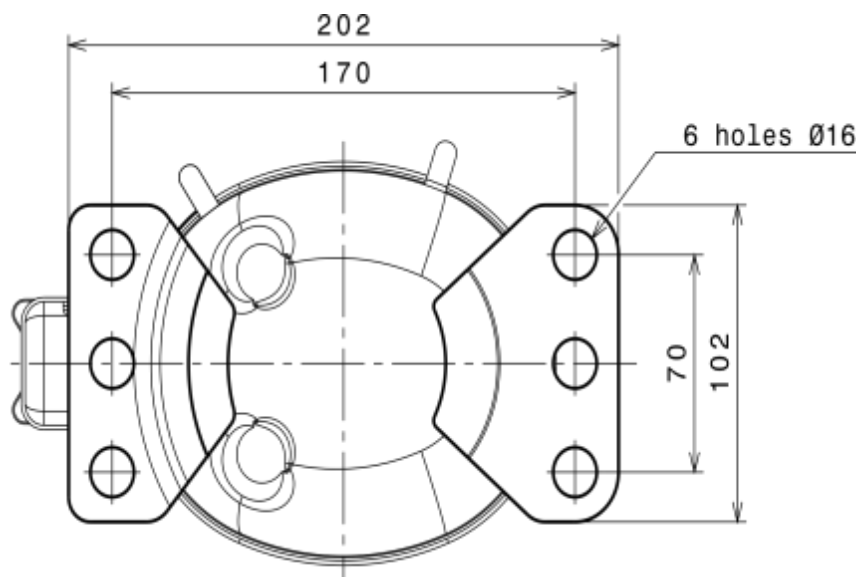
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

RSIR CONNECTION (RELAY) (B, Small L ranges)



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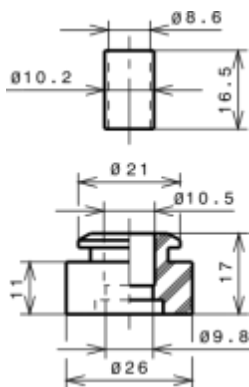
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø16 holes (170x70 net)



SOA

SOA R600a LBP

