

# B43CB Technical Data Sheet

Compressor model **B43CB**  
 Voltage **220-240V 50Hz ~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 4,30 cm<sup>3</sup>  
 Diameter 19,00 mm  
 Stroke 15,20 mm  
 Net Weight 4,60 Kg  
 Oil type ISO VG 10 MINER  
 Oil charge 120 cm<sup>3</sup>

## MOTOR

Nominal Power 1/12 hp  
 Voltage/Frequency 220-240V 50Hz  
 Voltage range 187-255 V  
 Type RSCR  
 Phase number 1 PH  
 Locked Rotor Amps (LRA) 1,50 A  
 Max. Cont. Current (MCC) 0,50 A  
 Main W. resist. at 25°C 77,00 Q  
 Start W. resist. at 25°C 26,30 Q

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	59 kCal/h	51 W
COP	1,29 W/W	1,02 W/W
EER	1,11 kCal/Wh	0,88 kCal/Wh
Input Power	53 W	51 W
Current	0,24 A	0,23 A

## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Run capacitor	3 pF 450 V			
Relay	Option 1	Option 2		
Reference	JPQII-15 A (016)	QP2-15 A (016)		
Voltage	V	V		
Resistance	Q	Q		
Protector	Option 1	Option 2	Option 3	
Reference	BT20-120 (086)	BT20-120A61 (086)	DRB10N61A1 (086)	
Current				
Time check				
Disc temp. (Open/Close)				

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## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	37	39	0,20	1,10	0,95
40	-30	48	44	0,21	1,28	1,10
40	-25	63	49	0,23	1,48	1,27
40	-23,3	68	51	0,23	1,55	1,33
40	-20	80	55	0,25	1,69	1,45
40	-15	101	62	0,27	1,90	1,64
40	-10	125	69	0,29	2,11	1,81

45	-35	35	39	0,20	1,04	0,90
45	-30	46	44	0,21	1,21	1,04
45	-25	60	50	0,23	1,40	1,20
45	-23,3	65	52	0,24	1,46	1,26
45	-20	77	56	0,25	1,60	1,37
45	-15	97	63	0,27	1,80	1,54
45	-10	121	71	0,30	1,99	1,71

50	-35	32	38	0,20	0,98	0,84
50	-30	43	44	0,21	1,14	0,98
50	-25	57	50	0,23	1,32	1,13
50	-23,3	62	52	0,24	1,38	1,19
50	-20	74	57	0,25	1,50	1,29
50	-15	94	64	0,28	1,69	1,46
50	-10	117	72	0,30	1,88	1,62

55	-35	30	38	0,20	0,92	0,79
55	-30	40	44	0,22	1,06	0,92
55	-25	54	51	0,23	1,23	1,06
55	-23,3	59	53	0,24	1,29	1,11
55	-20	70	58	0,25	1,41	1,22
55	-15	90	66	0,28	1,60	1,37
55	-10	113	74	0,31	1,78	1,53

60	-35	28	38	0,20	0,85	0,73
60	-30	38	44	0,22	0,99	0,85
60	-25	51	51	0,23	1,15	0,99
60	-23,3	56	54	0,24	1,21	1,04
60	-20	67	59	0,26	1,33	1,14
60	-15	86	67	0,28	1,50	1,29
60	-10	109	76	0,32	1,68	1,44

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	40	39	0,20	1,04	0,90
40	-30	54	44	0,21	1,22	1,06
40	-25	70	49	0,23	1,42	1,23
40	-23,3	76	51	0,23	1,49	1,28
40	-20	89	55	0,25	1,61	1,39
40	-15	111	62	0,27	1,80	1,56
40	-10	137	69	0,29	1,98	1,71

45	-35	37	39	0,20	0,95	0,82
45	-30	49	44	0,21	1,11	0,96
45	-25	64	50	0,23	1,28	1,11
45	-23,3	70	52	0,24	1,34	1,16
45	-20	82	56	0,25	1,46	1,26
45	-15	103	63	0,27	1,63	1,41
45	-10	127	71	0,30	1,80	1,55

50	-35	33	38	0,20	0,85	0,74
50	-30	44	44	0,21	0,99	0,86
50	-25	58	50	0,23	1,15	0,99
50	-23,3	63	52	0,24	1,20	1,04
50	-20	75	57	0,25	1,31	1,13
50	-15	95	64	0,28	1,47	1,27
50	-10	118	72	0,30	1,63	1,41

55	-35	29	38	0,20	0,76	0,65
55	-30	39	44	0,22	0,88	0,76
55	-25	51	51	0,23	1,02	0,88
55	-23,3	57	53	0,24	1,07	0,92
55	-20	67	58	0,25	1,16	1,01
55	-15	86	66	0,28	1,31	1,14
55	-10	108	74	0,31	1,46	1,26

60	-35	25	38	0,20	0,66	0,57
60	-30	34	44	0,22	0,76	0,66
60	-25	45	51	0,23	0,89	0,77
60	-23,3	50	54	0,24	0,93	0,81
60	-20	60	59	0,26	1,02	0,88
60	-15	78	67	0,28	1,16	1,01
60	-10	99	76	0,32	1,30	1,13

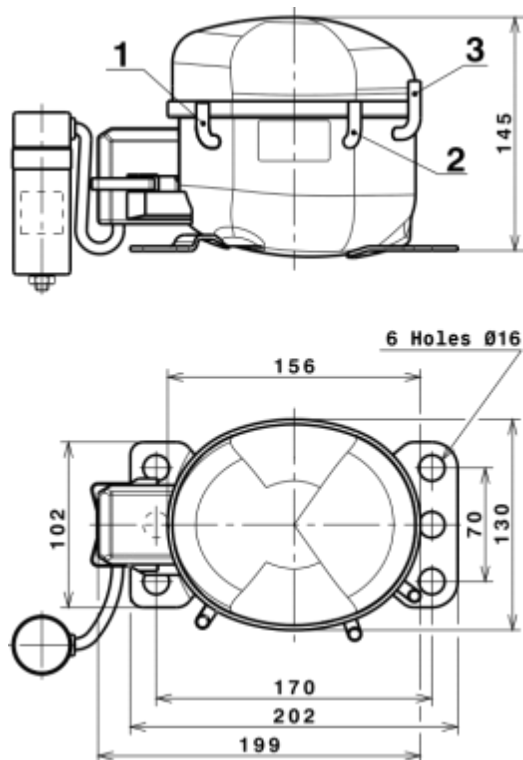
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	286,8233852994	66,9612545030	0,2885714813	2,8908743099805
2	8,2235979631	1,1269856002	0,0049216498	0,091631118838621
3	-2,3818931349	0,5043888541	0,0018266946	-0,012267002945585
4	0,0584870410	0,0122689039	0,0000773392	0,00084828137249628
5	-0,0457938156	0,0163560777	0,0000569321	-0,00017732895247242

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

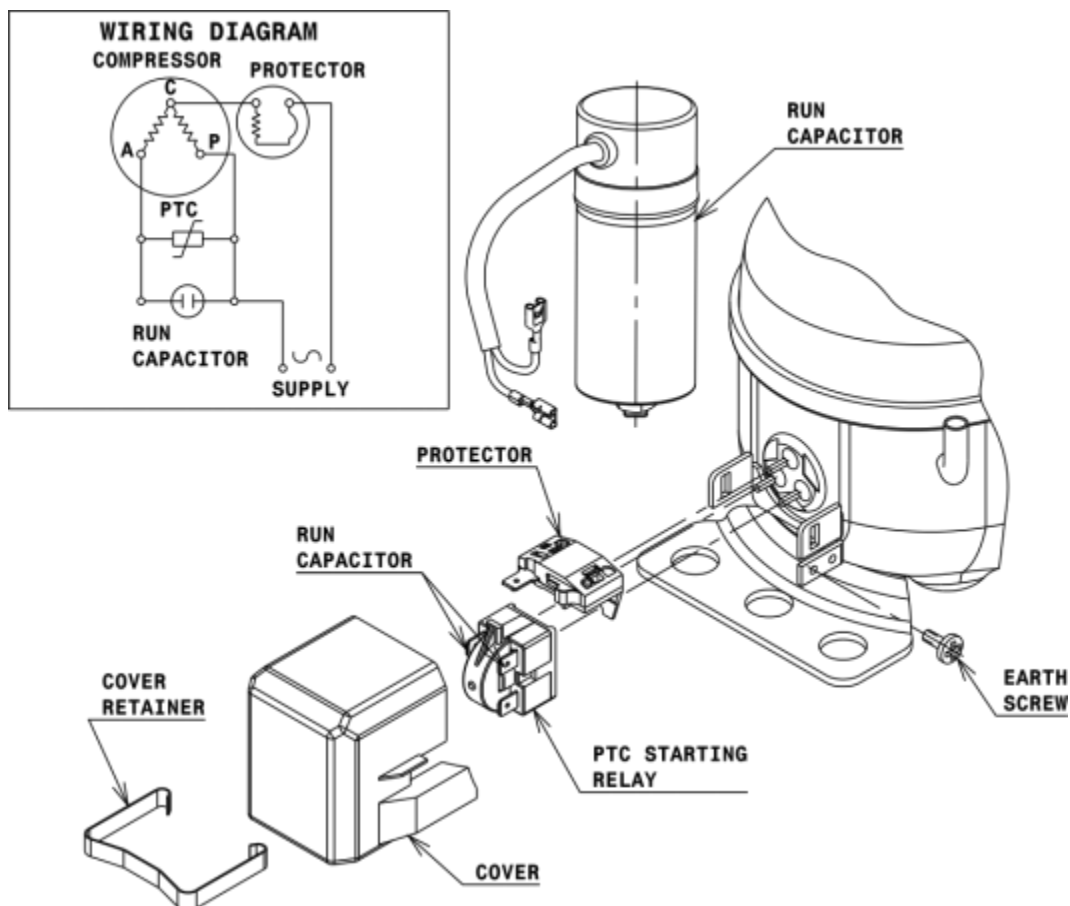


## DESIGNATION INTERNAL DIAM.

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

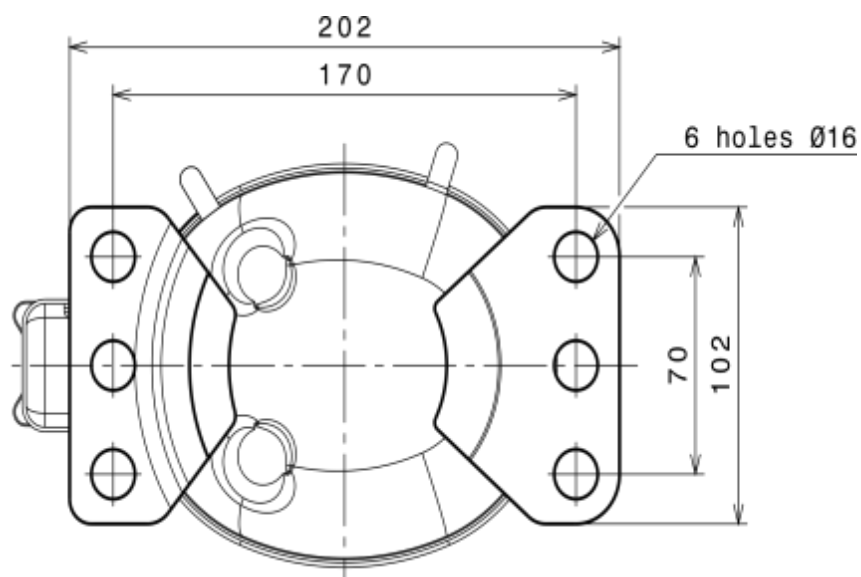
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### RSCR CONNECTION (B, Small L ranges)



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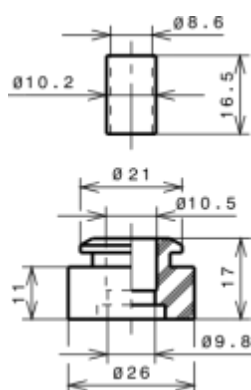
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

Ø16 holes (170x70 net)



## SOA

SOA R600a LBP

