

# B43U Technical Data Sheet

Compressor model **B43U**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R290**

## APPLICATION

Application Low-Medium Back Pressure  
 Refrigerant R290  
 Evaporating Temp. -40,0 °C to 0,0 °C  
 Expansion Capillar/Valve  
 Comp. Cooling Static  
 Max. ambient temp. 43,0 °C

## COMPRESSOR

Displacement 4,10 cm<sup>3</sup>  
 Diameter 19,00 mm  
 Stroke 14,40 mm  
 Net Weight 6,20 Kg  
 Oil type POE 22  
 Oil charge 120 cm<sup>3</sup>

## MOTOR

Nominal Power 1/7 hp  
 Voltage/Frequency 220-240V 50Hz  
 Voltage range 187-255 V  
 Type CSIR  
 Phase number 1 PH  
 Locked Rotor Amps (LRA) 7,30 A  
 Max. Cont. Current (MCC) 1,40 A  
 Main W. resist. at 25°C 12,70 Q  
 Start W. resist. at 25°C 27,20 Q

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	159 kCal/h	136 W
COP	1,29 W/W	0,99 W/W
EER	1,11 kCal/Wh	0,86 kCal/Wh
Input Power	143 W	138 W
Current	1,01 A	0,99 A

## TEST CYCLE CONDITIONS

	ASHRAE LMBP (B)	CECOMAF LMBP (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

Starting capacitor	50 pF 330 V			
Relay	Option 1			
Reference	QL2-3.3 B3 (012)			
Pick-Up	3.3 A			
Drop-Out	2.6 A			
Protector	Option 1			
Reference	DRB19P61A1 (068)			
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	-40	69	92	0,89	0,87	0,75
40	-35	97	104	0,91	1,08	0,93
40	-30	130	115	0,94	1,31	1,13
40	-25	169	126	0,96	1,56	1,34
40	-23,3	184	130	0,97	1,65	1,42
40	-20	214	136	0,99	1,83	1,57
40	-15	265	146	1,02	2,11	1,82
40	-10	321	154	1,05	2,42	2,08
40	-5	383	163	1,07	2,74	2,36
40	0	451	170	1,10	3,08	2,65

45	-40	63	91	0,88	0,81	0,69
45	-35	90	105	0,91	1,00	0,86
45	-30	123	118	0,94	1,21	1,04
45	-25	161	130	0,97	1,44	1,24
45	-23,3	176	134	0,98	1,52	1,31
45	-20	205	142	1,01	1,68	1,45
45	-15	255	153	1,04	1,94	1,67
45	-10	311	163	1,07	2,21	1,90
45	-5	372	173	1,11	2,50	2,15
45	0	439	182	1,14	2,81	2,41

50	-40	57	90	0,88	0,74	0,63
50	-35	83	105	0,91	0,92	0,79
50	-30	115	120	0,95	1,12	0,96
50	-25	153	134	0,98	1,33	1,14
50	-23,3	167	139	1,00	1,40	1,21
50	-20	197	147	1,02	1,55	1,33
50	-15	246	160	1,06	1,79	1,54
50	-10	301	172	1,11	2,03	1,75
50	-5	361	183	1,15	2,29	1,97
50	0	428	194	1,19	2,56	2,20

55	-40	51	89	0,88	0,67	0,57
55	-35	77	106	0,91	0,84	0,72
55	-30	108	122	0,95	1,03	0,88
55	-25	145	138	0,99	1,22	1,05
55	-23,3	159	143	1,01	1,29	1,11
55	-20	188	153	1,04	1,43	1,23
55	-15	236	167	1,09	1,65	1,41
55	-10	291	181	1,14	1,87	1,61
55	-5	350	194	1,19	2,10	1,81
55	0	416	206	1,24	2,35	2,02

60	-40	45	88	0,88	0,59	0,51
60	-35	70	107	0,92	0,76	0,66
60	-30	101	124	0,96	0,94	0,81
60	-25	137	142	1,01	1,12	0,97
60	-23,3	151	147	1,02	1,19	1,02
60	-20	179	158	1,06	1,32	1,13
60	-15	227	174	1,11	1,51	1,30
60	-10	280	189	1,17	1,72	1,48
60	-5	340	204	1,23	1,94	1,66
60	0	405	218	1,29	2,16	1,86

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	74	92	0,89	0,81	0,70
40	-35	108	104	0,91	1,04	0,89
40	-30	146	115	0,94	1,27	1,10
40	-25	190	126	0,96	1,51	1,30
40	-23,3	206	130	0,97	1,59	1,37
40	-20	239	136	0,99	1,76	1,52
40	-15	294	146	1,02	2,02	1,74
40	-10	353	154	1,05	2,29	1,98
40	-5	418	163	1,07	2,57	2,22
40	0	489	170	1,10	2,87	2,48

45	-40	66	91	0,88	0,72	0,62
45	-35	96	105	0,91	0,92	0,79
45	-30	131	118	0,94	1,12	0,97
45	-25	172	130	0,97	1,32	1,14
45	-23,3	187	134	0,98	1,40	1,21
45	-20	218	142	1,01	1,54	1,33
45	-15	270	153	1,04	1,77	1,53
45	-10	326	163	1,07	2,00	1,73
45	-5	388	173	1,11	2,25	1,94
45	0	455	182	1,14	2,50	2,16

50	-40	57	90	0,88	0,63	0,55
50	-35	84	105	0,91	0,80	0,69
50	-30	117	120	0,95	0,97	0,84
50	-25	154	134	0,98	1,15	1,00
50	-23,3	168	139	1,00	1,22	1,05
50	-20	197	147	1,02	1,34	1,16
50	-15	246	160	1,06	1,54	1,33
50	-10	299	172	1,11	1,74	1,50
50	-5	358	183	1,15	1,95	1,69
50	0	422	194	1,19	2,18	1,88

55	-40	48	89	0,88	0,54	0,47
55	-35	72	106	0,91	0,68	0,59
55	-30	102	122	0,95	0,83	0,72
55	-25	136	138	0,99	0,99	0,86
55	-23,3	149	143	1,01	1,05	0,90
55	-20	176	153	1,04	1,15	1,00
55	-15	222	167	1,09	1,33	1,15
55	-10	272	181	1,14	1,51	1,30
55	-5	328	194	1,19	1,69	1,46
55	0	389	206	1,24	1,89	1,63

60	-40	39	88	0,88	0,45	0,39
60	-35	60	107	0,92	0,57	0,49
60	-30	87	124	0,96	0,70	0,60
60	-25	119	142	1,01	0,84	0,72
60	-23,3	131	147	1,02	0,89	0,76
60	-20	156	158	1,06	0,98	0,85
60	-15	198	174	1,11	1,13	0,98
60	-10	245	189	1,17	1,29	1,12
60	-5	298	204	1,23	1,46	1,26
60	0	356	218	1,29	1,63	1,41

# B43U Technical Data Sheet



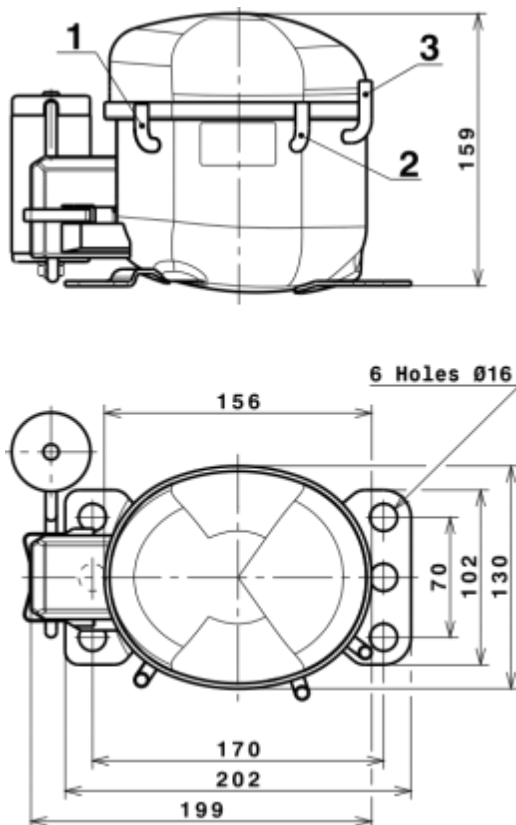
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	753,3248413132	75,9825443114	0,6982044567	6,8988538520234
2	19,3773141055	-1,1692722210	-0,0028463743	0,19915458540594
3	-6,8165189455	2,4642987344	0,0102902349	-0,029319176726107
4	0,1028387899	-0,0128664813	0,0000580170	0,0015605122447223
5	-0,1267038668	0,0667158215	0,0002669426	-0,00036630927159121

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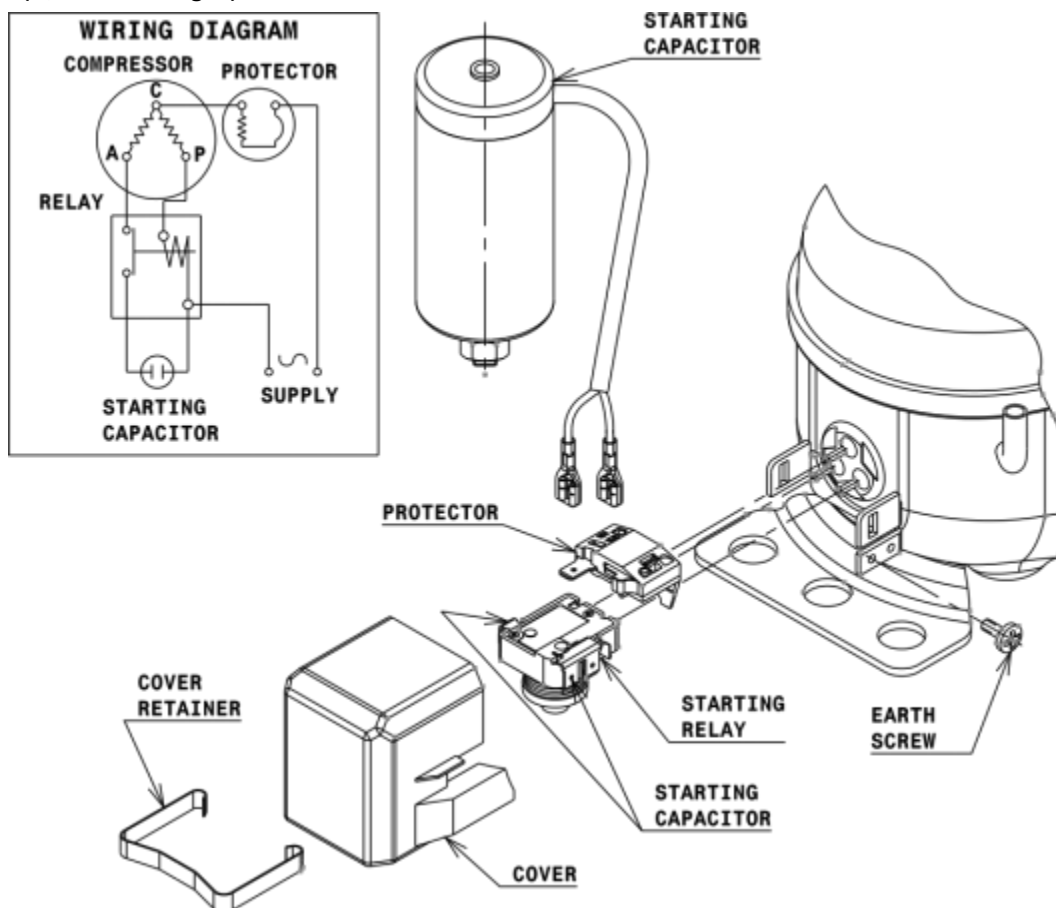
## COMPRESSOR DIMENSIONS



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

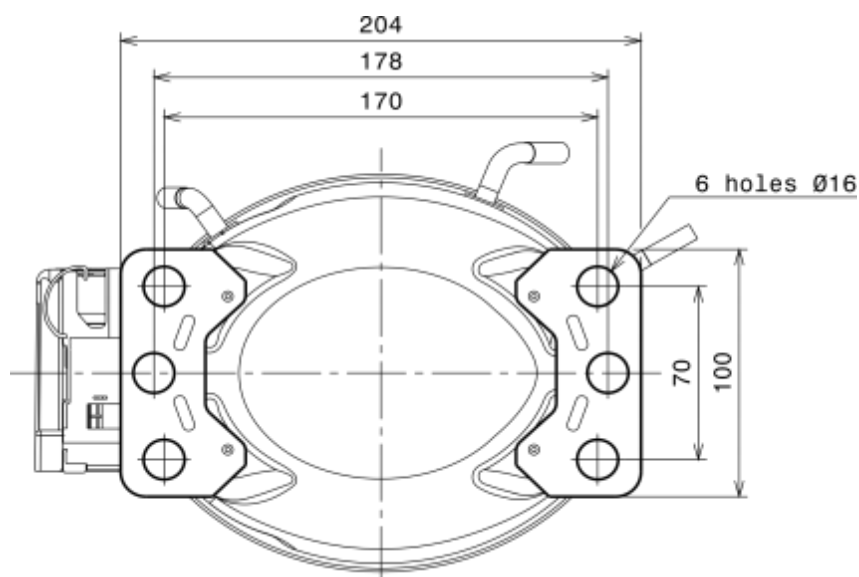
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



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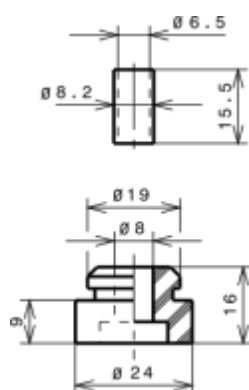
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

Ø16 holes (170x70 net)



### SOA

SOA R290 LMBP

