

B30U Technical Data Sheet

Compressor model **B30U**
 Voltage **220-240V 50/60Hz ~1**
 Refrigerant **R290**

APPLICATION

COMPRESSOR

MOTOR

Application	Low-Medium Back Pressure	Displacement	3,10 cm ³	Nominal Power	1/7 hp
Refrigerant	R290	Diameter	17,20 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-40,0 °C to 0,0 °C	Stroke	13,40 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	6,42 Kg	Type	CSIR
Comp. Cooling	Static/Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	120 cm ³	Main W. resist. at 25°C	14,30 Q
				Start W. resist. at 25°C	23,00 Q

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	123 kCal/h	106 W
COP	1,39 W/W	1,06 W/W
EER	1,19 kCal/Wh	0,92 kCal/Wh
Input Power	103 W	100 W
Current	0,76 A	0,75 A

TEST CYCLE CONDITIONS

	ASHRAE LMBP (B)	CECOMAF LMBP (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

Starting capacitor	61 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	DRB18P61A1 (067)		
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	57	82	0,71	0,80	0,69
40	-35	75	89	0,72	0,99	0,85
40	-30	99	95	0,74	1,21	1,04
40	-25	128	102	0,76	1,46	1,26
40	-23,3	139	104	0,76	1,56	1,34
40	-20	162	108	0,77	1,75	1,50
40	-15	201	114	0,79	2,06	1,77
40	-10	245	119	0,81	2,39	2,06
40	-5	295	125	0,83	2,75	2,37
40	0	350	130	0,85	3,13	2,69

45	-40	54	78	0,70	0,80	0,69
45	-35	71	86	0,71	0,97	0,83
45	-30	94	94	0,73	1,17	1,01
45	-25	123	101	0,75	1,41	1,21
45	-23,3	133	103	0,76	1,50	1,29
45	-20	156	108	0,78	1,68	1,44
45	-15	195	115	0,80	1,97	1,69
45	-10	239	122	0,82	2,27	1,96
45	-5	288	129	0,85	2,60	2,24
45	0	342	135	0,87	2,95	2,53

50	-40	50	74	0,69	0,79	0,68
50	-35	68	83	0,71	0,95	0,81
50	-30	90	92	0,73	1,14	0,98
50	-25	118	100	0,75	1,36	1,17
50	-23,3	128	103	0,76	1,44	1,24
50	-20	151	109	0,78	1,61	1,38
50	-15	189	117	0,80	1,88	1,61
50	-10	232	125	0,83	2,16	1,86
50	-5	280	133	0,86	2,46	2,12
50	0	334	140	0,89	2,77	2,39

55	-40	47	70	0,68	0,78	0,67
55	-35	64	80	0,70	0,92	0,79
55	-30	86	90	0,72	1,10	0,95
55	-25	113	100	0,75	1,31	1,13
55	-23,3	123	103	0,76	1,39	1,19
55	-20	145	109	0,78	1,54	1,33
55	-15	182	119	0,81	1,79	1,54
55	-10	225	128	0,84	2,05	1,76
55	-5	273	136	0,87	2,33	2,00
55	0	326	145	0,91	2,61	2,25

60	-40	44	66	0,67	0,77	0,66
60	-35	60	77	0,69	0,90	0,77
60	-30	81	88	0,72	1,07	0,92
60	-25	108	99	0,75	1,26	1,09
60	-23,3	118	103	0,76	1,33	1,15
60	-20	139	110	0,78	1,48	1,27
60	-15	176	120	0,81	1,71	1,47
60	-10	218	130	0,85	1,95	1,67
60	-5	266	140	0,89	2,20	1,89
60	0	318	150	0,93	2,47	2,12

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	61	82	0,71	0,75	0,65
40	-35	84	89	0,72	0,95	0,82
40	-30	112	95	0,74	1,18	1,02
40	-25	145	102	0,76	1,42	1,23
40	-23,3	157	104	0,76	1,51	1,31
40	-20	182	108	0,77	1,69	1,46
40	-15	224	114	0,79	1,97	1,71
40	-10	271	119	0,81	2,27	1,96
40	-5	323	125	0,83	2,59	2,24
40	0	380	130	0,85	2,92	2,52

45	-40	56	78	0,70	0,71	0,62
45	-35	76	86	0,71	0,89	0,77
45	-30	102	94	0,73	1,09	0,94
45	-25	132	101	0,75	1,30	1,13
45	-23,3	143	103	0,76	1,38	1,20
45	-20	167	108	0,78	1,54	1,33
45	-15	207	115	0,80	1,79	1,55
45	-10	251	122	0,82	2,06	1,78
45	-5	301	129	0,85	2,34	2,02
45	0	355	135	0,87	2,63	2,27

50	-40	50	74	0,69	0,68	0,58
50	-35	68	83	0,71	0,82	0,71
50	-30	91	92	0,73	0,99	0,86
50	-25	119	100	0,75	1,18	1,02
50	-23,3	129	103	0,76	1,25	1,08
50	-20	151	109	0,78	1,39	1,20
50	-15	189	117	0,80	1,62	1,40
50	-10	231	125	0,83	1,85	1,60
50	-5	278	133	0,86	2,10	1,81
50	0	330	140	0,89	2,36	2,04

55	-40	44	70	0,68	0,63	0,55
55	-35	60	80	0,70	0,75	0,65
55	-30	81	90	0,72	0,89	0,77
55	-25	106	100	0,75	1,06	0,92
55	-23,3	116	103	0,76	1,12	0,97
55	-20	136	109	0,78	1,25	1,08
55	-15	171	119	0,81	1,44	1,25
55	-10	211	128	0,84	1,65	1,43
55	-5	255	136	0,87	1,87	1,62
55	0	305	145	0,91	2,10	1,82

60	-40	39	66	0,67	0,58	0,50
60	-35	52	77	0,69	0,67	0,58
60	-30	70	88	0,72	0,79	0,69
60	-25	93	99	0,75	0,94	0,81
60	-23,3	102	103	0,76	0,99	0,86
60	-20	121	110	0,78	1,10	0,95
60	-15	153	120	0,81	1,28	1,10
60	-10	191	130	0,85	1,46	1,26
60	-5	233	140	0,89	1,66	1,43
60	0	280	150	0,93	1,87	1,61

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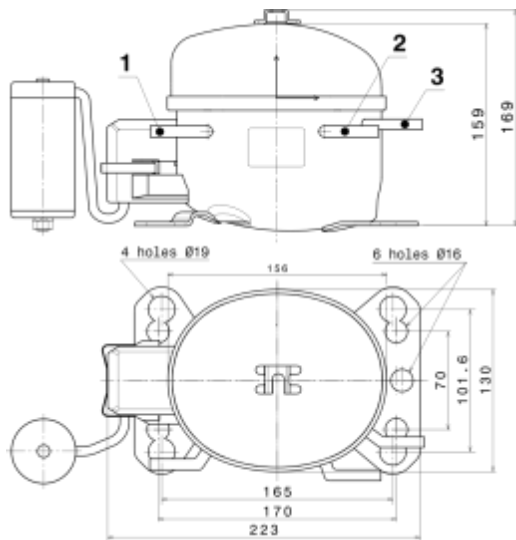
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	579,0214455123	92,4112025408	0,6907875861	5,2648279953544
2	15,5826648237	-0,7603758637	-0,0003380256	0,16243353564099
3	-5,1358919475	1,0267911393	0,0042875066	-0,020403624519531
4	0,0939693725	-0,0039723658	0,0000453949	0,0014022736266436
5	-0,0997120411	0,0461031911	0,0001499120	-0,00031138290479774

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

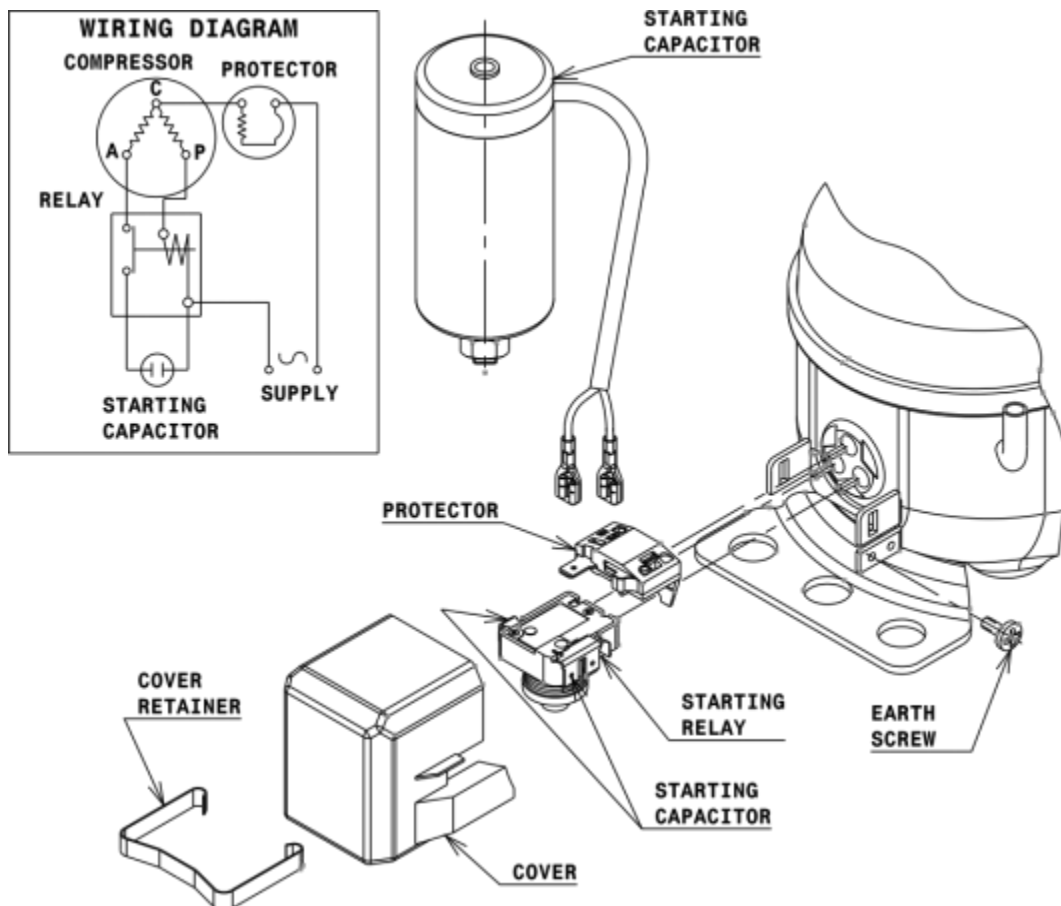


DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Suction	6,1 mm
2 Service	6,1 mm
3 Discharge	4,9 mm

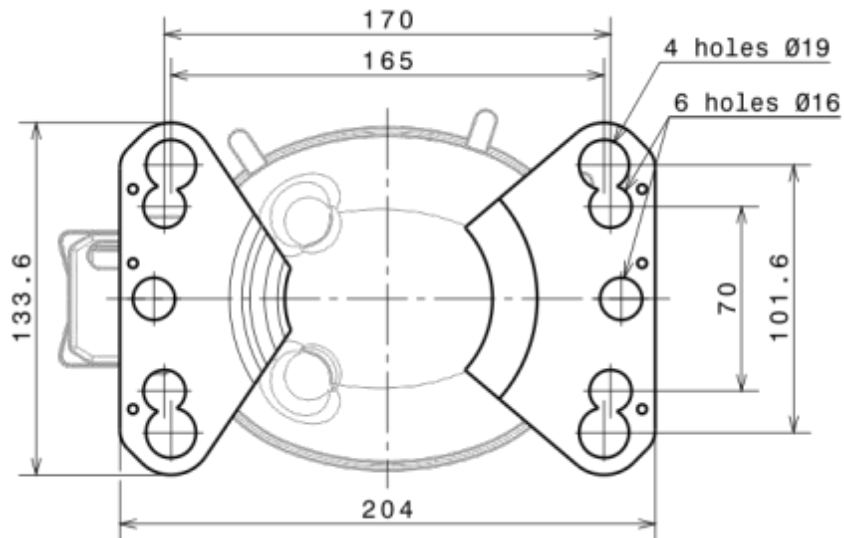
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (B, Small L ranges)



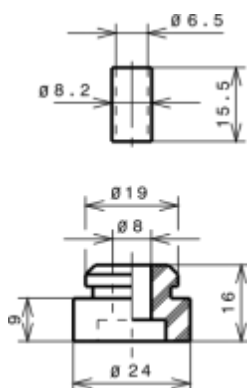
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FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD



SOA

SOA R290 LMBP

