

B22N Technical Data Sheet

Compressor model **B22N**
 Voltage **220-240V 50/60Hz ~1**
 Refrigerant **R290**

APPLICATION

COMPRESSOR

MOTOR

Application	High-Medium Back Pressure	Displacement	2,20 cm ³	Nominal Power	1/12 hp
Refrigerant	R290	Diameter	17,20 mm	Voltage/Frequency	220-240V 60Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	9,40 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	5,20 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	120 cm ³	Max. Cont. Current (MCC)	1,20 A
				Main W. resist. at 25°C	24,80 Q
				Start W. resist. at 25°C	14,90 Q

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	296 kCal/h	289 W
COP	2,63 W/W	2,25 W/W
EER	2,26 kCal/Wh	1,94 kCal/Wh
Input Power	131 W	128 W
Current	0,81 A	0,81 A

TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T _e)	7,2 °C	5,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	46,0 °C	55,0 °C
Ambient temp. (T _{amb.})	35,0 °C	32,0 °C
Suction temp. (T _{suction})	35,0 °C	32,0 °C
Voltage/Frequency	220 V 60 Hz	220 V 60 Hz

ELECTRICAL COMPONENTS

Starting capacitor	50 pF 330 V			
Relay	Option 1			
Reference	QL2-2.8			
Pick-Up	2,8 A			
Drop-Out	2,4 A			
Protector	Option 1			
Reference	DRB15N61A1 (126)			
Current	3,70 A			
Time check	7-16 seg			
Disc temp. (Open/Close)	120,00 / 61,00 °C			

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ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	105	76	0,54	1,61	1,38
40	-20	133	78	0,57	1,98	1,70
40	-15	167	82	0,60	2,38	2,04
40	-10	205	86	0,63	2,79	2,40
40	-5	248	90	0,66	3,20	2,75
40	0	296	95	0,69	3,61	3,11
40	5	349	101	0,72	4,01	3,45
40	7,2	374	104	0,74	4,18	3,60
40	10	407	108	0,75	4,39	3,78

45	-25	94	81	0,59	1,35	1,16
45	-20	120	84	0,62	1,66	1,43
45	-15	151	88	0,64	2,00	1,72
45	-10	187	93	0,67	2,35	2,02
45	-5	228	98	0,71	2,71	2,33
45	0	274	104	0,73	3,07	2,64
45	5	324	110	0,76	3,43	2,95
45	7,2	348	113	0,77	3,58	3,08
45	10	380	117	0,79	3,77	3,24

50	-25	84	87	0,63	1,12	0,97
50	-20	107	90	0,66	1,38	1,19
50	-15	136	95	0,69	1,67	1,44
50	-10	170	100	0,72	1,98	1,70
50	-5	208	106	0,74	2,29	1,97
50	0	251	112	0,77	2,61	2,25
50	5	299	119	0,79	2,93	2,52
50	7,2	322	122	0,80	3,07	2,64
50	10	352	126	0,80	3,24	2,79

55	-25	73	92	0,67	0,92	0,79
55	-20	95	96	0,70	1,14	0,98
55	-15	121	101	0,72	1,39	1,19
55	-10	152	107	0,75	1,65	1,42
55	-5	188	113	0,77	1,93	1,66
55	0	229	120	0,79	2,22	1,91
55	5	274	128	0,81	2,50	2,15
55	7,2	296	131	0,81	2,63	2,26
55	10	325	136	0,81	2,79	2,40

60	-25	62	98	0,70	0,75	0,64
60	-20	82	102	0,73	0,93	0,80
60	-15	106	108	0,75	1,14	0,98
60	-10	134	114	0,78	1,37	1,18
60	-5	168	121	0,79	1,61	1,39
60	0	206	128	0,81	1,87	1,61
60	5	249	136	0,81	2,13	1,83
60	7,2	270	140	0,81	2,24	1,93
60	10	297	145	0,81	2,39	2,05

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	112	76	0,55	1,48	1,28
40	-20	144	79	0,57	1,82	1,58
40	-15	180	82	0,60	2,19	1,89
40	-10	221	86	0,63	2,57	2,22
40	-5	268	91	0,66	2,95	2,55
40	0	319	96	0,69	3,32	2,87
40	5	375	102	0,73	3,68	3,18
40	7,2	402	105	0,74	3,84	3,32
40	10	437	108	0,76	4,03	3,48

45	-25	101	81	0,59	1,23	1,07
45	-20	129	85	0,62	1,52	1,31
45	-15	162	89	0,65	1,83	1,58
45	-10	201	93	0,68	2,15	1,86
45	-5	244	98	0,71	2,48	2,14
45	0	293	104	0,74	2,81	2,43
45	5	346	111	0,76	3,13	2,70
45	7,2	372	114	0,78	3,27	2,82
45	10	405	118	0,79	3,44	2,97

50	-25	89	87	0,64	1,02	0,88
50	-20	114	91	0,66	1,26	1,09
50	-15	145	95	0,69	1,52	1,31
50	-10	180	100	0,72	1,80	1,55
50	-5	221	106	0,75	2,08	1,80
50	0	267	113	0,77	2,37	2,05
50	5	317	120	0,79	2,66	2,29
50	7,2	341	123	0,80	2,78	2,40
50	10	373	127	0,81	2,94	2,54

55	-25	77	92	0,67	0,83	0,72
55	-20	100	97	0,70	1,03	0,89
55	-15	127	102	0,73	1,25	1,08
55	-10	160	108	0,75	1,49	1,29
55	-5	198	114	0,78	1,74	1,50
55	0	241	121	0,79	1,99	1,72
55	5	289	128	0,81	2,25	1,94
55	7,2	311	132	0,81	2,36	2,04
55	10	341	137	0,81	2,50	2,16

60	-25	65	98	0,71	0,66	0,57
60	-20	85	103	0,73	0,83	0,71
60	-15	110	109	0,76	1,01	0,87
60	-10	140	115	0,78	1,22	1,05
60	-5	175	122	0,80	1,44	1,24
60	0	215	129	0,81	1,66	1,44
60	5	260	137	0,81	1,89	1,64
60	7,2	281	141	0,81	1,99	1,72
60	10	310	146	0,81	2,12	1,83

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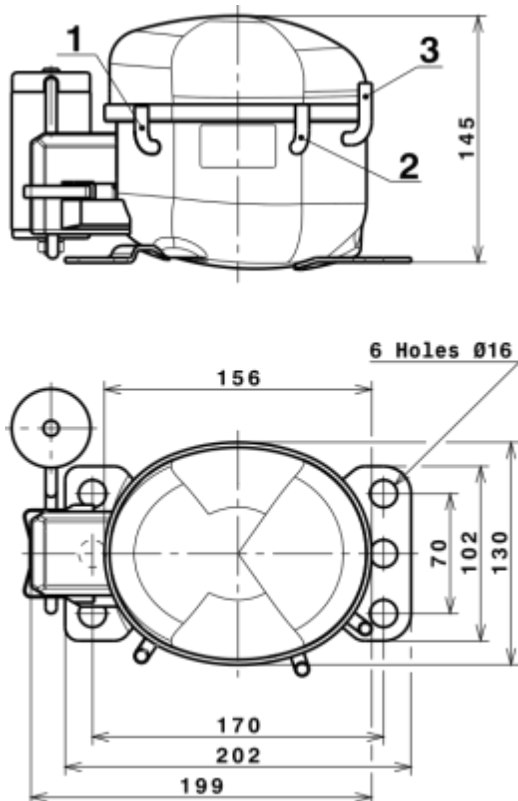
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	527,4113309535	30,5665759527	0,5876159612	4,8866283338514
2	15,3858150169	0,2624284962	0,0113574516	0,15421585821772
3	-5,3313748271	1,7007825969	0,0038010516	-0,02917586704517
4	0,0988838418	0,0134240364	-0,0000712018	0,0015722739004618
5	-0,1188200465	0,0227799072	-0,0001585982	-0,00043612620643692

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

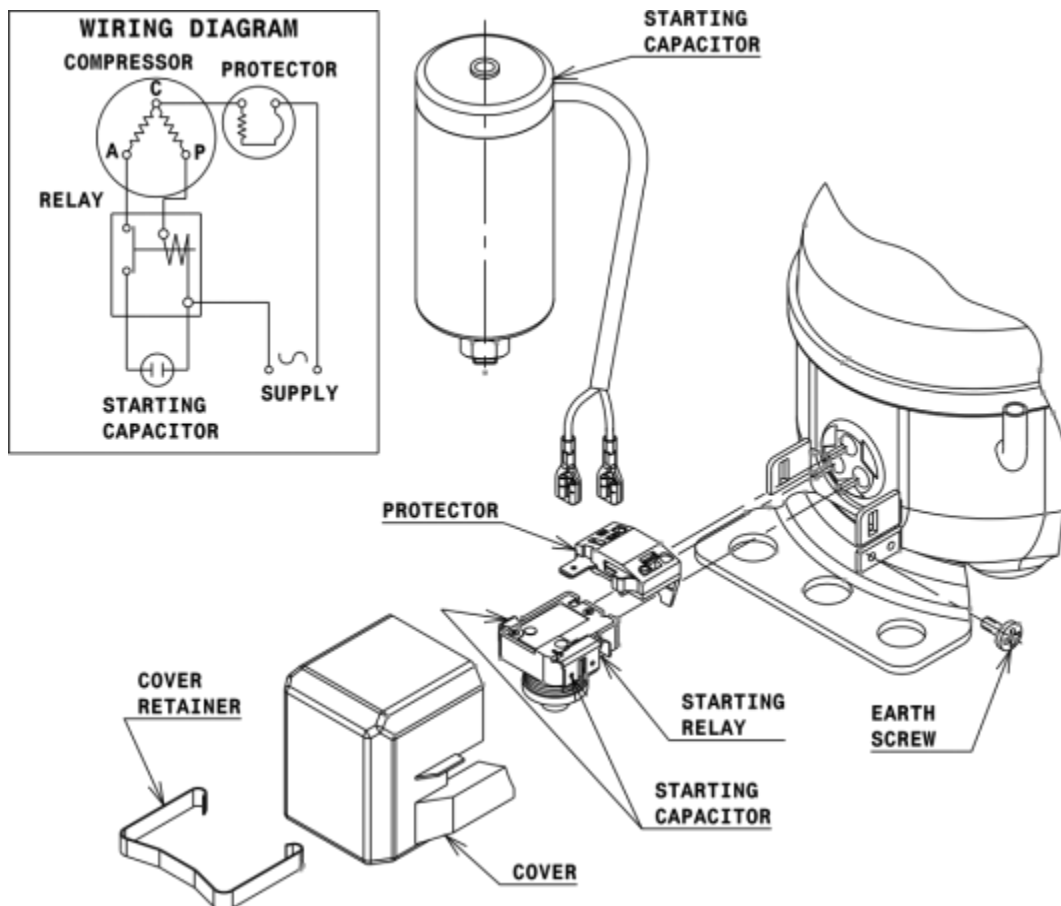


DESIGNATION INTERNAL DIAM.

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

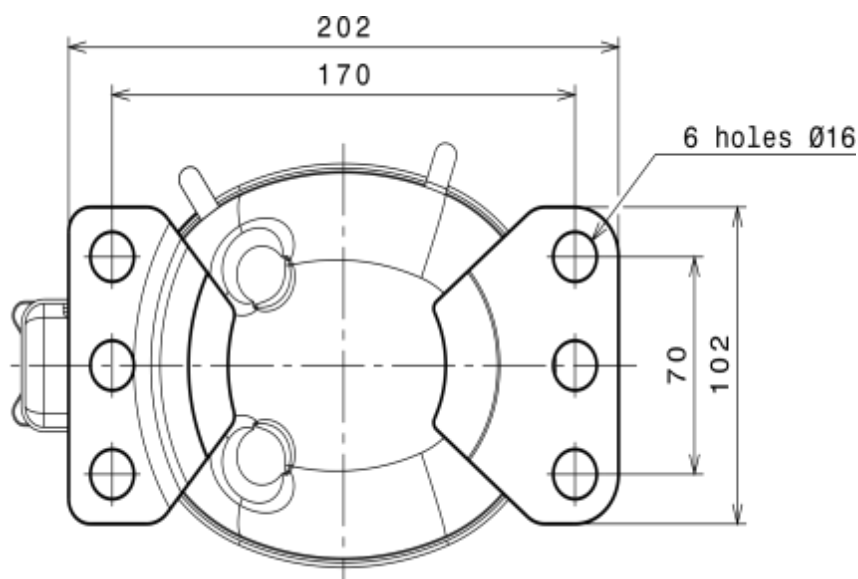
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (B, Small L ranges)



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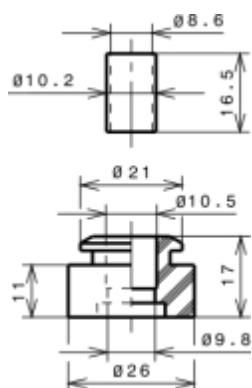
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø16 holes (170x70 net)



SOA

SOA R290 HMBP

