

Technical Data Sheet

Compressor model **NBC35NA**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R290**

APPLICATION

COMPRESSOR

MOTOR

Application	Low-Medium Back Pressure	Displacement	3,50 cm ³	Nominal Power	1/8 hp
Refrigerant	R290	Diameter	17,20 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-40,0 °C to -5,0 °C	Stroke	15,00 mm	Voltage range	198-255 V
Expansion	Capillar	Net Weight	6,10 Kg	Type	RSIR
Comp. Cooling	Static	Oil type	ISO VG 22 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	120 cm ³	Locked Rotor Amps (LRA)	9,00 A
				Max. Cont. Current (MCC)	1,10 A
				Main W. resist. at 25°C	22,10 Ω
				Start W. resist. at 25°C	28,85 Ω

NOMINAL PERFORMANCE

APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	123 kCal/h	106 W
COP	1,35 W/W	1,04 W/W
EER	1,16 kCal/Wh	0,90 kCal/Wh
Input Power	106 W	101 W
Current	0,66 A	0,64 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

Relay	Option 1			
Reference	QL2-2.0			
Pick-Up	2.0 A			
Drop-Out	1.6 A			
Protector	Option 1			
Reference	BT37-120A61D3 (128)			
Current				
Time check				
Disc temp. (Open/Close)	120,00 / 61,00 °C			

This product is approved for R290 and R600a regarding explosion safety according to standard EN 60335-1 and EN 60335-2-34

Technical Data Sheet

ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	54	64	0,53	0,98	0,84
40	-35	76	73	0,55	1,22	1,05
40	-30	104	81	0,58	1,48	1,28
40	-25	136	90	0,60	1,76	1,51
40	-23,3	148	93	0,61	1,85	1,59
40	-20	172	98	0,63	2,04	1,75
40	-15	214	107	0,66	2,33	2,00
40	-10	260	115	0,70	2,62	2,26
40	-5	311	124	0,73	2,93	2,52
40	0	367	132	0,77	3,23	2,78

45	-40	50	63	0,52	0,92	0,79
45	-35	71	73	0,55	1,13	0,97
45	-30	97	84	0,58	1,35	1,16
45	-25	128	94	0,62	1,59	1,36
45	-23,3	139	97	0,63	1,67	1,43
45	-20	163	104	0,65	1,83	1,57
45	-15	204	114	0,69	2,08	1,79
45	-10	249	124	0,73	2,33	2,00
45	-5	298	134	0,78	2,59	2,23
45	0	353	144	0,82	2,85	2,45

50	-40	46	62	0,52	0,86	0,74
50	-35	66	74	0,55	1,04	0,89
50	-30	91	86	0,59	1,23	1,06
50	-25	120	98	0,63	1,43	1,23
50	-23,3	131	102	0,64	1,50	1,29
50	-20	154	109	0,67	1,64	1,41
50	-15	193	121	0,72	1,86	1,60
50	-10	237	133	0,77	2,08	1,79
50	-5	286	144	0,83	2,30	1,98
50	0	339	156	0,89	2,53	2,17

55	-40	42	61	0,52	0,80	0,69
55	-35	61	75	0,56	0,95	0,81
55	-30	84	88	0,60	1,11	0,96
55	-25	112	101	0,64	1,29	1,11
55	-23,3	123	106	0,66	1,35	1,16
55	-20	145	115	0,69	1,47	1,27
55	-15	183	128	0,75	1,66	1,43
55	-10	226	142	0,81	1,85	1,59
55	-5	273	155	0,88	2,05	1,76
55	0	325	168	0,95	2,25	1,93

60	-40	38	60	0,52	0,74	0,63
60	-35	55	75	0,56	0,86	0,74
60	-30	78	90	0,60	1,00	0,86
60	-25	105	105	0,66	1,15	0,99
60	-23,3	115	110	0,68	1,21	1,04
60	-20	136	120	0,72	1,32	1,13
60	-15	173	135	0,78	1,49	1,28
60	-10	214	150	0,86	1,66	1,42
60	-5	260	165	0,93	1,83	1,58
60	0	311	180	1,02	2,01	1,73

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	58	64	0,53	0,91	0,79
40	-35	85	73	0,55	1,17	1,01
40	-30	117	81	0,58	1,44	1,24
40	-25	152	90	0,60	1,70	1,47
40	-23,3	166	93	0,61	1,79	1,54
40	-20	193	98	0,63	1,96	1,69
40	-15	237	107	0,66	2,22	1,92
40	-10	286	115	0,70	2,48	2,14
40	-5	340	124	0,73	2,75	2,37
40	0	397	132	0,77	3,01	2,60

45	-40	52	63	0,52	0,83	0,71
45	-35	76	73	0,55	1,04	0,89
45	-30	104	84	0,58	1,25	1,08
45	-25	137	94	0,62	1,46	1,26
45	-23,3	149	97	0,63	1,53	1,32
45	-20	174	104	0,65	1,67	1,45
45	-15	215	114	0,69	1,89	1,63
45	-10	261	124	0,73	2,11	1,82
45	-5	312	134	0,78	2,32	2,01
45	0	366	144	0,82	2,54	2,20

50	-40	46	62	0,52	0,74	0,64
50	-35	67	74	0,55	0,90	0,78
50	-30	92	86	0,59	1,07	0,92
50	-25	121	98	0,63	1,24	1,07
50	-23,3	132	102	0,64	1,30	1,13
50	-20	155	109	0,67	1,42	1,23
50	-15	194	121	0,72	1,60	1,38
50	-10	236	133	0,77	1,78	1,54
50	-5	284	144	0,83	1,96	1,70
50	0	335	156	0,89	2,15	1,86

55	-40	40	61	0,52	0,65	0,56
55	-35	57	75	0,56	0,77	0,66
55	-30	79	88	0,60	0,90	0,78
55	-25	106	101	0,64	1,04	0,90
55	-23,3	116	106	0,66	1,09	0,94
55	-20	136	115	0,69	1,19	1,03
55	-15	172	128	0,75	1,34	1,16
55	-10	211	142	0,81	1,49	1,29
55	-5	255	155	0,88	1,65	1,43
55	0	304	168	0,95	1,81	1,56

60	-40	33	60	0,52	0,56	0,48
60	-35	48	75	0,56	0,64	0,55
60	-30	67	90	0,60	0,74	0,64
60	-25	90	105	0,66	0,86	0,74
60	-23,3	99	110	0,68	0,90	0,77
60	-20	118	120	0,72	0,98	0,85
60	-15	150	135	0,78	1,11	0,96
60	-10	187	150	0,86	1,24	1,07
60	-5	227	165	0,93	1,38	1,19
60	0	273	180	1,02	1,52	1,31

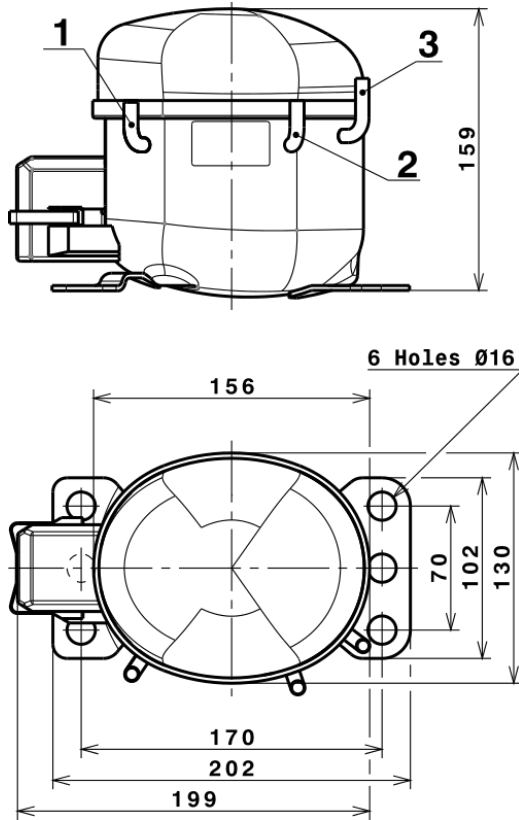
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	644,6597203750	36,9644810163	0,2494958260	6,0909390809195
2	16,8864349685	-0,9262932777	-0,0031538116	0,17789332960022
3	-6,3458543007	2,4642987344	0,0131988784	-0,035654870617747
4	0,0861519861	-0,0002849542	0,0001099694	0,0012972312944341
5	-0,1274385178	0,0667158215	0,0003428501	-0,00064688589412272

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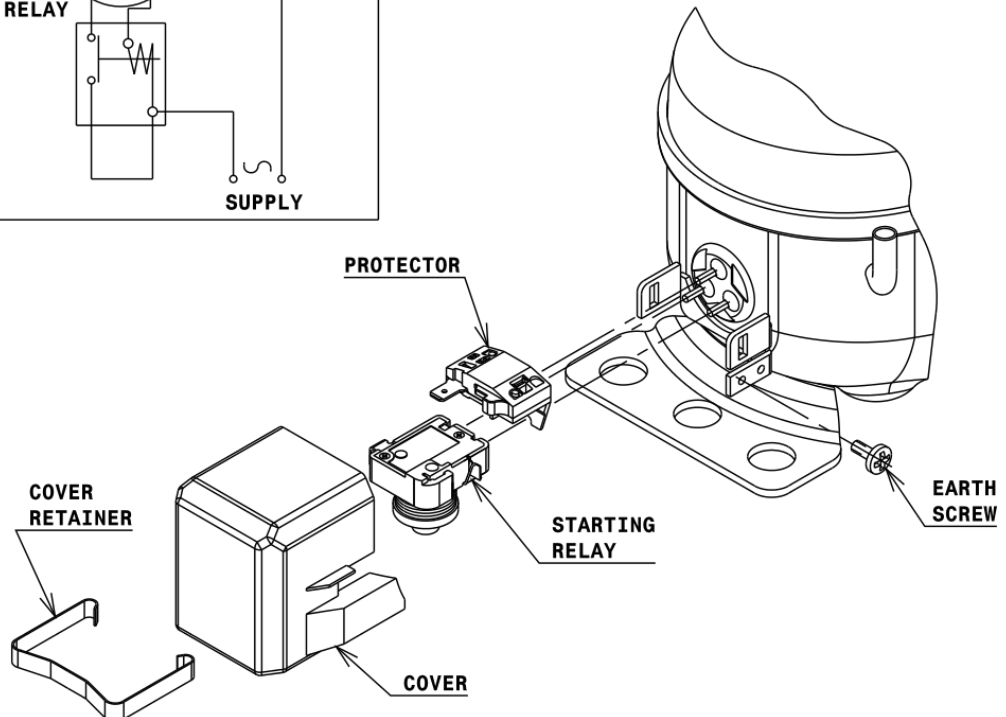
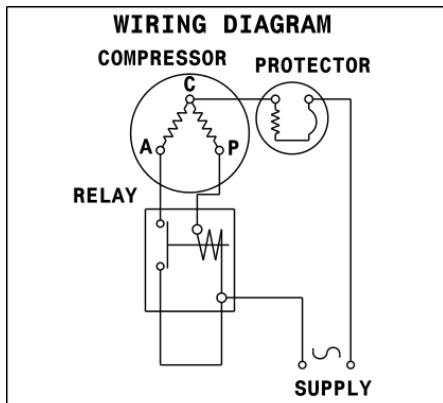
COMPRESSOR DIMENSIONS



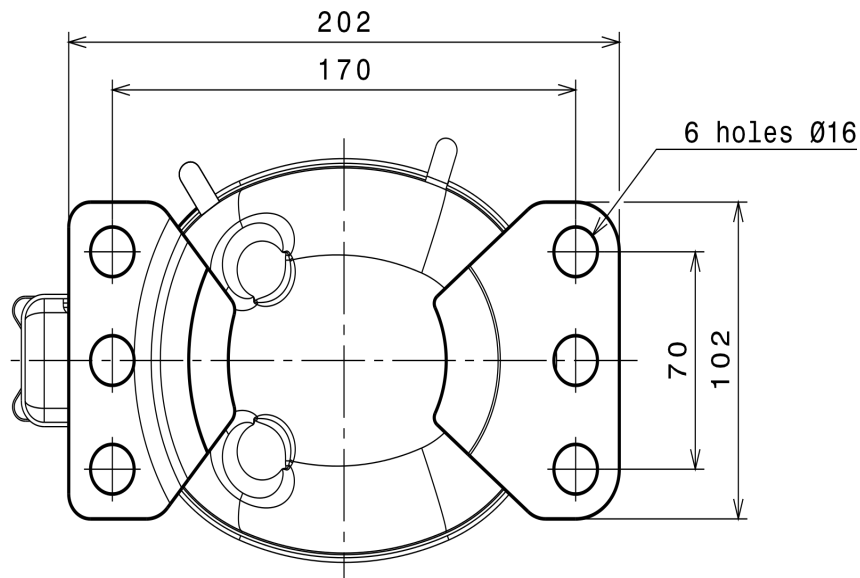
DESIGNATION	INTERNAL DIAM.
1 Suction	6,1 mm
2 Service	6,1 mm
3 Discharge	5,1 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



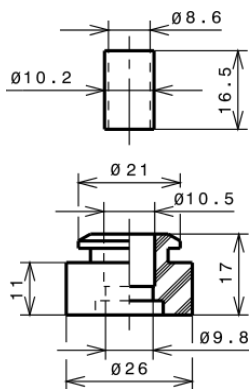
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø16 holes (170x70 net)



SOA

SOA R290 LMBP.

