

Technical Data Sheet

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

APPLICATION

COMPRESSOR

MOTOR

Application	Low-Medium Back Pressure	Displacement	3,50 cm ³	Voltage/Frequency	220-240V 50Hz
Refrigerant	R290	Diameter	17,20 mm	Voltage range	198-255 V
Evaporating Temp.	-40,0 °C to 0,0 °C	Stroke	15,00 mm	Type	RSIR
Expansion	Capillar	Net Weight	6,10 Kg	Phase number	1 PH
Comp. Cooling	Static	Oil type	ISO VG 22 ESTER	Locked Rotor Amps (LRA)	9,00 A
Max. ambient temp.	43,0 °C	Oil charge	120 cm ³	Max. Cont. Current (MCC)	1,10 A
		HP	1/8 hp	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	137 kCal/h	118 W
COP	1,50 W/W	1,17 W/W
EER	1,29 kCal/Wh	1,01 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 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

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	83	73	0,55	1,32	1,14
40	-30	114	81	0,58	1,64	1,41
40	-25	149	90	0,60	1,93	1,66
40	-23,3	162	93	0,61	2,03	1,74
40	-20	187	98	0,63	2,21	1,90
40	-15	227	107	0,66	2,48	2,13
40	-10	271	115	0,70	2,73	2,35
40	-5	317	124	0,73	2,99	2,57
40	0	367	132	0,77	3,23	2,78

45	-40	50	63	0,52	0,92	0,79
45	-35	77	73	0,55	1,23	1,06
45	-30	108	84	0,58	1,50	1,29
45	-25	141	94	0,62	1,75	1,51
45	-23,3	153	97	0,63	1,84	1,58
45	-20	178	104	0,65	1,99	1,71
45	-15	217	114	0,69	2,22	1,91
45	-10	259	124	0,73	2,43	2,09
45	-5	305	134	0,78	2,64	2,27
45	0	353	144	0,82	2,85	2,45

50	-40	46	62	0,52	0,86	0,74
50	-35	72	74	0,55	1,14	0,98
50	-30	101	86	0,59	1,38	1,18
50	-25	134	98	0,63	1,59	1,37
50	-23,3	145	102	0,64	1,66	1,43
50	-20	169	109	0,67	1,79	1,54
50	-15	207	121	0,72	1,99	1,71
50	-10	248	133	0,77	2,17	1,87
50	-5	292	144	0,83	2,35	2,02
50	0	339	156	0,89	2,53	2,17

55	-40	42	61	0,52	0,80	0,69
55	-35	67	75	0,56	1,05	0,90
55	-30	95	88	0,60	1,25	1,08
55	-25	126	101	0,64	1,44	1,24
55	-23,3	137	106	0,66	1,50	1,29
55	-20	160	115	0,69	1,62	1,39
55	-15	197	128	0,75	1,78	1,53
55	-10	236	142	0,81	1,94	1,67
55	-5	279	155	0,88	2,10	1,80
55	0	325	168	0,95	2,25	1,93

60	-40	38	60	0,52	0,74	0,63
60	-35	62	75	0,56	0,96	0,82
60	-30	88	90	0,60	1,14	0,98
60	-25	118	105	0,66	1,30	1,12
60	-23,3	129	110	0,68	1,36	1,17
60	-20	151	120	0,72	1,46	1,25
60	-15	186	135	0,78	1,60	1,38
60	-10	225	150	0,86	1,74	1,50
60	-5	266	165	0,93	1,88	1,61
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	91	73	0,55	1,26	1,08
40	-30	127	81	0,58	1,56	1,35
40	-25	165	90	0,60	1,84	1,59
40	-23,3	179	93	0,61	1,93	1,67
40	-20	206	98	0,63	2,10	1,81
40	-15	250	107	0,66	2,34	2,02
40	-10	296	115	0,70	2,57	2,22
40	-5	345	124	0,73	2,79	2,41
40	0	397	132	0,77	3,01	2,60

45	-40	52	63	0,52	0,83	0,71
45	-35	82	73	0,55	1,12	0,96
45	-30	114	84	0,58	1,37	1,18
45	-25	149	94	0,62	1,60	1,38
45	-23,3	162	97	0,63	1,67	1,44
45	-20	187	104	0,65	1,80	1,56
45	-15	228	114	0,69	2,00	1,73
45	-10	271	124	0,73	2,19	1,89
45	-5	317	134	0,78	2,37	2,05
45	0	366	144	0,82	2,54	2,20

50	-40	46	62	0,52	0,74	0,64
50	-35	72	74	0,55	0,98	0,85
50	-30	102	86	0,59	1,19	1,03
50	-25	134	98	0,63	1,37	1,19
50	-23,3	145	102	0,64	1,43	1,24
50	-20	169	109	0,67	1,54	1,33
50	-15	206	121	0,72	1,70	1,47
50	-10	246	133	0,77	1,86	1,60
50	-5	289	144	0,83	2,00	1,73
50	0	335	156	0,89	2,15	1,86

55	-40	40	61	0,52	0,65	0,56
55	-35	63	75	0,56	0,85	0,73
55	-30	89	88	0,60	1,02	0,88
55	-25	118	101	0,64	1,17	1,01
55	-23,3	129	106	0,66	1,22	1,05
55	-20	150	115	0,69	1,31	1,13
55	-15	184	128	0,75	1,44	1,24
55	-10	222	142	0,81	1,57	1,35
55	-5	261	155	0,88	1,69	1,46
55	0	304	168	0,95	1,81	1,56

60	-40	33	60	0,52	0,56	0,48
60	-35	54	75	0,56	0,72	0,62
60	-30	77	90	0,60	0,85	0,74
60	-25	103	105	0,66	0,98	0,84
60	-23,3	112	110	0,68	1,02	0,88
60	-20	131	120	0,72	1,09	0,94
60	-15	163	135	0,78	1,20	1,04
60	-10	197	150	0,86	1,31	1,13
60	-5	233	165	0,93	1,41	1,22
60	0	273	180	1,02	1,52	1,31

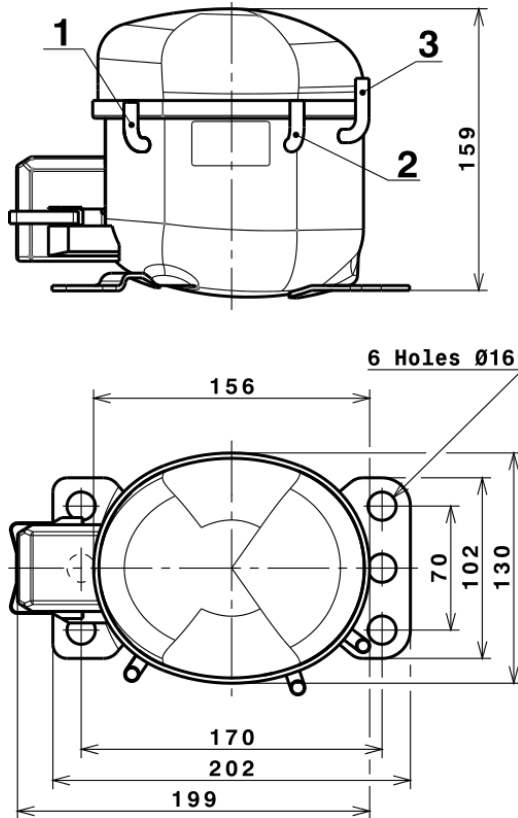
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	644,6597203750	36,9644810163	0,2494958260	6,0909390809195
2	15,5728328337	-0,9262932777	-0,0031538116	0,16012885684393
3	-6,3458543007	2,4642987344	0,0131988784	-0,035654870617747
4	0,0533119327	-0,0002849542	0,0001099694	0,00085311947552684
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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Technical Data Sheet

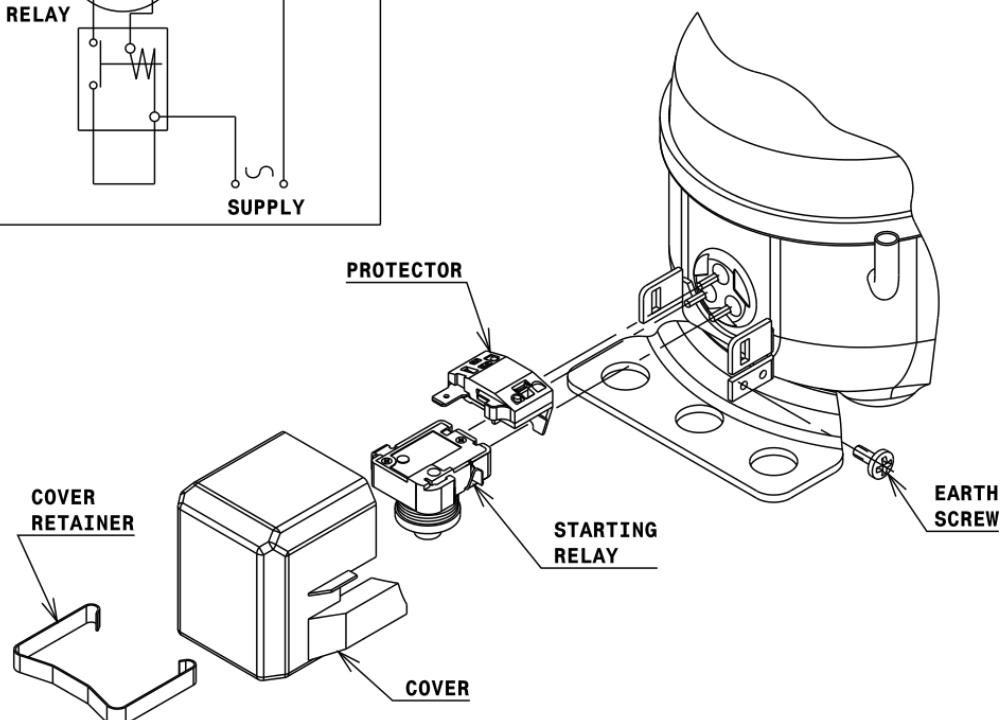
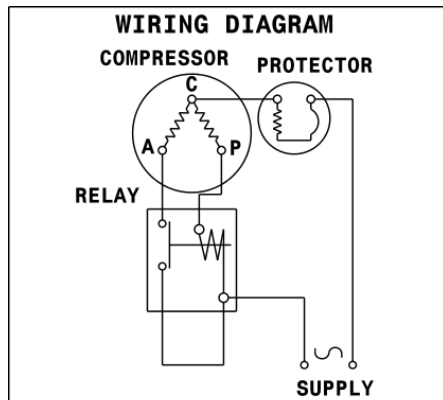
COMPRESSOR DIMENSIONS



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

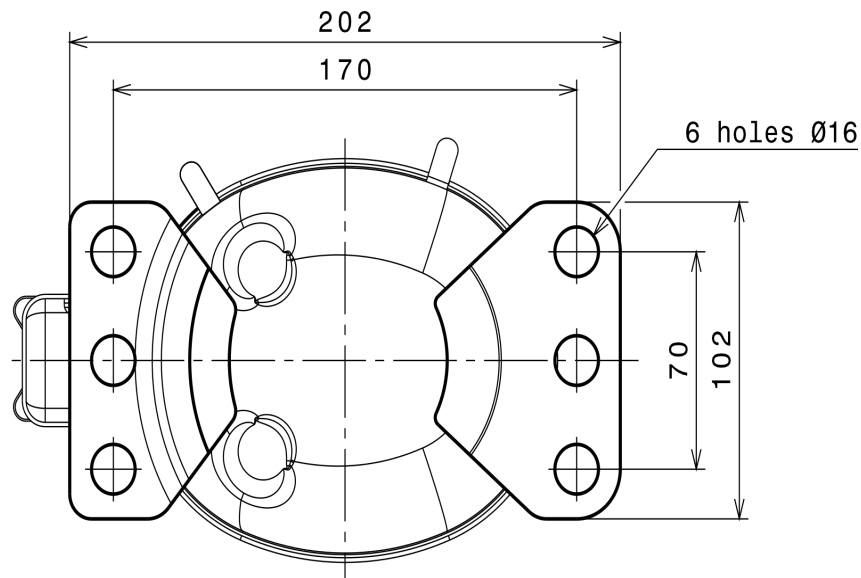
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



Technical Data Sheet

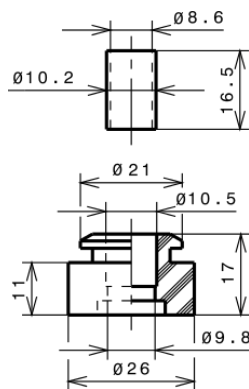
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø16 holes (170x70 net)



SOA

SOA R290 LMBP

