

Technical Data Sheet

Compressor model **NBC30NR**
 Voltage **115-127V 60Hz ~1**
 Refrigerant **R290**
 Compressor status

APPLICATION

COMPRESSOR

MOTOR

Application	Low-Medium Back Pressure	Displacement	3,10 cm ³	Voltage/Frequency	115V 60Hz
Refrigerant	R290	Diameter	17,20 mm	Voltage range	103-140 V
Evaporating Temp.	-40,0 °C to 0,0 °C	Stroke	13,40 mm	Type	CSIR
Expansion	Capillar/Valve	Net Weight	6,10 Kg	Phase number	1 PH
Comp. Cooling	Static/Fan cooled	Oil type	ISO VG 22 ESTER	Locked Rotor Amps (LRA)	12,00 A
Max. ambient temp.	43,0 °C	Oil charge	120 cm ³	Max. Cont. Current (MCC)	2,40 A
		HP	1/7 hp	Main W. resist. at 25°C	3,85 Ω
				Start W. resist. at 25°C	27,60 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	137 kCal/h	118 W
COP	1,40 W/W	1,07 W/W
EER	1,20 kCal/Wh	0,92 kCal/Wh
Input Power	114 W	110 W
Current	1,61 A	1,59 A

APPROVALS



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	115 V 60 Hz	115 V 60 Hz

ELECTRICAL COMPONENTS

Starting capacitor	50 µF 330 V			
Relay	Option 1			
Reference	QL2-5.30 B3 (011)			
Pick-Up	5.3 A			
Drop-Out	4.5 A			
Protector	Option 1			
Reference	DRB18P61A1 (064)			
Current				
Time check				
Disc temp. (Open/Close)	150,00 / 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	59	70	1,37	0,98	0,84
40	-35	80	78	1,41	1,20	1,03
40	-30	108	86	1,45	1,46	1,25
40	-25	143	95	1,50	1,75	1,51
40	-23,3	157	98	1,52	1,86	1,60
40	-20	185	104	1,55	2,07	1,78
40	-15	234	113	1,60	2,41	2,07
40	-10	289	122	1,66	2,76	2,37
40	-5	351	131	1,72	3,11	2,67
40	0	420	141	1,79	3,46	2,98

45	-40	57	72	1,38	0,92	0,79
45	-35	77	81	1,43	1,10	0,95
45	-30	104	90	1,47	1,33	1,15
45	-25	137	100	1,53	1,60	1,37
45	-23,3	150	103	1,55	1,69	1,45
45	-20	178	110	1,58	1,88	1,62
45	-15	225	120	1,65	2,18	1,88
45	-10	279	130	1,71	2,49	2,14
45	-5	339	140	1,79	2,81	2,42
45	0	407	151	1,86	3,13	2,70

50	-40	55	74	1,39	0,86	0,74
50	-35	74	84	1,44	1,02	0,87
50	-30	99	94	1,50	1,22	1,05
50	-25	131	105	1,56	1,45	1,25
50	-23,3	144	109	1,58	1,54	1,32
50	-20	170	116	1,62	1,71	1,47
50	-15	216	127	1,69	1,98	1,70
50	-10	268	138	1,77	2,26	1,95
50	-5	328	149	1,85	2,55	2,19
50	0	394	161	1,94	2,85	2,45

55	-40	53	76	1,40	0,81	0,70
55	-35	70	87	1,46	0,94	0,81
55	-30	94	98	1,52	1,11	0,96
55	-25	125	110	1,59	1,32	1,14
55	-23,3	137	114	1,61	1,40	1,20
55	-20	163	122	1,66	1,55	1,33
55	-15	207	134	1,74	1,80	1,55
55	-10	258	146	1,83	2,06	1,77
55	-5	316	158	1,92	2,32	2,00
55	0	381	171	2,02	2,59	2,23

60	-40	51	78	1,41	0,76	0,65
60	-35	67	90	1,47	0,86	0,74
60	-30	89	102	1,54	1,02	0,87
60	-25	119	115	1,62	1,20	1,03
60	-23,3	130	119	1,64	1,27	1,09
60	-20	155	128	1,70	1,41	1,21
60	-15	198	141	1,79	1,64	1,41
60	-10	248	154	1,89	1,87	1,61
60	-5	305	167	1,99	2,12	1,82
60	0	368	181	2,10	2,36	2,03

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	64	70	1,37	0,92	0,79
40	-35	91	78	1,41	1,16	1,01
40	-30	124	86	1,45	1,43	1,24
40	-25	163	95	1,50	1,72	1,49
40	-23,3	178	98	1,52	1,82	1,57
40	-20	209	104	1,55	2,02	1,74
40	-15	261	113	1,60	2,32	2,00
40	-10	320	122	1,66	2,62	2,26
40	-5	384	131	1,72	2,92	2,53
40	0	455	141	1,79	3,23	2,79

45	-40	59	72	1,38	0,82	0,71
45	-35	83	81	1,43	1,02	0,88
45	-30	112	90	1,47	1,24	1,07
45	-25	148	100	1,53	1,48	1,28
45	-23,3	162	103	1,55	1,57	1,35
45	-20	190	110	1,58	1,73	1,50
45	-15	239	120	1,65	1,99	1,72
45	-10	294	130	1,71	2,26	1,95
45	-5	355	140	1,79	2,53	2,18
45	0	422	151	1,86	2,80	2,42

50	-40	55	74	1,39	0,74	0,64
50	-35	74	84	1,44	0,88	0,76
50	-30	100	94	1,50	1,06	0,92
50	-25	133	105	1,56	1,27	1,09
50	-23,3	145	109	1,58	1,34	1,16
50	-20	172	116	1,62	1,48	1,28
50	-15	217	127	1,69	1,71	1,48
50	-10	268	138	1,77	1,94	1,68
50	-5	325	149	1,85	2,18	1,88
50	0	389	161	1,94	2,42	2,09

55	-40	50	76	1,40	0,66	0,57
55	-35	66	87	1,46	0,76	0,66
55	-30	89	98	1,52	0,90	0,78
55	-25	118	110	1,59	1,07	0,92
55	-23,3	129	114	1,61	1,13	0,98
55	-20	153	122	1,66	1,25	1,08
55	-15	194	134	1,74	1,45	1,25
55	-10	242	146	1,83	1,66	1,43
55	-5	296	158	1,92	1,87	1,61
55	0	356	171	2,02	2,08	1,80

60	-40	45	78	1,41	0,58	0,50
60	-35	58	90	1,47	0,64	0,56
60	-30	77	102	1,54	0,75	0,65
60	-25	102	115	1,62	0,89	0,77
60	-23,3	112	119	1,64	0,94	0,81
60	-20	134	128	1,70	1,05	0,91
60	-15	172	141	1,79	1,22	1,05
60	-10	216	154	1,89	1,40	1,21
60	-5	267	167	1,99	1,59	1,38
60	0	323	181	2,10	1,79	1,54

Technical Data Sheet

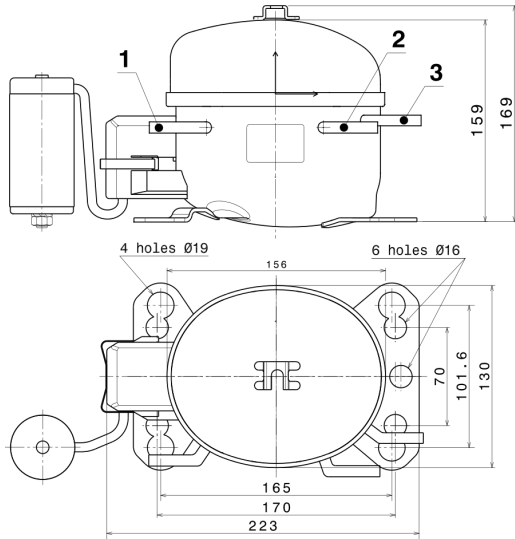
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	717,5559319345	62,6342594999	1,1550660082	6,6633970229848
2	20,3353804476	0,3838140618	0,0018509944	0,21638213387391
3	-6,7450462259	2,0535822787	0,0164152108	-0,033124702457881
4	0,1230202856	0,0049303231	0,0001363178	0,0018177542385949
5	-0,1447484952	0,0411228507	0,0003608728	-0,00070571819799995

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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Technical Data Sheet

COMPRESSOR DIMENSIONS

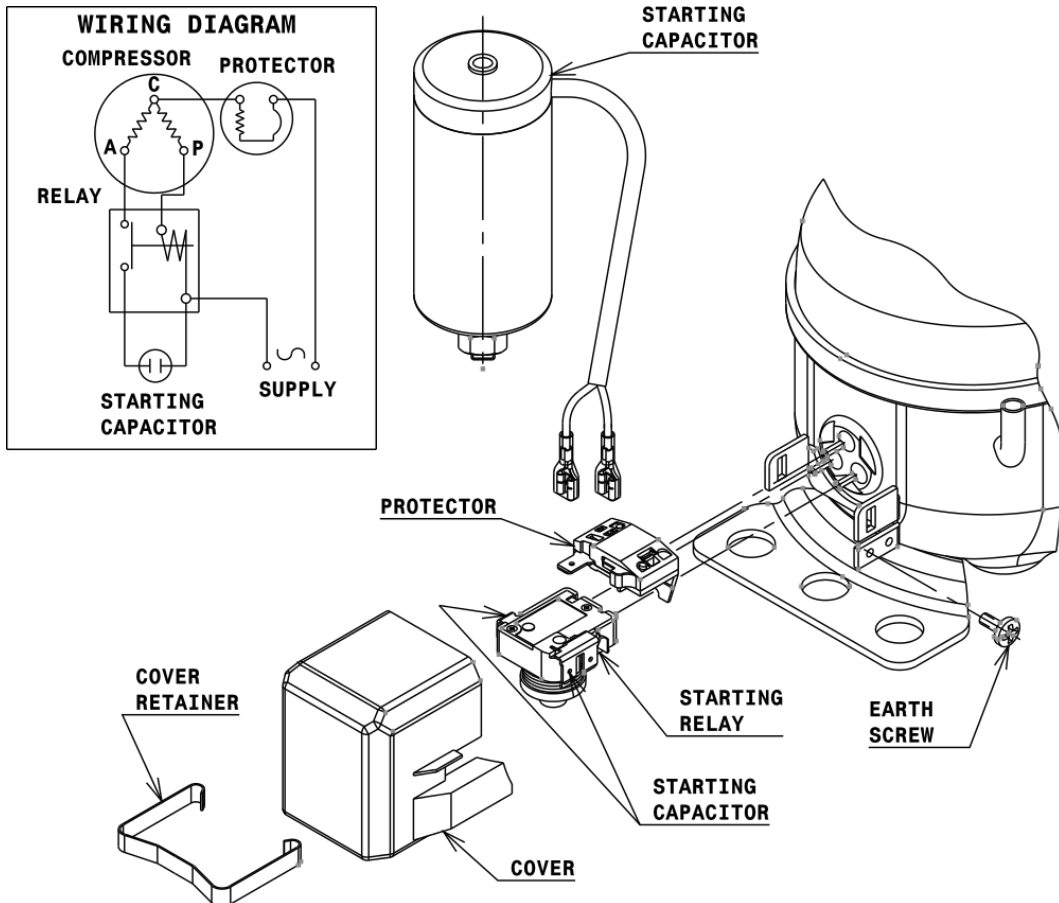


DESIGNATION INTERNAL DIAM.

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

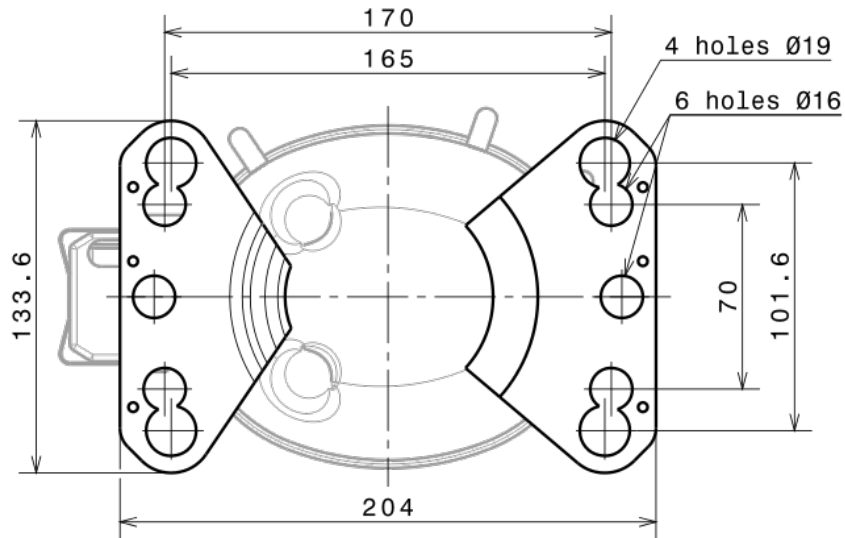
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (B, Small L ranges)



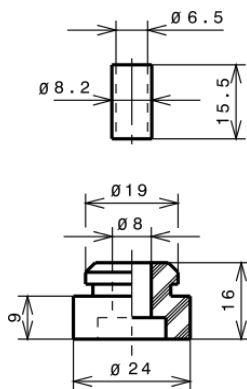
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FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD



SOA

SOA R290 LMBP

