

Technical Data Sheet

Compressor model **NLY90NRb**
 Voltage **115-127V 60Hz ~1**
 Refrigerant **R290**

APPLICATION		COMPRESSOR		MOTOR	
Application	Low-Medium Back Pressure	Displacement	9,09 cm ³	Nominal Power	1/3 hp
Refrigerant	R290	Diameter	24,29 mm	Voltage/Frequency	115-127V 60Hz
Evaporating Temp.	-40,0 °C to 0,0 °C	Stroke	16,62 mm	Voltage range	103-140 V
Expansion	Capillar/Valve	Net Weight	10,45 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	350 cm ³	Locked Rotor Amps (LRA)	36,00 A
				Max. Cont. Current (MCC)	7,60 A
				Main W. resist. at 25°C	1,24 Ω
				Start W. resist. at 25°C	6,95 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	419 kCal/h	362 W
COP	1,45 W/W	1,12 W/W
EER	1,25 kCal/Wh	0,97 kCal/Wh
Input Power	336 W	323 W
Current	3,40 A	3,30 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	200 µF 160 V			
Run capacitor	15 µF 250 V			
Relay	Option 1			
Reference	2014 180. + NTC3Ω			
Pick-Up	16,70 A			
Drop-Out	14,00 A			
Protector	Option 1			
Reference	T0260			
Current	22,00 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	105,00 / 52,00 °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	192	216	2,48	1,03	0,89
40	-35	255	241	2,67	1,23	1,06
40	-30	335	269	2,88	1,44	1,24
40	-25	430	299	3,12	1,67	1,44
40	-23,3	466	310	3,20	1,75	1,50
40	-20	541	332	3,37	1,90	1,63
40	-15	668	366	3,64	2,12	1,82
40	-10	810	402	3,93	2,34	2,01
40	-5	968	441	4,24	2,55	2,20
40	0	1.143	482	4,57	2,76	2,37

45	-40	183	217	2,49	0,98	0,84
45	-35	245	245	2,70	1,16	1,00
45	-30	322	275	2,93	1,36	1,17
45	-25	415	307	3,18	1,57	1,35
45	-23,3	450	319	3,27	1,64	1,41
45	-20	524	342	3,44	1,78	1,53
45	-15	648	378	3,73	1,99	1,71
45	-10	789	417	4,04	2,20	1,89
45	-5	945	457	4,37	2,40	2,07
45	0	1.117	500	4,73	2,60	2,23

50	-40	175	219	2,50	0,93	0,80
50	-35	234	249	2,73	1,09	0,94
50	-30	309	281	2,97	1,28	1,10
50	-25	400	315	3,24	1,48	1,27
50	-23,3	435	327	3,33	1,54	1,33
50	-20	507	352	3,52	1,68	1,44
50	-15	629	390	3,83	1,88	1,61
50	-10	768	431	4,16	2,07	1,78
50	-5	922	474	4,51	2,26	1,95
50	0	1.092	519	4,88	2,45	2,11

55	-40	166	220	2,51	0,88	0,75
55	-35	223	252	2,75	1,03	0,89
55	-30	296	287	3,02	1,20	1,03
55	-25	385	323	3,30	1,39	1,19
55	-23,3	419	336	3,40	1,45	1,25
55	-20	490	362	3,60	1,58	1,35
55	-15	610	402	3,93	1,76	1,52
55	-10	746	445	4,28	1,95	1,68
55	-5	898	490	4,65	2,13	1,83
55	0	1.066	537	5,04	2,31	1,99

60	-40	158	222	2,52	0,83	0,71
60	-35	213	256	2,78	0,97	0,83
60	-30	284	292	3,06	1,13	0,97
60	-25	370	331	3,36	1,30	1,12
60	-23,3	403	345	3,47	1,36	1,17
60	-20	473	372	3,68	1,48	1,27
60	-15	591	414	4,03	1,66	1,43
60	-10	725	459	4,39	1,84	1,58
60	-5	875	506	4,78	2,01	1,73
60	0	1.041	556	5,20	2,18	1,87

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	208	216	2,48	0,96	0,83
40	-35	286	241	2,67	1,18	1,02
40	-30	378	269	2,88	1,40	1,21
40	-25	485	299	3,12	1,62	1,40
40	-23,3	525	310	3,20	1,69	1,46
40	-20	607	332	3,37	1,83	1,58
40	-15	743	366	3,64	2,03	1,75
40	-10	894	402	3,93	2,22	1,92
40	-5	1.060	441	4,24	2,40	2,08
40	0	1.240	482	4,57	2,57	2,22

45	-40	191	217	2,49	0,88	0,76
45	-35	261	245	2,70	1,06	0,92
45	-30	345	275	2,93	1,25	1,08
45	-25	444	307	3,18	1,45	1,25
45	-23,3	481	319	3,27	1,51	1,30
45	-20	558	342	3,44	1,63	1,41
45	-15	686	378	3,73	1,82	1,57
45	-10	829	417	4,04	1,99	1,72
45	-5	987	457	4,37	2,16	1,86
45	0	1.159	500	4,73	2,32	2,00

50	-40	173	219	2,50	0,79	0,69
50	-35	236	249	2,73	0,95	0,82
50	-30	312	281	2,97	1,11	0,96
50	-25	403	315	3,24	1,28	1,11
50	-23,3	438	327	3,33	1,34	1,15
50	-20	509	352	3,52	1,45	1,25
50	-15	629	390	3,83	1,61	1,39
50	-10	764	431	4,16	1,77	1,53
50	-5	914	474	4,51	1,93	1,67
50	0	1.078	519	4,88	2,08	1,80

55	-40	156	220	2,51	0,71	0,61
55	-35	210	252	2,75	0,83	0,72
55	-30	279	287	3,02	0,97	0,84
55	-25	362	323	3,30	1,12	0,97
55	-23,3	394	336	3,40	1,17	1,01
55	-20	460	362	3,60	1,27	1,10
55	-15	572	402	3,93	1,42	1,23
55	-10	699	445	4,28	1,57	1,36
55	-5	841	490	4,65	1,72	1,48
55	0	997	537	5,04	1,86	1,60

60	-40	139	222	2,52	0,63	0,54
60	-35	185	256	2,78	0,72	0,63
60	-30	246	292	3,06	0,84	0,73
60	-25	321	331	3,36	0,97	0,84
60	-23,3	350	345	3,47	1,02	0,88
60	-20	411	372	3,68	1,11	0,96
60	-15	516	414	4,03	1,24	1,07
60	-10	634	459	4,39	1,38	1,19
60	-5	768	506	4,78	1,52	1,31
60	0	916	556	5,20	1,65	1,42

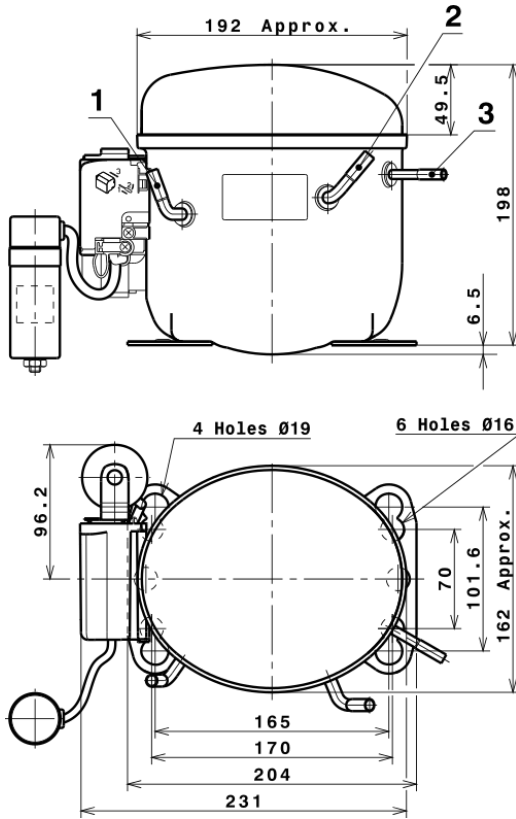
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.885,9847165282	342,4348449708	3,3957244638	17,123461857827
2	50,0064202089	5,1539229570	0,0426561514	0,51991516120622
3	-16,6598718099	3,7991272156	0,0321167124	-0,06504218785186
4	0,2847191548	0,0447700291	0,0004561143	0,0042775909368417
5	-0,3303360863	0,0873156507	0,0007454165	-0,00110614703747

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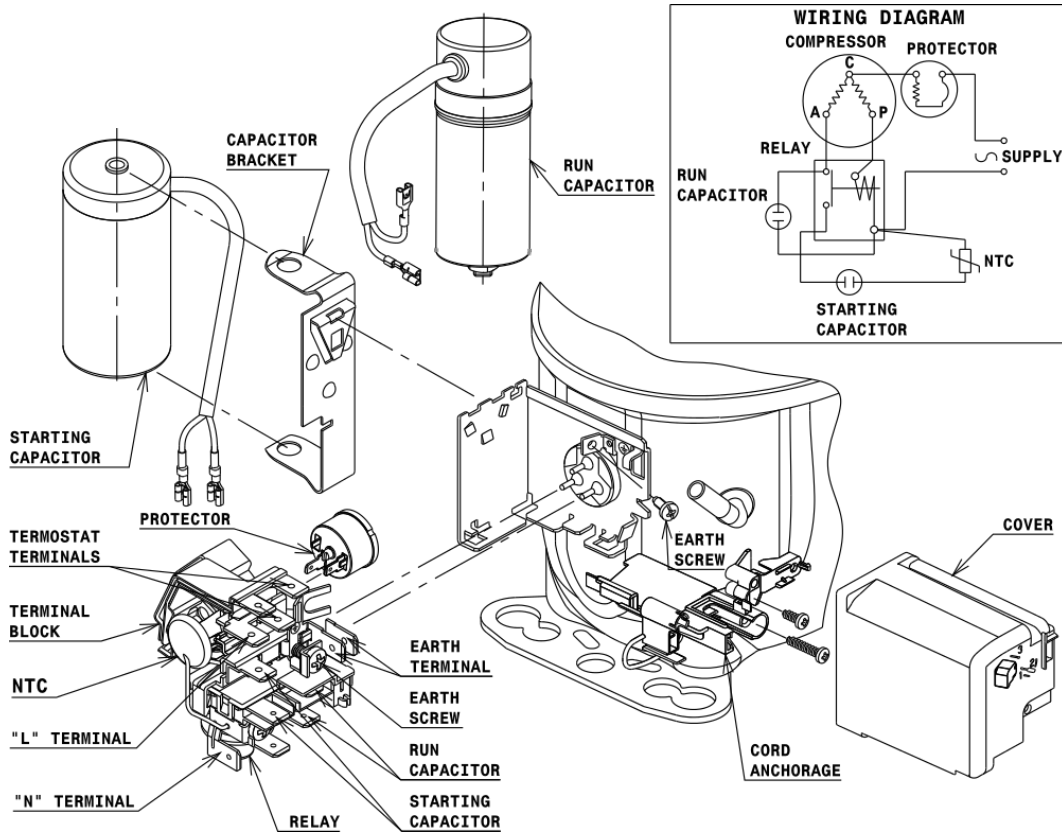
COMPRESSOR DIMENSIONS



DESIGNATION	INTERNAL DIAM.
1 Suction	6,5 mm
2 Service	6,5 mm
3 Discharge	4,9 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (CURRENT RELAY + NTC) (L, P ranges)



FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø16 holes (170x70 net)



AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R290 LMBP

