

Technical Data Sheet

Compressor model **NLY90RAb**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R290**

APPLICATION

COMPRESSOR

MOTOR

Application	High-Medium Back Pressure	Displacement	9,09 cm ³	Nominal Power	3/8 hp
Refrigerant	R290	Diameter	24,29 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	19,62 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	10,74 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	395 cm ³	Locked Rotor Amps (LRA)	16,50 A
				Max. Cont. Current (MCC)	4,00 A
				Main W. resist. at 25°C	7,30 Ω
				Start W. resist. at 25°C	12,00 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.080 kCal/h	1.054 W
COP	2,78 W/W	2,36 W/W
EER	2,39 kCal/Wh	2,04 kCal/Wh
Input Power	452 W	446 W
Current	2,35 A	2,32 A

APPROVALS



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 50 Hz	220 V 50 Hz



ELECTRICAL COMPONENTS

Starting capacitor	64- 77 µF 330 V		
Run capacitor	10 µF 420 V		
Relay	Option 1		
Reference	2014 149. + NTC15Ω		
Pick-Up	7,70 A		
Drop-Out	6,50 A		
Protector	Option 1		
Reference	T0266		
Current	11,00 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	-25	365	278	1,66	1,53	1,31
40	-20	464	300	1,73	1,80	1,55
40	-15	582	319	1,80	2,12	1,82
40	-10	717	337	1,87	2,47	2,13
40	-5	870	353	1,93	2,87	2,46
40	0	1.042	367	1,99	3,30	2,84
40	5	1.231	380	2,04	3,77	3,24
40	7,2	1.320	385	2,06	3,99	3,43
40	10	1.438	390	2,08	4,29	3,69

45	-25	340	282	1,67	1,40	1,21
45	-20	431	306	1,76	1,63	1,41
45	-15	539	329	1,84	1,91	1,64
45	-10	666	350	1,92	2,22	1,90
45	-5	811	369	1,99	2,56	2,20
45	0	974	386	2,06	2,94	2,52
45	5	1.155	401	2,13	3,35	2,88
45	7,2	1.240	407	2,15	3,54	3,05
45	10	1.354	414	2,18	3,80	3,27

50	-25	315	286	1,69	1,28	1,10
50	-20	397	313	1,78	1,47	1,27
50	-15	497	339	1,88	1,71	1,47
50	-10	616	362	1,97	1,98	1,70
50	-5	752	384	2,06	2,28	1,96
50	0	906	404	2,14	2,61	2,24
50	5	1.078	422	2,22	2,97	2,55
50	7,2	1.160	430	2,25	3,14	2,70
50	10	1.269	438	2,29	3,37	2,89

55	-25	290	290	1,70	1,16	1,00
55	-20	364	320	1,81	1,32	1,14
55	-15	455	349	1,92	1,52	1,31
55	-10	565	375	2,02	1,75	1,51
55	-5	693	400	2,12	2,02	1,73
55	0	838	422	2,22	2,31	1,98
55	5	1.002	443	2,31	2,63	2,26
55	7,2	1.080	452	2,35	2,78	2,39
55	10	1.184	462	2,40	2,98	2,56

60	-25	265	294	1,71	1,05	0,90
60	-20	330	327	1,83	1,17	1,01
60	-15	413	358	1,95	1,34	1,15
60	-10	514	388	2,07	1,54	1,33
60	-5	634	415	2,19	1,78	1,53
60	0	771	441	2,30	2,03	1,75
60	5	926	465	2,41	2,32	1,99
60	7,2	1.000	475	2,45	2,45	2,11
60	10	1.099	487	2,51	2,63	2,26

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	393	280	1,66	1,40	1,21
40	-20	501	301	1,74	1,66	1,44
40	-15	628	321	1,81	1,95	1,69
40	-10	773	339	1,88	2,28	1,97
40	-5	938	355	1,94	2,64	2,28
40	0	1.121	370	2,00	3,03	2,62
40	5	1.323	382	2,05	3,46	2,99
40	7,2	1.418	387	2,07	3,66	3,17
40	10	1.544	393	2,09	3,93	3,40

45	-25	364	284	1,68	1,28	1,11
45	-20	462	308	1,76	1,50	1,29
45	-15	578	331	1,85	1,75	1,51
45	-10	714	352	1,93	2,03	1,75
45	-5	868	371	2,00	2,34	2,02
45	0	1.041	388	2,07	2,68	2,32
45	5	1.234	404	2,14	3,06	2,64
45	7,2	1.324	410	2,16	3,23	2,79
45	10	1.444	417	2,20	3,46	2,99

50	-25	335	288	1,69	1,16	1,01
50	-20	422	315	1,79	1,34	1,16
50	-15	529	341	1,89	1,55	1,34
50	-10	655	364	1,98	1,80	1,55
50	-5	799	386	2,07	2,07	1,79
50	0	962	407	2,15	2,37	2,04
50	5	1.144	425	2,23	2,69	2,33
50	7,2	1.230	432	2,26	2,84	2,46
50	10	1.345	441	2,30	3,05	2,63

55	-25	306	292	1,71	1,05	0,91
55	-20	383	322	1,81	1,19	1,03
55	-15	480	350	1,92	1,37	1,18
55	-10	595	377	2,03	1,58	1,36
55	-5	729	402	2,13	1,81	1,57
55	0	882	425	2,23	2,08	1,79
55	5	1.054	446	2,32	2,36	2,04
55	7,2	1.136	455	2,36	2,50	2,16
55	10	1.245	466	2,41	2,67	2,31

60	-25	277	296	1,72	0,94	0,81
60	-20	344	329	1,84	1,05	0,90
60	-15	431	360	1,96	1,20	1,03
60	-10	536	390	2,08	1,37	1,19
60	-5	660	418	2,20	1,58	1,36
60	0	803	444	2,31	1,81	1,56
60	5	964	468	2,42	2,06	1,78
60	7,2	1.041	478	2,47	2,18	1,88
60	10	1.145	490	2,53	2,34	2,02

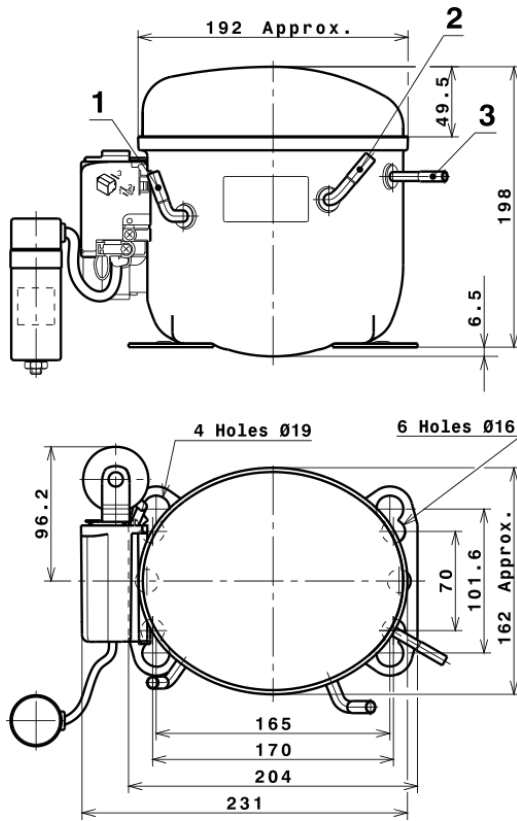
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.761,4480895845	227,4152382355	1,3498244102	15,747679407072
2	54,8840165351	-1,9059783935	-0,0101625832	0,54926765069768
3	-16,4211834557	3,8035307371	0,0168920757	-0,067629794187117
4	0,3696307566	-0,0353092044	-0,0000545046	0,0058463651481011
5	-0,4215507490	0,1192311228	0,0005599076	-0,0014964703783762

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

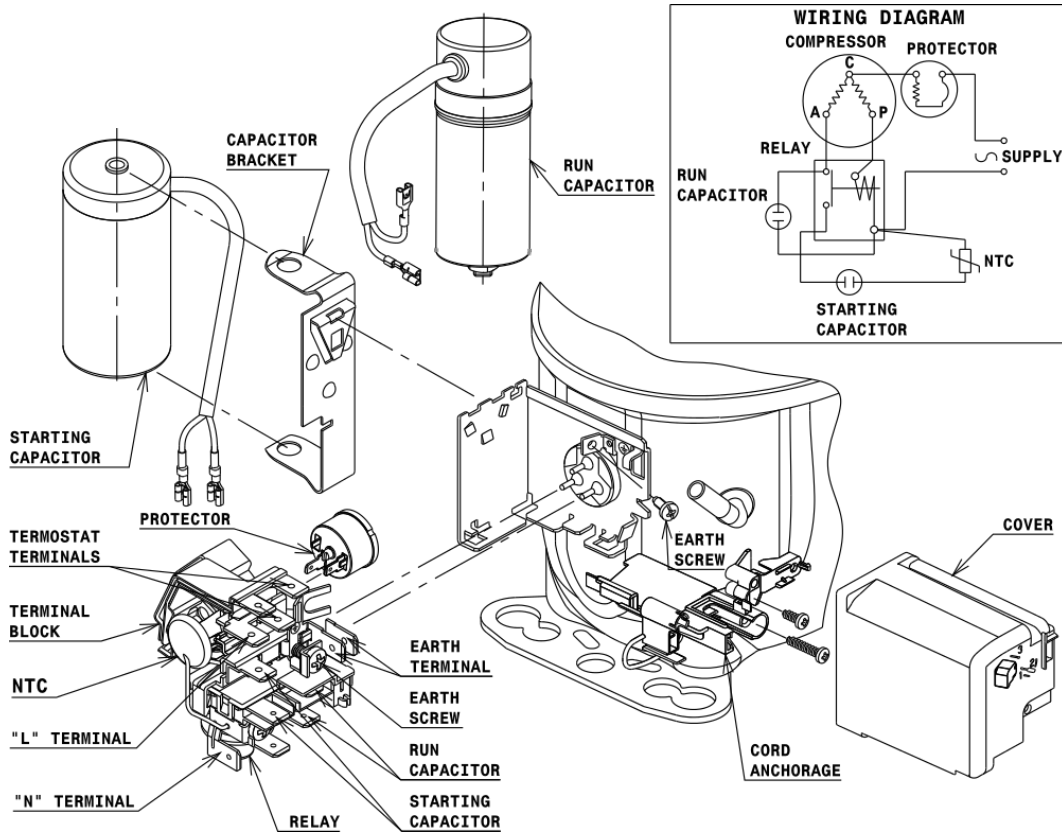
COMPRESSOR DIMENSIONS



DESIGNATION	INTERNAL DIAM.
1 Suction	6,5 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 HMBP

