

# Technical Data Sheet

Compressor model **NLY80RAb**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R290**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	8,10 cm <sup>3</sup>	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	17,47 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	10,64 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	400 cm <sup>3</sup>	Locked Rotor Amps (LRA)	13,50 A
				Max. Cont. Current (MCC)	3,40 A
				Main W. resist. at 25°C	8,62 Ω
				Start W. resist. at 25°C	12,15 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	955 kCal/h	930 W
COP	2,80 W/W	2,38 W/W
EER	2,41 kCal/Wh	2,06 kCal/Wh
Input Power	396 W	391 W
Current	2,10 A	2,08 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	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	T0269			
Current	9,60 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	313	251	1,55	1,45	1,25
40	-20	400	269	1,61	1,73	1,49
40	-15	504	286	1,67	2,05	1,77
40	-10	625	301	1,72	2,42	2,08
40	-5	764	314	1,77	2,83	2,43
40	0	919	326	1,81	3,28	2,82
40	5	1.091	336	1,85	3,77	3,24
40	7,2	1.173	341	1,87	4,00	3,44
40	10	1.281	345	1,89	4,31	3,71

45	-25	290	252	1,55	1,34	1,15
45	-20	370	273	1,62	1,58	1,35
45	-15	466	292	1,69	1,86	1,60
45	-10	580	310	1,75	2,18	1,87
45	-5	710	326	1,81	2,53	2,18
45	0	858	341	1,87	2,93	2,52
45	5	1.022	354	1,92	3,36	2,89
45	7,2	1.100	359	1,94	3,56	3,06
45	10	1.204	365	1,97	3,83	3,30

50	-25	268	253	1,56	1,23	1,06
50	-20	339	276	1,63	1,43	1,23
50	-15	428	298	1,71	1,67	1,43
50	-10	534	319	1,79	1,95	1,67
50	-5	657	338	1,86	2,26	1,94
50	0	796	355	1,93	2,61	2,24
50	5	953	371	1,99	2,99	2,57
50	7,2	1.028	378	2,02	3,17	2,72
50	10	1.127	385	2,05	3,40	2,92

55	-25	245	254	1,56	1,12	0,96
55	-20	309	280	1,65	1,28	1,10
55	-15	390	305	1,73	1,49	1,28
55	-10	488	328	1,82	1,73	1,49
55	-5	603	350	1,90	2,01	1,72
55	0	735	370	1,99	2,31	1,99
55	5	884	388	2,07	2,65	2,28
55	7,2	955	396	2,10	2,80	2,41
55	10	1.050	405	2,14	3,01	2,59

60	-25	223	255	1,56	1,01	0,87
60	-20	279	284	1,66	1,14	0,98
60	-15	352	311	1,76	1,32	1,13
60	-10	442	337	1,86	1,53	1,31
60	-5	549	361	1,95	1,77	1,52
60	0	674	384	2,05	2,04	1,75
60	5	815	406	2,14	2,34	2,01
60	7,2	883	415	2,18	2,48	2,13
60	10	973	425	2,23	2,66	2,29

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	336	252	1,55	1,33	1,15
40	-20	431	271	1,61	1,59	1,38
40	-15	544	287	1,67	1,89	1,64
40	-10	675	302	1,72	2,23	1,93
40	-5	823	316	1,77	2,61	2,25
40	0	989	328	1,82	3,02	2,61
40	5	1.173	339	1,86	3,46	2,99
40	7,2	1.260	343	1,88	3,68	3,18
40	10	1.375	348	1,90	3,95	3,42

45	-25	310	253	1,56	1,22	1,06
45	-20	396	274	1,63	1,44	1,25
45	-15	500	294	1,69	1,70	1,47
45	-10	621	311	1,76	1,99	1,72
45	-5	760	328	1,82	2,32	2,00
45	0	917	343	1,88	2,68	2,31
45	5	1.092	356	1,93	3,07	2,65
45	7,2	1.175	361	1,95	3,25	2,81
45	10	1.285	368	1,98	3,49	3,02

50	-25	284	254	1,56	1,12	0,97
50	-20	361	278	1,64	1,30	1,12
50	-15	455	300	1,72	1,52	1,31
50	-10	568	321	1,79	1,77	1,53
50	-5	698	340	1,87	2,05	1,77
50	0	845	357	1,94	2,37	2,04
50	5	1.011	373	2,00	2,71	2,34
50	7,2	1.089	380	2,03	2,87	2,48
50	10	1.194	388	2,06	3,08	2,66

55	-25	258	255	1,56	1,01	0,87
55	-20	326	282	1,65	1,16	1,00
55	-15	411	307	1,74	1,34	1,16
55	-10	514	330	1,83	1,56	1,35
55	-5	635	352	1,91	1,80	1,56
55	0	773	372	2,00	2,08	1,80
55	5	930	391	2,08	2,38	2,06
55	7,2	1.004	399	2,11	2,52	2,18
55	10	1.104	408	2,15	2,70	2,34

60	-25	232	256	1,57	0,91	0,78
60	-20	291	285	1,66	1,02	0,88
60	-15	367	313	1,76	1,17	1,01
60	-10	461	339	1,86	1,36	1,17
60	-5	572	364	1,96	1,57	1,36
60	0	701	387	2,06	1,81	1,57
60	5	849	408	2,15	2,08	1,80
60	7,2	919	417	2,20	2,20	1,90
60	10	1.014	428	2,25	2,37	2,04

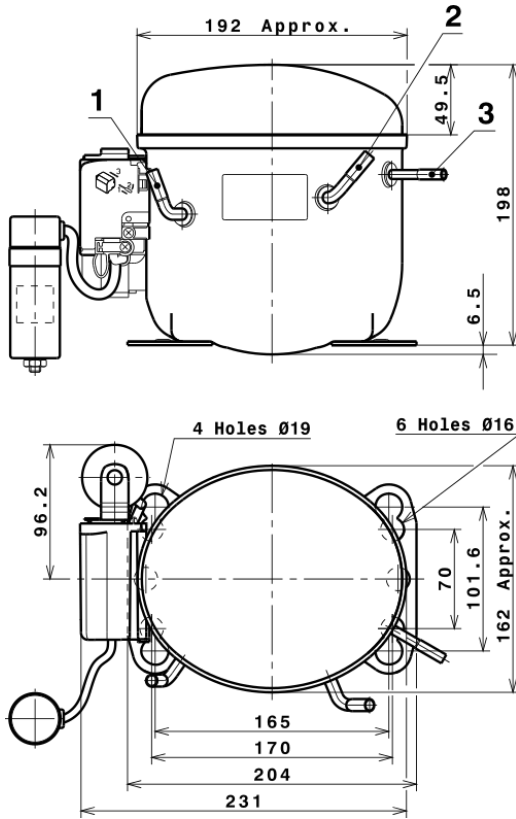
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.567,4848713137	215,9246650685	1,3149958674	14,062755211063
2	49,8168810449	-2,0826711702	-0,0097916036	0,50008427913582
3	-14,8196901275	3,0220760356	0,0131406446	-0,063947806167796
4	0,3486582133	-0,0289285144	-0,0000211829	0,0054749365177885
5	-0,3824598948	0,1126555147	0,0004988748	-0,0013968677532538

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

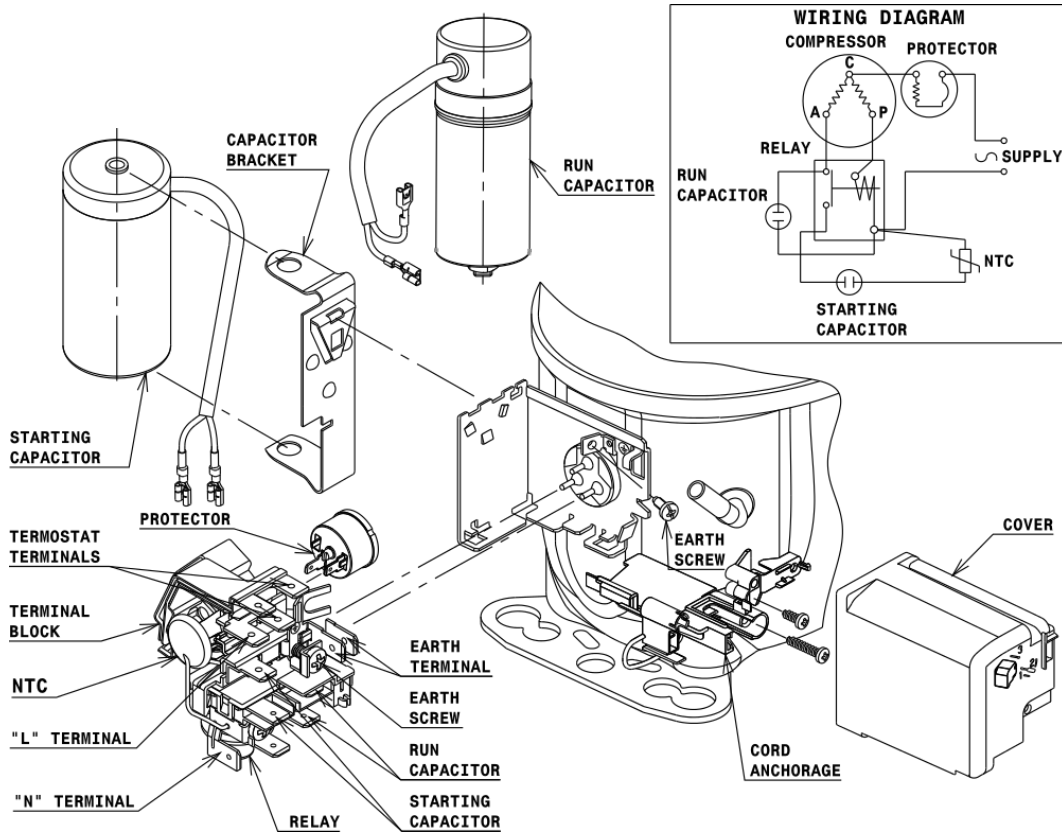
## COMPRESSOR DIMENSIONS



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

$\varnothing 16$  holes (170x70 net)



### AMERICAN FEET

$\varnothing 19$  holes (165x101.6 net)



### SNAP-ON

$\varnothing 16$  holes (170x70 net)



## SOA

SOA R290 HMBP

