

# Technical Data Sheet

Compressor model **NLY90RRb**  
 Voltage **115-127V 60Hz ~1**  
 Refrigerant **R290**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	9,09 cm <sup>3</sup>	Nominal Power	1/3 hp
Refrigerant	R290	Diameter	24,29 mm	Voltage/Frequency	115-127V 60Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	19,62 mm	Voltage range	98-135 V
Expansion	Capillar/Valve	Net Weight	10,65 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)	38,00 A
				Max. Cont. Current (MCC)	10,50 A
				Main W. resist. at 25°C	1,45 Ω
				Start W. resist. at 25°C	6,54 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.269 kCal/h	1.239 W
COP	2,56 W/W	2,21 W/W
EER	2,20 kCal/Wh	1,91 kCal/Wh
Input Power	577 W	562 W
Current	5,57 A	5,48 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	115 V 60 Hz	115 V 60 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	150 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	T0257			
Current	24,00 A			
Time check	6,0-16 seg			
Disc temp. (Open/Close)	120,00 / 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	415	315	3,83	1,53	1,32
40	-20	531	334	3,97	1,85	1,59
40	-15	667	354	4,12	2,19	1,89
40	-10	825	375	4,27	2,56	2,20
40	-5	1.002	397	4,43	2,94	2,52
40	0	1.201	420	4,59	3,32	2,86
40	5	1.420	445	4,75	3,71	3,19
40	7,2	1.523	456	4,82	3,89	3,34
40	10	1.659	470	4,92	4,11	3,53

45	-25	388	316	3,84	1,43	1,23
45	-20	495	341	4,03	1,69	1,45
45	-15	623	367	4,22	1,97	1,69
45	-10	771	395	4,41	2,27	1,95
45	-5	940	423	4,60	2,58	2,22
45	0	1.129	452	4,80	2,90	2,50
45	5	1.339	482	5,00	3,23	2,78
45	7,2	1.438	496	5,08	3,37	2,90
45	10	1.570	514	5,19	3,55	3,06

50	-25	362	318	3,85	1,32	1,14
50	-20	460	349	4,08	1,53	1,32
50	-15	578	381	4,31	1,77	1,52
50	-10	718	414	4,55	2,01	1,73
50	-5	877	449	4,78	2,27	1,96
50	0	1.058	484	5,01	2,54	2,19
50	5	1.259	520	5,23	2,81	2,42
50	7,2	1.354	537	5,33	2,93	2,52
50	10	1.480	558	5,46	3,09	2,65

55	-25	335	319	3,86	1,22	1,05
55	-20	424	356	4,14	1,38	1,19
55	-15	534	395	4,41	1,57	1,35
55	-10	664	434	4,68	1,78	1,53
55	-5	815	474	4,95	2,00	1,72
55	0	986	516	5,21	2,22	1,91
55	5	1.178	558	5,46	2,46	2,11
55	7,2	1.269	577	5,57	2,56	2,20
55	10	1.391	601	5,71	2,69	2,31

60	-25	309	321	3,87	1,12	0,96
60	-20	389	364	4,19	1,24	1,07
60	-15	489	408	4,50	1,39	1,20
60	-10	610	454	4,81	1,57	1,35
60	-5	752	500	5,11	1,75	1,50
60	0	915	547	5,40	1,94	1,67
60	5	1.098	596	5,68	2,14	1,84
60	7,2	1.185	618	5,80	2,23	1,92
60	10	1.301	645	5,94	2,34	2,02

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	446	316	3,84	1,41	1,22
40	-20	572	335	3,98	1,71	1,47
40	-15	720	356	4,13	2,02	1,75
40	-10	890	377	4,29	2,36	2,04
40	-5	1.080	400	4,44	2,70	2,34
40	0	1.293	423	4,61	3,06	2,64
40	5	1.526	447	4,77	3,41	2,95
40	7,2	1.636	459	4,84	3,57	3,08
40	10	1.782	473	4,94	3,77	3,25

45	-25	415	318	3,85	1,31	1,13
45	-20	531	343	4,04	1,55	1,34
45	-15	668	369	4,23	1,81	1,56
45	-10	826	397	4,43	2,08	1,80
45	-5	1.006	425	4,62	2,37	2,04
45	0	1.208	455	4,82	2,65	2,29
45	5	1.431	486	5,02	2,95	2,55
45	7,2	1.535	499	5,10	3,08	2,66
45	10	1.675	517	5,22	3,24	2,80

50	-25	384	319	3,86	1,20	1,04
50	-20	489	351	4,10	1,39	1,20
50	-15	615	383	4,33	1,61	1,39
50	-10	763	417	4,56	1,83	1,58
50	-5	932	451	4,80	2,06	1,78
50	0	1.123	487	5,03	2,31	1,99
50	5	1.335	524	5,25	2,55	2,20
50	7,2	1.435	540	5,35	2,66	2,30
50	10	1.568	561	5,48	2,79	2,41

55	-25	353	321	3,87	1,10	0,95
55	-20	447	358	4,15	1,25	1,08
55	-15	563	397	4,43	1,42	1,22
55	-10	699	437	4,70	1,60	1,38
55	-5	858	477	4,96	1,80	1,55
55	0	1.038	519	5,23	2,00	1,73
55	5	1.239	562	5,48	2,21	1,91
55	7,2	1.334	581	5,59	2,30	1,98
55	10	1.462	606	5,73	2,41	2,09

60	-25	322	322	3,88	1,00	0,86
60	-20	405	366	4,21	1,11	0,96
60	-15	510	411	4,52	1,24	1,07
60	-10	636	456	4,83	1,39	1,20
60	-5	784	503	5,13	1,56	1,35
60	0	953	551	5,42	1,73	1,49
60	5	1.143	600	5,70	1,91	1,65
60	7,2	1.234	622	5,82	1,98	1,71
60	10	1.355	650	5,97	2,09	1,80

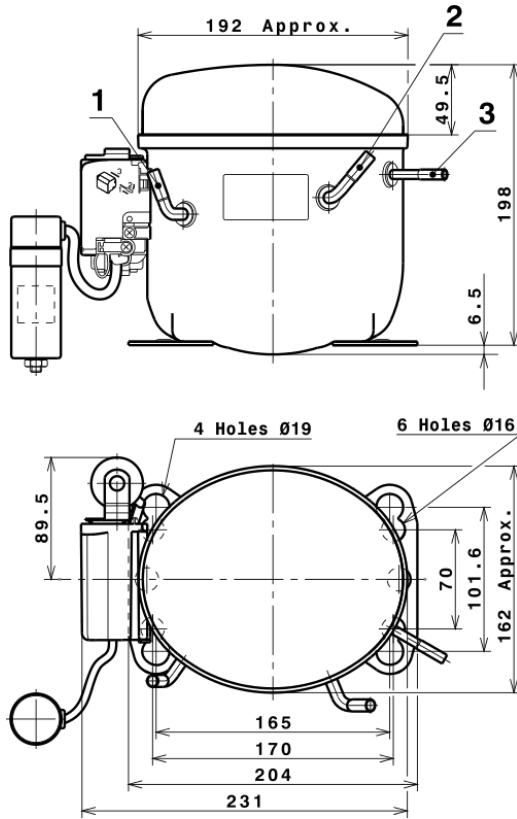
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.978,0369960679	170,9198449380	3,1772594670	17,356925736079
2	62,0922348024	-4,9941098525	-0,0270638473	0,61301033008938
3	-17,6106886119	6,5841987314	0,0387614453	-0,058380102166736
4	0,4216349658	0,0245292180	-0,0000843914	0,006698136783568
5	-0,4525305055	0,2510266592	0,0014581247	-0,0011802212088387

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

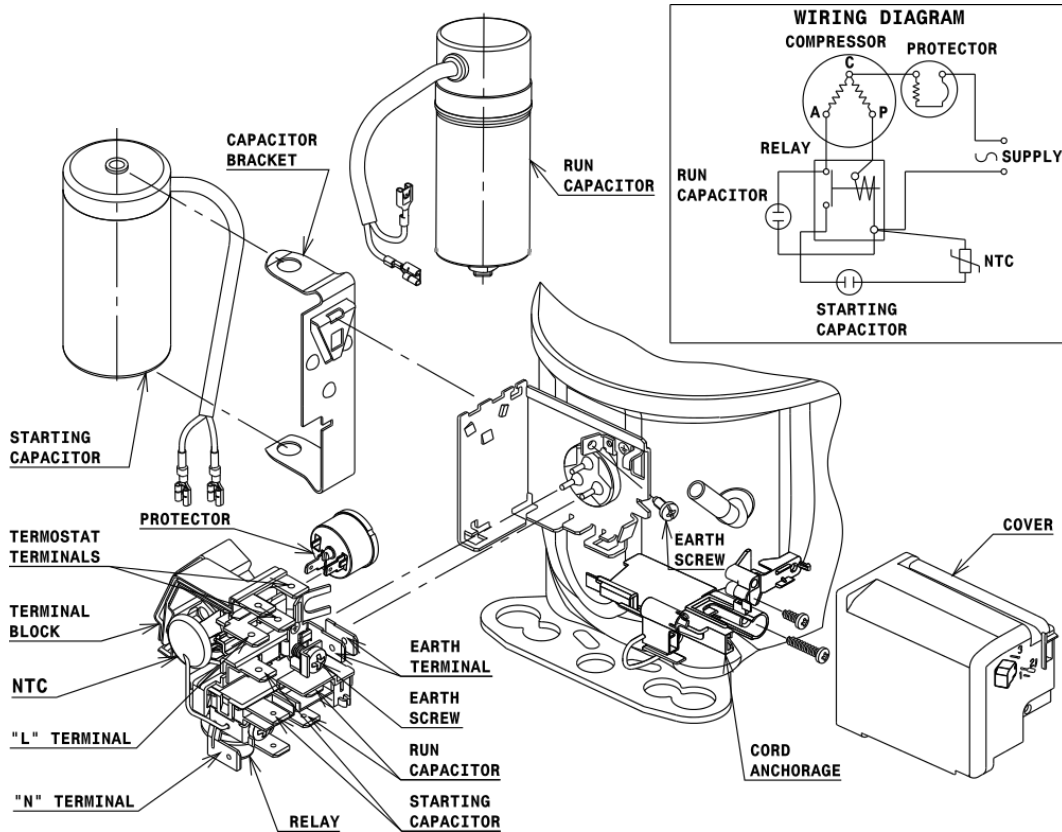
## COMPRESSOR DIMENSIONS



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

