

# Technical Data Sheet

Compressor model **NPY14Lab**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R290**

## APPLICATION

Application	Low Back Pressure
Refrigerant	R290
Evaporating Temp.	-40,0 °C to -10,0 °C
Expansion	Capillar/Valve
Comp. Cooling	Fan cooled
Max. ambient temp.	43,0 °C

## COMPRESSOR

Displacement	14,32 cm <sup>3</sup>
Diameter	29,37 mm
Stroke	21,13 mm
Net Weight	12,27 Kg
Oil type	ISO VG 32 ESTER
Oil charge	400 cm <sup>3</sup>

## MOTOR

Nominal Power	1/2 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	198-255 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	18,00 A
Max. Cont. Current (MCC)	3,80 A
Main W. resist. at 25°C	5,56 Ω
Start W. resist. at 25°C	10,00 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	560 kCal/h	485 W
COP	1,48 W/W	1,14 W/W
EER	1,27 kCal/Wh	0,99 kCal/Wh
Input Power	440 W	424 W
Current	2,15 A	2,08 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	64-77 / 60-61 μF 330 V		
Run capacitor	10 μF 420 V		
Relay	Option 1	Option 2	
Reference	2014 158. + NTC15î©	QLZ-9.05A + NTC15î©	
Pick-Up	9,05 A	9,05 A	
Drop-Out	7,70 A	7,70 A	
Protector	Option 1	Option 2	
Reference	T0266	B113-105	
Current	11,00 A	11,50 A	
Time check	7,5-14 seg	7,5-16 seg	
Disc temp. (Open/Close)	105,00 / 52,00 °C	110,00 / 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	275	293	1,53	1,09	0,94
40	-35	357	327	1,67	1,27	1,09
40	-30	460	362	1,81	1,48	1,27
40	-25	583	398	1,96	1,71	1,47
40	-23,3	630	410	2,02	1,79	1,54
40	-20	728	434	2,12	1,95	1,68
40	-15	893	472	2,29	2,20	1,89
40	-10	1.080	510	2,47	2,46	2,12

45	-40	260	290	1,52	1,04	0,90
45	-35	339	328	1,67	1,20	1,03
45	-30	440	367	1,83	1,39	1,20
45	-25	561	406	2,00	1,61	1,38
45	-23,3	607	420	2,06	1,68	1,44
45	-20	703	447	2,18	1,83	1,57
45	-15	866	488	2,37	2,06	1,77
45	-10	1.050	530	2,56	2,30	1,98

50	-40	245	288	1,51	0,99	0,85
50	-35	322	329	1,68	1,14	0,98
50	-30	420	372	1,85	1,31	1,13
50	-25	538	415	2,04	1,51	1,30
50	-23,3	583	430	2,11	1,58	1,36
50	-20	678	459	2,24	1,72	1,48
50	-15	838	504	2,44	1,93	1,66
50	-10	1.020	550	2,65	2,16	1,85

55	-40	230	285	1,50	0,94	0,81
55	-35	304	330	1,68	1,07	0,92
55	-30	400	377	1,88	1,23	1,06
55	-25	516	424	2,08	1,42	1,22
55	-23,3	560	440	2,15	1,48	1,27
55	-20	653	472	2,29	1,61	1,38
55	-15	811	520	2,52	1,81	1,56
55	-10	990	570	2,75	2,02	1,74

60	-40	215	283	1,49	0,89	0,76
60	-35	287	332	1,69	1,01	0,86
60	-30	380	382	1,90	1,16	0,99
60	-25	493	433	2,12	1,33	1,14
60	-23,3	537	450	2,19	1,39	1,19
60	-20	628	484	2,35	1,51	1,30
60	-15	783	537	2,59	1,70	1,46
60	-10	960	590	2,85	1,89	1,63

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	298	293	1,53	1,02	0,88
40	-35	395	327	1,67	1,21	1,04
40	-30	511	362	1,81	1,41	1,22
40	-25	647	398	1,96	1,63	1,41
40	-23,3	698	410	2,02	1,70	1,47
40	-20	803	434	2,12	1,85	1,60
40	-15	978	472	2,29	2,07	1,79
40	-10	1.172	510	2,47	2,30	1,99

45	-40	271	290	1,52	0,93	0,81
45	-35	359	328	1,67	1,09	0,95
45	-30	466	367	1,83	1,27	1,10
45	-25	593	406	2,00	1,46	1,26
45	-23,3	641	420	2,06	1,53	1,32
45	-20	740	447	2,18	1,66	1,43
45	-15	905	488	2,37	1,86	1,60
45	-10	1.091	530	2,56	2,06	1,78

50	-40	244	288	1,51	0,85	0,73
50	-35	323	329	1,68	0,98	0,85
50	-30	421	372	1,85	1,13	0,98
50	-25	539	415	2,04	1,30	1,12
50	-23,3	584	430	2,11	1,36	1,17
50	-20	677	459	2,24	1,47	1,27
50	-15	833	504	2,44	1,65	1,43
50	-10	1.010	550	2,65	1,84	1,59

55	-40	217	285	1,50	0,76	0,66
55	-35	287	330	1,68	0,87	0,75
55	-30	376	377	1,88	1,00	0,86
55	-25	485	424	2,08	1,14	0,99
55	-23,3	527	440	2,15	1,20	1,03
55	-20	613	472	2,29	1,30	1,12
55	-15	761	520	2,52	1,46	1,26
55	-10	928	570	2,75	1,63	1,41

60	-40	190	283	1,49	0,67	0,58
60	-35	251	332	1,69	0,76	0,65
60	-30	331	382	1,90	0,87	0,75
60	-25	431	433	2,12	1,00	0,86
60	-23,3	469	450	2,19	1,04	0,90
60	-20	550	484	2,35	1,14	0,98
60	-15	689	537	2,59	1,28	1,11
60	-10	847	590	2,85	1,44	1,24

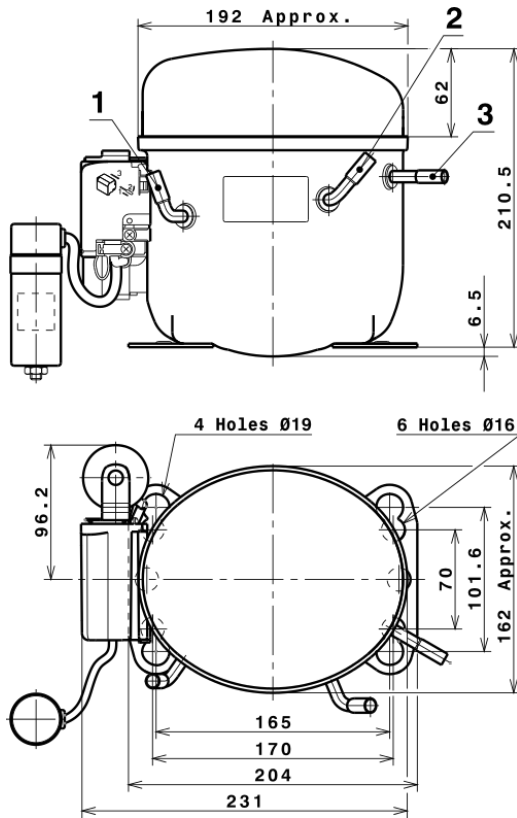
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.401,9288235412	379,2210733993	1,8620113324	22,651986211538
2	62,4930041471	2,2431210066	0,0145975559	0,66726642216217
3	-20,3189448505	5,6354342977	0,0268511542	-0,088187819787492
4	0,3791980160	0,0186098993	0,0002240827	0,0055407721978098
5	-0,3721990290	0,1536567403	0,0007222343	-0,0012875190705297

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

## COMPRESSOR DIMENSIONS

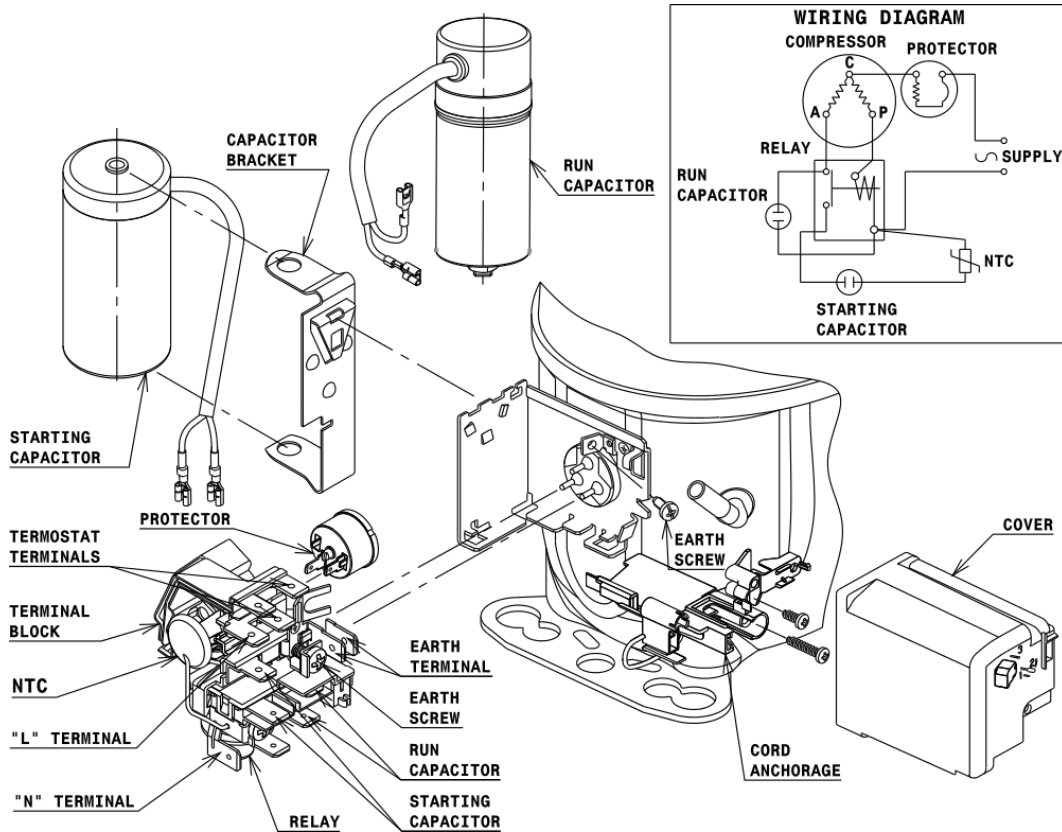


## DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Suction	8,1 mm
2 Service	8,1 mm
3 Discharge	6,5 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



# Technical Data Sheet

## 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 LBP

