

# Technical Data Sheet

Compressor model **NPY14LFa**  
 Voltage **208-230V 60Hz ~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 12,19 Kg  
 Oil type ISO VG 32 ESTER  
 Oil charge 400 cm<sup>3</sup>

## MOTOR

Nominal Power 1/2 hp  
 Voltage/Frequency 208-230V 60Hz  
 Voltage range 187-253 V  
 Type CSIR  
 Phase number 1 PH  
 Locked Rotor Amps (LRA) 21,00 A  
 Max. Cont. Current (MCC) 4,70 A  
 Main W. resist. at 25°C 3,90 Ω  
 Start W. resist. at 25°C 7,50 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	698 kCal/h	603 W
COP	1,34 W/W	1,04 W/W
EER	1,15 kCal/Wh	0,89 kCal/Wh
Input Power	606 W	583 W
Current	3,62 A	3,54 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	230 V 60 Hz	230 V 60 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	64- 77 µF 330 V			
Relay	Option 1			
Reference	2014 166.			
Pick-Up	11,00 A			
Drop-Out	9,35 A			
Protector	Option 1			
Reference	T0267			
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	-40	309	381	2,97	0,94	0,81
40	-35	406	426	3,08	1,11	0,95
40	-30	532	474	3,21	1,30	1,12
40	-25	686	526	3,37	1,52	1,30
40	-23,3	745	545	3,42	1,59	1,37
40	-20	868	582	3,54	1,74	1,49
40	-15	1.080	641	3,74	1,96	1,68
40	-10	1.319	704	3,96	2,18	1,87

45	-40	301	385	2,98	0,91	0,78
45	-35	396	435	3,11	1,06	0,91
45	-30	519	488	3,25	1,24	1,06
45	-25	671	545	3,42	1,43	1,23
45	-23,3	729	565	3,49	1,50	1,29
45	-20	851	606	3,62	1,64	1,41
45	-15	1.060	670	3,84	1,84	1,58
45	-10	1.297	737	4,09	2,05	1,76

50	-40	294	390	2,99	0,88	0,75
50	-35	386	444	3,13	1,01	0,87
50	-30	507	502	3,30	1,17	1,01
50	-25	656	564	3,48	1,35	1,16
50	-23,3	714	586	3,55	1,42	1,22
50	-20	834	629	3,70	1,54	1,33
50	-15	1.040	698	3,94	1,73	1,49
50	-10	1.275	770	4,22	1,93	1,66

55	-40	286	394	3,00	0,84	0,73
55	-35	376	453	3,16	0,96	0,83
55	-30	495	516	3,34	1,11	0,96
55	-25	642	583	3,54	1,28	1,10
55	-23,3	698	606	3,62	1,34	1,15
55	-20	817	653	3,78	1,46	1,25
55	-15	1.021	726	4,05	1,64	1,41
55	-10	1.253	803	4,35	1,81	1,56

60	-40	279	399	3,01	0,81	0,70
60	-35	366	463	3,18	0,92	0,79
60	-30	482	530	3,38	1,06	0,91
60	-25	627	601	3,60	1,21	1,04
60	-23,3	682	626	3,69	1,27	1,09
60	-20	800	676	3,86	1,38	1,18
60	-15	1.001	754	4,16	1,54	1,33
60	-10	1.231	836	4,49	1,71	1,47

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	335	381	2,97	0,88	0,76
40	-35	452	426	3,08	1,06	0,92
40	-30	596	474	3,21	1,26	1,09
40	-25	766	526	3,37	1,45	1,26
40	-23,3	829	545	3,42	1,52	1,32
40	-20	962	582	3,54	1,65	1,43
40	-15	1.184	641	3,74	1,85	1,60
40	-10	1.434	704	3,96	2,04	1,76

45	-40	313	385	2,98	0,81	0,70
45	-35	420	435	3,11	0,97	0,83
45	-30	552	488	3,25	1,13	0,98
45	-25	712	545	3,42	1,31	1,13
45	-23,3	772	565	3,49	1,37	1,18
45	-20	897	606	3,62	1,48	1,28
45	-15	1.109	670	3,84	1,66	1,43
45	-10	1.347	737	4,09	1,83	1,58

50	-40	291	390	2,99	0,75	0,65
50	-35	387	444	3,13	0,87	0,75
50	-30	509	502	3,30	1,01	0,88
50	-25	657	564	3,48	1,17	1,01
50	-23,3	714	586	3,55	1,22	1,05
50	-20	832	629	3,70	1,32	1,14
50	-15	1.034	698	3,94	1,48	1,28
50	-10	1.261	770	4,22	1,64	1,42

55	-40	269	394	3,00	0,68	0,59
55	-35	354	453	3,16	0,78	0,68
55	-30	466	516	3,34	0,90	0,78
55	-25	603	583	3,54	1,04	0,89
55	-23,3	656	606	3,62	1,08	0,94
55	-20	768	653	3,78	1,18	1,02
55	-15	958	726	4,05	1,32	1,14
55	-10	1.175	803	4,35	1,46	1,26

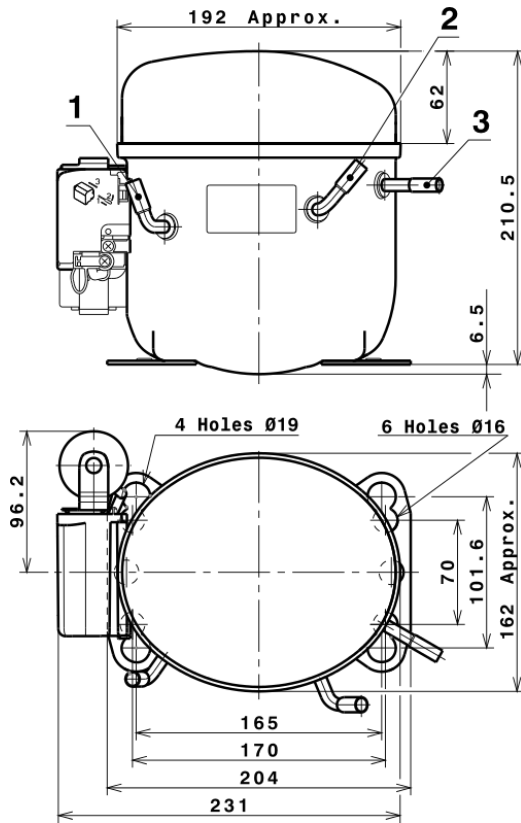
60	-40	247	399	3,01	0,62	0,54
60	-35	322	463	3,18	0,70	0,60
60	-30	422	530	3,38	0,80	0,69
60	-25	549	601	3,60	0,91	0,79
60	-23,3	599	626	3,69	0,96	0,83
60	-20	703	676	3,86	1,04	0,90
60	-15	883	754	4,16	1,17	1,01
60	-10	1.089	836	4,49	1,30	1,13

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.861,1105394567	513,7471161275	3,1986055621	26,46229818254
2	79,4222042410	7,0347211657	0,0328314810	0,84844377639542
3	-22,1815755761	8,7110059786	0,0355495883	-0,067656850901122
4	0,5148772254	0,0747545392	0,0006300740	0,007486774200343
5	-0,4424392921	0,1947875603	0,0008304724	-0,0012319971494646

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



## DESIGNATION INTERNAL DIAM.

1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (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 LBP

