

# Technical Data Sheet

Compressor model **NPY12LRb**  
 Voltage **115-127V 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	12,10 cm <sup>3</sup>
Diameter	27,00 mm
Stroke	21,13 mm
Net Weight	11,87 Kg
Oil type	ISO VG 32 ESTER
Oil charge	400 cm <sup>3</sup>

## MOTOR

Nominal Power	3/8 hp
Voltage/Frequency	115-127V 60Hz
Voltage range	98-140 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	36,00 A
Max. Cont. Current (MCC)	8,20 A
Main W. resist. at 25°C	1,05 Ω
Start W. resist. at 25°C	6,65 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	548 kCal/h	473 W
COP	1,44 W/W	1,11 W/W
EER	1,24 kCal/Wh	0,96 kCal/Wh
Input Power	443 W	425 W
Current	4,67 A	4,54 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	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	T0534			
Current	20,00 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

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	228	267	3,44	0,99	0,85
40	-35	306	306	3,70	1,16	1,00
40	-30	406	349	3,99	1,35	1,16
40	-25	527	394	4,31	1,56	1,34
40	-23,3	574	410	4,43	1,63	1,40
40	-20	670	443	4,67	1,76	1,51
40	-15	835	495	5,07	1,96	1,69
40	-10	1.021	550	5,51	2,16	1,86

45	-40	222	272	3,48	0,95	0,82
45	-35	300	313	3,74	1,11	0,96
45	-30	399	357	4,05	1,30	1,12
45	-25	519	405	4,38	1,49	1,28
45	-23,3	565	421	4,51	1,56	1,34
45	-20	661	455	4,76	1,69	1,45
45	-15	825	508	5,18	1,89	1,62
45	-10	1.010	565	5,64	2,08	1,79

50	-40	217	277	3,51	0,91	0,78
50	-35	293	320	3,79	1,07	0,92
50	-30	391	366	4,11	1,24	1,07
50	-25	511	415	4,46	1,43	1,23
50	-23,3	557	432	4,59	1,50	1,29
50	-20	652	467	4,85	1,62	1,40
50	-15	815	522	5,29	1,81	1,56
50	-10	999	581	5,77	2,00	1,72

55	-40	211	282	3,54	0,87	0,75
55	-35	287	327	3,84	1,02	0,88
55	-30	384	374	4,17	1,19	1,03
55	-25	503	425	4,54	1,38	1,18
55	-23,3	548	443	4,67	1,44	1,24
55	-20	643	479	4,95	1,56	1,34
55	-15	805	536	5,40	1,75	1,50
55	-10	988	596	5,90	1,93	1,66

60	-40	206	287	3,57	0,83	0,72
60	-35	280	333	3,88	0,98	0,84
60	-30	377	383	4,23	1,14	0,98
60	-25	494	435	4,61	1,32	1,14
60	-23,3	539	454	4,75	1,38	1,19
60	-20	634	491	5,04	1,50	1,29
60	-15	795	550	5,51	1,68	1,45
60	-10	977	612	6,03	1,86	1,60

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	247	267	3,44	0,93	0,80
40	-35	341	306	3,70	1,11	0,96
40	-30	455	349	3,99	1,31	1,13
40	-25	589	394	4,31	1,49	1,29
40	-23,3	639	410	4,43	1,56	1,35
40	-20	743	443	4,67	1,68	1,45
40	-15	917	495	5,07	1,85	1,60
40	-10	1.111	550	5,51	2,02	1,75

45	-40	231	272	3,48	0,85	0,73
45	-35	318	313	3,74	1,01	0,88
45	-30	424	357	4,05	1,19	1,03
45	-25	550	405	4,38	1,36	1,18
45	-23,3	598	421	4,51	1,42	1,23
45	-20	697	455	4,76	1,53	1,32
45	-15	863	508	5,18	1,70	1,47
45	-10	1.049	565	5,64	1,86	1,60

50	-40	215	277	3,51	0,78	0,67
50	-35	294	320	3,79	0,92	0,79
50	-30	393	366	4,11	1,07	0,93
50	-25	512	415	4,46	1,23	1,07
50	-23,3	557	432	4,59	1,29	1,11
50	-20	650	467	4,85	1,39	1,20
50	-15	809	522	5,29	1,55	1,34
50	-10	988	581	5,77	1,70	1,47

55	-40	199	282	3,54	0,70	0,61
55	-35	270	327	3,84	0,83	0,71
55	-30	362	374	4,17	0,97	0,83
55	-25	473	425	4,54	1,11	0,96
55	-23,3	515	443	4,67	1,16	1,00
55	-20	604	479	4,95	1,26	1,09
55	-15	755	536	5,40	1,41	1,22
55	-10	927	596	5,90	1,55	1,34

60	-40	183	287	3,57	0,64	0,55
60	-35	246	333	3,88	0,74	0,64
60	-30	330	383	4,23	0,86	0,75
60	-25	434	435	4,61	1,00	0,86
60	-23,3	474	454	4,75	1,04	0,90
60	-20	558	491	5,04	1,14	0,98
60	-15	702	550	5,51	1,28	1,10
60	-10	865	612	6,03	1,41	1,22

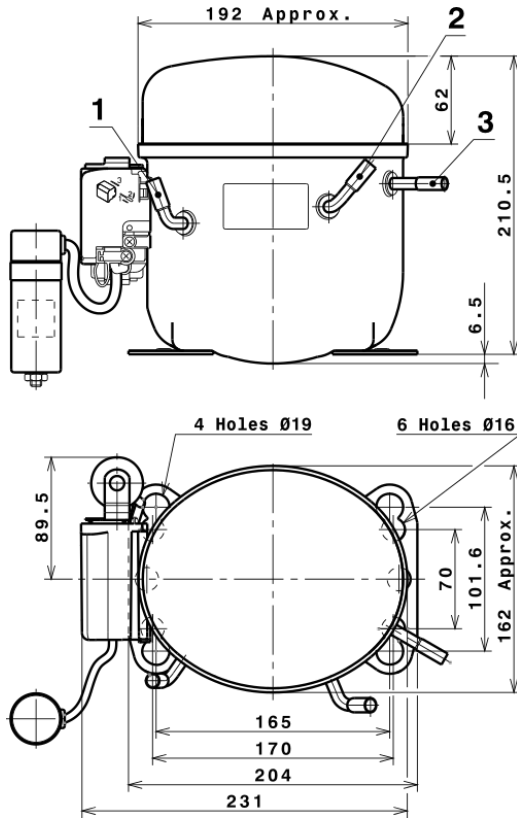
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.163,3504563231	530,2290844079	5,3277019777	19,689386965977
2	60,2942243728	10,0757003741	0,0879076030	0,63655691539047
3	-15,8467578986	3,8949389141	0,0339103646	-0,032497452077428
4	0,3892806959	0,0654488523	0,0008769160	0,0056817842824449
5	-0,3136347072	0,0718317071	0,0006816901	-0,0004755190864226

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

