

# Technical Data Sheet

Compressor model **NPT18LA**  
 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	18,00 cm <sup>3</sup>
Diameter	32,60 mm
Stroke	21,11 mm
Net Weight	12,30 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	187-255 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	19,00 A
Max. Cont. Current (MCC)	4,00 A
Main W. resist. at 25°C	5,30 Ω
Start W. resist. at 25°C	8,70 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	705 kCal/h	611 W
COP	1,46 W/W	1,13 W/W
EER	1,25 kCal/Wh	0,98 kCal/Wh
Input Power	562 W	541 W
Current	2,67 A	2,57 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	72- 88 µF 330 V			
Run capacitor	16 µF 420 V			
Relay	Option 1			
Reference	2014 158. + NTC15Ω			
Pick-Up	9,05 A			
Drop-Out	7,70 A			
Protector	Option 1			
Reference	T0266			
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	328	363	1,74	1,05	0,90
40	-35	429	402	1,93	1,24	1,07
40	-30	555	445	2,13	1,45	1,25
40	-25	706	492	2,35	1,67	1,44
40	-23,3	764	509	2,42	1,75	1,50
40	-20	883	542	2,58	1,89	1,63
40	-15	1.086	597	2,83	2,12	1,82
40	-10	1.314	655	3,09	2,33	2,01

45	-40	314	365	1,76	1,00	0,86
45	-35	413	409	1,96	1,17	1,01
45	-30	537	457	2,18	1,37	1,18
45	-25	687	508	2,42	1,57	1,35
45	-23,3	744	526	2,51	1,64	1,41
45	-20	863	563	2,68	1,78	1,53
45	-15	1.064	622	2,95	1,99	1,71
45	-10	1.290	685	3,23	2,19	1,88

50	-40	300	368	1,77	0,95	0,82
50	-35	397	416	1,99	1,11	0,96
50	-30	520	468	2,24	1,29	1,11
50	-25	668	524	2,50	1,48	1,27
50	-23,3	725	544	2,59	1,55	1,33
50	-20	842	584	2,77	1,68	1,44
50	-15	1.041	648	3,06	1,87	1,61
50	-10	1.266	715	3,37	2,06	1,77

55	-40	286	370	1,78	0,90	0,77
55	-35	382	423	2,03	1,05	0,90
55	-30	503	480	2,29	1,22	1,05
55	-25	649	541	2,57	1,40	1,20
55	-23,3	705	562	2,67	1,46	1,25
55	-20	821	605	2,87	1,58	1,36
55	-15	1.019	673	3,18	1,76	1,51
55	-10	1.242	745	3,50	1,94	1,67

60	-40	272	373	1,79	0,85	0,73
60	-35	366	430	2,06	0,99	0,85
60	-30	485	492	2,35	1,15	0,99
60	-25	630	557	2,65	1,32	1,13
60	-23,3	685	580	2,75	1,37	1,18
60	-20	801	626	2,96	1,49	1,28
60	-15	997	698	3,29	1,66	1,43
60	-10	1.218	775	3,63	1,83	1,57

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	356	363	1,74	0,98	0,85
40	-35	475	402	1,93	1,18	1,02
40	-30	618	445	2,13	1,39	1,20
40	-25	785	492	2,35	1,60	1,38
40	-23,3	847	509	2,42	1,67	1,44
40	-20	976	542	2,58	1,80	1,55
40	-15	1.190	597	2,83	1,99	1,72
40	-10	1.428	655	3,09	2,18	1,88

45	-40	327	365	1,76	0,90	0,77
45	-35	437	409	1,96	1,07	0,92
45	-30	570	457	2,18	1,25	1,08
45	-25	727	508	2,42	1,43	1,24
45	-23,3	786	526	2,51	1,49	1,29
45	-20	908	563	2,68	1,61	1,39
45	-15	1.112	622	2,95	1,79	1,54
45	-10	1.340	685	3,23	1,96	1,69

50	-40	298	368	1,77	0,81	0,70
50	-35	398	416	1,99	0,96	0,83
50	-30	522	468	2,24	1,11	0,96
50	-25	669	524	2,50	1,28	1,10
50	-23,3	724	544	2,59	1,33	1,15
50	-20	840	584	2,77	1,44	1,24
50	-15	1.034	648	3,06	1,60	1,38
50	-10	1.252	715	3,37	1,75	1,51

55	-40	269	370	1,78	0,73	0,63
55	-35	360	423	2,03	0,85	0,73
55	-30	473	480	2,29	0,99	0,85
55	-25	611	541	2,57	1,13	0,98
55	-23,3	663	562	2,67	1,18	1,02
55	-20	772	605	2,87	1,28	1,10
55	-15	956	673	3,18	1,42	1,23
55	-10	1.165	745	3,50	1,56	1,35

60	-40	241	373	1,79	0,65	0,56
60	-35	321	430	2,06	0,75	0,64
60	-30	425	492	2,35	0,86	0,75
60	-25	553	557	2,65	0,99	0,86
60	-23,3	601	580	2,75	1,04	0,90
60	-20	704	626	2,96	1,12	0,97
60	-15	879	698	3,29	1,26	1,09
60	-10	1.077	775	3,63	1,39	1,20

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.823,2301997845	482,1699977763	2,3166104444	26,061034546502
2	74,5010772302	6,4862759401	0,0285490273	0,78721648946205
3	-22,1277312598	8,0274553505	0,0360376561	-0,06903759591113
4	0,4609905654	0,0795020192	0,0003195746	0,0067526961754501
5	-0,4080267820	0,1879155009	0,0008411270	-0,00086955986495685

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
----------	---

# Technical Data Sheet

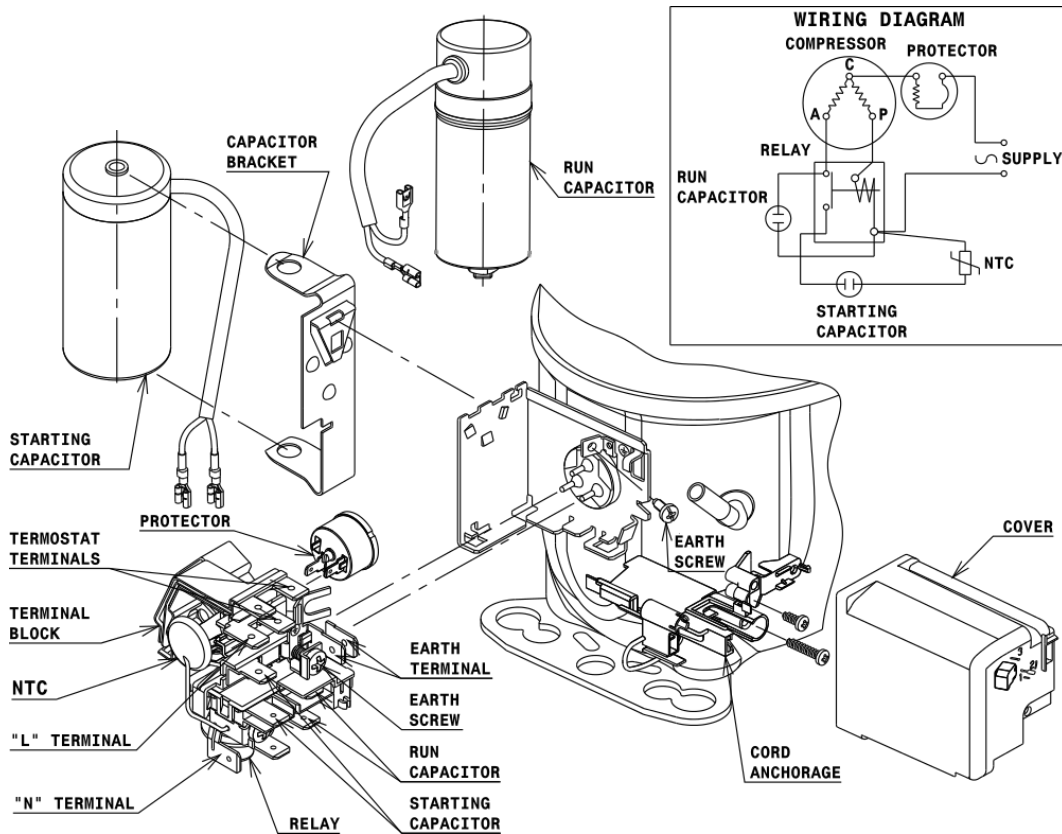
## COMPRESSOR DIMENSIONS



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

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### 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

