

Technical Data Sheet

Compressor model **NPY12LAb**
 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	12,10 cm ³
Diameter	27,00 mm
Stroke	21,13 mm
Net Weight	12,23 Kg
Oil type	ISO VG 32 ESTER
Oil charge	400 cm ³

MOTOR

Nominal Power	3/8 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	198-255 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	14,20 A
Max. Cont. Current (MCC)	3,20 A
Main W. resist. at 25°C	6,40 Ω
Start W. resist. at 25°C	10,40 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	465 kCal/h	402 W
COP	1,49 W/W	1,15 W/W
EER	1,28 kCal/Wh	0,99 kCal/Wh
Input Power	363 W	349 W
Current	1,80 A	1,74 A

APPROVALS



TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T _e)	-23,3 °C	-25,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	32,0 °C	55,0 °C
Ambient temp. (T _{amb.})	32,0 °C	32,0 °C
Suction temp. (T _{suction})	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	47- 56 µF 330 V		
Run capacitor	10 µF 420 V		
Relay	Option 1		
Reference	2014 149. + NTC15Ω		
Pick-Up	7,70 A		
Drop-Out	6,50 A		
Protector	Option 1	Option 2	
Reference	MRA38139	T0269	
Current	10,30 A	9,60 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 52,00 °C	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	223	245	1,29	1,06	0,91
40	-35	291	271	1,40	1,25	1,07
40	-30	378	298	1,52	1,47	1,27
40	-25	483	327	1,64	1,72	1,48
40	-23,3	523	337	1,69	1,81	1,55
40	-20	607	357	1,77	1,98	1,70
40	-15	749	388	1,91	2,25	1,93
40	-10	910	420	2,05	2,52	2,17

45	-40	210	242	1,28	1,01	0,87
45	-35	276	272	1,40	1,18	1,02
45	-30	361	302	1,53	1,39	1,19
45	-25	465	334	1,67	1,62	1,39
45	-23,3	504	346	1,72	1,70	1,46
45	-20	586	368	1,82	1,85	1,59
45	-15	726	402	1,97	2,10	1,81
45	-10	885	438	2,14	2,35	2,02

50	-40	198	239	1,26	0,96	0,83
50	-35	262	272	1,40	1,12	0,96
50	-30	345	306	1,55	1,31	1,12
50	-25	446	342	1,71	1,52	1,30
50	-23,3	484	354	1,76	1,59	1,37
50	-20	565	379	1,87	1,74	1,49
50	-15	704	417	2,04	1,96	1,69
50	-10	860	456	2,22	2,19	1,89

55	-40	185	236	1,25	0,91	0,78
55	-35	247	273	1,41	1,06	0,91
55	-30	328	310	1,57	1,23	1,06
55	-25	427	349	1,74	1,42	1,22
55	-23,3	465	363	1,80	1,49	1,28
55	-20	545	390	1,92	1,63	1,40
55	-15	681	431	2,11	1,84	1,58
55	-10	835	474	2,30	2,05	1,76

60	-40	173	233	1,24	0,86	0,74
60	-35	233	273	1,41	0,99	0,85
60	-30	311	314	1,59	1,15	0,99
60	-25	408	357	1,77	1,33	1,14
60	-23,3	446	372	1,84	1,39	1,20
60	-20	524	401	1,97	1,52	1,31
60	-15	658	446	2,17	1,72	1,48
60	-10	810	492	2,38	1,91	1,65

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	241	245	1,29	0,98	0,85
40	-35	323	271	1,40	1,19	1,03
40	-30	421	298	1,52	1,41	1,22
40	-25	537	327	1,64	1,64	1,42
40	-23,3	580	337	1,69	1,72	1,49
40	-20	670	357	1,77	1,88	1,62
40	-15	820	388	1,91	2,12	1,83
40	-10	988	420	2,05	2,35	2,03

45	-40	219	242	1,28	0,90	0,78
45	-35	293	272	1,40	1,08	0,93
45	-30	384	302	1,53	1,27	1,10
45	-25	492	334	1,67	1,47	1,27
45	-23,3	533	346	1,72	1,54	1,33
45	-20	617	368	1,82	1,68	1,45
45	-15	760	402	1,97	1,89	1,63
45	-10	919	438	2,14	2,10	1,81

50	-40	196	239	1,26	0,82	0,71
50	-35	263	272	1,40	0,97	0,83
50	-30	346	306	1,55	1,13	0,98
50	-25	447	342	1,71	1,31	1,13
50	-23,3	485	354	1,76	1,37	1,18
50	-20	565	379	1,87	1,49	1,29
50	-15	699	417	2,04	1,68	1,45
50	-10	851	456	2,22	1,87	1,61

55	-40	174	236	1,25	0,74	0,64
55	-35	233	273	1,41	0,85	0,74
55	-30	309	310	1,57	0,99	0,86
55	-25	402	349	1,74	1,15	0,99
55	-23,3	437	363	1,80	1,20	1,04
55	-20	512	390	1,92	1,31	1,13
55	-15	639	431	2,11	1,48	1,28
55	-10	783	474	2,30	1,65	1,43

60	-40	152	233	1,24	0,65	0,56
60	-35	203	273	1,41	0,74	0,64
60	-30	271	314	1,59	0,86	0,75
60	-25	357	357	1,77	1,00	0,86
60	-23,3	389	372	1,84	1,05	0,91
60	-20	459	401	1,97	1,15	0,99
60	-15	578	446	2,17	1,30	1,12
60	-10	715	492	2,38	1,45	1,26

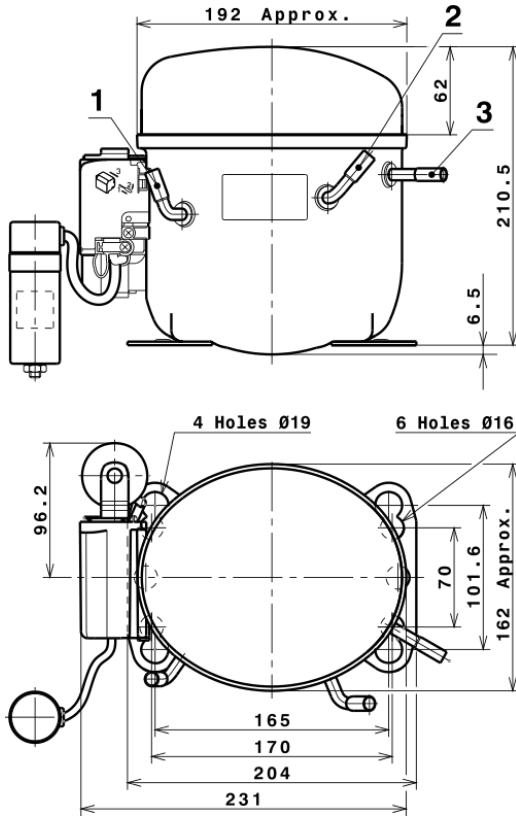
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.031,8344581952	296,1932816607	1,4958780041	19,168377072768
2	53,7812646534	1,6048297754	0,0087182365	0,57513807653976
3	-17,0967670190	5,1229743994	0,0233747862	-0,073493007129601
4	0,3335219955	0,0267683181	0,0001673944	0,0048611236519214
5	-0,3159973779	0,1433994194	0,0006494998	-0,0010730440805642

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

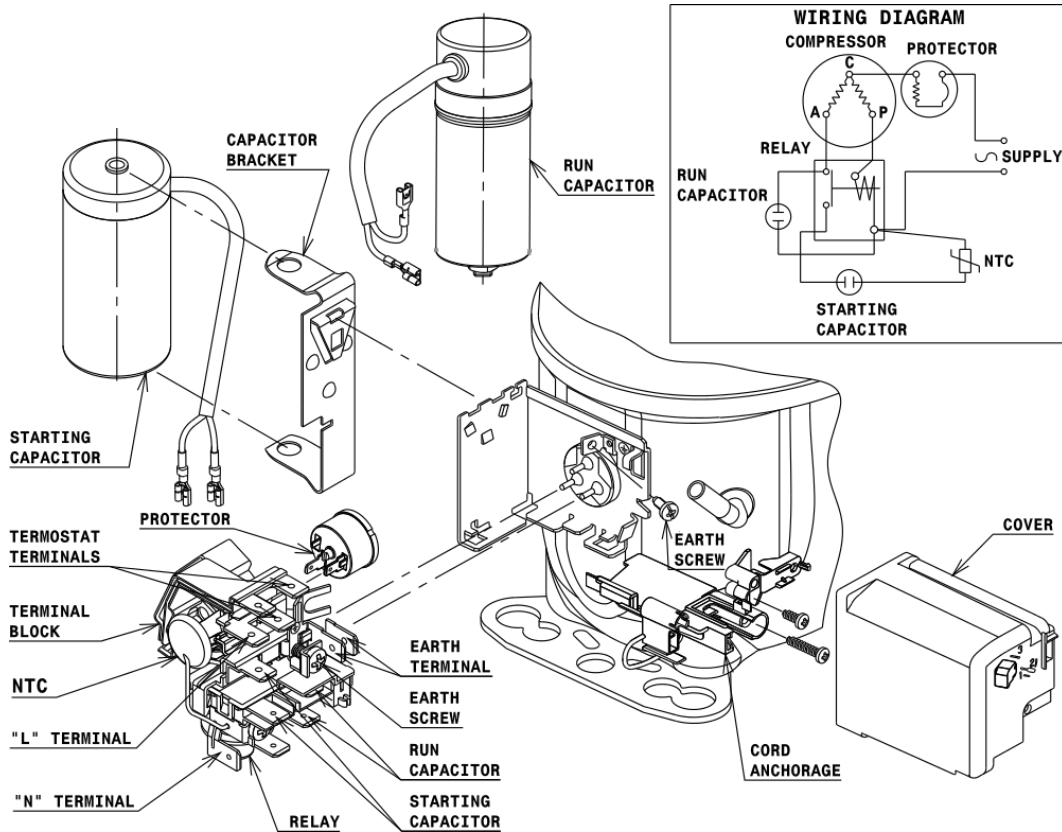
COMPRESSOR DIMENSIONS



DESIGNATION	INTERNAL DIAM.
1 Suction	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

