

Technical Data Sheet

Compressor model **NLY80LAb**
 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	8,10 cm ³
Diameter	24,29 mm
Stroke	17,47 mm
Net Weight	10,34 Kg
Oil type	ISO VG 46 MINER
Oil charge	400 cm ³

MOTOR

Nominal Power	1/4 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	198-255 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	10,50 A
Max. Cont. Current (MCC)	2,00 A
Main W. resist. at 25°C	11,04 Ω
Start W. resist. at 25°C	12,00 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	306 kCal/h	264 W
COP	1,43 W/W	1,10 W/W
EER	1,23 kCal/Wh	0,95 kCal/Wh
Input Power	249 W	240 W
Current	1,20 A	1,16 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 135. + NTC15Ω			
Pick-Up	5,80 A			
Drop-Out	4,95 A			
Protector	Option 1			
Reference	T0069			
Current	7,10 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	105,00 / 62,00 °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	143	160	0,82	1,04	0,89
40	-35	189	179	0,90	1,23	1,06
40	-30	249	198	0,99	1,46	1,25
40	-25	322	220	1,08	1,70	1,46
40	-23,3	349	227	1,11	1,79	1,54
40	-20	408	242	1,17	1,96	1,68
40	-15	507	266	1,27	2,22	1,91
40	-10	620	292	1,37	2,47	2,13

45	-40	135	162	0,83	0,97	0,83
45	-35	179	182	0,92	1,15	0,98
45	-30	237	204	1,01	1,35	1,16
45	-25	308	226	1,11	1,58	1,36
45	-23,3	335	234	1,14	1,66	1,43
45	-20	392	251	1,21	1,82	1,56
45	-15	489	276	1,31	2,06	1,77
45	-10	600	303	1,41	2,30	1,98

50	-40	128	164	0,84	0,90	0,78
50	-35	170	186	0,94	1,06	0,91
50	-30	225	209	1,03	1,26	1,08
50	-25	294	233	1,14	1,47	1,26
50	-23,3	320	242	1,17	1,54	1,33
50	-20	376	259	1,24	1,69	1,45
50	-15	471	286	1,35	1,92	1,65
50	-10	580	315	1,46	2,14	1,84

55	-40	120	166	0,85	0,84	0,72
55	-35	160	189	0,95	0,98	0,85
55	-30	214	214	1,06	1,16	1,00
55	-25	280	240	1,16	1,36	1,17
55	-23,3	306	249	1,20	1,43	1,23
55	-20	360	267	1,27	1,57	1,35
55	-15	453	296	1,39	1,78	1,53
55	-10	560	326	1,50	2,00	1,72

60	-40	113	168	0,86	0,78	0,67
60	-35	151	193	0,97	0,91	0,78
60	-30	202	219	1,08	1,07	0,92
60	-25	267	247	1,19	1,26	1,08
60	-23,3	292	256	1,23	1,32	1,14
60	-20	344	276	1,31	1,45	1,25
60	-15	436	306	1,42	1,66	1,42
60	-10	540	338	1,54	1,86	1,60

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	154	160	0,82	0,96	0,83
40	-35	210	179	0,90	1,18	1,02
40	-30	278	198	0,99	1,40	1,21
40	-25	358	220	1,08	1,63	1,41
40	-23,3	388	227	1,11	1,71	1,48
40	-20	450	242	1,17	1,86	1,61
40	-15	555	266	1,27	2,09	1,80
40	-10	672	292	1,37	2,31	1,99

45	-40	141	162	0,83	0,87	0,75
45	-35	190	182	0,92	1,04	0,90
45	-30	252	204	1,01	1,24	1,07
45	-25	326	226	1,11	1,44	1,25
45	-23,3	355	234	1,14	1,51	1,31
45	-20	413	251	1,21	1,65	1,42
45	-15	512	276	1,31	1,85	1,60
45	-10	623	303	1,41	2,06	1,78

50	-40	127	164	0,84	0,77	0,67
50	-35	171	186	0,94	0,92	0,79
50	-30	227	209	1,03	1,09	0,94
50	-25	295	233	1,14	1,27	1,09
50	-23,3	321	242	1,17	1,33	1,15
50	-20	376	259	1,24	1,45	1,25
50	-15	469	286	1,35	1,64	1,42
50	-10	574	315	1,46	1,83	1,58

55	-40	113	166	0,85	0,68	0,59
55	-35	151	189	0,95	0,80	0,69
55	-30	201	214	1,06	0,94	0,81
55	-25	264	240	1,16	1,10	0,95
55	-23,3	288	249	1,20	1,16	1,00
55	-20	338	267	1,27	1,27	1,09
55	-15	426	296	1,39	1,44	1,24
55	-10	525	326	1,50	1,61	1,39

60	-40	99	168	0,86	0,59	0,51
60	-35	131	193	0,97	0,68	0,59
60	-30	176	219	1,08	0,80	0,69
60	-25	232	247	1,19	0,94	0,81
60	-23,3	254	256	1,23	0,99	0,86
60	-20	301	276	1,31	1,09	0,94
60	-15	382	306	1,42	1,25	1,08
60	-10	476	338	1,54	1,41	1,22

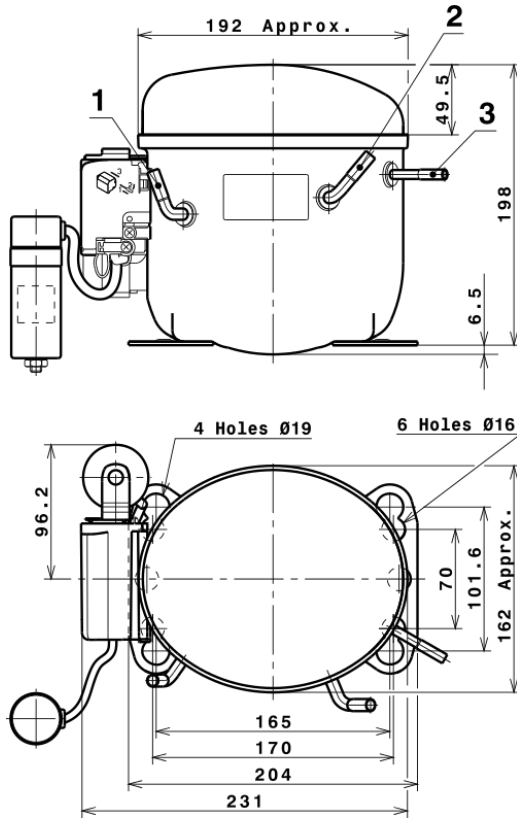
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.422,8706169822	235,1193088875	1,1573614431	13,595752039264
2	38,6375155894	3,3584535195	0,0119910174	0,41748815465507
3	-12,4171439484	3,0062418683	0,0112089774	-0,060802495947958
4	0,2403167978	0,0289621267	0,0000560249	0,003486356689369
5	-0,2412485306	0,0649393404	0,0002355056	-0,0010614497447785

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

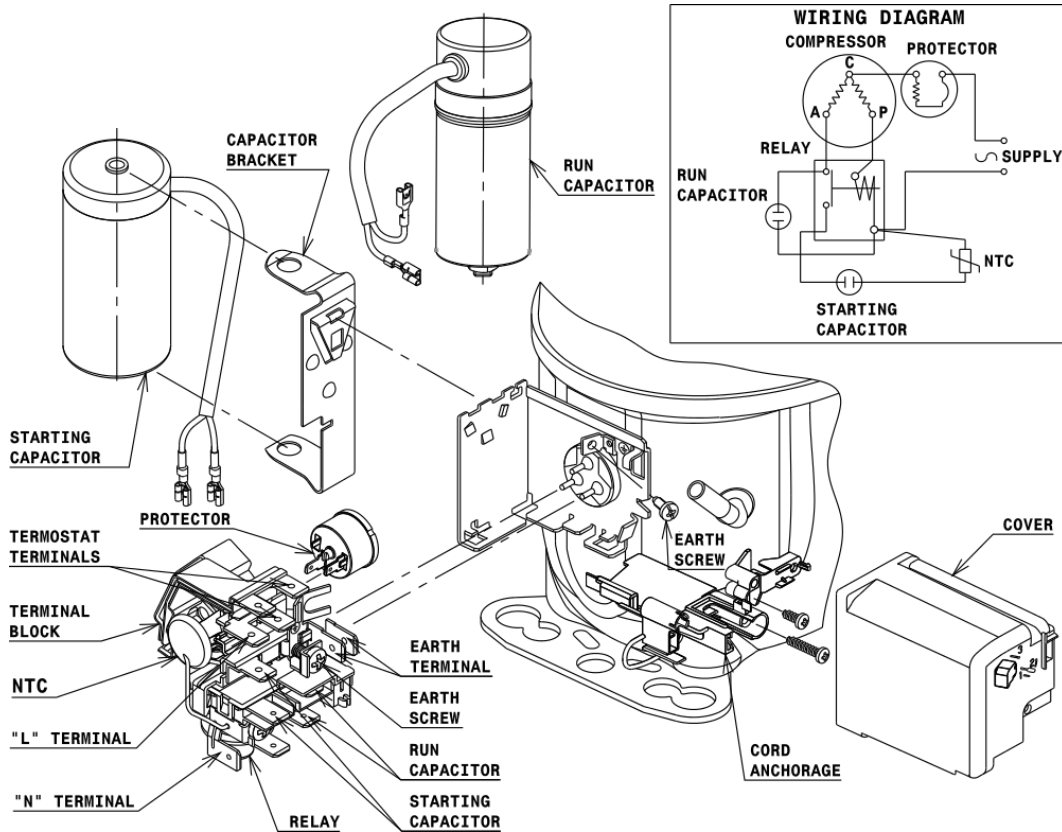
COMPRESSOR DIMENSIONS



DESIGNATION	INTERNAL DIAM.
1 Suction	6,5 mm
2 Service	6,5 mm
3 Discharge	4,9 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



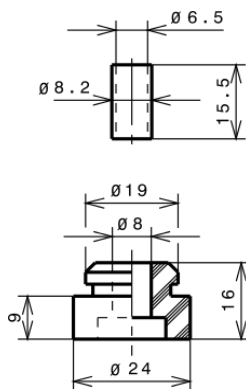
FIXINGS



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

