

Technical Data Sheet

Compressor model **NLY12LAb**
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	10,70 cm³
Diameter	25,40 mm
Stroke	21,12 mm
Net Weight	11,31 Kg
Oil type	ISO VG 32 ESTER
Oil charge	395 cm³

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)	17,50 A
Max. Cont. Current (MCC)	3,00 A
Main W. resist. at 25°C	5,70 Ω
Start W. resist. at 25°C	17,00 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	420 kCal/h	364 W
COP	1,31 W/W	1,01 W/W
EER	1,12 kCal/Wh	0,87 kCal/Wh
Input Power	374 W	361 W
Current	1,79 A	1,73 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	Option 2		
Reference	2014 149. + NTC15Î©	QLZ 7.8A + NTC15Î©		
Pick-Up	7,80 A	7,80 A		
Drop-Out	6,50 A	6,65 A		
Protector	Option 1	Option 2		
Reference	T0269	AE39FHS		
Current	9,60 A	9,20 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 52,00 °C	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	199	274	1,36	0,84	0,72
40	-35	267	308	1,50	1,01	0,87
40	-30	351	340	1,64	1,20	1,03
40	-25	449	370	1,77	1,41	1,21
40	-23,3	486	380	1,82	1,49	1,28
40	-20	562	398	1,90	1,64	1,41
40	-15	690	424	2,02	1,89	1,63
40	-10	833	449	2,14	2,16	1,85

45	-40	190	261	1,30	0,85	0,73
45	-35	255	298	1,46	0,99	0,85
45	-30	334	333	1,61	1,17	1,00
45	-25	428	367	1,76	1,36	1,17
45	-23,3	464	378	1,81	1,43	1,23
45	-20	537	398	1,90	1,57	1,35
45	-15	661	428	2,04	1,80	1,54
45	-10	800	456	2,17	2,04	1,75

50	-40	182	248	1,25	0,85	0,73
50	-35	242	288	1,42	0,98	0,84
50	-30	318	327	1,58	1,13	0,97
50	-25	408	364	1,74	1,30	1,12
50	-23,3	442	376	1,80	1,37	1,18
50	-20	513	399	1,90	1,50	1,29
50	-15	633	432	2,06	1,70	1,47
50	-10	768	463	2,21	1,93	1,66

55	-40	173	235	1,20	0,86	0,74
55	-35	230	279	1,38	0,96	0,82
55	-30	301	321	1,56	1,09	0,94
55	-25	387	361	1,73	1,25	1,07
55	-23,3	420	374	1,79	1,31	1,12
55	-20	488	399	1,90	1,42	1,22
55	-15	604	435	2,07	1,61	1,39
55	-10	735	470	2,24	1,82	1,56

60	-40	165	222	1,15	0,86	0,74
60	-35	217	269	1,34	0,94	0,81
60	-30	285	314	1,53	1,05	0,91
60	-25	367	358	1,72	1,19	1,03
60	-23,3	398	372	1,78	1,24	1,07
60	-20	464	399	1,91	1,35	1,16
60	-15	576	439	2,09	1,53	1,31
60	-10	703	477	2,27	1,71	1,47

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	215	274	1,36	0,79	0,68
40	-35	295	308	1,50	0,96	0,83
40	-30	389	340	1,64	1,15	0,99
40	-25	497	370	1,77	1,34	1,16
40	-23,3	536	380	1,82	1,41	1,22
40	-20	618	398	1,90	1,55	1,34
40	-15	753	424	2,02	1,77	1,53
40	-10	902	449	2,14	2,01	1,74

45	-40	198	261	1,30	0,76	0,65
45	-35	269	298	1,46	0,90	0,78
45	-30	354	333	1,61	1,06	0,92
45	-25	453	367	1,76	1,23	1,07
45	-23,3	489	378	1,81	1,30	1,12
45	-20	565	398	1,90	1,42	1,23
45	-15	691	428	2,04	1,61	1,39
45	-10	831	456	2,17	1,82	1,57

50	-40	180	248	1,25	0,73	0,63
50	-35	243	288	1,42	0,84	0,73
50	-30	319	327	1,58	0,97	0,84
50	-25	408	364	1,74	1,12	0,97
50	-23,3	442	376	1,80	1,18	1,02
50	-20	512	399	1,90	1,28	1,11
50	-15	629	432	2,06	1,46	1,26
50	-10	760	463	2,21	1,64	1,42

55	-40	163	235	1,20	0,69	0,60
55	-35	216	279	1,38	0,78	0,67
55	-30	283	321	1,56	0,88	0,76
55	-25	364	361	1,73	1,01	0,87
55	-23,3	395	374	1,79	1,06	0,91
55	-20	459	399	1,90	1,15	0,99
55	-15	567	435	2,07	1,30	1,13
55	-10	689	470	2,24	1,47	1,27

60	-40	146	222	1,15	0,66	0,57
60	-35	190	269	1,34	0,71	0,61
60	-30	248	314	1,53	0,79	0,68
60	-25	320	358	1,72	0,89	0,77
60	-23,3	348	372	1,78	0,93	0,81
60	-20	406	399	1,91	1,02	0,88
60	-15	505	439	2,09	1,15	0,99
60	-10	618	477	2,27	1,30	1,12

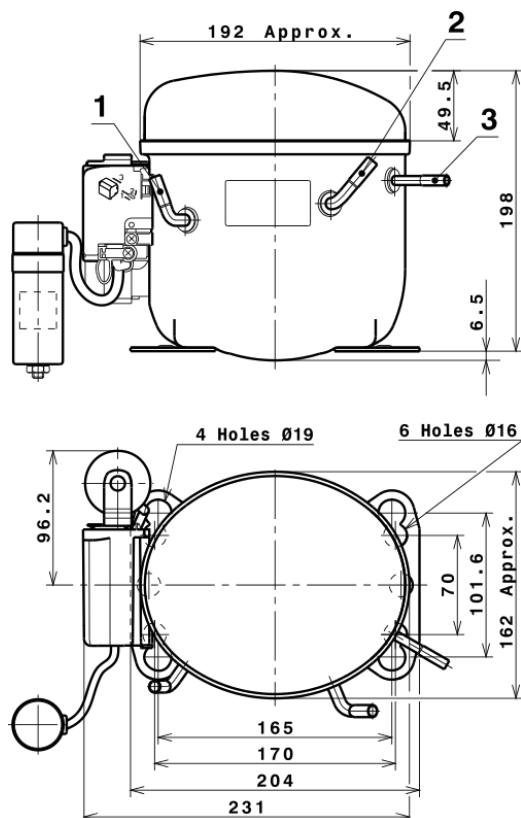
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.939,2191672155	393,7389359907	1,9277177192	18,731635207888
2	50,4163372102	-1,2595268324	0,0012200740	0,5441767333458
3	-18,0305378221	2,7982524305	0,0129321323	-0,10176045631308
4	0,2681829105	-0,0362053193	-0,0000416291	0,0039324967649105
5	-0,3627928558	0,1363649017	0,0005923839	-0,0020240695304222

Equation

$$x_1 + x_2 Te + x_3 Tc + x_4 Te^2 + x_5 Te Tc$$

COMPRESSOR DIMENSIONS

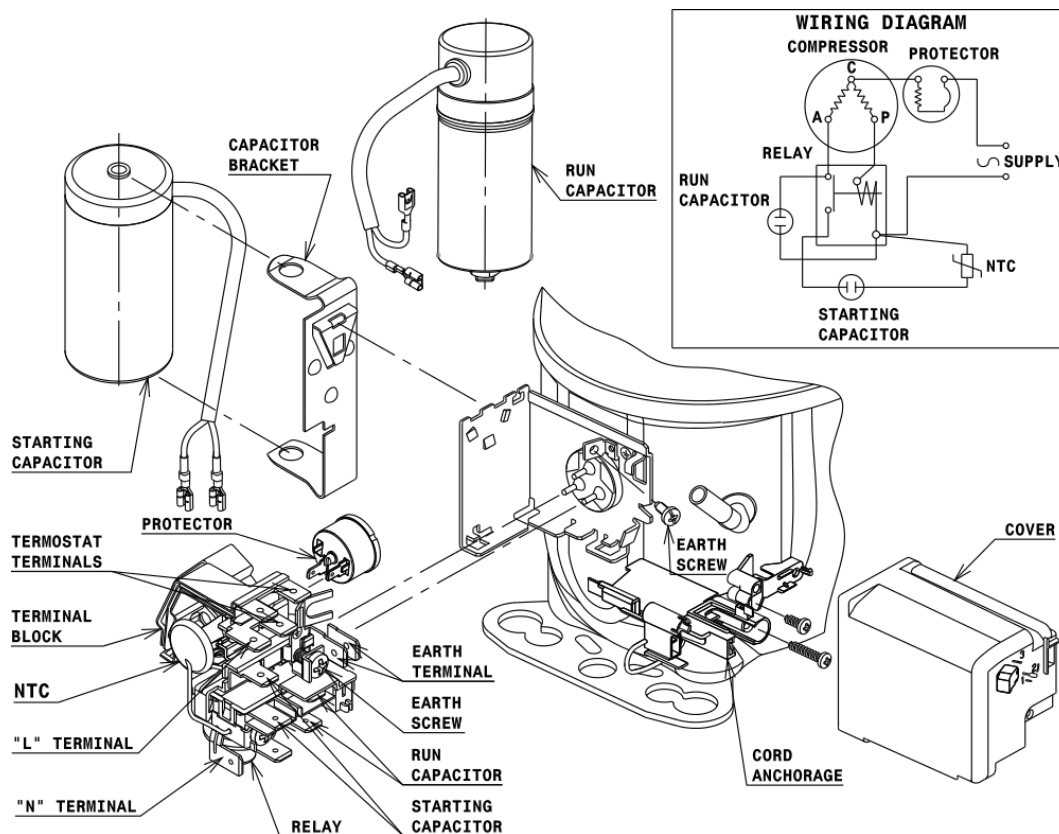


DESIGNATION INTERNAL DIAM.

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

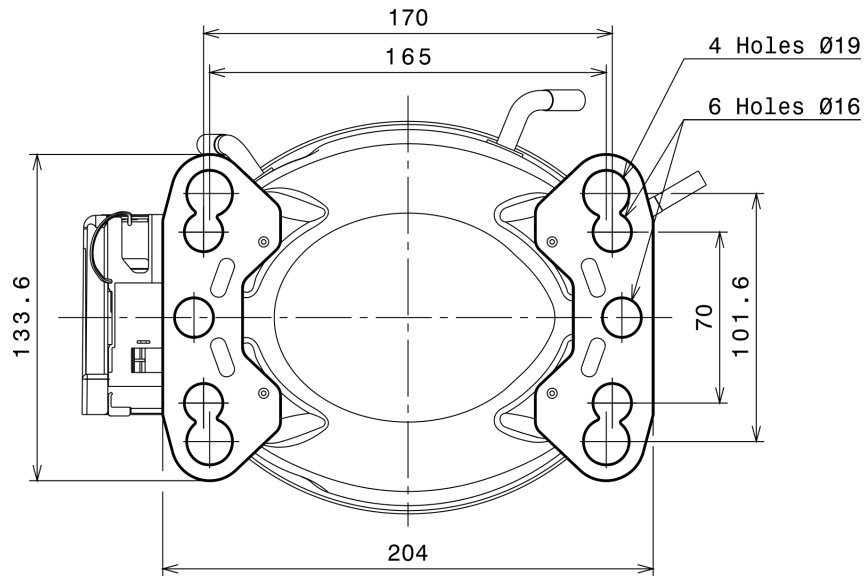
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



Technical Data Sheet

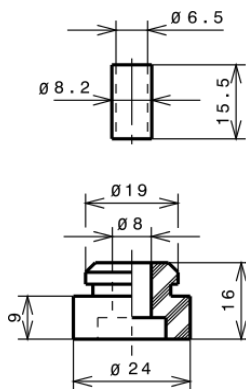
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

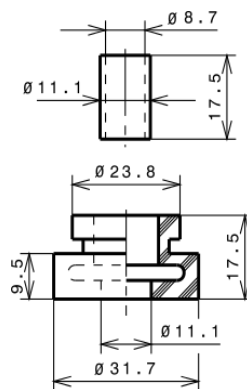
STANDARD

Ø16 holes (170x70 net)



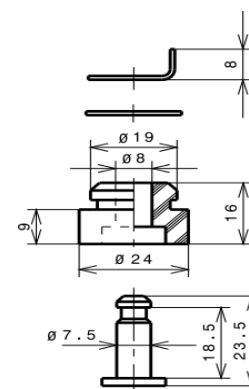
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R290 LBP

