

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **NLY60LAa**
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 5,98 cm³
Diameter 20,88 mm
Stroke 17,47 mm
Net Weight 9,67 Kg
Oil type ISO VG 46 MINER
Oil charge 295 cm³

MOTOR

Nominal Power 1/5 hp
Voltage/Frequency 220-240V 50Hz
Voltage range 187-255 V
Type CSIR
Phase number 1 PH
Locked Rotor Amps (LRA) 10,00 A
Max. Cont. Current (MCC) 2,50 A
Main W. resist. at 25°C 12,20 Ω
Start W. resist. at 25°C 16,80 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	230 kCal/h	198 W
COP	1,33 W/W	1,03 W/W
EER	1,14 kCal/Wh	0,89 kCal/Wh
Input Power	201 W	194 W
Current	1,40 A	1,38 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		
Relay	Option 1	Option 2	
Reference	2014 127.	QLZ-4.8A	
Pick-Up	4,80 A	4,8 A	
Drop-Out	4,10 A	4,1 A	
Protector	Option 1	Option 2	Option 3
Reference	MST63AMK	T0069	AE26FHY
Current	7,10 A	7,10 A	7,10 A
Time check	7,5-14 seg	7,5-14 seg	7,5-14 seg
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 62,00 °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

Made by Huayi for Danfoss

Technical Data Sheet NLY60LAa

Printed on 03/11/20

1/4

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ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	107	128	1,19	0,97	0,84
40	-35	142	144	1,23	1,15	0,99
40	-30	187	160	1,28	1,36	1,17
40	-25	242	178	1,33	1,58	1,36
40	-23,3	262	184	1,35	1,66	1,43
40	-20	305	196	1,38	1,81	1,56
40	-15	378	215	1,44	2,04	1,76
40	-10	460	235	1,51	2,28	1,96

45	-40	101	129	1,19	0,91	0,78
45	-35	135	146	1,24	1,08	0,93
45	-30	179	164	1,29	1,27	1,09
45	-25	232	183	1,35	1,47	1,26
45	-23,3	252	190	1,37	1,54	1,33
45	-20	293	203	1,41	1,68	1,45
45	-15	365	223	1,47	1,90	1,64
45	-10	445	244	1,54	2,12	1,82

50	-40	96	131	1,20	0,85	0,73
50	-35	128	149	1,25	1,00	0,86
50	-30	170	168	1,30	1,18	1,01
50	-25	221	188	1,36	1,37	1,18
50	-23,3	241	195	1,38	1,43	1,23
50	-20	282	209	1,43	1,57	1,35
50	-15	351	231	1,49	1,77	1,52
50	-10	430	253	1,57	1,98	1,70

55	-40	90	132	1,20	0,79	0,68
55	-35	121	152	1,25	0,93	0,80
55	-30	161	172	1,31	1,09	0,94
55	-25	211	194	1,38	1,27	1,09
55	-23,3	230	201	1,40	1,33	1,14
55	-20	270	216	1,45	1,46	1,25
55	-15	338	238	1,52	1,65	1,42
55	-10	415	262	1,60	1,84	1,58

60	-40	84	134	1,20	0,74	0,63
60	-35	114	155	1,26	0,86	0,74
60	-30	153	176	1,33	1,01	0,87
60	-25	201	199	1,39	1,17	1,01
60	-23,3	219	207	1,42	1,23	1,06
60	-20	258	222	1,47	1,35	1,16
60	-15	324	246	1,55	1,53	1,32
60	-10	400	271	1,63	1,72	1,48

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	115	128	1,19	0,90	0,78
40	-35	158	144	1,23	1,10	0,95
40	-30	209	160	1,28	1,30	1,13
40	-25	269	178	1,33	1,51	1,30
40	-23,3	291	184	1,35	1,58	1,37
40	-20	337	196	1,38	1,72	1,48
40	-15	414	215	1,44	1,92	1,66
40	-10	499	235	1,51	2,12	1,83

45	-40	105	129	1,19	0,82	0,70
45	-35	143	146	1,24	0,98	0,85
45	-30	190	164	1,29	1,16	1,00
45	-25	245	183	1,35	1,34	1,16
45	-23,3	266	190	1,37	1,40	1,21
45	-20	309	203	1,41	1,53	1,32
45	-15	381	223	1,47	1,71	1,48
45	-10	462	244	1,54	1,89	1,64

50	-40	95	131	1,20	0,73	0,63
50	-35	129	149	1,25	0,86	0,75
50	-30	171	168	1,30	1,02	0,88
50	-25	222	188	1,36	1,18	1,02
50	-23,3	241	195	1,38	1,23	1,07
50	-20	281	209	1,43	1,34	1,16
50	-15	349	231	1,49	1,51	1,31
50	-10	426	253	1,57	1,68	1,45

55	-40	85	132	1,20	0,64	0,55
55	-35	114	152	1,25	0,75	0,65
55	-30	152	172	1,31	0,88	0,76
55	-25	198	194	1,38	1,03	0,89
55	-23,3	216	201	1,40	1,08	0,93
55	-20	254	216	1,45	1,18	1,02
55	-15	317	238	1,52	1,33	1,15
55	-10	389	262	1,60	1,49	1,28

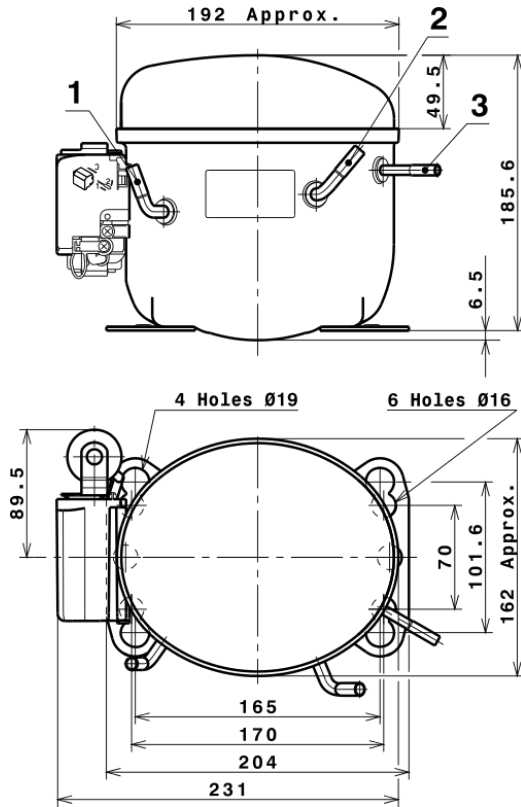
60	-40	75	134	1,20	0,56	0,48
60	-35	100	155	1,26	0,64	0,56
60	-30	133	176	1,33	0,75	0,65
60	-25	175	199	1,39	0,88	0,76
60	-23,3	191	207	1,42	0,93	0,80
60	-20	226	222	1,47	1,02	0,88
60	-15	285	246	1,55	1,16	1,00
60	-10	353	271	1,63	1,30	1,12

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.052,2687529982	189,9028132612	1,3542250413	10,045041384409
2	28,1020763255	2,4506995130	0,0091718713	0,30235631614507
3	-9,2506713439	2,3571530736	0,0081861986	-0,045702294135043
4	0,1667643683	0,0163300782	0,0001092474	0,0024301339937139
5	-0,1800176249	0,0512662971	0,0001839313	-0,00080623163043106

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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COMPRESSOR DIMENSIONS

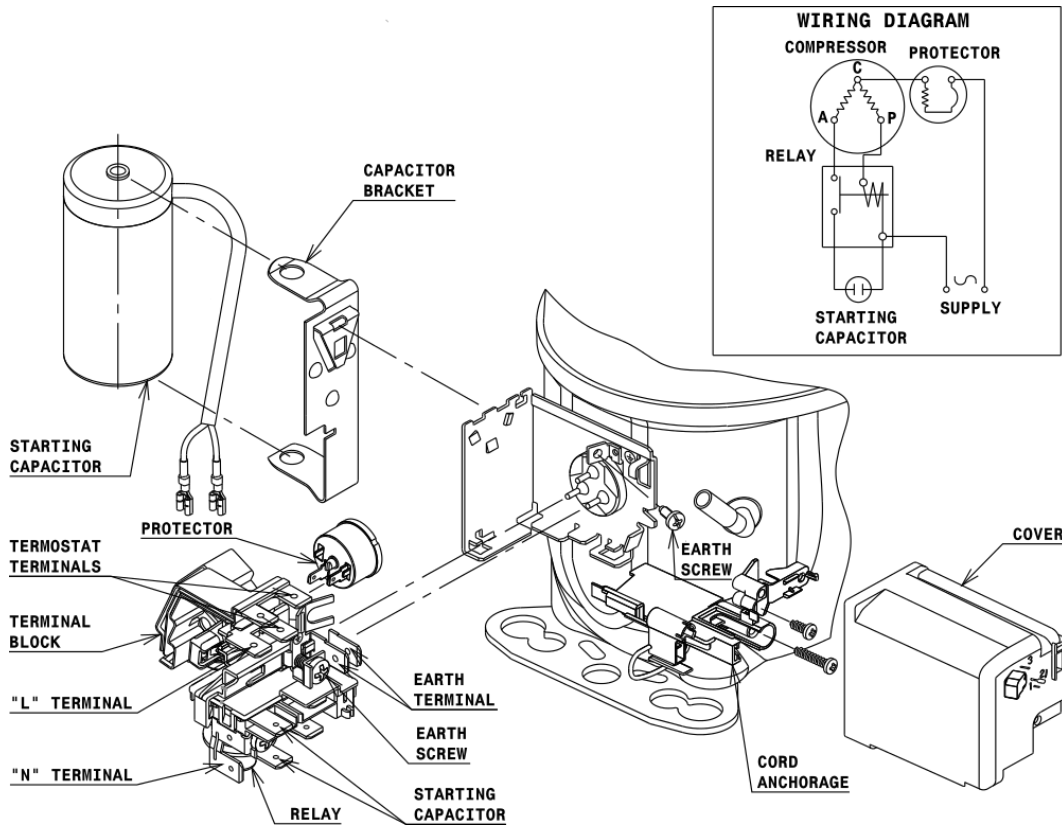


DESIGNATION INTERNAL DIAM.

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

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

$\varnothing 16$ holes (170x70 net)



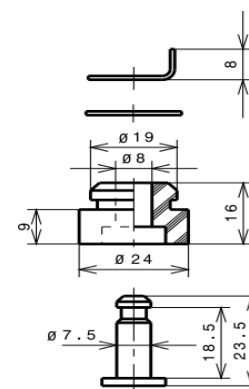
AMERICAN FEET

$\varnothing 19$ holes (165x101.6 net)



SNAP-ON

$\varnothing 16$ holes (170x70 net)



SOA

SOA R290 LBP

