

Technical Data Sheet

Compressor model **NLY45Lab**
 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	4,56 cm ³
Diameter	19,09 mm
Stroke	15,93 mm
Net Weight	10,35 Kg
Oil type	ISO VG 46 MINER
Oil charge	300 cm ³

MOTOR

Nominal Power	1/6 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	187-264 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	6,70 A
Max. Cont. Current (MCC)	1,30 A
Main W. resist. at 25°C	12,50 Ω
Start W. resist. at 25°C	16,30 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	176 kCal/h	152 W
COP	1,44 W/W	1,11 W/W
EER	1,24 kCal/Wh	0,96 kCal/Wh
Input Power	142 W	137 W
Current	0,70 A	0,68 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	5 µF 400 V		
Relay	Option 1		
Reference	2014 118. + NTC15Ω		
Pick-Up	3.80 A		
Drop-Out	3.25 A		
Protector	Option 1	Option 2	
Reference	MSP346HV	T0067	
Current	6,40 A	6,60 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 78,00 °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	81	97	0,51	0,98	0,84
40	-35	108	107	0,55	1,18	1,01
40	-30	143	118	0,60	1,40	1,21
40	-25	184	130	0,65	1,64	1,41
40	-23,3	199	134	0,67	1,73	1,48
40	-20	232	143	0,70	1,89	1,62
40	-15	286	156	0,76	2,14	1,84
40	-10	348	170	0,83	2,38	2,05

45	-40	76	96	0,50	0,92	0,79
45	-35	103	107	0,55	1,11	0,96
45	-30	136	120	0,60	1,32	1,14
45	-25	176	132	0,66	1,55	1,33
45	-23,3	192	137	0,68	1,63	1,40
45	-20	223	146	0,72	1,78	1,53
45	-15	277	160	0,78	2,01	1,73
45	-10	338	175	0,85	2,25	1,93

50	-40	71	96	0,50	0,86	0,74
50	-35	97	108	0,55	1,04	0,90
50	-30	129	121	0,61	1,25	1,07
50	-25	169	135	0,67	1,46	1,25
50	-23,3	184	139	0,69	1,53	1,32
50	-20	215	149	0,73	1,68	1,44
50	-15	268	164	0,80	1,90	1,63
50	-10	328	180	0,88	2,12	1,82

55	-40	66	95	0,50	0,81	0,69
55	-35	91	108	0,55	0,98	0,84
55	-30	123	122	0,61	1,17	1,00
55	-25	161	137	0,68	1,37	1,18
55	-23,3	176	142	0,70	1,44	1,24
55	-20	207	152	0,75	1,58	1,36
55	-15	259	168	0,82	1,79	1,54
55	-10	318	185	0,90	2,00	1,72

60	-40	61	95	0,50	0,75	0,65
60	-35	85	109	0,56	0,91	0,78
60	-30	116	124	0,62	1,09	0,94
60	-25	154	139	0,69	1,29	1,11
60	-23,3	168	145	0,71	1,35	1,16
60	-20	198	155	0,76	1,49	1,28
60	-15	250	172	0,84	1,69	1,45
60	-10	308	190	0,92	1,89	1,62

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	88	97	0,51	0,91	0,78
40	-35	120	107	0,55	1,12	0,97
40	-30	159	118	0,60	1,34	1,16
40	-25	204	130	0,65	1,57	1,36
40	-23,3	221	134	0,67	1,64	1,42
40	-20	256	143	0,70	1,79	1,55
40	-15	313	156	0,76	2,01	1,74
40	-10	378	170	0,83	2,22	1,92

45	-40	79	96	0,50	0,82	0,71
45	-35	109	107	0,55	1,01	0,87
45	-30	144	120	0,60	1,21	1,04
45	-25	187	132	0,66	1,41	1,22
45	-23,3	202	137	0,68	1,48	1,28
45	-20	235	146	0,72	1,61	1,39
45	-15	290	160	0,78	1,81	1,57
45	-10	351	175	0,85	2,01	1,73

50	-40	71	96	0,50	0,74	0,64
50	-35	97	108	0,55	0,90	0,78
50	-30	130	121	0,61	1,08	0,93
50	-25	169	135	0,67	1,26	1,09
50	-23,3	184	139	0,69	1,32	1,14
50	-20	215	149	0,73	1,44	1,24
50	-15	267	164	0,80	1,62	1,40
50	-10	325	180	0,88	1,80	1,56

55	-40	62	95	0,50	0,65	0,57
55	-35	86	108	0,55	0,79	0,68
55	-30	116	122	0,61	0,95	0,82
55	-25	152	137	0,68	1,11	0,96
55	-23,3	165	142	0,70	1,17	1,01
55	-20	194	152	0,75	1,28	1,10
55	-15	243	168	0,82	1,44	1,25
55	-10	298	185	0,90	1,61	1,39

60	-40	54	95	0,50	0,57	0,49
60	-35	74	109	0,56	0,68	0,59
60	-30	101	124	0,62	0,82	0,71
60	-25	134	139	0,69	0,97	0,83
60	-23,3	147	145	0,71	1,02	0,88
60	-20	174	155	0,76	1,12	0,97
60	-15	220	172	0,84	1,27	1,10
60	-10	272	190	0,92	1,43	1,24

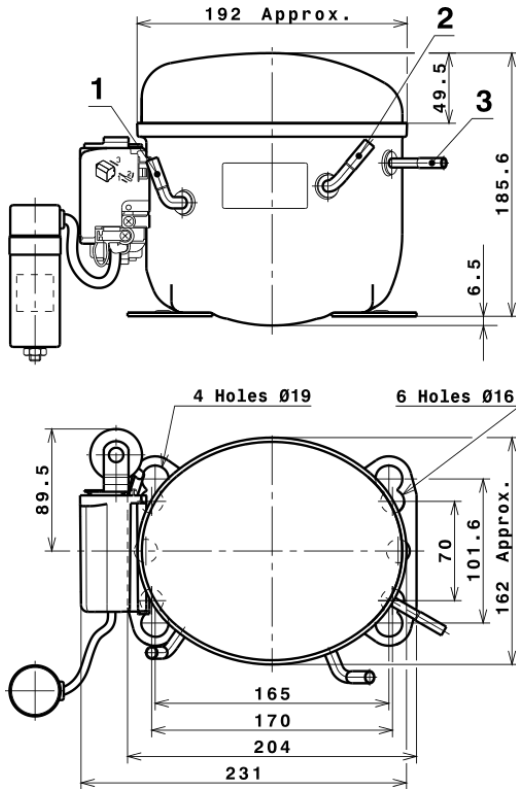
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	780,7960138800	149,3336018649	0,7326931222	7,3762189307668
2	20,6090260492	1,7605928436	0,0093866312	0,2195744343868
3	-6,6401573602	1,4003446525	0,0067452577	-0,029393367821698
4	0,1233687804	0,0148550064	0,0001087516	0,0018032728562261
5	-0,1235036501	0,0375627929	0,0001790300	-0,00042916086341878

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

