

# Technical Data Sheet

Compressor model **NLY90LAb**  
 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	9,09 cm <sup>3</sup>
Diameter	24,29 mm
Stroke	19,62 mm
Net Weight	10,42 Kg
Oil type	ISO VG 46 MINER
Oil charge	400 cm <sup>3</sup>

## MOTOR

Nominal Power	1/3 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	187-255 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	13,50 A
Max. Cont. Current (MCC)	2,40 A
Main W. resist. at 25°C	8,40 Ω
Start W. resist. at 25°C	17,30 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	355 kCal/h	307 W
COP	1,44 W/W	1,11 W/W
EER	1,24 kCal/Wh	0,96 kCal/Wh
Input Power	287 W	277 W
Current	1,50 A	1,46 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	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 145. + NTC15Ω		
Pick-Up	7,00 A		
Drop-Out	5,90 A		
Protector	Option 1	Option 2	
Reference	T0069	AE26FHY	
Current	7,10 A	7,10 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	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

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	164	182	1,09	1,05	0,90
40	-35	220	206	1,18	1,24	1,07
40	-30	290	231	1,27	1,46	1,26
40	-25	372	255	1,37	1,70	1,46
40	-23,3	403	263	1,40	1,78	1,53
40	-20	467	279	1,46	1,95	1,68
40	-15	575	302	1,56	2,21	1,90
40	-10	696	326	1,67	2,49	2,14

45	-40	155	184	1,10	0,98	0,84
45	-35	209	210	1,20	1,16	1,00
45	-30	277	236	1,30	1,36	1,17
45	-25	357	262	1,40	1,58	1,36
45	-23,3	387	271	1,43	1,66	1,43
45	-20	450	288	1,50	1,82	1,56
45	-15	555	313	1,61	2,06	1,77
45	-10	674	338	1,72	2,32	1,99

50	-40	147	187	1,11	0,91	0,79
50	-35	199	214	1,21	1,08	0,93
50	-30	264	242	1,32	1,27	1,09
50	-25	342	270	1,43	1,47	1,27
50	-23,3	371	279	1,47	1,55	1,33
50	-20	432	297	1,54	1,69	1,46
50	-15	536	324	1,66	1,92	1,65
50	-10	652	351	1,78	2,16	1,86

55	-40	138	189	1,12	0,85	0,73
55	-35	188	219	1,23	1,00	0,86
55	-30	251	248	1,34	1,18	1,01
55	-25	326	277	1,46	1,37	1,18
55	-23,3	355	287	1,50	1,44	1,24
55	-20	415	306	1,58	1,58	1,36
55	-15	516	335	1,71	1,79	1,54
55	-10	630	363	1,84	2,02	1,74

60	-40	130	192	1,13	0,79	0,68
60	-35	177	223	1,24	0,93	0,80
60	-30	238	254	1,36	1,09	0,94
60	-25	311	285	1,49	1,27	1,09
60	-23,3	339	295	1,53	1,34	1,15
60	-20	397	315	1,62	1,47	1,26
60	-15	496	345	1,76	1,67	1,44
60	-10	608	376	1,90	1,88	1,62

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	177	182	1,09	0,98	0,84
40	-35	244	206	1,18	1,18	1,02
40	-30	322	231	1,27	1,40	1,21
40	-25	413	255	1,37	1,62	1,40
40	-23,3	446	263	1,40	1,70	1,47
40	-20	515	279	1,46	1,85	1,60
40	-15	629	302	1,56	2,08	1,80
40	-10	755	326	1,67	2,32	2,00

45	-40	161	184	1,10	0,88	0,76
45	-35	221	210	1,20	1,05	0,91
45	-30	293	236	1,30	1,24	1,07
45	-25	377	262	1,40	1,44	1,24
45	-23,3	409	271	1,43	1,51	1,30
45	-20	473	288	1,50	1,64	1,42
45	-15	581	313	1,61	1,86	1,60
45	-10	700	338	1,72	2,07	1,79

50	-40	146	187	1,11	0,78	0,67
50	-35	199	214	1,21	0,93	0,80
50	-30	265	242	1,32	1,09	0,94
50	-25	342	270	1,43	1,27	1,10
50	-23,3	371	279	1,47	1,33	1,15
50	-20	431	297	1,54	1,45	1,26
50	-15	533	324	1,66	1,64	1,42
50	-10	646	351	1,78	1,84	1,59

55	-40	130	189	1,12	0,69	0,59
55	-35	177	219	1,23	0,81	0,70
55	-30	236	248	1,34	0,95	0,82
55	-25	307	277	1,46	1,11	0,96
55	-23,3	334	287	1,50	1,16	1,00
55	-20	390	306	1,58	1,27	1,10
55	-15	484	335	1,71	1,45	1,25
55	-10	591	363	1,84	1,63	1,41

60	-40	114	192	1,13	0,60	0,52
60	-35	155	223	1,24	0,70	0,60
60	-30	207	254	1,36	0,82	0,71
60	-25	272	285	1,49	0,95	0,82
60	-23,3	296	295	1,53	1,00	0,87
60	-20	348	315	1,62	1,10	0,95
60	-15	436	345	1,76	1,26	1,09
60	-10	536	376	1,90	1,43	1,23

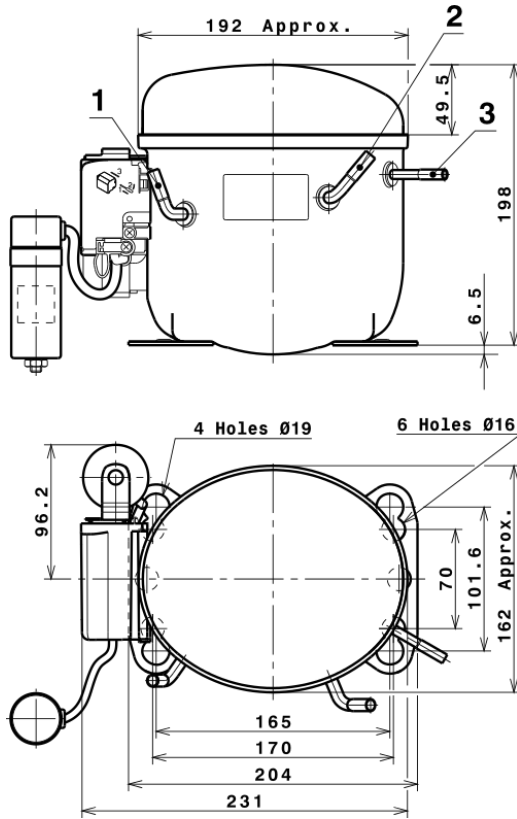
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.576,0727692682	251,4488195763	1,3226929477	14,978681461811
2	41,1739639519	1,9962846806	0,0113686482	0,43966244068367
3	-13,8190793724	3,2454439736	0,0154755592	-0,066682599239164
4	0,2316532663	-0,0041235160	0,0001042562	0,0033978611978156
5	-0,2665557983	0,0683652165	0,0003415222	-0,0011472941964659

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

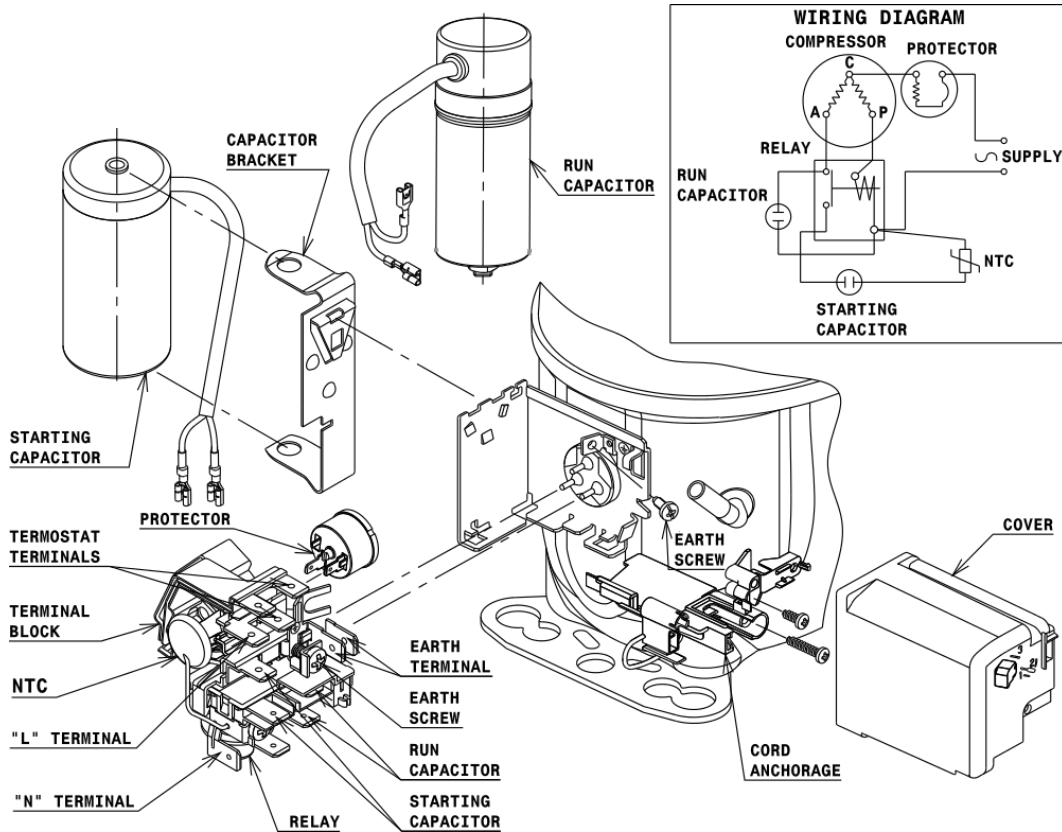
## COMPRESSOR DIMENSIONS



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)



# 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

