

# Technical Data Sheet

Compressor model **NLY80LRb**  
 Voltage **115-127V 60Hz ~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 <sup>3</sup>
Diameter	24,29 mm
Stroke	17,47 mm
Net Weight	9,67 Kg
Oil type	ISO VG 32 ESTER
Oil charge	350 cm <sup>3</sup>

## MOTOR

Nominal Power	1/4 hp
Voltage/Frequency	115-127V 60Hz
Voltage range	98-140 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	29,50 A
Max. Cont. Current (MCC)	5,80 A
Main W. resist. at 25°C	1,98 Ω
Start W. resist. at 25°C	7,12 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	373 kCal/h	322 W
COP	1,46 W/W	1,13 W/W
EER	1,26 kCal/Wh	0,97 kCal/Wh
Input Power	297 W	286 W
Current	3,10 A	3,01 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	115 V 60 Hz	115 V 60 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	170 µF 160 V		
Run capacitor	15 µF 250 V		
Relay	Option 1		
Reference	2014 180. + NTC3Ω		
Pick-Up	16,70 A		
Drop-Out	14,00 A		
Protector	Option 1	Option 2	
Reference	MRA38134	T0348	
Current	15,80 A	15,40 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 52,00 °C	105,00 / 52,00 °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	171	191	2,35	1,04	0,90
40	-35	223	212	2,49	1,22	1,05
40	-30	292	236	2,66	1,44	1,24
40	-25	376	263	2,85	1,66	1,43
40	-23,3	408	273	2,92	1,74	1,50
40	-20	476	293	3,07	1,89	1,63
40	-15	592	325	3,31	2,12	1,82
40	-10	723	361	3,59	2,33	2,01

45	-40	163	193	2,37	0,98	0,84
45	-35	214	216	2,52	1,15	0,99
45	-30	282	242	2,70	1,35	1,16
45	-25	365	271	2,90	1,57	1,35
45	-23,3	396	281	2,98	1,64	1,41
45	-20	463	302	3,14	1,78	1,53
45	-15	578	336	3,40	2,00	1,72
45	-10	708	373	3,69	2,21	1,90

50	-40	156	196	2,38	0,93	0,80
50	-35	206	220	2,55	1,09	0,93
50	-30	272	248	2,74	1,28	1,10
50	-25	353	278	2,96	1,48	1,27
50	-23,3	385	289	3,04	1,55	1,33
50	-20	451	311	3,21	1,69	1,45
50	-15	564	347	3,48	1,89	1,63
50	-10	693	386	3,80	2,09	1,80

55	-40	148	198	2,40	0,87	0,75
55	-35	197	224	2,58	1,02	0,88
55	-30	262	254	2,78	1,20	1,03
55	-25	342	286	3,01	1,39	1,20
55	-23,3	373	297	3,10	1,46	1,26
55	-20	438	320	3,28	1,59	1,37
55	-15	550	358	3,57	1,79	1,54
55	-10	678	398	3,90	1,98	1,70

60	-40	141	201	2,42	0,82	0,70
60	-35	188	229	2,61	0,96	0,82
60	-30	252	259	2,82	1,13	0,97
60	-25	331	293	3,07	1,31	1,13
60	-23,3	361	305	3,16	1,38	1,18
60	-20	426	329	3,35	1,50	1,29
60	-15	537	369	3,66	1,69	1,46
60	-10	663	411	4,01	1,88	1,62

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	185	191	2,35	0,97	0,84
40	-35	248	212	2,49	1,17	1,01
40	-30	326	236	2,66	1,38	1,19
40	-25	419	263	2,85	1,59	1,38
40	-23,3	454	273	2,92	1,66	1,44
40	-20	527	293	3,07	1,80	1,55
40	-15	649	325	3,31	1,99	1,72
40	-10	785	361	3,59	2,18	1,88

45	-40	170	193	2,37	0,88	0,76
45	-35	227	216	2,52	1,05	0,91
45	-30	300	242	2,70	1,24	1,07
45	-25	387	271	2,90	1,43	1,24
45	-23,3	420	281	2,98	1,49	1,29
45	-20	488	302	3,14	1,62	1,40
45	-15	605	336	3,40	1,80	1,55
45	-10	735	373	3,69	1,97	1,70

50	-40	155	196	2,38	0,79	0,68
50	-35	206	220	2,55	0,94	0,81
50	-30	273	248	2,74	1,10	0,95
50	-25	354	278	2,96	1,27	1,10
50	-23,3	385	289	3,04	1,33	1,15
50	-20	450	311	3,21	1,45	1,25
50	-15	561	347	3,48	1,62	1,40
50	-10	686	386	3,80	1,78	1,54

55	-40	139	198	2,40	0,70	0,61
55	-35	186	224	2,58	0,83	0,71
55	-30	246	254	2,78	0,97	0,84
55	-25	322	286	3,01	1,13	0,97
55	-23,3	351	297	3,10	1,18	1,02
55	-20	412	320	3,28	1,29	1,11
55	-15	516	358	3,57	1,44	1,25
55	-10	636	398	3,90	1,60	1,38

60	-40	124	201	2,42	0,62	0,54
60	-35	165	229	2,61	0,72	0,62
60	-30	220	259	2,82	0,85	0,73
60	-25	289	293	3,07	0,99	0,85
60	-23,3	316	305	3,16	1,04	0,90
60	-20	374	329	3,35	1,13	0,98
60	-15	472	369	3,66	1,28	1,11
60	-10	586	411	4,01	1,43	1,23

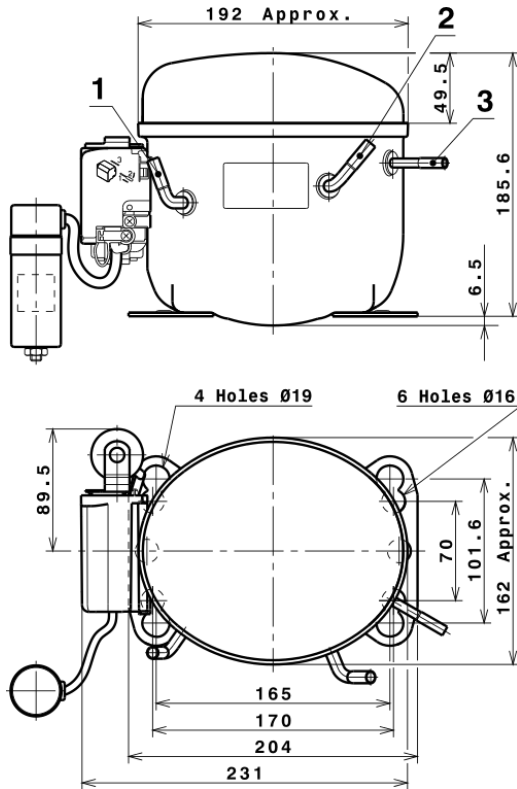
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.587,6131551770	321,0778672046	3,2554274903	14,798929417987
2	43,5272381533	5,9945295546	0,0509934120	0,46543809288037
3	-12,6320541569	3,2454439736	0,0273004336	-0,044141585978295
4	0,2855452247	0,0580613484	0,0006410439	0,0041470187567715
5	-0,2393817628	0,0683652165	0,0005973970	-0,00064479012122363

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

## COMPRESSOR DIMENSIONS

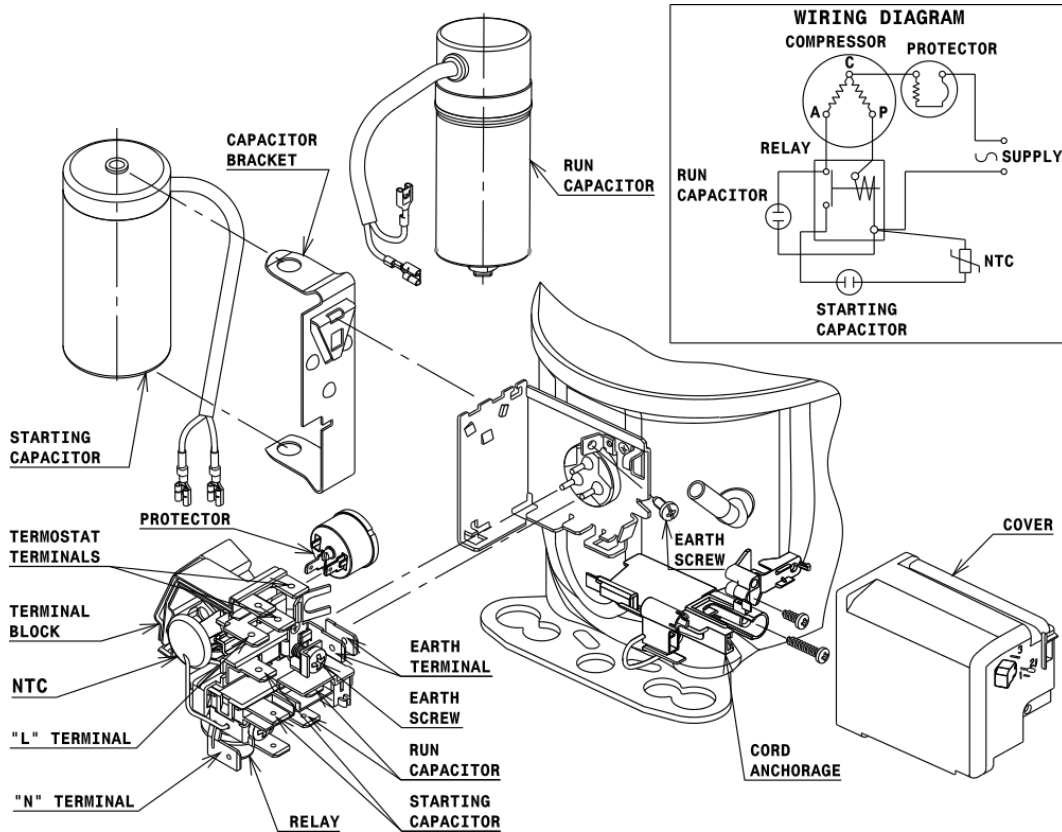


## DESIGNATION INTERNAL DIAM.

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

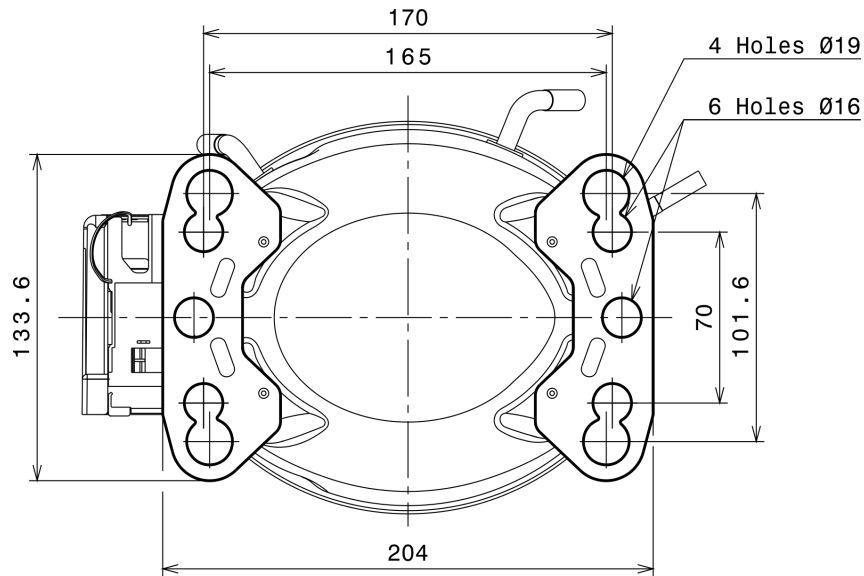
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



# Technical Data Sheet

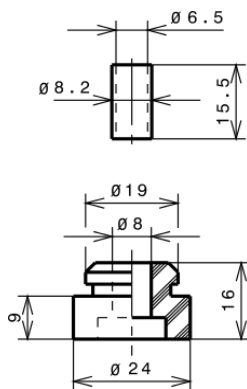
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

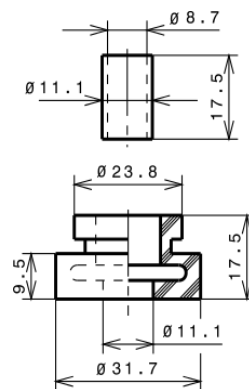
### STANDARD

Ø16 holes (170x70 net)



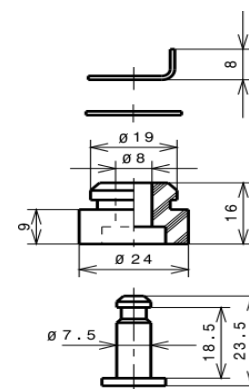
### AMERICAN FEET

Ø19 holes (165x101.6 net)



### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R290 LBP

