

Technical Data Sheet

Compressor model **NLY80RRa**
 Voltage **115-127V 60Hz ~1**
 Refrigerant **R290**

APPLICATION

COMPRESSOR

MOTOR

Application	High-Medium Back Pressure	Displacement	8,10 cm ³	Nominal Power	1/4 hp
Refrigerant	R290	Diameter	24,29 mm	Voltage/Frequency	115-127V 60Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	17,47 mm	Voltage range	98-140 V
Expansion	Capillar/Valve	Net Weight	10,03 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	350 cm ³	Locked Rotor Amps (LRA)	32,00 A
				Max. Cont. Current (MCC)	8,60 A
				Main W. resist. at 25°C	1,65 Ω
				Start W. resist. at 25°C	6,70 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.125 kCal/h	1.098 W
COP	2,45 W/W	2,12 W/W
EER	2,11 kCal/Wh	1,83 kCal/Wh
Input Power	534 W	518 W
Current	5,73 A	5,59 A

APPROVALS



TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T _e)	7,2 °C	5,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	46,0 °C	55,0 °C
Ambient temp. (T _{amb.})	35,0 °C	32,0 °C
Suction temp. (T _{suction})	35,0 °C	32,0 °C
Voltage/Frequency	115 V 60 Hz	115 V 60 Hz

ELECTRICAL COMPONENTS

Starting capacitor	150 µF 160 V			
Relay	Option 1			
Reference	2014 180.			
Pick-Up	16,70 A			
Drop-Out	14,00 A			
Protector	Option 1	Option 2		
Reference	MRA38123	T0534		
Current	22,00 A	20,00 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	-25	391	287	3,80	1,59	1,36
40	-20	493	298	3,87	1,92	1,66
40	-15	613	311	3,97	2,30	1,97
40	-10	752	326	4,07	2,69	2,31
40	-5	911	342	4,19	3,09	2,66
40	0	1.088	361	4,33	3,50	3,01
40	5	1.283	382	4,48	3,91	3,36
40	7,2	1.376	392	4,56	4,09	3,51
40	10	1.498	404	4,65	4,31	3,70

45	-25	360	289	3,82	1,45	1,25
45	-20	453	307	3,94	1,72	1,48
45	-15	566	327	4,08	2,01	1,73
45	-10	697	349	4,24	2,32	2,00
45	-5	847	373	4,41	2,64	2,27
45	0	1.016	399	4,61	2,96	2,55
45	5	1.203	426	4,83	3,28	2,82
45	7,2	1.292	439	4,93	3,42	2,94
45	10	1.410	456	5,06	3,60	3,09

50	-25	329	292	3,83	1,31	1,13
50	-20	414	317	4,01	1,52	1,31
50	-15	518	344	4,20	1,75	1,51
50	-10	641	373	4,41	2,00	1,72
50	-5	783	403	4,65	2,26	1,94
50	0	944	436	4,90	2,52	2,16
50	5	1.124	471	5,19	2,78	2,39
50	7,2	1.209	487	5,32	2,89	2,48
50	10	1.322	507	5,50	3,03	2,61

55	-25	298	294	3,85	1,18	1,01
55	-20	375	326	4,07	1,34	1,15
55	-15	471	360	4,32	1,52	1,31
55	-10	586	396	4,59	1,72	1,48
55	-5	720	434	4,89	1,93	1,66
55	0	872	473	5,21	2,14	1,84
55	5	1.044	515	5,56	2,36	2,03
55	7,2	1.125	534	5,73	2,45	2,11
55	10	1.234	559	5,95	2,57	2,21

60	-25	267	297	3,87	1,05	0,90
60	-20	336	336	4,14	1,16	1,00
60	-15	424	377	4,44	1,31	1,13
60	-10	531	419	4,77	1,47	1,26
60	-5	656	464	5,13	1,64	1,41
60	0	800	511	5,53	1,82	1,57
60	5	964	560	5,96	2,00	1,72
60	7,2	1.042	582	6,16	2,08	1,79
60	10	1.146	610	6,43	2,18	1,88

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	421	288	3,81	1,46	1,26
40	-20	531	299	3,89	1,77	1,53
40	-15	661	312	3,98	2,12	1,83
40	-10	811	327	4,08	2,48	2,14
40	-5	981	344	4,21	2,85	2,46
40	0	1.171	363	4,34	3,22	2,78
40	5	1.380	384	4,50	3,59	3,10
40	7,2	1.478	394	4,58	3,75	3,24
40	10	1.608	407	4,68	3,95	3,41

45	-25	385	291	3,83	1,33	1,15
45	-20	486	309	3,95	1,57	1,36
45	-15	606	329	4,09	1,84	1,59
45	-10	747	351	4,25	2,13	1,84
45	-5	907	375	4,43	2,42	2,09
45	0	1.086	401	4,63	2,71	2,34
45	5	1.286	429	4,85	3,00	2,59
45	7,2	1.380	442	4,95	3,12	2,70
45	10	1.505	459	5,09	3,28	2,83

50	-25	350	293	3,84	1,19	1,03
50	-20	441	318	4,02	1,38	1,20
50	-15	552	346	4,21	1,60	1,38
50	-10	682	375	4,43	1,82	1,57
50	-5	832	406	4,67	2,05	1,77
50	0	1.002	439	4,93	2,28	1,97
50	5	1.192	474	5,21	2,52	2,17
50	7,2	1.281	490	5,35	2,62	2,26
50	10	1.401	511	5,53	2,74	2,37

55	-25	314	296	3,86	1,06	0,92
55	-20	396	328	4,09	1,21	1,04
55	-15	497	362	4,33	1,37	1,18
55	-10	617	398	4,61	1,55	1,34
55	-5	758	436	4,91	1,74	1,50
55	0	918	476	5,24	1,93	1,66
55	5	1.098	518	5,59	2,12	1,83
55	7,2	1.183	538	5,76	2,20	1,90
55	10	1.297	562	5,98	2,31	1,99

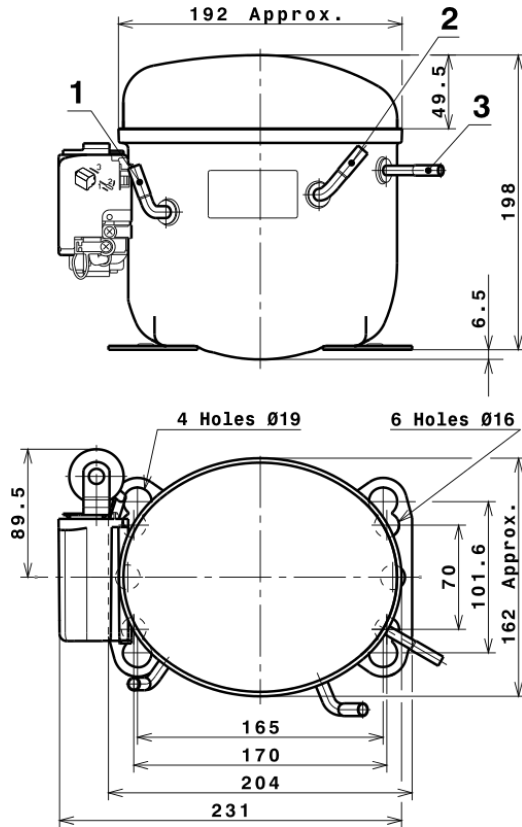
60	-25	279	298	3,88	0,94	0,81
60	-20	350	337	4,15	1,04	0,90
60	-15	442	379	4,46	1,17	1,01
60	-10	553	422	4,79	1,31	1,13
60	-5	683	467	5,16	1,46	1,26
60	0	834	514	5,56	1,62	1,40
60	5	1.004	563	5,99	1,78	1,54
60	7,2	1.085	585	6,20	1,85	1,60
60	10	1.193	614	6,47	1,94	1,68

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.847,7868534505	62,8505993220	1,6968788876	16,566576804497
2	55,6296296573	-7,3818992666	-0,0659236481	0,55277808998911
3	-17,3624343803	7,7562768221	0,0664134491	-0,073706991139662
4	0,3864613078	0,0426902423	0,0005887127	0,0061116191874814
5	-0,4082706015	0,2896822562	0,0025151087	-0,0011676634365393

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 HMBP

