

Technical Data Sheet

Compressor model **NLY12RGa**
 Voltage **200-220/220-230V 50/60Hz ~1**
 Refrigerant **R290**

APPLICATION

COMPRESSOR

MOTOR

Application	High-Medium Back Pressure	Displacement	10,70 cm ³	Nominal Power	1/2 hp
Refrigerant	R290	Diameter	25,40 mm	Voltage/Frequency	200-220V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	21,12 mm	Voltage range	170-242 V
Expansion	Capillar/Valve	Net Weight	12,14 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	400 cm ³	Locked Rotor Amps (LRA)	21,00 A
				Max. Cont. Current (MCC)	5,00 A
				Main W. resist. at 25°C	2,87 Ω
				Start W. resist. at 25°C	7,59 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.245 kCal/h	1.217 W
COP	2,39 W/W	2,03 W/W
EER	2,05 kCal/Wh	1,76 kCal/Wh
Input Power	607 W	598 W
Current	3,97 A	3,94 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	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	72- 88 µF 330 V			
Relay	Option 1			
Reference	2014 158.			
Pick-Up	9,05 A			
Drop-Out	7,70 A			
Protector	Option 1			
Reference	T0267			
Current	11,00 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	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	418	373	3,22	1,30	1,12
40	-20	533	404	3,30	1,53	1,32
40	-15	668	433	3,38	1,79	1,54
40	-10	821	459	3,46	2,08	1,79
40	-5	994	482	3,53	2,40	2,06
40	0	1.186	503	3,59	2,74	2,36
40	5	1.397	521	3,65	3,12	2,68
40	7,2	1.496	528	3,68	3,30	2,84
40	10	1.627	536	3,71	3,53	3,04

45	-25	386	372	3,22	1,21	1,04
45	-20	493	408	3,31	1,41	1,21
45	-15	620	441	3,40	1,64	1,41
45	-10	765	471	3,49	1,89	1,63
45	-5	930	498	3,58	2,17	1,87
45	0	1.114	523	3,66	2,48	2,13
45	5	1.317	545	3,74	2,81	2,42
45	7,2	1.412	554	3,77	2,96	2,55
45	10	1.539	564	3,81	3,17	2,73

50	-25	355	372	3,22	1,11	0,95
50	-20	454	411	3,32	1,28	1,10
50	-15	572	449	3,43	1,48	1,28
50	-10	710	483	3,53	1,71	1,47
50	-5	866	515	3,63	1,96	1,68
50	0	1.042	544	3,73	2,23	1,92
50	5	1.237	570	3,83	2,52	2,17
50	7,2	1.329	581	3,87	2,66	2,29
50	10	1.451	593	3,92	2,84	2,44

55	-25	323	371	3,22	1,01	0,87
55	-20	414	415	3,33	1,16	1,00
55	-15	525	456	3,45	1,34	1,15
55	-10	654	495	3,57	1,54	1,32
55	-5	803	531	3,69	1,76	1,51
55	0	970	564	3,81	2,00	1,72
55	5	1.157	594	3,92	2,26	1,95
55	7,2	1.245	607	3,97	2,39	2,05
55	10	1.363	622	4,03	2,55	2,19

60	-25	292	371	3,22	0,92	0,79
60	-20	375	419	3,34	1,04	0,89
60	-15	477	464	3,47	1,19	1,03
60	-10	598	507	3,61	1,37	1,18
60	-5	739	547	3,75	1,57	1,35
60	0	898	585	3,88	1,79	1,54
60	5	1.077	619	4,02	2,02	1,74
60	7,2	1.162	634	4,08	2,13	1,83
60	10	1.275	651	4,15	2,28	1,96

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	449	375	3,23	1,20	1,04
40	-20	575	406	3,31	1,41	1,22
40	-15	720	435	3,39	1,65	1,43
40	-10	886	461	3,47	1,92	1,66
40	-5	1.071	485	3,54	2,21	1,91
40	0	1.276	506	3,61	2,52	2,18
40	5	1.502	524	3,67	2,87	2,48
40	7,2	1.607	531	3,69	3,03	2,61
40	10	1.747	539	3,72	3,24	2,80

45	-25	413	374	3,23	1,10	0,95
45	-20	529	410	3,32	1,29	1,11
45	-15	664	443	3,41	1,50	1,30
45	-10	820	474	3,50	1,73	1,50
45	-5	996	501	3,59	1,99	1,72
45	0	1.191	526	3,67	2,26	1,96
45	5	1.407	549	3,75	2,56	2,21
45	7,2	1.508	558	3,78	2,70	2,34
45	10	1.642	568	3,82	2,89	2,50

50	-25	377	374	3,23	1,01	0,87
50	-20	483	414	3,33	1,17	1,01
50	-15	609	451	3,43	1,35	1,17
50	-10	754	486	3,54	1,55	1,34
50	-5	920	518	3,64	1,78	1,54
50	0	1.106	547	3,75	2,02	1,75
50	5	1.312	574	3,84	2,29	1,98
50	7,2	1.408	584	3,88	2,41	2,08
50	10	1.537	597	3,93	2,57	2,22

55	-25	341	373	3,22	0,91	0,79
55	-20	437	417	3,34	1,05	0,90
55	-15	553	459	3,46	1,20	1,04
55	-10	689	498	3,58	1,38	1,20
55	-5	845	534	3,70	1,58	1,37
55	0	1.021	568	3,82	1,80	1,55
55	5	1.217	598	3,94	2,03	1,76
55	7,2	1.309	611	3,99	2,14	1,85
55	10	1.432	626	4,05	2,29	1,98

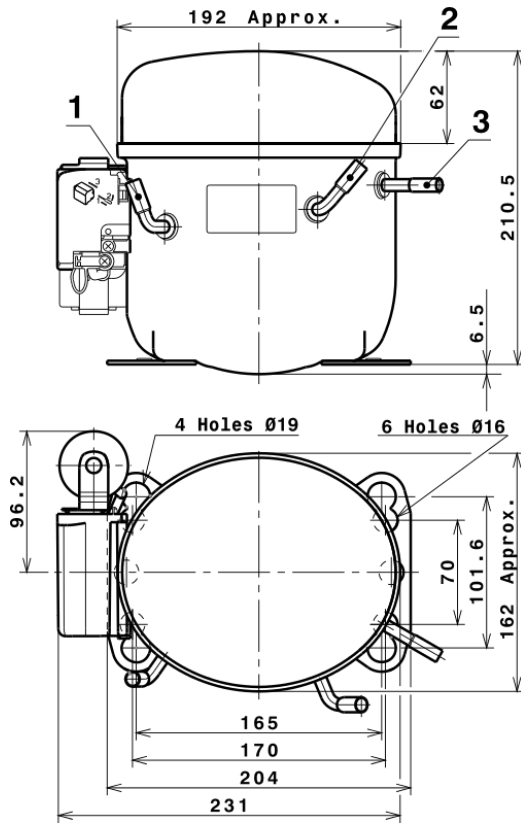
60	-25	304	373	3,22	0,82	0,71
60	-20	391	421	3,35	0,93	0,80
60	-15	497	467	3,48	1,06	0,92
60	-10	623	510	3,62	1,22	1,06
60	-5	769	550	3,76	1,40	1,21
60	0	936	588	3,90	1,59	1,37
60	5	1.122	623	4,03	1,80	1,56
60	7,2	1.210	638	4,09	1,90	1,64
60	10	1.328	655	4,17	2,03	1,75

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.962,6716260222	349,7759268907	2,9638200625	17,312794093177
2	58,9738574006	-2,8061436473	-0,0114530329	0,57626692533976
3	-17,6295090832	4,2400425499	0,0165311106	-0,061773683143729
4	0,3915100050	-0,0523544701	0,0000159611	0,0062699973002106
5	-0,4125205939	0,1737154653	0,0006715261	-0,00075399098083236

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



DESIGNATION INTERNAL DIAM.

1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 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

