Technical Data Sheet

Compressor model **NLY12NGb**

Voltage **200-220/220-230V 50/60Hz ~1**

Refrigerant **R290**

APPLICATION

Application	Low-Medium Back Pressure
Refrigerant	R290
Evaporating Temp.	-40,0 ºC to 0,0 ºC
Expansion	Capillar/Valve
Comp. Cooling	Fan cooled
Max. ambient temp.	43,0 ºC

COMPRESSOR

Displacement	10,70 cm³
Diameter	25,40 mm
Stroke	21,12 mm
Net Weight	11,40 Kg
Oil type	ISO VG 32 ESTER
Oil charge	395 cm³

MOTOR

Nominal Power	3/8 hp
Voltage/Frequency	200-220V 50Hz
Voltage range	170-242 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	22,50 A
Max. Cont. Current (MCC)	5,20 A
Main W. resist. at 25ºC	3,73 Ω
Start W. resist. at 25ºC	17,04 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	454 kCal/h	394 W
COP	1,38 W/W	1,07 W/W
EER	1,19 kCal/Wh	0,92 kCal/Wh
Input Power	382 W	369 W
Current	2,83 A	2,80 A

APPROVALS

TEST CYCLE CONDITIONS

	ASHRAE	**CECOMAF**
	LMBP (B)	**LMBP (A)**
Evaporating temp. (T_e)	-23,3 ºC	-25,0 ºC
Condensing temp. (T_c)	55,0 ºC	55,0 ºC
Liquid temp. ($T_{liq.}$)	32,0 ºC	55,0 ºC
Ambient temp. ($T_{amb.}$)	32,0 ºC	32,0 ºC
Suction temp. ($T_{suction}$)	32,0 ºC	32,0 ºC
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	88-108 µF 330 V			
Run capacitor	6 µF 400 V			
Relay	Option 1	Option 2		
Reference	2014 170. + NTC15Ω	QLZ-12.1A + NTC15Ω		
Pick-Up	12,10 A	12.10 A		
Drop-Out	10,30 A	10.30 A		
Protector	Option 1			
Reference	T0267			
Current	11,00 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	105,00 / 52,00 ºC			

This product is approved for R290 and R600a regarding explosion safety according to standard EN 60335-1 and EN 60335-2-34

Technical Data Sheet

cubigel compressors

ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	210	250	2,46	0,97	0,84
40	-35	278	288	2,57	1,12	0,96
40	-30	361	326	2,67	1,29	1,11
40	-25	459	362	2,78	1,47	1,27
40	-23,3	495	375	2,81	1,54	1,32
40	-20	571	399	2,88	1,67	1,43
40	-15	697	434	2,98	1,87	1,61
40	-10	838	469	3,07	2,08	1,79
40	-5	994	503	3,17	2,30	1,98
40	0	1.165	537	3,26	2,52	2,17
45	-40	200	252	2,47	0,92	0,79
45	-35	267	290	2,57	1,07	0,92
45	-30	349	328	2,68	1,24	1,06
45	-25	445	365	2,78	1,42	1,22
45	-23,3	481	377	2,82	1,48	1,28
45	-20	556	401	2,88	1,61	1,39
45	-15	682	437	2,98	1,81	1,56
45	-10	821	472	3,08	2,03	1,74
45	-5	976	506	3,18	2,24	1,93
45	0	1.145	540	3,27	2,47	2,12
50	-40	191	254	2,47	0,87	0,75
50	-35	256	292	2,58	1,02	0,88
50	-30	337	330	2,69	1,19	1,02
50	-25	432	367	2,79	1,37	1,18
50	-23,3	468	380	2,82	1,43	1,23
50	-20	542	404	2,89	1,56	1,34
50	-15	666	439	2,99	1,76	1,52
50	-10	804	475	3,09	1,97	1,70
50	-5	958	509	3,19	2,19	1,88
50	0	1.126	543	3,28	2,41	2,07
55	-40	181	256	2,48	0,82	0,71
55	-35	246	294	2,59	0,97	0,83
55	-30	325	332	2,69	1,14	0,98
55	-25	419	369	2,80	1,32	1,13
55	-23,3	454	382	2,83	1,38	1,19
55	-20	527	406	2,90	1,51	1,30
55	-15	650	442	3,00	1,71	1,47
55	-10	787	477	3,10	1,92	1,65
55	-5	939	512	3,19	2,13	1,84
55	0	1.106	546	3,29	2,36	2,03
60	-40	172	258	2,49	0,77	0,66
60	-35	235	297	2,59	0,92	0,79
60	-30	313	335	2,70	1,09	0,94
60	-25	406	372	2,80	1,27	1,09
60	-23,3	440	384	2,84	1,33	1,15
60	-20	513	409	2,90	1,46	1,25
60	-15	634	445	3,01	1,66	1,43
60	-10	770	480	3,10	1,87	1,61
60	-5	921	515	3,20	2,08	1,79
60	0	1.087	549	3,30	2,30	1,98

CECOMAF

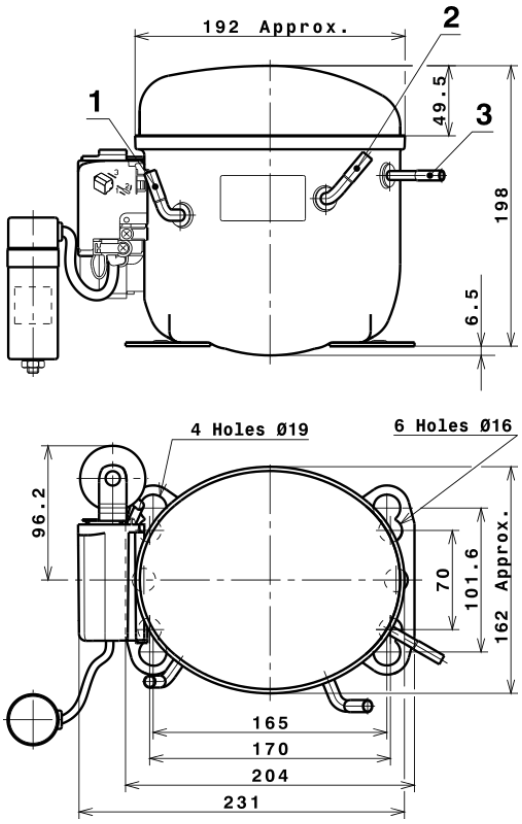
Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	227	250	2,46	0,91	0,78
40	-35	310	288	2,57	1,08	0,93
40	-30	406	326	2,67	1,25	1,08
40	-25	516	362	2,78	1,42	1,23
40	-23,3	556	375	2,81	1,48	1,28
40	-20	639	399	2,88	1,60	1,38
40	-15	775	434	2,98	1,79	1,54
40	-10	925	469	3,07	1,97	1,70
40	-5	1.088	503	3,17	2,16	1,87
40	0	1.265	537	3,26	2,35	2,03
45	-40	208	252	2,47	0,83	0,71
45	-35	284	290	2,57	0,98	0,84
45	-30	373	328	2,68	1,14	0,98
45	-25	475	365	2,78	1,30	1,13
45	-23,3	513	377	2,82	1,36	1,17
45	-20	591	401	2,88	1,47	1,27
45	-15	720	437	2,98	1,65	1,42
45	-10	863	472	3,08	1,83	1,58
45	-5	1.018	506	3,18	2,01	1,74
45	0	1.188	540	3,27	2,20	1,90
50	-40	189	254	2,47	0,75	0,64
50	-35	258	292	2,58	0,88	0,76
50	-30	339	330	2,69	1,03	0,89
50	-25	434	367	2,79	1,18	1,02
50	-23,3	470	380	2,82	1,24	1,07
50	-20	543	404	2,89	1,35	1,16
50	-15	665	439	2,99	1,51	1,31
50	-10	800	475	3,09	1,69	1,46
50	-5	949	509	3,19	1,86	1,61
50	0	1.111	543	3,28	2,05	1,77
55	-40	171	256	2,48	0,67	0,58
55	-35	232	294	2,59	0,79	0,68
55	-30	306	332	2,69	0,92	0,80
55	-25	394	369	2,80	1,07	0,92
55	-23,3	427	382	2,83	1,12	0,97
55	-20	495	406	2,90	1,22	1,05
55	-15	610	442	3,00	1,38	1,19
55	-10	738	477	3,10	1,55	1,34
55	-5	880	512	3,19	1,72	1,48
55	0	1.034	546	3,29	1,89	1,64
60	-40	152	258	2,49	0,59	0,51
60	-35	205	297	2,59	0,69	0,60
60	-30	273	335	2,70	0,82	0,70
60	-25	353	372	2,80	0,95	0,82
60	-23,3	384	384	2,84	1,00	0,86
60	-20	447	409	2,90	1,10	0,95
60	-15	555	445	3,01	1,25	1,08
60	-10	676	480	3,10	1,41	1,22
60	-5	810	515	3,20	1,57	1,36
60	0	958	549	3,30	1,74	1,51

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.878,9064602463	526,7438544828	3,2356406132	16,793391043248
2	48,0922084199	6,7443861675	0,0190222316	0,49209408315948
3	-15,8696092843	0,6160746836	0,0017387857	-0,049799118614605
4	0,2621840767	-0,0111859252	-0,0000259932	0,0039869186908798
5	-0,3016140685	0,0051851608	0,0000152035	-0,00066392684105093

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

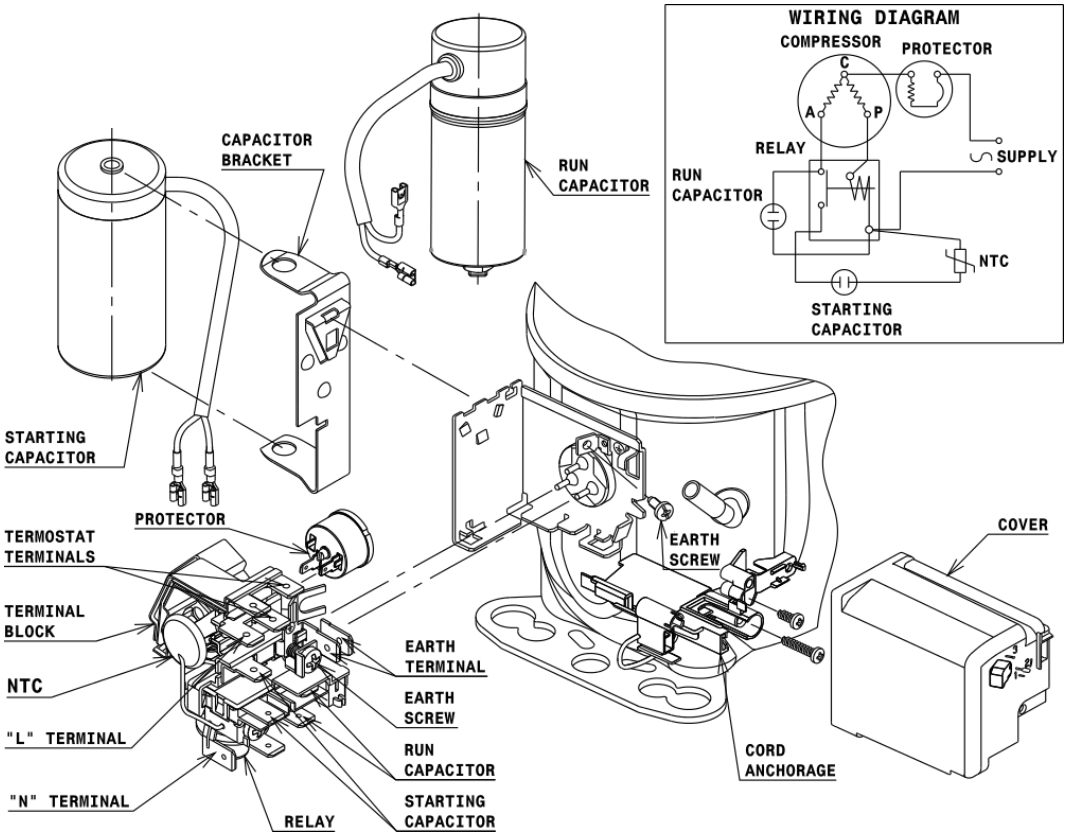
COMPRESSOR DIMENSIONS



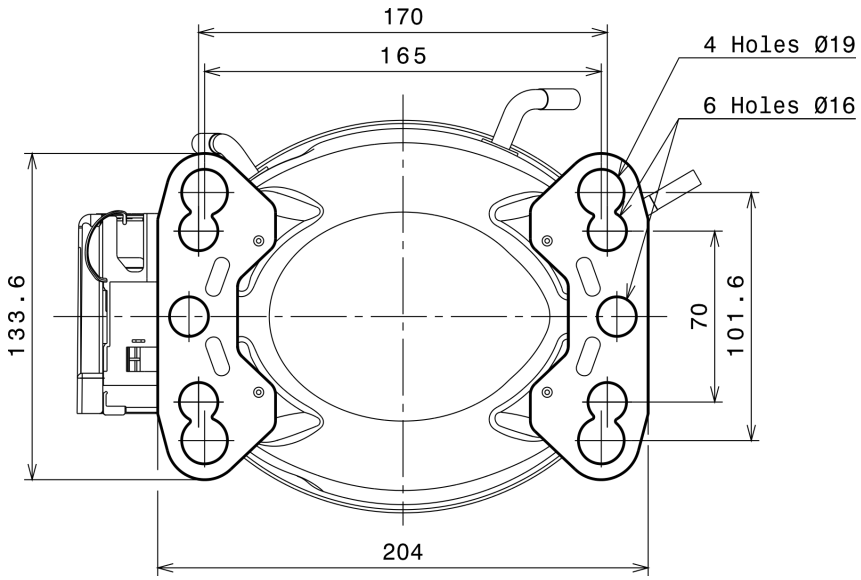
	DESIGNATION	INTERNAL DIAM.
1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



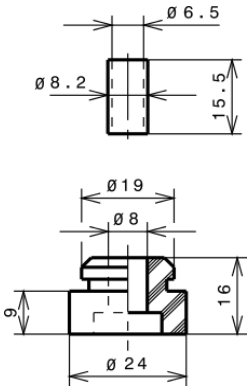
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

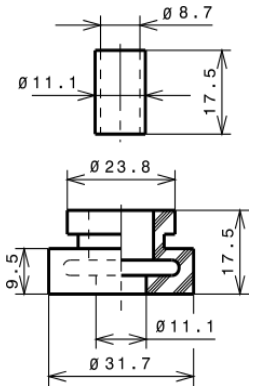
STANDARD

Ø16 holes (170x70 net)



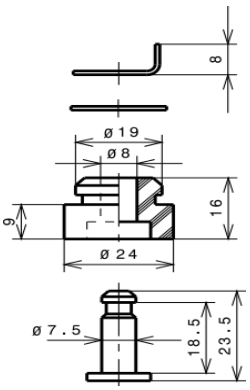
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R290 LMBP