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	11,14 Kg
Oil type	ISO VG 32 ESTER
Oil charge	400 cm³

MOTOR

Nominal Power	3/8 hp
Voltage/Frequency	200-220V 50Hz
Voltage range	180-242 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	22,00 A
Max. Cont. Current (MCC)	4,60 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	1,87 W/W	1,44 W/W
EER	1,61 kCal/Wh	1,25 kCal/Wh
Input Power	282 W	273 W
Current	2,83 A	2,72 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			
Reference	2014 170. + NTC15Ω			
Pick-Up	12,10 A			
Drop-Out	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	2,39	0,97	0,84
40	-35	278	243	2,29	1,33	1,14
40	-30	361	248	2,37	1,69	1,45
40	-25	459	266	2,62	2,00	1,72
40	-23,3	495	275	2,74	2,10	1,80
40	-20	571	296	2,99	2,24	1,93
40	-15	697	338	3,40	2,40	2,06
40	-10	838	392	3,71	2,49	2,14
40	-5	994	458	3,76	2,52	2,17
40	0	1.165	537	3,37	2,52	2,17
45	-40	200	252	2,42	0,92	0,79
45	-35	267	245	2,32	1,27	1,09
45	-30	349	251	2,40	1,62	1,39
45	-25	445	268	2,65	1,93	1,66
45	-23,3	481	277	2,77	2,02	1,74
45	-20	556	298	3,02	2,17	1,86
45	-15	682	340	3,42	2,33	2,00
45	-10	821	395	3,72	2,42	2,08
45	-5	976	461	3,76	2,46	2,12
45	0	1.145	540	3,34	2,47	2,12
50	-40	191	254	2,45	0,87	0,75
50	-35	256	247	2,35	1,21	1,04
50	-30	337	253	2,44	1,55	1,33
50	-25	432	271	2,69	1,86	1,60
50	-23,3	468	280	2,80	1,95	1,67
50	-20	542	301	3,05	2,09	1,80
50	-15	666	343	3,44	2,26	1,94
50	-10	804	397	3,72	2,35	2,02
50	-5	958	464	3,75	2,40	2,06
50	0	1.126	543	3,32	2,41	2,07
55	-40	181	256	2,48	0,82	0,71
55	-35	246	249	2,38	1,15	0,98
55	-30	325	255	2,47	1,48	1,27
55	-25	419	273	2,72	1,78	1,53
55	-23,3	454	282	2,83	1,87	1,61
55	-20	527	303	3,08	2,02	1,74
55	-15	650	346	3,46	2,19	1,88
55	-10	787	400	3,73	2,29	1,97
55	-5	939	467	3,74	2,34	2,01
55	0	1.106	546	3,29	2,36	2,03
60	-40	172	258	2,51	0,77	0,66
60	-35	235	252	2,42	1,09	0,93
60	-30	313	257	2,50	1,41	1,22
60	-25	406	275	2,75	1,71	1,47
60	-23,3	440	284	2,86	1,80	1,55
60	-20	513	306	3,10	1,95	1,68
60	-15	634	348	3,47	2,12	1,82
60	-10	770	403	3,74	2,22	1,91
60	-5	921	470	3,74	2,28	1,96
60	0	1.087	549	3,26	2,30	1,98

CECOMAF

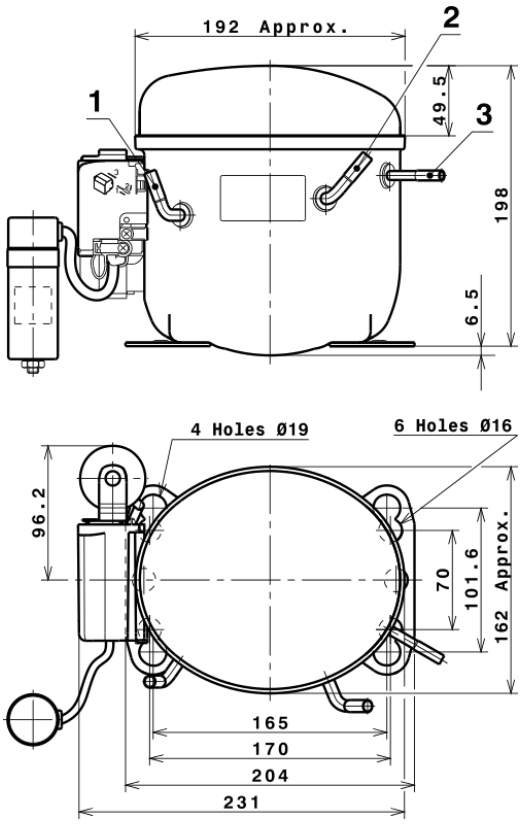
Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	227	250	2,39	0,91	0,78
40	-35	310	243	2,29	1,27	1,10
40	-30	406	248	2,37	1,63	1,41
40	-25	516	266	2,62	1,94	1,67
40	-23,3	556	275	2,74	2,02	1,75
40	-20	639	296	2,99	2,16	1,87
40	-15	775	338	3,40	2,29	1,98
40	-10	925	392	3,71	2,36	2,04
40	-5	1.088	458	3,76	2,37	2,05
40	0	1.265	537	3,37	2,35	2,03
45	-40	208	252	2,42	0,83	0,71
45	-35	284	245	2,32	1,16	1,00
45	-30	373	251	2,40	1,49	1,28
45	-25	475	268	2,65	1,77	1,53
45	-23,3	513	277	2,77	1,85	1,60
45	-20	591	298	3,02	1,98	1,71
45	-15	720	340	3,42	2,12	1,83
45	-10	863	395	3,72	2,19	1,89
45	-5	1.018	461	3,76	2,21	1,91
45	0	1.188	540	3,34	2,20	1,90
50	-40	189	254	2,45	0,75	0,64
50	-35	258	247	2,35	1,04	0,90
50	-30	339	253	2,44	1,34	1,16
50	-25	434	271	2,69	1,60	1,39
50	-23,3	470	280	2,80	1,68	1,45
50	-20	543	301	3,05	1,81	1,56
50	-15	665	343	3,44	1,94	1,67
50	-10	800	397	3,72	2,01	1,74
50	-5	949	464	3,75	2,04	1,77
50	0	1.111	543	3,32	2,05	1,77
55	-40	171	256	2,48	0,67	0,58
55	-35	232	249	2,38	0,93	0,80
55	-30	306	255	2,47	1,20	1,04
55	-25	394	273	2,72	1,44	1,25
55	-23,3	427	282	2,83	1,51	1,31
55	-20	495	303	3,08	1,63	1,41
55	-15	610	346	3,46	1,76	1,52
55	-10	738	400	3,73	1,84	1,59
55	-5	880	467	3,74	1,88	1,63
55	0	1.034	546	3,29	1,89	1,64
60	-40	152	258	2,51	0,59	0,51
60	-35	205	252	2,42	0,82	0,71
60	-30	273	257	2,50	1,06	0,92
60	-25	353	275	2,75	1,28	1,11
60	-23,3	384	284	2,86	1,35	1,17
60	-20	447	306	3,10	1,46	1,26
60	-15	555	348	3,47	1,59	1,38
60	-10	676	403	3,74	1,68	1,45
60	-5	810	470	3,74	1,72	1,49
60	0	958	549	3,26	1,74	1,51

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.878,9064602463	526,7438544828	3,4848573890	16,793391043248
2	48,0922084199	17,2601612307	0,0206088290	0,49209408315948
3	-15,8696092843	0,6160746836	-0,0060740676	-0,049799118614605
4	0,2621840767	0,2517084514	-0,0002631627	0,0039869186908798
5	-0,3016140685	0,0051851608	-0,0002972251	-0,00066392684105093

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

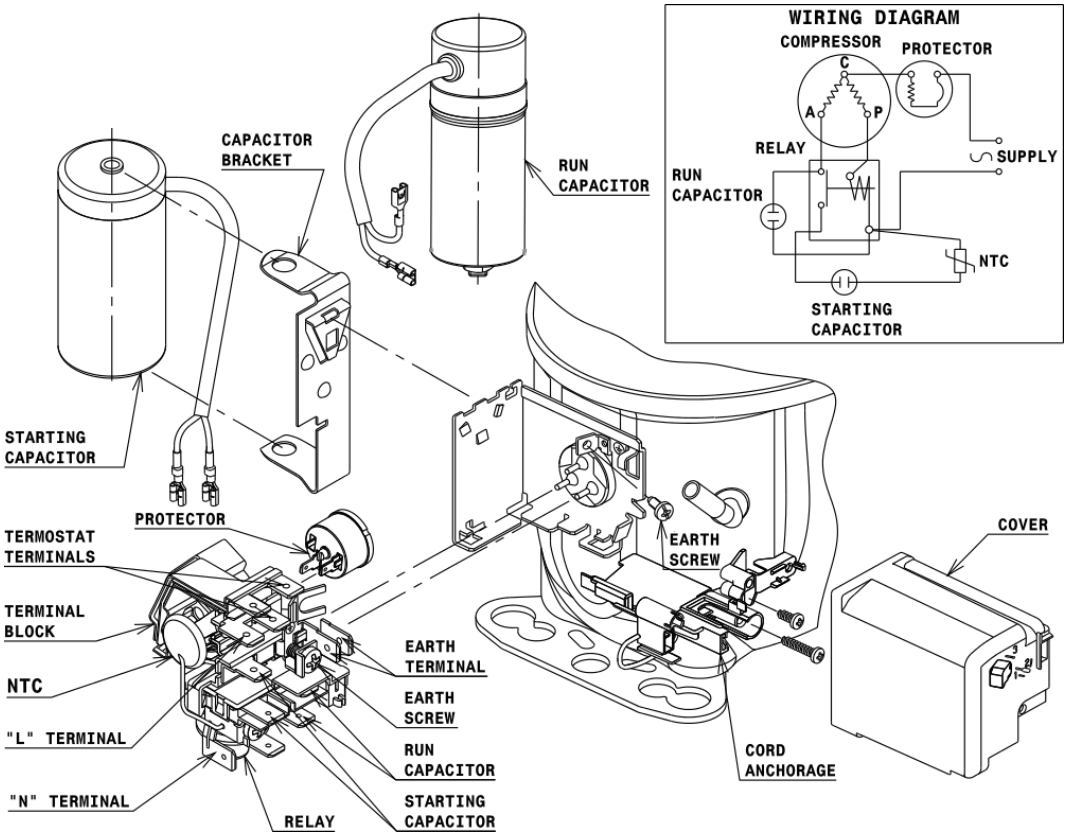
COMPRESSOR DIMENSIONS



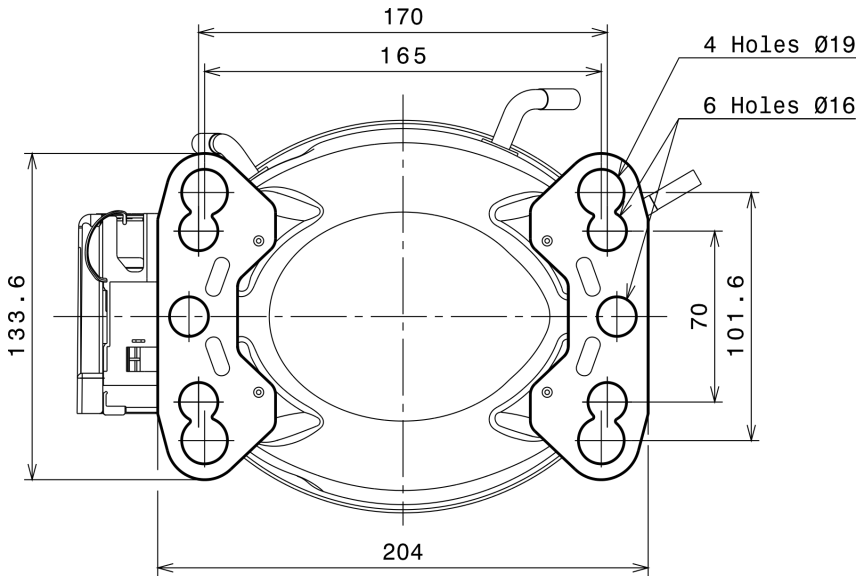
	DESIGNATION	INTERNAL DIAM.
1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



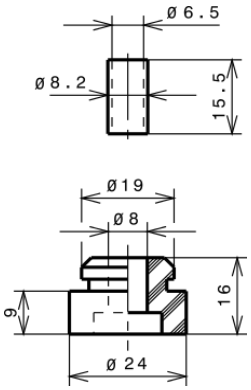
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

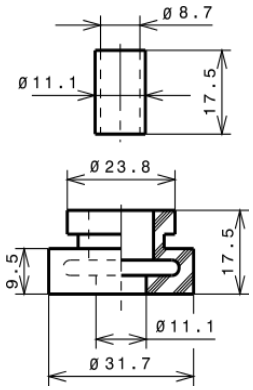
STANDARD

Ø16 holes (170x70 net)



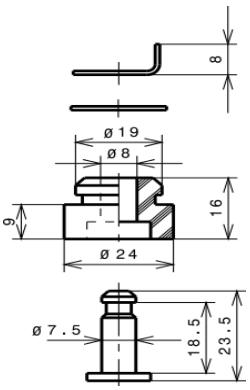
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R290 LMBP