Technical Data Sheet

Compressor model **NPY12LRa**

Voltage **115-127V 60Hz ~1**

Refrigerant **R290**

APPLICATION

Application	Low Back Pressure
Refrigerant	R290
Evaporating Temp.	-40,0 ºC to -10,0 ºC
Expansion	Capillar/Valve
Comp. Cooling	Fan cooled
Max. ambient temp.	43,0 ºC

COMPRESSOR

Displacement	12,10 cm³
Diameter	27,00 mm
Stroke	21,13 mm
Net Weight	11,77 Kg
Oil type	ISO VG 32 ESTER
Oil charge	400 cm³

MOTOR

Nominal Power	3/8 hp
Voltage/Frequency	115-127V 60Hz
Voltage range	98-140 V
Type	CSIR
Phase number	1 PH
Locked Rotor Amps (LRA)	39,00 A
Max. Cont. Current (MCC)	8,30 A
Main W. resist. at 25ºC	1,05 Ω
Start W. resist. at 25ºC	6,65 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	548 kCal/h	473 W
COP	1,35 W/W	1,04 W/W
EER	1,16 kCal/Wh	0,90 kCal/Wh
Input Power	472 W	453 W
Current	5,66 A	5,53 A

APPROVALS

TEST CYCLE CONDITIONS

	ASHRAE	**CECOMAF**
	LBP (B)	**LBP (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	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			
Reference	T0534			
Current	20,00 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	228	281	4,54	0,94	0,81
40	-35	306	313	4,71	1,14	0,98
40	-30	406	349	4,90	1,35	1,16
40	-25	527	386	5,12	1,59	1,37
40	-23,3	574	400	5,20	1,67	1,44
40	-20	670	427	5,37	1,83	1,57
40	-15	835	470	5,65	2,07	1,78
40	-10	1.021	516	5,96	2,30	1,98
45	-40	222	287	4,57	0,90	0,77
45	-35	300	325	4,77	1,07	0,92
45	-30	399	365	5,00	1,27	1,09
45	-25	519	409	5,25	1,48	1,27
45	-23,3	565	424	5,35	1,55	1,33
45	-20	661	454	5,54	1,69	1,46
45	-15	825	503	5,87	1,91	1,64
45	-10	1.010	554	6,24	2,12	1,82
50	-40	217	293	4,60	0,86	0,74
50	-35	293	336	4,83	1,01	0,87
50	-30	391	382	5,09	1,19	1,02
50	-25	511	431	5,39	1,38	1,19
50	-23,3	557	448	5,50	1,45	1,24
50	-20	652	482	5,73	1,57	1,35
50	-15	815	536	6,10	1,77	1,52
50	-10	999	593	6,53	1,96	1,69
55	-40	211	299	4,63	0,82	0,71
55	-35	287	348	4,89	0,96	0,82
55	-30	384	399	5,19	1,12	0,96
55	-25	503	453	5,53	1,29	1,11
55	-23,3	548	472	5,66	1,35	1,16
55	-20	643	510	5,92	1,47	1,26
55	-15	805	569	6,35	1,64	1,41
55	-10	988	631	6,83	1,82	1,57
60	-40	206	305	4,66	0,78	0,67
60	-35	280	359	4,96	0,91	0,78
60	-30	377	416	5,30	1,05	0,91
60	-25	494	475	5,68	1,21	1,04
60	-23,3	539	496	5,82	1,26	1,09
60	-20	634	537	6,12	1,37	1,18
60	-15	795	602	6,60	1,54	1,32
60	-10	977	670	7,15	1,70	1,46

CECOMAF

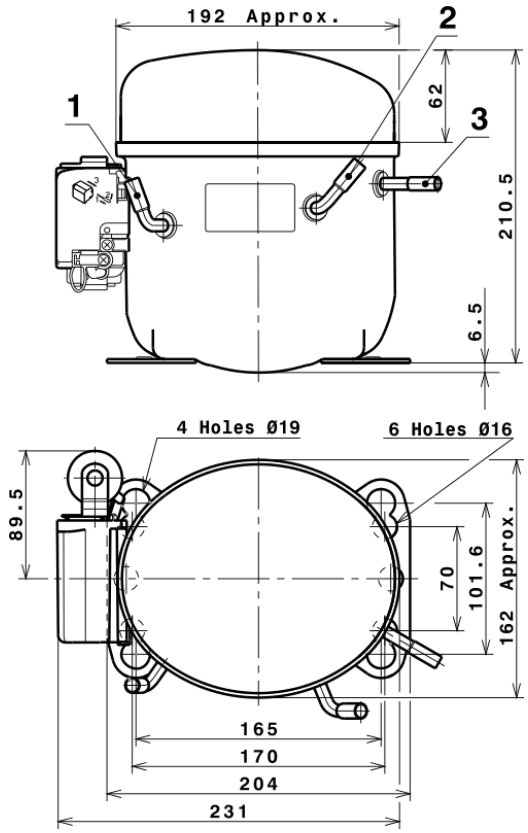
Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	247	281	4,54	0,88	0,76
40	-35	341	313	4,71	1,09	0,94
40	-30	455	349	4,90	1,31	1,13
40	-25	589	386	5,12	1,53	1,32
40	-23,3	639	400	5,20	1,60	1,38
40	-20	743	427	5,37	1,74	1,50
40	-15	917	470	5,65	1,95	1,69
40	-10	1.111	516	5,96	2,15	1,86
45	-40	231	287	4,57	0,81	0,70
45	-35	318	325	4,77	0,98	0,84
45	-30	424	365	5,00	1,16	1,00
45	-25	550	409	5,25	1,35	1,16
45	-23,3	598	424	5,35	1,41	1,22
45	-20	697	454	5,54	1,53	1,32
45	-15	863	503	5,87	1,72	1,48
45	-10	1.049	554	6,24	1,89	1,64
50	-40	215	293	4,60	0,73	0,63
50	-35	294	336	4,83	0,87	0,76
50	-30	393	382	5,09	1,03	0,89
50	-25	512	431	5,39	1,19	1,03
50	-23,3	557	448	5,50	1,24	1,07
50	-20	650	482	5,73	1,35	1,17
50	-15	809	536	6,10	1,51	1,30
50	-10	988	593	6,53	1,67	1,44
55	-40	199	299	4,63	0,66	0,57
55	-35	270	348	4,89	0,78	0,67
55	-30	362	399	5,19	0,91	0,78
55	-25	473	453	5,53	1,04	0,90
55	-23,3	515	472	5,66	1,09	0,94
55	-20	604	510	5,92	1,19	1,02
55	-15	755	569	6,35	1,33	1,15
55	-10	927	631	6,83	1,47	1,27
60	-40	183	305	4,66	0,60	0,52
60	-35	246	359	4,96	0,69	0,59
60	-30	330	416	5,30	0,79	0,69
60	-25	434	475	5,68	0,91	0,79
60	-23,3	474	496	5,82	0,96	0,83
60	-20	558	537	6,12	1,04	0,90
60	-15	702	602	6,60	1,17	1,01
60	-10	865	670	7,15	1,29	1,12

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.163,3504563231	226,7318268974	3,6805810390	19,689386965977
2	60,2942243728	1,9747261498	0,0215242898	0,63655691539047
3	-15,8467578986	10,1117567769	0,0802331138	-0,032497452077428
4	0,3892806959	0,0564415475	0,0009325612	0,0056817842824449
5	-0,3136347072	0,2221438005	0,0018456892	-0,0004755190864226

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

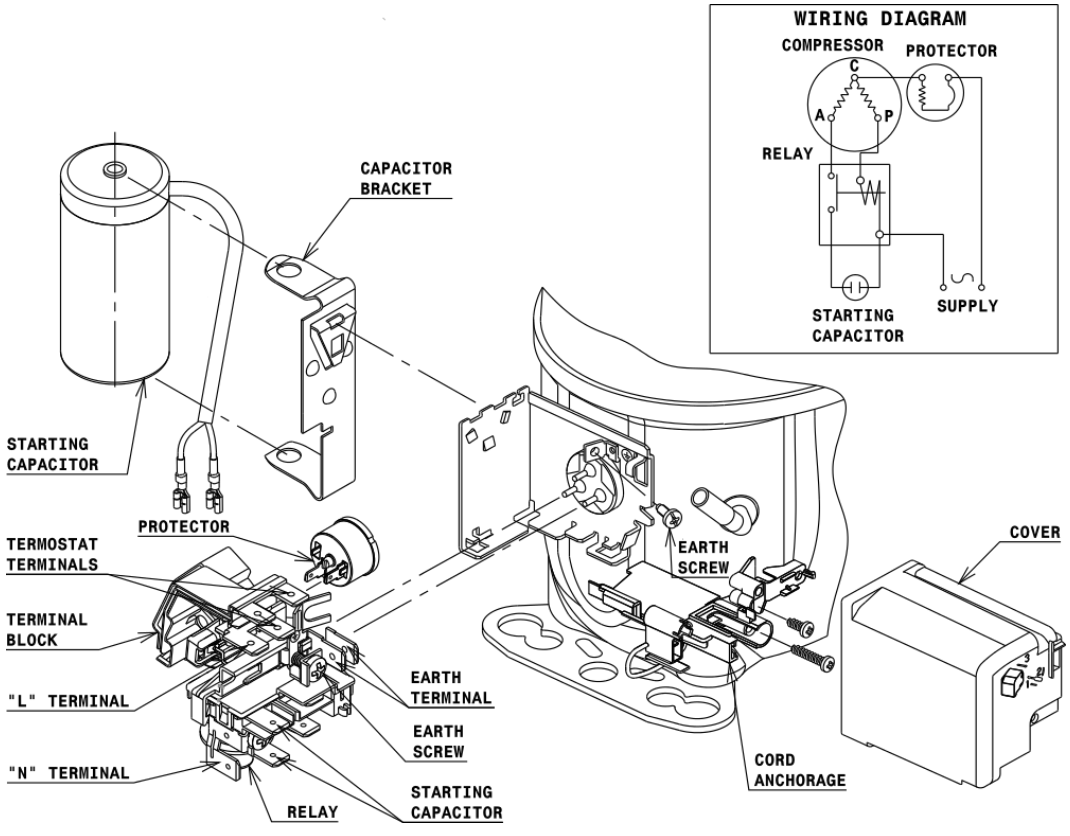
COMPRESSOR DIMENSIONS



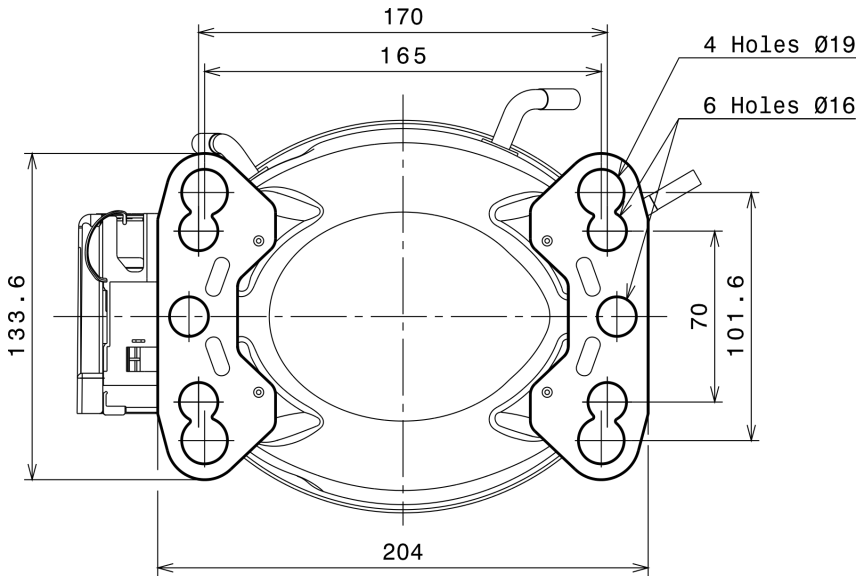
	DESIGNATION	INTERNAL DIAM.
1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



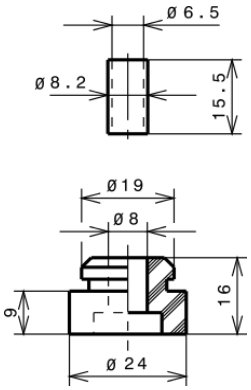
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

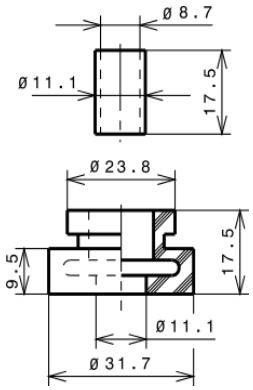
STANDARD

Ø16 holes (170x70 net)



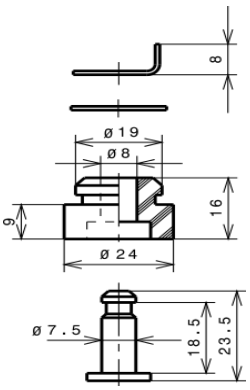
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R290 LBP