Technical Data Sheet

Compressor model **NPT16NF**

Voltage **208-230V 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	16,10 cm³
Diameter	31,19 mm
Stroke	21,13 mm
Net Weight	12,11 Kg
Oil type	ISO VG 32 ESTER
Oil charge	450 cm³

MOTOR

Nominal Power	1/2 hp
Voltage/Frequency	208-230V 60Hz
Voltage range	196-253 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	23,40 A
Max. Cont. Current (MCC)	6,32 A
Main W. resist. at 25ºC	3,61 Ω
Start W. resist. at 25ºC	7,70 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	745 kCal/h	644 W
COP	1,39 W/W	1,07 W/W
EER	1,19 kCal/Wh	0,93 kCal/Wh
Input Power	625 W	601 W
Current	3,19 A	3,09 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	230 V 60 Hz	230 V 60 Hz

ELECTRICAL COMPONENTS

Starting capacitor	72- 88 µF 330 V			
Run capacitor	10 µF 420 V			
Relay	Option 1	Option 2		
Reference	2014 170. + NTC15Î©	QLZ-12.1A + NTC15Î©		
Pick-Up	12,10 A	12.1 A		
Drop-Out	10,30 A	10.3 A		
Protector	Option 1			
Reference	B154-105			
Current	15,80 A			
Time check	7,5-16 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	332	390	2,14	0,99	0,85
40	-35	442	449	2,41	1,15	0,99
40	-30	583	512	2,70	1,32	1,14
40	-25	754	580	3,00	1,51	1,30
40	-23,3	819	604	3,10	1,58	1,36
40	-20	956	652	3,31	1,70	1,47
40	-15	1.188	729	3,62	1,90	1,63
40	-10	1.452	811	3,95	2,08	1,79
40	-5	1.746	897	4,28	2,26	1,95
40	0	2.071	988	4,61	2,44	2,10
45	-40	325	396	2,16	0,95	0,82
45	-35	430	455	2,44	1,10	0,94
45	-30	565	519	2,73	1,27	1,09
45	-25	731	587	3,03	1,45	1,25
45	-23,3	794	611	3,13	1,51	1,30
45	-20	928	659	3,34	1,64	1,41
45	-15	1.155	737	3,65	1,82	1,57
45	-10	1.413	819	3,98	2,01	1,73
45	-5	1.702	905	4,31	2,19	1,88
45	0	2.022	996	4,64	2,36	2,03
50	-40	318	402	2,19	0,92	0,79
50	-35	417	461	2,47	1,05	0,90
50	-30	547	525	2,76	1,21	1,04
50	-25	708	594	3,06	1,39	1,19
50	-23,3	770	618	3,16	1,45	1,25
50	-20	900	667	3,37	1,57	1,35
50	-15	1.122	744	3,68	1,75	1,51
50	-10	1.375	826	4,01	1,94	1,66
50	-5	1.659	913	4,34	2,11	1,82
50	0	1.974	1.005	4,67	2,29	1,96
55	-40	310	408	2,22	0,88	0,76
55	-35	404	468	2,50	1,01	0,86
55	-30	529	532	2,78	1,16	1,00
55	-25	685	601	3,09	1,33	1,14
55	-23,3	745	625	3,19	1,39	1,19
55	-20	872	674	3,40	1,50	1,29
55	-15	1.089	752	3,72	1,68	1,45
55	-10	1.337	834	4,04	1,86	1,60
55	-5	1.616	921	4,37	2,04	1,75
55	0	1.925	1.013	4,70	2,21	1,90
60	-40	303	414	2,25	0,85	0,73
60	-35	392	474	2,52	0,96	0,83
60	-30	512	538	2,81	1,10	0,95
60	-25	662	608	3,12	1,27	1,09
60	-23,3	720	632	3,22	1,33	1,14
60	-20	844	681	3,43	1,44	1,24
60	-15	1.056	759	3,75	1,62	1,39
60	-10	1.299	842	4,07	1,79	1,54
60	-5	1.572	930	4,40	1,97	1,69
60	0	1.877	1.022	4,73	2,14	1,84

CECOMAF

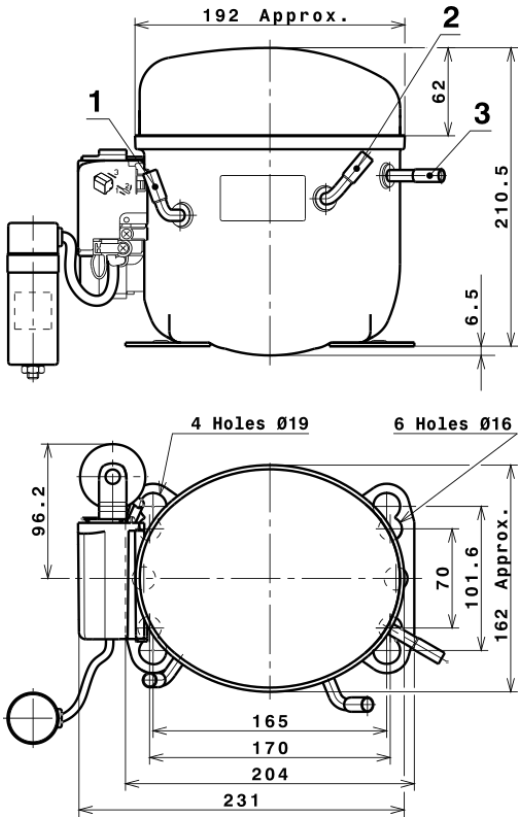
Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	362	390	2,14	0,93	0,80
40	-35	498	449	2,41	1,11	0,96
40	-30	662	512	2,70	1,29	1,12
40	-25	855	580	3,00	1,47	1,27
40	-23,3	927	604	3,10	1,54	1,33
40	-20	1.076	652	3,31	1,65	1,43
40	-15	1.326	729	3,62	1,82	1,57
40	-10	1.604	811	3,95	1,98	1,71
40	-5	1.911	897	4,28	2,13	1,84
40	0	2.246	988	4,61	2,27	1,97
45	-40	338	396	2,16	0,85	0,74
45	-35	459	455	2,44	1,01	0,87
45	-30	608	519	2,73	1,17	1,01
45	-25	785	587	3,03	1,34	1,16
45	-23,3	852	611	3,13	1,39	1,20
45	-20	991	659	3,34	1,50	1,30
45	-15	1.225	737	3,65	1,66	1,44
45	-10	1.487	819	3,98	1,82	1,57
45	-5	1.778	905	4,31	1,96	1,70
45	0	2.098	996	4,64	2,11	1,82
50	-40	315	402	2,19	0,78	0,68
50	-35	420	461	2,47	0,91	0,79
50	-30	553	525	2,76	1,05	0,91
50	-25	715	594	3,06	1,20	1,04
50	-23,3	776	618	3,16	1,26	1,08
50	-20	905	667	3,37	1,36	1,17
50	-15	1.123	744	3,68	1,51	1,30
50	-10	1.370	826	4,01	1,66	1,43
50	-5	1.645	913	4,34	1,80	1,56
50	0	1.949	1.005	4,67	1,94	1,68
55	-40	292	408	2,22	0,72	0,62
55	-35	381	468	2,50	0,81	0,70
55	-30	498	532	2,78	0,94	0,81
55	-25	644	601	3,09	1,07	0,93
55	-23,3	700	625	3,19	1,12	0,97
55	-20	819	674	3,40	1,21	1,05
55	-15	1.021	752	3,72	1,36	1,17
55	-10	1.253	834	4,04	1,50	1,30
55	-5	1.512	921	4,37	1,64	1,42
55	0	1.800	1.013	4,70	1,78	1,54
60	-40	269	414	2,25	0,65	0,56
60	-35	342	474	2,52	0,72	0,62
60	-30	444	538	2,81	0,82	0,71
60	-25	574	608	3,12	0,95	0,82
60	-23,3	625	632	3,22	0,99	0,85
60	-20	733	681	3,43	1,08	0,93
60	-15	920	759	3,75	1,21	1,05
60	-10	1.135	842	4,07	1,35	1,16
60	-5	1.379	930	4,40	1,48	1,28
60	0	1.652	1.022	4,73	1,62	1,40

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.433,1759504799	944,1344526256	4,4602078072	31,264582057171
2	94,4570985744	18,7462361654	0,0698506738	0,99292806690356
3	-30,5834711201	1,7455449369	0,0060844148	-0,12368620220782
4	0,5554510868	0,0969539685	0,0001750297	0,0082807964472353
5	-0,6462813752	0,0129885045	0,0000089043	-0,002632613611292

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

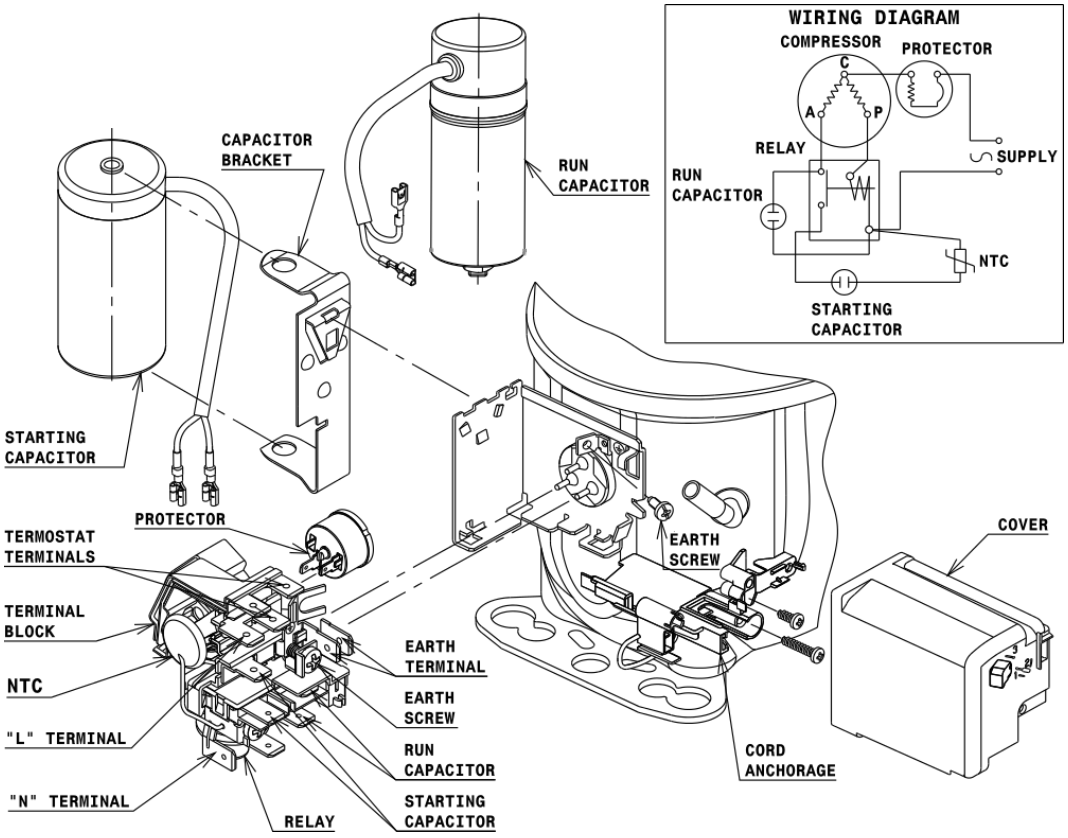
COMPRESSOR DIMENSIONS



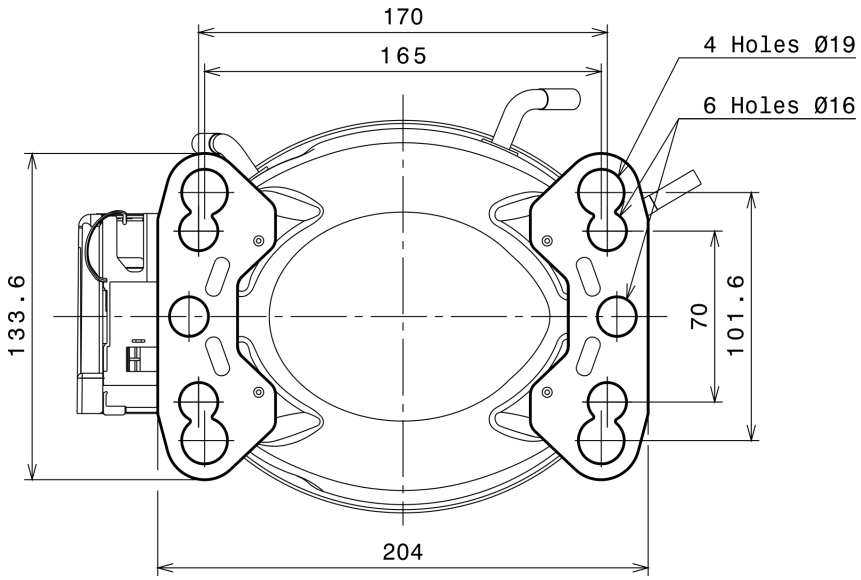
	DESIGNATION	INTERNAL DIAM.
1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



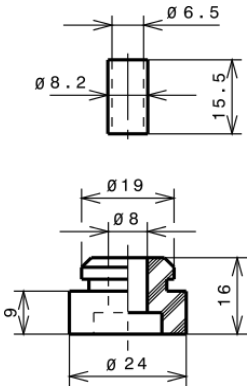
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

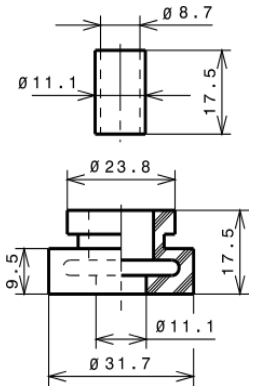
STANDARD

Ø16 holes (170x70 net)



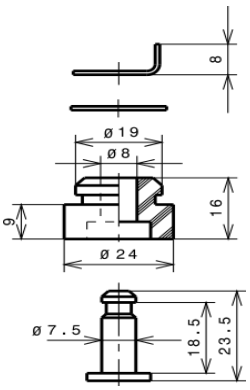
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R290 LMBP