Technical Data Sheet

Compressor model **NPT16RR**

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

Refrigerant **R290**

Compressor status

APPLICATION

Application	High-Medium Back Pressure
Refrigerant	R290
Evaporating Temp.	-25,0 ºC to 10,0 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	13,74 Kg
Oil type	ISO VG 32 ESTER
Oil charge	400 cm³
HP	2/3 hp

MOTOR

Voltage/Frequency	115-127V 60Hz
Voltage range	98-135 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	65,80 A
Max. Cont. Current (MCC)	16,60 A
Main W. resist. at 25ºC	0,55 Ω
Start W. resist. at 25ºC	2,82 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	2.270 kCal/h	2.204 W
COP	2,46 W/W	2,11 W/W
EER	2,12 kCal/Wh	1,82 kCal/Wh
Input Power	1.073 W	1.046 W
Current	10,37 A	10,13 A

APPROVALS

TEST CYCLE CONDITIONS

	ASHRAE	**CECOMAF**
	HMBP (D)	**HMBP (C)**
Evaporating temp. (T_e)	7,2 ºC	5,0 ºC
Condensing temp. (T_c)	55,0 ºC	55,0 ºC
Liquid temp. ($T_{liq.}$)	46,0 ºC	55,0 ºC
Ambient temp. ($T_{amb.}$)	35,0 ºC	32,0 ºC
Suction temp. ($T_{suction}$)	35,0 ºC	32,0 ºC
Voltage/Frequency	115 V 60 Hz	115 V 60 Hz

ELECTRICAL COMPONENTS

Starting capacitor	200 µF 160 V			
Run capacitor	40 µF 250 V			
Relay	Option 1			
Reference	RVA 7AA..			
Pick-Up	111-124 V			
Drop-Out	20-45 V			
Protector	Option 1			
Reference	T1097			
Current	54,00 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	150,00 / 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	-25	744	594	6,41	1,46	1,25
40	-20	916	627	6,67	1,70	1,46
40	-15	1.134	664	6,96	1,99	1,71
40	-10	1.397	704	7,28	2,31	1,98
40	-5	1.706	748	7,63	2,65	2,28
40	0	2.060	794	8,00	3,02	2,60
40	5	2.461	843	8,41	3,39	2,92
40	7,2	2.651	866	8,60	3,56	3,06
40	10	2.906	896	8,85	3,77	3,24
45	-25	695	608	6,52	1,33	1,14
45	-20	855	650	6,85	1,53	1,31
45	-15	1.061	696	7,21	1,77	1,52
45	-10	1.312	744	7,60	2,05	1,76
45	-5	1.608	796	8,02	2,35	2,02
45	0	1.951	851	8,47	2,67	2,29
45	5	2.339	909	8,95	2,99	2,57
45	7,2	2.524	935	9,18	3,14	2,70
45	10	2.772	970	9,47	3,33	2,86
50	-25	646	623	6,64	1,21	1,04
50	-20	794	673	7,03	1,37	1,18
50	-15	987	727	7,46	1,58	1,36
50	-10	1.226	784	7,92	1,82	1,56
50	-5	1.511	844	8,42	2,08	1,79
50	0	1.841	907	8,94	2,36	2,03
50	5	2.217	974	9,51	2,65	2,28
50	7,2	2.397	1.004	9,77	2,78	2,39
50	10	2.639	1.043	10,11	2,94	2,53
55	-25	597	637	6,75	1,09	0,94
55	-20	733	696	7,22	1,22	1,05
55	-15	914	759	7,72	1,40	1,21
55	-10	1.141	824	8,25	1,61	1,38
55	-5	1.414	893	8,82	1,84	1,58
55	0	1.732	964	9,43	2,09	1,80
55	5	2.095	1.039	10,07	2,35	2,02
55	7,2	2.270	1.073	10,37	2,46	2,12
55	10	2.505	1.117	10,76	2,61	2,24
60	-25	548	652	6,86	0,98	0,84
60	-20	672	719	7,40	1,09	0,93
60	-15	841	790	7,97	1,24	1,06
60	-10	1.056	864	8,58	1,42	1,22
60	-5	1.316	941	9,23	1,63	1,40
60	0	1.622	1.021	9,92	1,85	1,59
60	5	1.974	1.104	10,65	2,08	1,79
60	7,2	2.143	1.142	10,98	2,18	1,88
60	10	2.371	1.191	11,42	2,32	1,99

CECOMAF

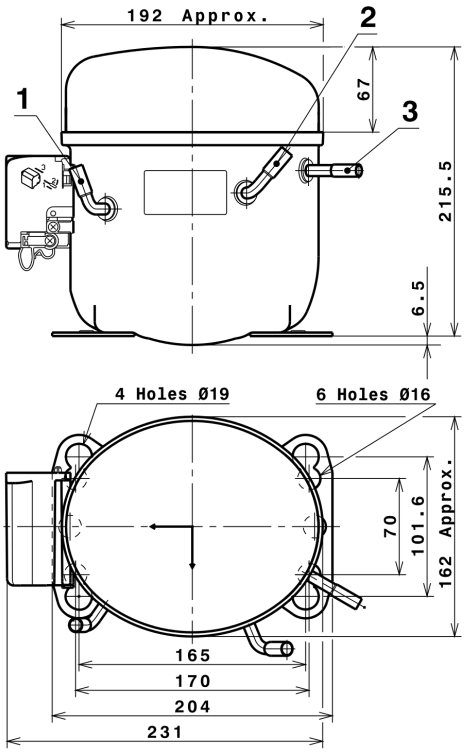
Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	800	597	6,44	1,34	1,16
40	-20	989	631	6,70	1,57	1,35
40	-15	1.225	668	6,99	1,83	1,58
40	-10	1.509	708	7,31	2,13	1,84
40	-5	1.840	752	7,66	2,45	2,11
40	0	2.219	799	8,04	2,78	2,40
40	5	2.646	849	8,45	3,12	2,69
40	7,2	2.849	872	8,65	3,27	2,82
40	10	3.121	902	8,90	3,46	2,99
45	-25	743	611	6,55	1,22	1,05
45	-20	917	654	6,88	1,40	1,21
45	-15	1.138	700	7,24	1,63	1,41
45	-10	1.406	749	7,63	1,88	1,62
45	-5	1.723	801	8,06	2,15	1,86
45	0	2.087	856	8,51	2,44	2,11
45	5	2.499	914	9,00	2,73	2,36
45	7,2	2.695	941	9,23	2,86	2,47
45	10	2.958	976	9,53	3,03	2,62
50	-25	686	626	6,66	1,10	0,95
50	-20	845	677	7,06	1,25	1,08
50	-15	1.051	731	7,50	1,44	1,24
50	-10	1.304	789	7,96	1,65	1,43
50	-5	1.605	849	8,46	1,89	1,63
50	0	1.954	913	8,99	2,14	1,85
50	5	2.351	980	9,56	2,40	2,07
50	7,2	2.541	1.011	9,83	2,51	2,17
50	10	2.796	1.050	10,17	2,66	2,30
55	-25	629	640	6,78	0,98	0,85
55	-20	773	700	7,25	1,10	0,95
55	-15	963	763	7,75	1,26	1,09
55	-10	1.202	829	8,29	1,45	1,25
55	-5	1.488	898	8,87	1,66	1,43
55	0	1.822	970	9,48	1,88	1,62
55	5	2.204	1.046	10,13	2,11	1,82
55	7,2	2.387	1.080	10,43	2,21	1,91
55	10	2.633	1.125	10,83	2,34	2,02
60	-25	573	655	6,89	0,87	0,76
60	-20	701	723	7,43	0,97	0,84
60	-15	876	794	8,01	1,10	0,95
60	-10	1.100	869	8,62	1,27	1,09
60	-5	1.371	947	9,28	1,45	1,25
60	0	1.690	1.028	9,97	1,64	1,42
60	5	2.056	1.112	10,71	1,85	1,60
60	7,2	2.233	1.150	11,05	1,94	1,68
60	10	2.471	1.199	11,50	2,06	1,78

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.293,0161577848	349,5534029533	4,0989529128	27,905915217965
2	105,1460918619	-3,8807569601	-0,0399493956	1,0247410341045
3	-27,6428319741	11,7668772539	0,1020180977	-0,055553908084375
4	0,9349865222	0,0712130746	0,0008189620	0,014465781944034
5	-0,6419593584	0,3513759533	0,0031481234	1,6101101949539E-5

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

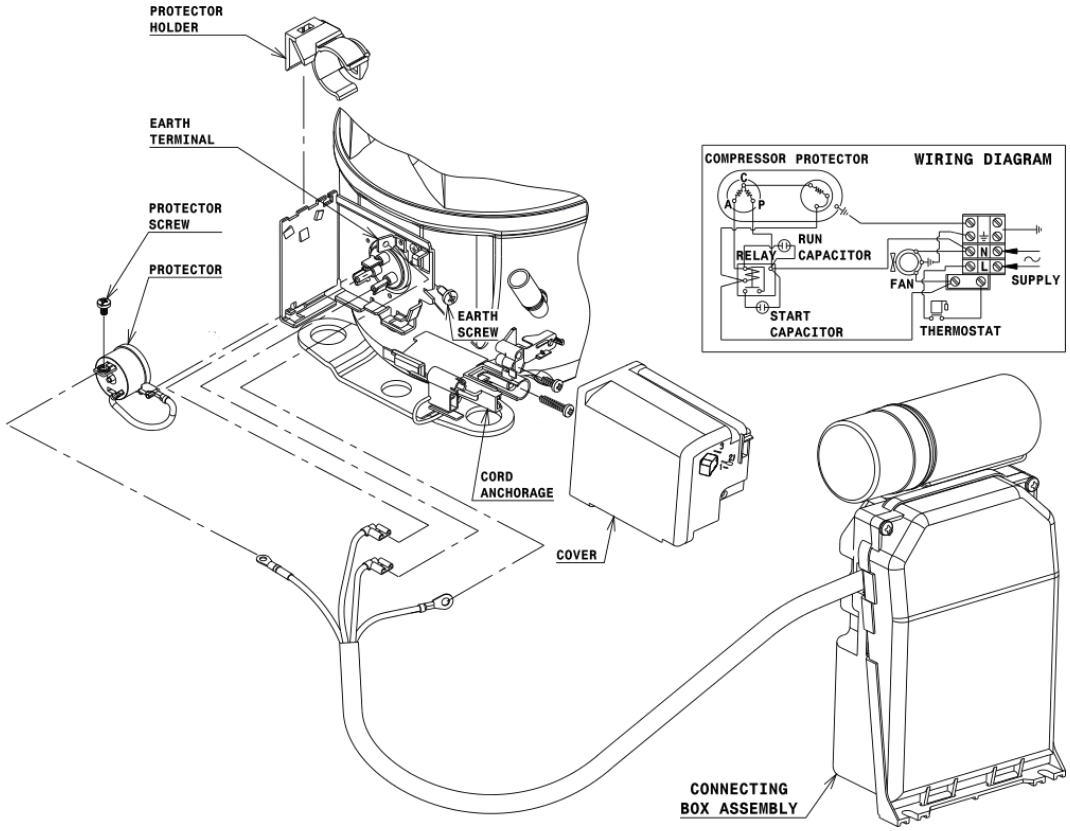
COMPRESSOR DIMENSIONS



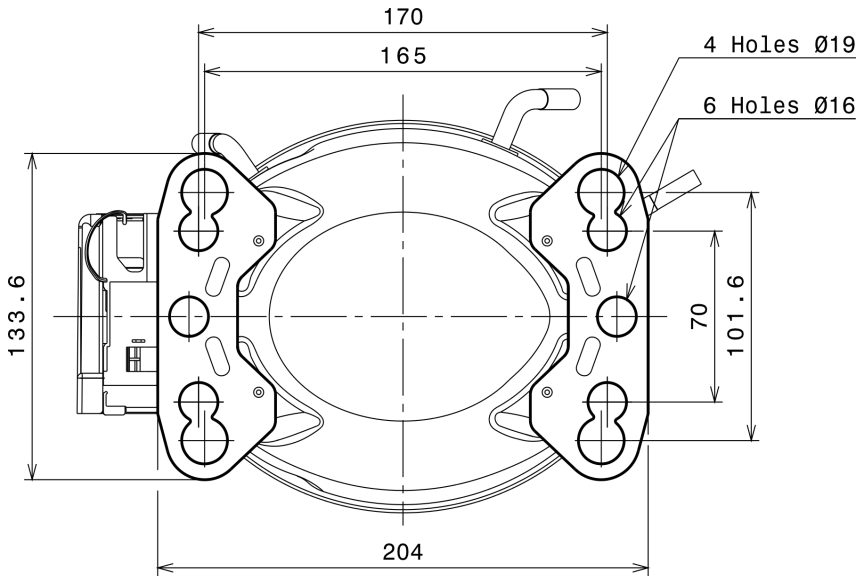
	DESIGNATION	INTERNAL DIAM.
1	Suction/Service	8,1 mm
2	Service/Suction	8,1 mm
3	Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (EXTERNAL CONNECTING BOX) (MX16/18TE)



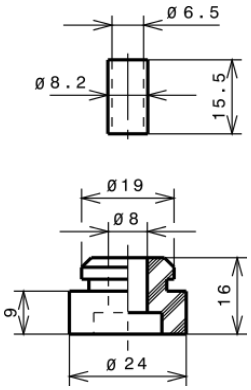
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

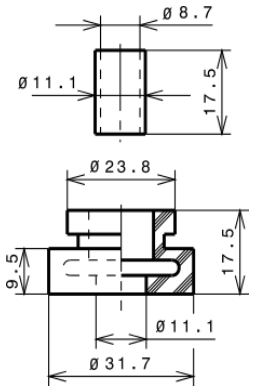
STANDARD

Ø16 holes (170x70 net)



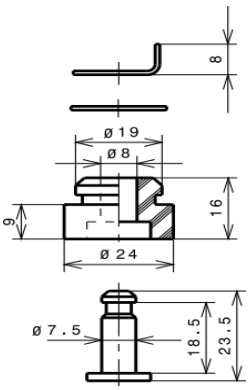
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R290 HMBP