Technical Data Sheet

ENGINEERING TOMORROW

Compressor model **MPT14RD**

Voltage **115V 60Hz ~1**

Refrigerant **R404A**

APPLICATION

Application	High Back Pressure
Refrigerant	R404A
Evaporating Temp.	-15,0 ºC to 10,0 ºC
Expansion	Capillar/Valve
Comp. Cooling	Fan cooled
Max. ambient temp.	43,0 ºC

COMPRESSOR

Displacement	14,32 cm³
Diameter	29,37 mm
Stroke	21,13 mm
Net Weight	13,36 Kg
Oil type	ISO VG 32 ESTER
Oil charge	400 cm³

MOTOR

Nominal Power	1/2 hp
Voltage/Frequency	115V 60Hz
Voltage range	98-127 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	62,30 A
Max. Cont. Current (MCC)	16,70 A
Main W. resist. at 25ºC	0,50 Ω
Start W. resist. at 25ºC	3,96 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	2.192 kCal/h	2.024 W
COP	1,92 W/W	1,56 W/W
EER	1,65 kCal/Wh	1,35 kCal/Wh
Input Power	1.328 W	1.297 W
Current	12,82 A	12,55 A

APPROVALS

TEST CYCLE CONDITIONS

	ASHRAE	**CECOMAF**
	HBP (D)	**HBP (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	30 µF 250 V			
Relay	Option 1			
Reference	3ARR3 5L3			
Pick-Up	130-144 V			
Drop-Out	35-77 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			

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ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	1.195	886	9,14	1,57	1,35
40	-10	1.486	949	9,65	1,82	1,56
40	-5	1.813	1.015	10,18	2,08	1,79
40	0	2.176	1.082	10,73	2,34	2,01
40	5	2.575	1.151	11,31	2,60	2,24
40	7,2	2.762	1.183	11,57	2,72	2,34
40	10	3.010	1.223	11,91	2,86	2,46
45	-15	1.112	904	9,28	1,43	1,23
45	-10	1.379	974	9,85	1,65	1,42
45	-5	1.682	1.047	10,44	1,87	1,61
45	0	2.021	1.121	11,05	2,10	1,80
45	5	2.396	1.197	11,69	2,33	2,00
45	7,2	2.572	1.231	11,98	2,43	2,09
45	10	2.807	1.275	12,36	2,56	2,20
50	-15	1.029	922	9,43	1,30	1,12
50	-10	1.272	999	10,05	1,48	1,27
50	-5	1.550	1.078	10,70	1,67	1,44
50	0	1.865	1.159	11,37	1,87	1,61
50	5	2.216	1.242	12,08	2,07	1,78
50	7,2	2.382	1.280	12,40	2,17	1,86
50	10	2.603	1.327	12,81	2,28	1,96
55	-15	946	940	9,57	1,17	1,01
55	-10	1.165	1.024	10,25	1,32	1,14
55	-5	1.419	1.110	10,96	1,49	1,28
55	0	1.710	1.198	11,70	1,66	1,43
55	5	2.037	1.288	12,47	1,84	1,58
55	7,2	2.192	1.328	12,82	1,92	1,65
55	10	2.400	1.380	13,27	2,02	1,74
60	-15	863	958	9,71	1,05	0,90
60	-10	1.058	1.049	10,45	1,17	1,01
60	-5	1.288	1.142	11,23	1,31	1,13
60	0	1.555	1.237	12,03	1,46	1,26
60	5	1.857	1.333	12,87	1,62	1,39
60	7,2	2.002	1.377	13,25	1,69	1,45
60	10	2.196	1.432	13,74	1,78	1,53

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	1.252	891	9,18	1,40	1,21
40	-10	1.561	955	9,69	1,63	1,41
40	-5	1.904	1.021	10,23	1,86	1,61
40	0	2.281	1.090	10,79	2,09	1,81
40	5	2.693	1.160	11,38	2,32	2,01
40	7,2	2.885	1.192	11,65	2,42	2,09
40	10	3.140	1.232	11,99	2,55	2,20
45	-15	1.150	909	9,33	1,26	1,09
45	-10	1.428	980	9,89	1,46	1,26
45	-5	1.741	1.053	10,49	1,65	1,43
45	0	2.088	1.129	11,11	1,85	1,60
45	5	2.470	1.206	11,77	2,05	1,77
45	7,2	2.649	1.240	12,06	2,14	1,85
45	10	2.886	1.285	12,45	2,25	1,94
50	-15	1.048	928	9,47	1,13	0,98
50	-10	1.296	1.005	10,10	1,29	1,11
50	-5	1.578	1.085	10,75	1,45	1,26
50	0	1.895	1.167	11,44	1,62	1,40
50	5	2.247	1.252	12,16	1,80	1,55
50	7,2	2.413	1.289	12,48	1,87	1,62
50	10	2.633	1.338	12,91	1,97	1,70
55	-15	946	946	9,62	1,00	0,86
55	-10	1.164	1.030	10,30	1,13	0,98
55	-5	1.416	1.117	11,02	1,27	1,09
55	0	1.703	1.206	11,77	1,41	1,22
55	5	2.024	1.297	12,55	1,56	1,35
55	7,2	2.176	1.338	12,91	1,63	1,41
55	10	2.380	1.391	13,37	1,71	1,48
60	-15	844	964	9,76	0,88	0,76
60	-10	1.031	1.055	10,51	0,98	0,84
60	-5	1.253	1.149	11,29	1,09	0,94
60	0	1.510	1.245	12,10	1,21	1,05
60	5	1.801	1.343	12,95	1,34	1,16
60	7,2	1.940	1.387	13,34	1,40	1,21
60	10	2.126	1.443	13,84	1,47	1,27

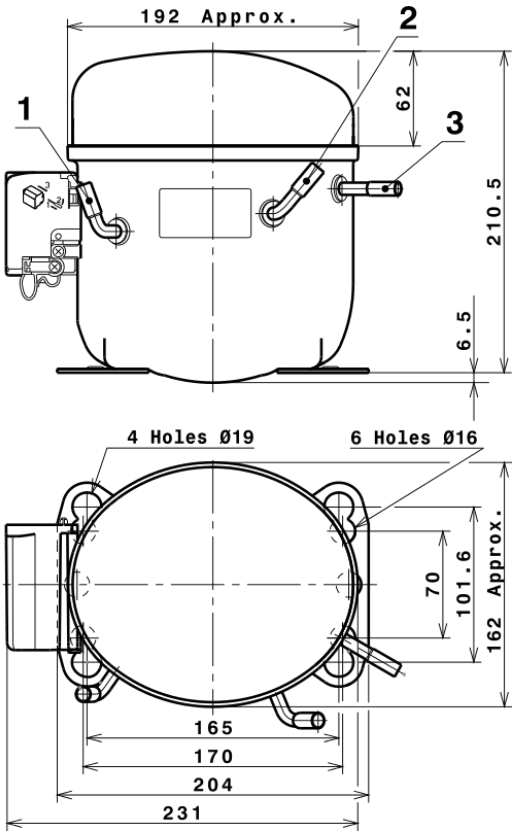
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.828,0224381511	801,1355606077	8,2664290525	73,35683598854
2	128,0937809878	3,2950789628	0,0193263796	2,7624531567426
3	-40,2317869388	8,0359146855	0,0694303562	-0,25984010428392
4	0,6529220454	0,0621291594	0,0008558407	0,03439522477967
5	-1,2813256716	0,2880656175	0,0026380048	-0,0073664216401964

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

Technical Data Sheet

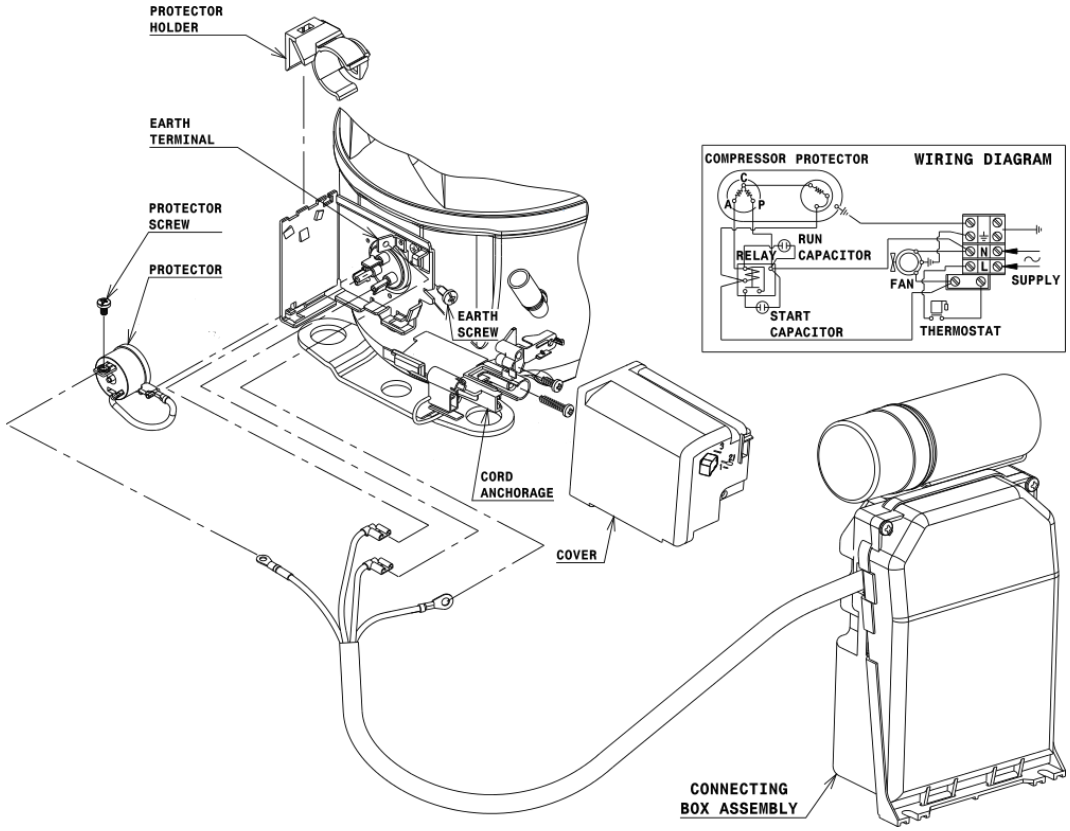
COMPRESSOR DIMENSIONS



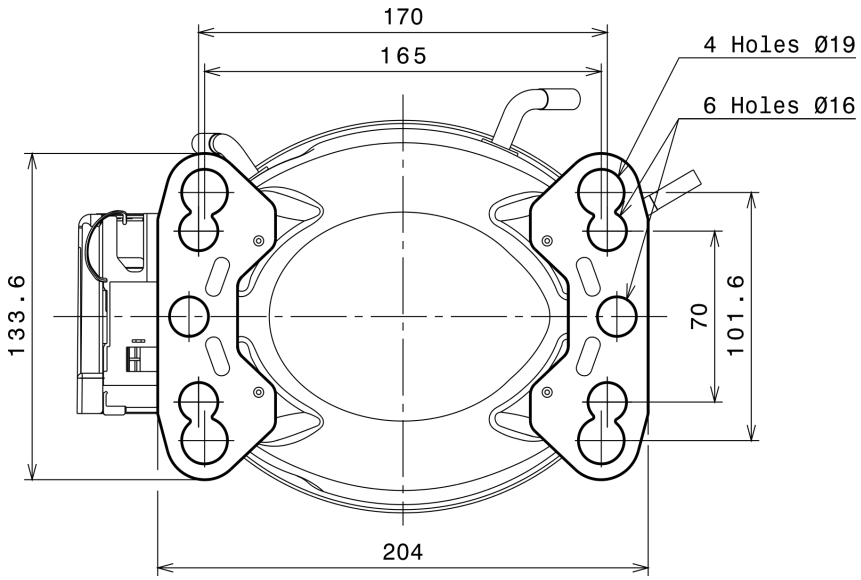
	DESIGNATION	INTERNAL DIAM.
1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



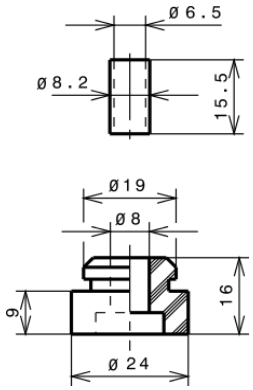
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

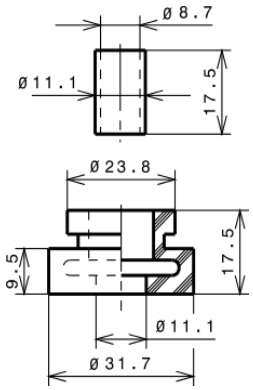
STANDARD

Ø16 holes (170x70 net)



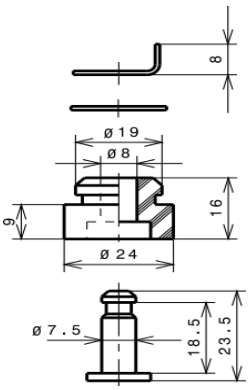
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R404A HBP

