

# Technical Data Sheet

Compressor model **MPT16RA**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High Back Pressure	Displacement	16,10 cm <sup>3</sup>	Nominal Power	2/3 hp
Refrigerant	R404A	Diameter	31,19 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-15,0 °C to 10,0 °C	Stroke	21,13 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	13,60 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	400 cm <sup>3</sup>	Locked Rotor Amps (LRA)	30,10 A
				Max. Cont. Current (MCC)	8,10 A
				Main W. resist. at 25°C	2,24 Ω
				Start W. resist. at 25°C	4,46 Ω

## NOMINAL PERFORMANCE

## APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	2.066 kCal/h	1.904 W
COP	2,05 W/W	1,66 W/W
EER	1,76 kCal/Wh	1,44 kCal/Wh
Input Power	1.172 W	1.144 W
Current	5,76 A	5,63 A

## TEST CYCLE CONDITIONS

	ASHRAE HBP (D)	CECOMAF HBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	88-108 μF 330 V		
Run capacitor	25 μF 420 V		
Relay	Option 1	Option 2	
Reference	2014 166. + NTC15Ω	QLZ-11.0A+NTC15	
Pick-Up	11,00 A	11,00 A	
Drop-Out	9,35 A	9,35 A	
Protector	Option 1		
Reference	T0534		
Current	20,00 A		
Time check	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 52,00 °C		

## ASHRAE

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	kCal/h	W	A	W/W	kCal/Wh
40	-15	1.091	729	3,82	1,74	1,50
40	-10	1.348	793	4,08	1,98	1,70
40	-5	1.642	857	4,35	2,23	1,92
40	0	1.972	922	4,63	2,49	2,14
40	5	2.339	988	4,92	2,75	2,37
40	7,2	2.512	1.018	5,05	2,87	2,47
40	10	2.742	1.055	5,22	3,02	2,60

45	-15	1.020	756	3,93	1,57	1,35
45	-10	1.260	825	4,21	1,78	1,53
45	-5	1.536	895	4,51	2,00	1,72
45	0	1.849	966	4,82	2,23	1,91
45	5	2.198	1.037	5,14	2,46	2,12
45	7,2	2.363	1.069	5,28	2,57	2,21
45	10	2.583	1.110	5,47	2,71	2,33

50	-15	949	783	4,04	1,41	1,21
50	-10	1.171	858	4,35	1,59	1,37
50	-5	1.430	933	4,68	1,78	1,53
50	0	1.725	1.009	5,01	1,99	1,71
50	5	2.057	1.086	5,36	2,20	1,89
50	7,2	2.215	1.121	5,52	2,30	1,98
50	10	2.425	1.164	5,72	2,42	2,08

55	-15	878	810	4,15	1,26	1,08
55	-10	1.083	890	4,49	1,41	1,22
55	-5	1.324	971	4,84	1,59	1,36
55	0	1.602	1.053	5,21	1,77	1,52
55	5	1.916	1.135	5,59	1,96	1,69
55	7,2	2.066	1.172	5,76	2,05	1,76
55	10	2.267	1.219	5,98	2,16	1,86

60	-15	807	837	4,26	1,12	0,96
60	-10	994	923	4,63	1,25	1,08
60	-5	1.218	1.009	5,01	1,40	1,21
60	0	1.479	1.097	5,41	1,57	1,35
60	5	1.775	1.185	5,82	1,74	1,50
60	7,2	1.918	1.224	6,00	1,82	1,57
60	10	2.109	1.273	6,24	1,93	1,66

## CECOMAF

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	W	W	A	W/W	kCal/Wh
40	-15	1.144	733	3,83	1,56	1,35
40	-10	1.417	798	4,10	1,78	1,54
40	-5	1.726	863	4,37	2,00	1,73
40	0	2.069	929	4,66	2,23	1,92
40	5	2.447	996	4,95	2,46	2,12
40	7,2	2.625	1.025	5,08	2,56	2,21
40	10	2.861	1.063	5,26	2,69	2,32

45	-15	1.055	761	3,94	1,39	1,20
45	-10	1.305	830	4,24	1,57	1,36
45	-5	1.591	901	4,54	1,77	1,53
45	0	1.911	973	4,85	1,96	1,70
45	5	2.266	1.045	5,17	2,17	1,87
45	7,2	2.434	1.077	5,32	2,26	1,95
45	10	2.657	1.118	5,51	2,38	2,05

50	-15	966	788	4,06	1,23	1,06
50	-10	1.194	863	4,37	1,38	1,20
50	-5	1.456	939	4,70	1,55	1,34
50	0	1.753	1.016	5,05	1,72	1,49
50	5	2.085	1.094	5,40	1,91	1,65
50	7,2	2.242	1.129	5,56	1,99	1,72
50	10	2.452	1.173	5,77	2,09	1,81

55	-15	878	815	4,17	1,08	0,93
55	-10	1.082	896	4,51	1,21	1,04
55	-5	1.321	978	4,87	1,35	1,17
55	0	1.595	1.060	5,24	1,50	1,30
55	5	1.904	1.144	5,63	1,66	1,44
55	7,2	2.051	1.181	5,80	1,74	1,50
55	10	2.248	1.228	6,03	1,83	1,58

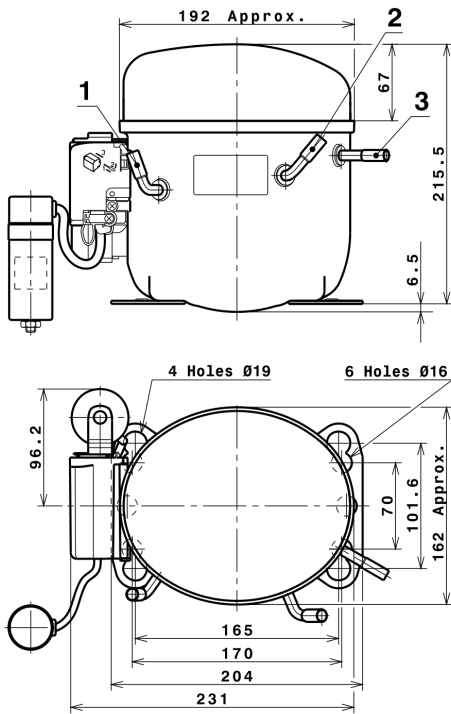
60	-15	789	842	4,28	0,94	0,81
60	-10	970	929	4,66	1,05	0,90
60	-5	1.186	1.016	5,04	1,17	1,01
60	0	1.437	1.104	5,44	1,30	1,12
60	5	1.723	1.193	5,86	1,44	1,25
60	7,2	1.860	1.233	6,05	1,51	1,30
60	10	2.044	1.283	6,29	1,59	1,38

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.345,8816599558	594,3026700017	3,0994526125	60,975834293332
2	110,3286503972	4,8562842759	0,0138933956	2,2546815257473
3	-33,3204512470	9,0608763950	0,0416645546	-0,10255754360886
4	0,6614583522	0,0351963525	0,0003782969	0,034162659654481
5	-1,0014219758	0,2325653841	0,0012229640	2,0375484089463E-5

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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## COMPRESSOR DIMENSIONS

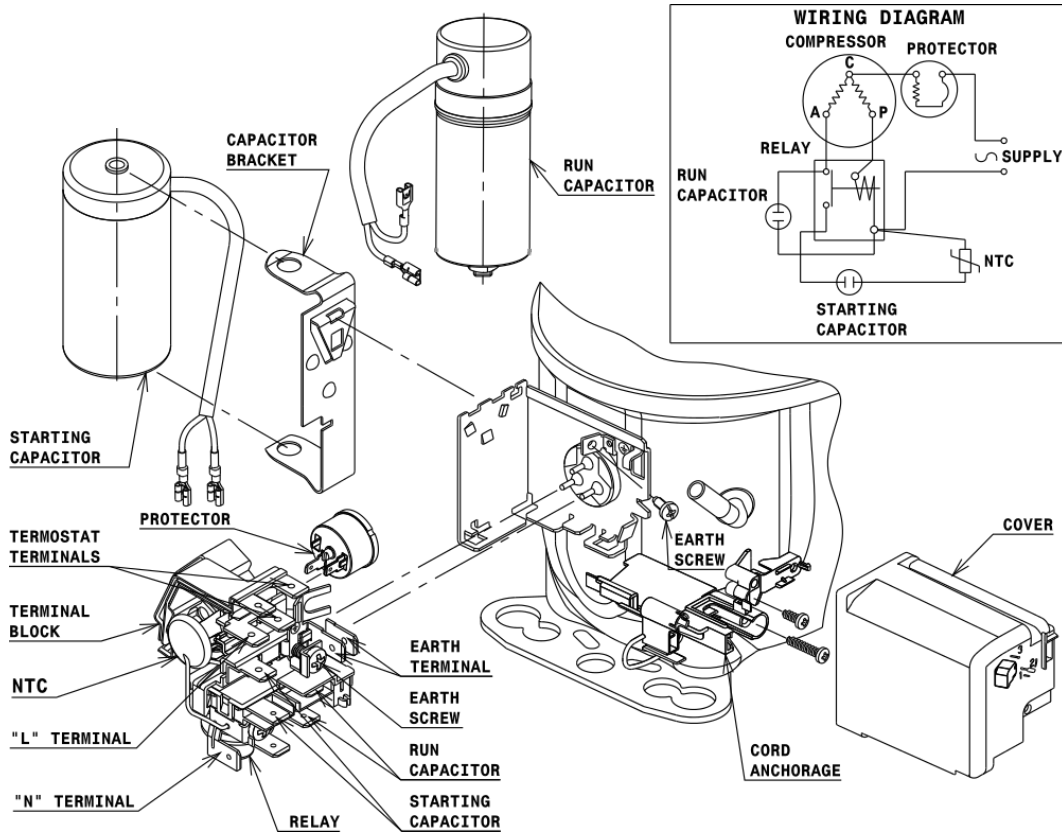


## DESIGNATION INTERNAL DIAM.

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



## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

Ø16 holes (170x70 net)



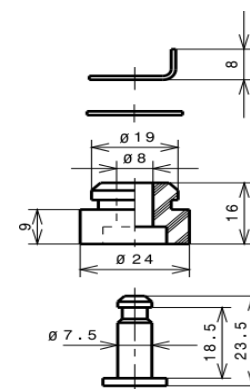
### AMERICAN FEET

Ø19 holes (165x101.6 net)



### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A HBP

