

# Technical Data Sheet

Compressor model **MPT14RF**  
 Voltage **208-230V 60Hz ~1**  
 Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High Back Pressure	Displacement	14,32 cm <sup>3</sup>	Nominal Power	1/2 hp
Refrigerant	R404A	Diameter	29,37 mm	Voltage/Frequency	230V 60Hz
Evaporating Temp.	-15,0 °C to 10,0 °C	Stroke	21,13 mm	Voltage range	187-253 V
Expansion	Capillar/Valve	Net Weight	12,67 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)	34,00 A
				Max. Cont. Current (MCC)	8,70 A
				Main W. resist. at 25°C	1,88 Ω
				Start W. resist. at 25°C	6,73 Ω

## NOMINAL PERFORMANCE

## APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	2.160 kCal/h	1.990 W
COP	1,91 W/W	1,56 W/W
EER	1,64 kCal/Wh	1,35 kCal/Wh
Input Power	1.314 W	1.274 W
Current	6,19 A	6,02 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	230 V 60 Hz	230 V 60 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	72- 88 µF 330 V		
Run capacitor	20 µF 450 V		
Relay	Option 1	Option 2	
Reference	2014 170. + NTC15Ω	QLZ-12.1A + NTC15Ω	
Pick-Up	12,10 A	12.10 A	
Drop-Out	10,30 A	10.30 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	1.166	835	4,26	1,62	1,40
40	-10	1.429	902	4,52	1,84	1,58
40	-5	1.732	978	4,81	2,06	1,77
40	0	2.075	1.062	5,15	2,27	1,95
40	5	2.458	1.155	5,52	2,47	2,13
40	7,2	2.639	1.199	5,70	2,56	2,20
40	10	2.880	1.256	5,94	2,67	2,29

45	-15	1.087	854	4,34	1,48	1,27
45	-10	1.332	926	4,61	1,67	1,44
45	-5	1.617	1.006	4,92	1,87	1,61
45	0	1.942	1.095	5,28	2,06	1,77
45	5	2.306	1.192	5,67	2,25	1,94
45	7,2	2.479	1.237	5,86	2,33	2,00
45	10	2.710	1.297	6,12	2,43	2,09

50	-15	1.008	873	4,41	1,34	1,15
50	-10	1.235	949	4,70	1,51	1,30
50	-5	1.502	1.034	5,03	1,69	1,45
50	0	1.808	1.127	5,41	1,87	1,60
50	5	2.155	1.228	5,83	2,04	1,75
50	7,2	2.320	1.276	6,03	2,12	1,82
50	10	2.540	1.338	6,29	2,21	1,90

55	-15	929	892	4,48	1,21	1,04
55	-10	1.138	973	4,79	1,36	1,17
55	-5	1.387	1.062	5,14	1,52	1,31
55	0	1.675	1.159	5,54	1,68	1,45
55	5	2.003	1.265	5,98	1,84	1,58
55	7,2	2.160	1.314	6,19	1,91	1,64
55	10	2.371	1.379	6,47	2,00	1,72

60	-15	850	911	4,55	1,09	0,93
60	-10	1.041	996	4,88	1,22	1,05
60	-5	1.271	1.089	5,26	1,36	1,17
60	0	1.542	1.191	5,67	1,51	1,29
60	5	1.852	1.301	6,14	1,65	1,42
60	7,2	2.001	1.353	6,36	1,72	1,48
60	10	2.201	1.420	6,65	1,80	1,55

## CECOMAF

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	W	W	A	W/W	kCal/Wh
40	-15	1.222	840	4,28	1,45	1,26
40	-10	1.502	908	4,54	1,65	1,43
40	-5	1.821	985	4,84	1,85	1,60
40	0	2.177	1.070	5,18	2,04	1,76
40	5	2.572	1.164	5,56	2,21	1,91
40	7,2	2.758	1.208	5,74	2,28	1,97
40	10	3.005	1.266	5,99	2,37	2,05

45	-15	1.124	859	4,35	1,31	1,13
45	-10	1.380	932	4,63	1,48	1,28
45	-5	1.675	1.013	4,95	1,65	1,43
45	0	2.007	1.102	5,31	1,82	1,57
45	5	2.378	1.201	5,71	1,98	1,71
45	7,2	2.553	1.246	5,90	2,05	1,77
45	10	2.787	1.307	6,16	2,13	1,84

50	-15	1.027	878	4,43	1,17	1,01
50	-10	1.259	955	4,72	1,32	1,14
50	-5	1.529	1.041	5,06	1,47	1,27
50	0	1.838	1.135	5,44	1,62	1,40
50	5	2.184	1.237	5,87	1,77	1,53
50	7,2	2.349	1.285	6,07	1,83	1,58
50	10	2.569	1.349	6,34	1,90	1,65

55	-15	929	897	4,50	1,04	0,89
55	-10	1.137	979	4,82	1,16	1,00
55	-5	1.383	1.069	5,17	1,29	1,12
55	0	1.668	1.167	5,57	1,43	1,23
55	5	1.990	1.274	6,02	1,56	1,35
55	7,2	2.144	1.324	6,23	1,62	1,40
55	10	2.351	1.390	6,52	1,69	1,46

60	-15	831	916	4,57	0,91	0,78
60	-10	1.015	1.002	4,91	1,01	0,88
60	-5	1.238	1.097	5,29	1,13	0,98
60	0	1.498	1.199	5,71	1,25	1,08
60	5	1.797	1.311	6,18	1,37	1,18
60	7,2	1.940	1.363	6,40	1,42	1,23
60	10	2.133	1.431	6,70	1,49	1,29

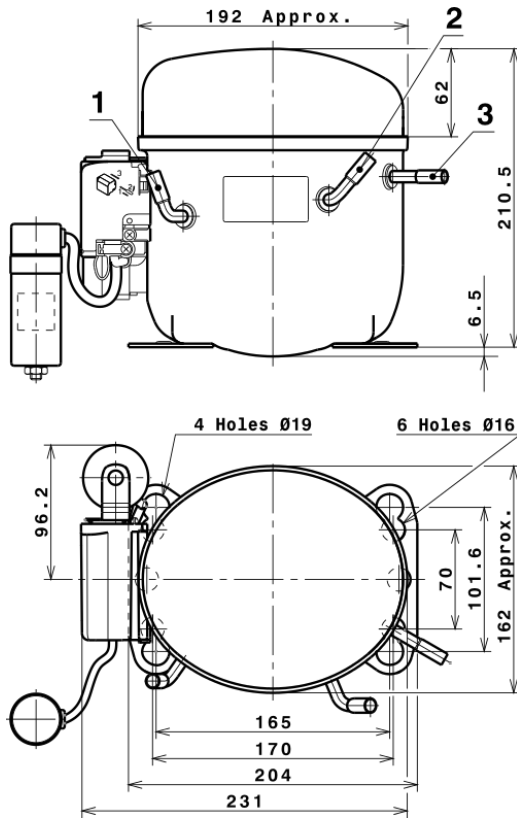
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.547,4805202780	834,4513165521	4,1719307322	65,179322094137
2	114,7214497911	11,5951330265	0,0429060859	2,3551280993604
3	-35,7321369219	6,6943818355	0,0281547528	-0,13313886344845
4	0,7220813936	0,1968023731	0,0010371737	0,036784642603189
5	-1,0398472310	0,1848710927	0,0008736448	-8,9294954092356E-5

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

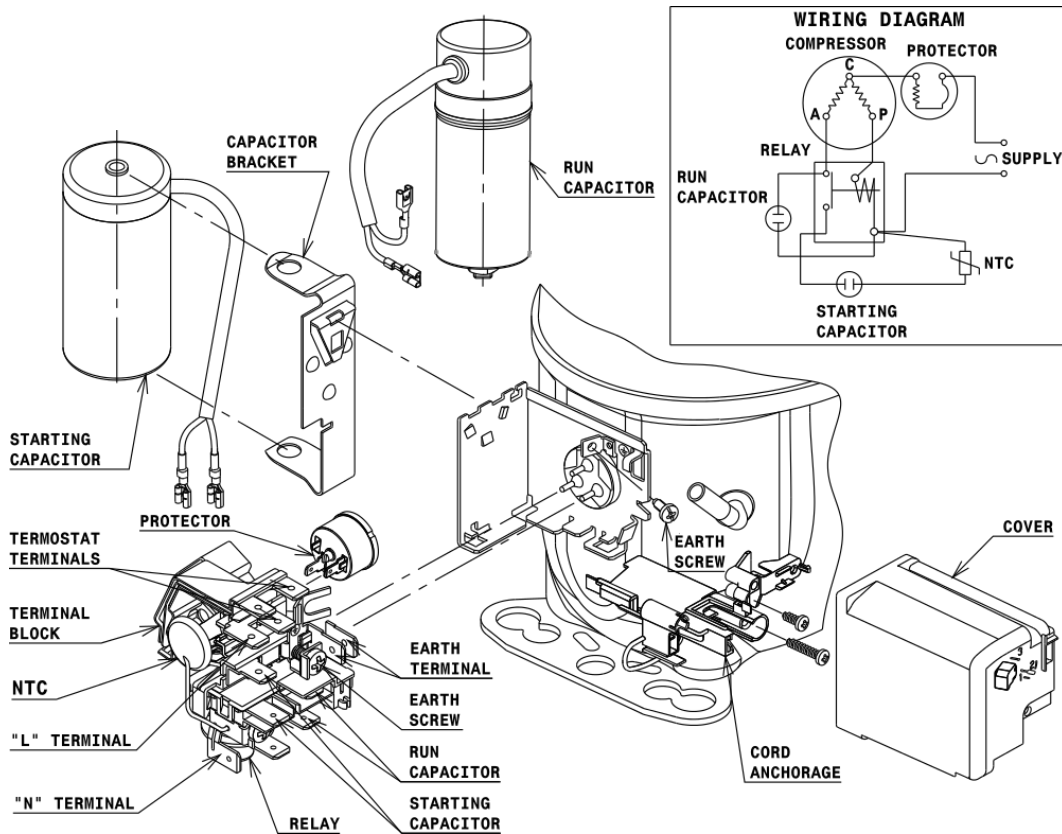
## COMPRESSOR DIMENSIONS



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



# Technical Data Sheet

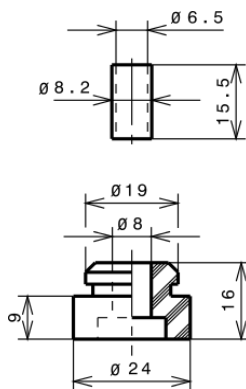
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

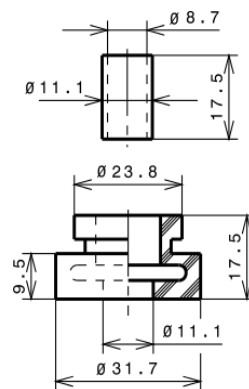
### STANDARD

Ø16 holes (170x70 net)



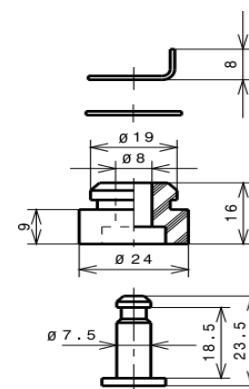
### AMERICAN FEET

Ø19 holes (165x101.6 net)



### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A HBP

