

Technical Data Sheet

Compressor model **MP14FG**
 Voltage **200-220/230V 50/60Hz ~1**
 Refrigerant **R404A**

APPLICATION

Application Low Back Pressure
 Refrigerant R404A
 Evaporating Temp. -40,0 °C to -10,0 °C
 Expansion Capillar/Valve
 Comp. Cooling Fan cooled
 Max. ambient temp. 43,0 °C

COMPRESSOR

Displacement 14,17 cm³
 Diameter 31,19 mm
 Stroke 18,54 mm
 Net Weight 12,03 Kg
 Oil type ISO VG 32 ESTER
 Oil charge 400 cm³

MOTOR

Nominal Power 1/2 hp
 Voltage/Frequency 200-220V 50Hz
 Voltage range 180-233 V
 Type CSIR
 Phase number 1 PH
 Locked Rotor Amps (LRA) 21,50 A
 Max. Cont. Current (MCC) 4,50 A
 Main W. resist. at 25°C 4,25 Ω
 Start W. resist. at 25°C 18,66 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	539 kCal/h	420 W
COP	1,12 W/W	0,79 W/W
EER	0,96 kCal/Wh	0,69 kCal/Wh
Input Power	559 W	529 W
Current	3,60 A	3,48 A

APPROVALS



TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T _e)	-23,3 °C	-25,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	32,0 °C	55,0 °C
Ambient temp. (T _{amb.})	32,0 °C	32,0 °C
Suction temp. (T _{suction})	32,0 °C	32,0 °C
Voltage/Frequency	200 V 50 Hz	200 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	72- 88 μF 330 V			
Relay	Option 1			
Reference	2014 166.			
Pick-Up	11,00 A			
Drop-Out	9,35 A			
Protector	Option 1			
Reference	T0267			
Current	11,00 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	105,00 / 52,00 °C			

ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	230	325	2,74	0,82	0,71
40	-35	335	383	2,93	1,02	0,87
40	-30	461	444	3,14	1,21	1,04
40	-25	608	507	3,39	1,39	1,20
40	-23,3	662	529	3,47	1,46	1,25
40	-20	776	572	3,66	1,58	1,36
40	-15	965	640	3,96	1,75	1,51
40	-10	1.175	710	4,29	1,92	1,65

45	-40	200	310	2,69	0,75	0,65
45	-35	301	376	2,90	0,93	0,80
45	-30	424	444	3,14	1,11	0,96
45	-25	568	514	3,42	1,28	1,10
45	-23,3	621	539	3,52	1,34	1,15
45	-20	732	587	3,72	1,45	1,25
45	-15	918	662	4,06	1,61	1,39
45	-10	1.125	740	4,44	1,77	1,52

50	-40	170	295	2,64	0,67	0,58
50	-35	268	368	2,88	0,85	0,73
50	-30	387	444	3,14	1,01	0,87
50	-25	528	522	3,45	1,18	1,01
50	-23,3	580	549	3,56	1,23	1,06
50	-20	689	602	3,79	1,33	1,14
50	-15	871	685	4,17	1,48	1,27
50	-10	1.075	770	4,59	1,62	1,40

55	-40	140	280	2,60	0,58	0,50
55	-35	235	361	2,85	0,76	0,65
55	-30	351	444	3,14	0,92	0,79
55	-25	488	529	3,48	1,07	0,92
55	-23,3	539	559	3,60	1,12	0,96
55	-20	646	617	3,85	1,22	1,05
55	-15	825	707	4,28	1,36	1,17
55	-10	1.025	800	4,75	1,49	1,28

60	-40	110	265	2,56	0,48	0,42
60	-35	201	353	2,83	0,66	0,57
60	-30	314	444	3,14	0,82	0,71
60	-25	448	537	3,51	0,97	0,83
60	-23,3	498	569	3,64	1,02	0,87
60	-20	602	632	3,92	1,11	0,95
60	-15	778	730	4,39	1,24	1,07
60	-10	975	830	4,91	1,37	1,17

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	240	325	2,74	0,74	0,64
40	-35	363	383	2,93	0,95	0,82
40	-30	504	444	3,14	1,14	0,98
40	-25	663	507	3,39	1,31	1,13
40	-23,3	720	529	3,47	1,36	1,18
40	-20	839	572	3,66	1,47	1,27
40	-15	1.032	640	3,96	1,61	1,39
40	-10	1.243	710	4,29	1,75	1,51

45	-40	200	310	2,69	0,65	0,56
45	-35	310	376	2,90	0,82	0,71
45	-30	437	444	3,14	0,98	0,85
45	-25	582	514	3,42	1,13	0,98
45	-23,3	635	539	3,52	1,18	1,02
45	-20	744	587	3,72	1,27	1,09
45	-15	924	662	4,06	1,39	1,20
45	-10	1.121	740	4,44	1,52	1,31

50	-40	161	295	2,64	0,54	0,47
50	-35	257	368	2,88	0,70	0,60
50	-30	370	444	3,14	0,83	0,72
50	-25	501	522	3,45	0,96	0,83
50	-23,3	549	549	3,56	1,00	0,86
50	-20	649	602	3,79	1,08	0,93
50	-15	816	685	4,17	1,19	1,03
50	-10	999	770	4,59	1,30	1,12

55	-40	121	280	2,60	0,43	0,37
55	-35	203	361	2,85	0,56	0,49
55	-30	303	444	3,14	0,68	0,59
55	-25	420	529	3,48	0,79	0,69
55	-23,3	464	559	3,60	0,83	0,72
55	-20	555	617	3,85	0,90	0,78
55	-15	707	707	4,28	1,00	0,86
55	-10	877	800	4,75	1,10	0,95

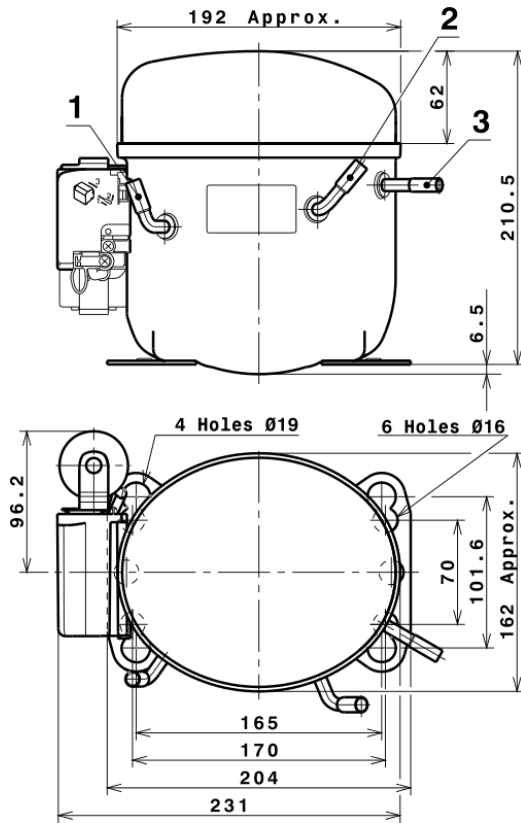
60	-40	81	265	2,56	0,31	0,27
60	-35	150	353	2,83	0,42	0,37
60	-30	236	444	3,14	0,53	0,46
60	-25	339	537	3,51	0,63	0,55
60	-23,3	378	569	3,64	0,66	0,57
60	-20	460	632	3,92	0,73	0,63
60	-15	599	730	4,39	0,82	0,71
60	-10	755	830	4,91	0,91	0,79

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.881,0613561752	512,9763399500	3,4395490759	61,902028108298
2	71,7548458235	3,5635490508	0,0458665328	1,7536822131877
3	-30,4797443021	9,2368984503	0,0464831159	-0,33674771583261
4	0,3326086883	0,0527614885	0,0009544300	0,013333617828008
5	-0,5674090975	0,3075830387	0,0013955405	-0,0042333870333977

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

CSIR CONNECTION (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 LBP

