

# Technical Data Sheet

Compressor model **MP14RB**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	14,17 cm <sup>3</sup>	Nominal Power	1/2 hp
Refrigerant	R404A	Diameter	31,19 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	18,54 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	14,37 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)	19,00 A
				Max. Cont. Current (MCC)	7,20 A
				Main W. resist. at 25°C	3,72 Ω
				Start W. resist. at 25°C	7,09 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.800 kCal/h	1.663 W
COP	2,14 W/W	1,74 W/W
EER	1,84 kCal/Wh	1,50 kCal/Wh
Input Power	980 W	957 W
Current	4,70 A	4,57 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (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	64- 77 μF 330 V		
Run capacitor	16 μF 420 V		
Relay	Option 1		
Reference	2014 166. + NTC15Ω		
Pick-Up	11,00 A		
Drop-Out	9,35 A		
Protector	Option 1	Option 2	
Reference	MRA38134	T0348	
Current	15,80 A	15,40 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 52,00 °C	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	-25	655	516	2,57	1,48	1,27
40	-20	844	564	2,75	1,74	1,50
40	-15	1.058	611	2,94	2,01	1,73
40	-10	1.299	658	3,14	2,29	1,97
40	-5	1.565	705	3,34	2,58	2,22
40	0	1.858	750	3,55	2,88	2,48
40	5	2.177	795	3,76	3,18	2,74
40	7,2	2.325	815	3,85	3,32	2,85
40	10	2.521	840	3,97	3,49	3,00

45	-25	590	519	2,58	1,32	1,14
45	-20	761	575	2,79	1,54	1,32
45	-15	959	631	3,02	1,77	1,52
45	-10	1.182	686	3,26	2,01	1,72
45	-5	1.432	740	3,50	2,25	1,94
45	0	1.708	794	3,75	2,50	2,15
45	5	2.009	847	4,01	2,76	2,37
45	7,2	2.150	870	4,12	2,87	2,47
45	10	2.337	899	4,27	3,02	2,60

50	-25	525	522	2,59	1,17	1,01
50	-20	679	586	2,84	1,35	1,16
50	-15	860	650	3,10	1,54	1,32
50	-10	1.066	713	3,38	1,74	1,50
50	-5	1.299	775	3,66	1,95	1,68
50	0	1.557	837	3,96	2,16	1,86
50	5	1.842	898	4,27	2,38	2,05
50	7,2	1.975	925	4,41	2,48	2,14
50	10	2.152	959	4,59	2,61	2,24

55	-25	460	525	2,60	1,02	0,88
55	-20	597	597	2,88	1,16	1,00
55	-15	761	669	3,18	1,32	1,14
55	-10	950	740	3,50	1,49	1,28
55	-5	1.165	810	3,83	1,67	1,44
55	0	1.407	880	4,18	1,86	1,60
55	5	1.674	950	4,54	2,05	1,76
55	7,2	1.800	980	4,70	2,14	1,84
55	10	1.968	1.018	4,91	2,25	1,93

60	-25	395	528	2,61	0,87	0,75
60	-20	515	608	2,93	0,99	0,85
60	-15	661	688	3,27	1,12	0,96
60	-10	834	767	3,63	1,26	1,09
60	-5	1.032	846	4,00	1,42	1,22
60	0	1.256	924	4,40	1,58	1,36
60	5	1.507	1.001	4,82	1,75	1,50
60	7,2	1.625	1.035	5,00	1,83	1,57
60	10	1.783	1.078	5,25	1,92	1,65

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	686	519	2,58	1,32	1,14
40	-20	888	567	2,76	1,57	1,35
40	-15	1.115	615	2,96	1,81	1,57
40	-10	1.368	662	3,16	2,06	1,78
40	-5	1.645	709	3,36	2,32	2,00
40	0	1.948	755	3,57	2,58	2,23
40	5	2.276	801	3,79	2,84	2,45
40	7,2	2.428	821	3,88	2,96	2,55
40	10	2.629	847	4,01	3,11	2,68

45	-25	611	522	2,59	1,17	1,01
45	-20	791	578	2,81	1,37	1,18
45	-15	997	634	3,04	1,57	1,36
45	-10	1.228	690	3,27	1,78	1,54
45	-5	1.484	745	3,52	1,99	1,72
45	0	1.765	799	3,78	2,21	1,91
45	5	2.072	853	4,04	2,43	2,10
45	7,2	2.214	877	4,16	2,53	2,18
45	10	2.403	907	4,31	2,65	2,29

50	-25	536	525	2,60	1,02	0,88
50	-20	695	590	2,85	1,18	1,02
50	-15	879	654	3,12	1,34	1,16
50	-10	1.088	717	3,40	1,52	1,31
50	-5	1.323	780	3,69	1,70	1,46
50	0	1.583	843	3,99	1,88	1,62
50	5	1.867	905	4,30	2,06	1,78
50	7,2	2.001	932	4,44	2,15	1,85
50	10	2.177	967	4,63	2,25	1,95

55	-25	461	528	2,61	0,87	0,75
55	-20	598	601	2,90	1,00	0,86
55	-15	761	673	3,20	1,13	0,98
55	-10	949	745	3,52	1,27	1,10
55	-5	1.162	816	3,86	1,42	1,23
55	0	1.400	887	4,21	1,58	1,36
55	5	1.663	957	4,57	1,74	1,50
55	7,2	1.787	988	4,74	1,81	1,56
55	10	1.952	1.026	4,96	1,90	1,64

60	-25	386	531	2,62	0,73	0,63
60	-20	502	612	2,94	0,82	0,71
60	-15	643	692	3,29	0,93	0,80
60	-10	809	772	3,65	1,05	0,91
60	-5	1.001	851	4,03	1,18	1,02
60	0	1.217	930	4,43	1,31	1,13
60	5	1.459	1.009	4,86	1,45	1,25
60	7,2	1.573	1.043	5,05	1,51	1,30
60	10	1.726	1.086	5,30	1,59	1,37

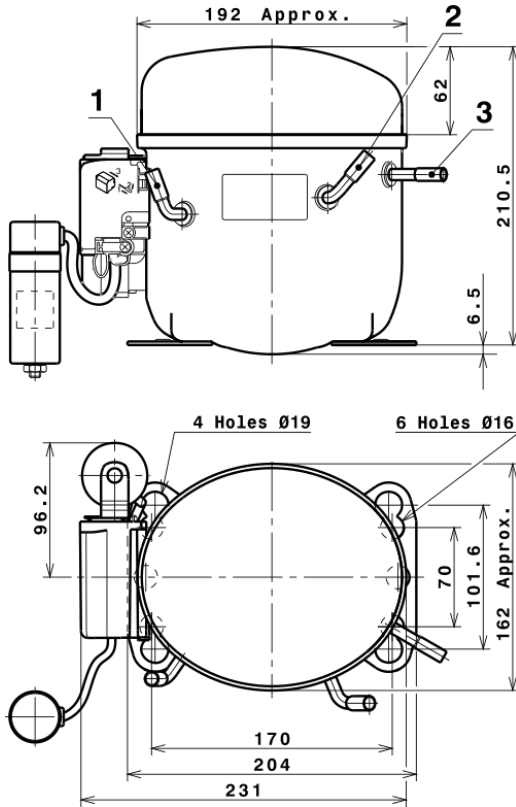
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.408,9103626676	416,8464813469	1,6900626425	40,264341880667
2	97,5927344347	-3,6061324940	-0,0236579470	1,3073657155492
3	-37,8337533040	9,0394916689	0,0483532690	-0,20295373317898
4	0,4760216458	-0,0006232525	0,0003959942	0,013590199472396
5	-0,9103907264	0,3368669711	0,0018390818	-0,002941891360038

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

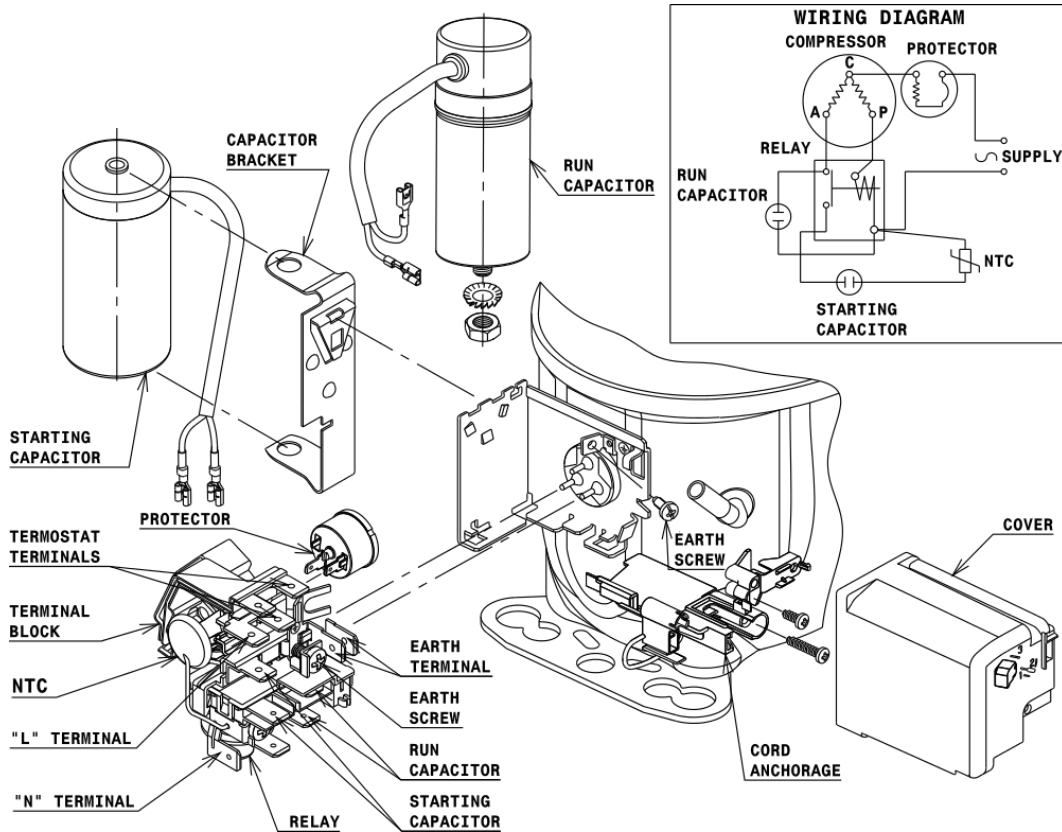
## COMPRESSOR DIMENSIONS



DESIGNATION	INTERNAL DIAM.
1 Suction/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)



## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

$\varnothing 16$  holes (170x70 net)



### AMERICAN FEET

$\varnothing 19$  holes (165x101.6 net)



### SNAP-ON

$\varnothing 16$  holes (170x70 net)



## SOA

SOA R404A HMBP

