

**Type: Hermetic piston compressors**

**Producer: ACC**

**Series: HMBP**

## **Model: MP12FB**

### **General data**

Refrigerant:	R404A
Discharge element:	C-V
Cooling:	F
Maximum ambient temperature [°C]:	43

### **Compressor's data**

Cylinder capacity [cm <sup>3</sup> ]:	12
Displacement [m <sup>3</sup> /h]:	2,1
Weight [kg]:	12
Oil charge [cm <sup>3</sup> ]:	400
Oil type:	ISO VG 46 ESTER

### **Engine's data**

Engine type:	CSIR
Power [KM]:	3/8
Starting element:	HST
Power supply:	220V 50Hz
Voltage range:	187-264
Locked rotor current [A]:	14,8
Running winding resistance (25°C) [Ω]:	4,28
Starting winding resistance (25°C) [Ω]:	17,74

### **Electrical data**

Relays:	9660 A 149, MTRP 48
Shielding element:	MRP36AMK, T0171
Starting capacitor volume [μF]:	

### **Connections**

	<u>milimeters</u>	<u>inches</u>
Suction tube:	8,1	
Service tube:	8,1	
Discharge tube:	6,5	

R404A/R507

**Cooling capacity [W]**

$t_c \setminus t_e$	<b>-40</b>	<b>-35</b>	<b>-30</b>	<b>-25</b>	<b>-20</b>	<b>-15</b>	<b>-10</b>
<b>40</b>	204	316	445	590	751	930	1 125
<b>45</b>	171	267	381	510	657	819	999
<b>50</b>	-	219	316	431	562	709	873
<b>55</b>	-	-	252	351	467	599	747
<b>60</b>	-	-	-	272	372	489	622

**Power input [W]**

$t_c \setminus t_e$	<b>-40</b>	<b>-35</b>	<b>-30</b>	<b>-25</b>	<b>-20</b>	<b>-15</b>	<b>-10</b>
<b>40</b>	240	297	354	411	467	524	580
<b>45</b>	230	292	354	416	477	539	600
<b>50</b>	-	287	354	421	487	554	620
<b>55</b>	-	-	354	426	497	569	640
<b>60</b>	-	-	-	431	507	584	660

**Current [A]**

$t_c \setminus t_e$	<b>-40</b>	<b>-35</b>	<b>-30</b>	<b>-25</b>	<b>-20</b>	<b>-15</b>	<b>-10</b>
<b>40</b>	2.05	2.22	2.40	2.58	2.78	2.99	3.20
<b>45</b>	2.00	2.19	2.40	2.61	2.83	3.06	3.30
<b>50</b>	-	2.17	2.40	2.63	2.88	3.14	3.40
<b>55</b>	-	-	2.40	2.66	2.93	3.21	3.50
<b>60</b>	-	-	-	2.68	2.98	3.29	3.60

**Mass flow [kg/s]**

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10
<b>40</b>	1.80	2.58	3.59	4.82	6.28	7.97	9.89
<b>45</b>	1.67	2.43	3.42	4.64	6.09	7.76	9.66
<b>50</b>	-	2.28	3.26	4.46	5.89	7.55	9.43
<b>55</b>	-	-	3.09	4.28	5.69	7.34	9.21
<b>60</b>	-	-	-	4.10	5.50	7.13	8.98

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**C.O.P. [W/W]**

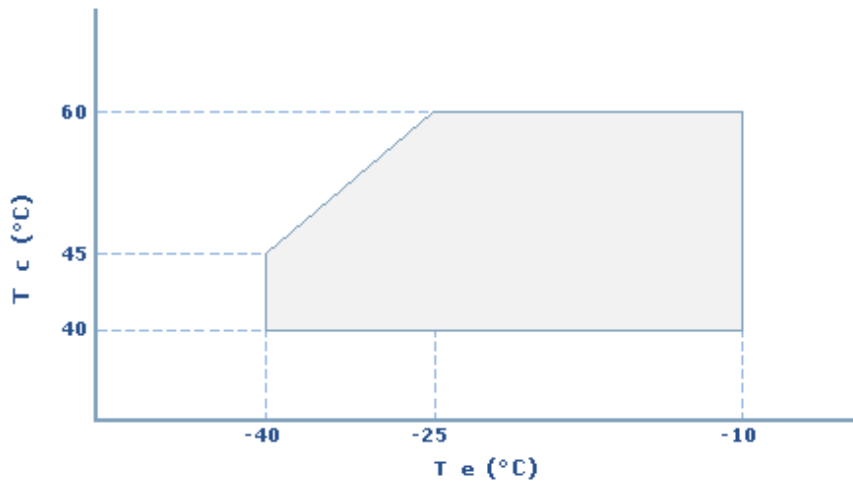
$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10
<b>40</b>	0.85	1.06	1.26	1.44	1.61	1.78	1.94
<b>45</b>	0.74	0.91	1.07	1.23	1.38	1.52	1.66
<b>50</b>	-	0.76	0.89	1.02	1.15	1.28	1.41
<b>55</b>	-	-	0.71	0.83	0.94	1.05	1.17
<b>60</b>	-	-	-	0.63	0.73	0.84	0.94

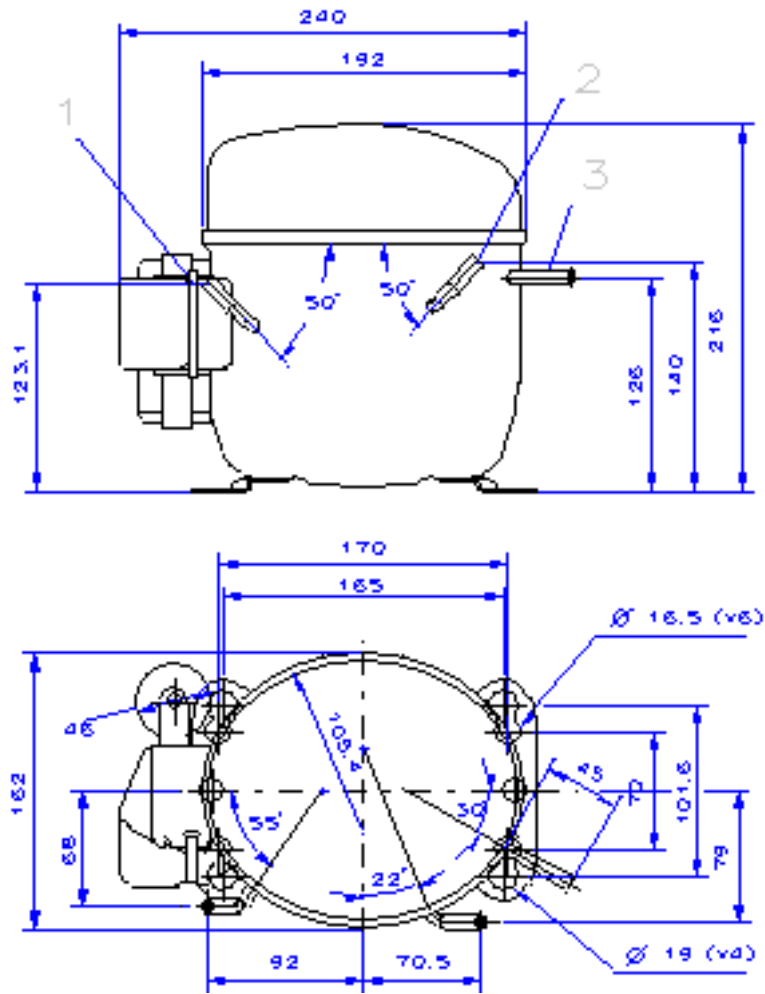
Operating conditions: ASHRAE

$t_c$  - Condensing temperature [°C]

$t_e$  - Evaporating temperature [°C]

**Application range**





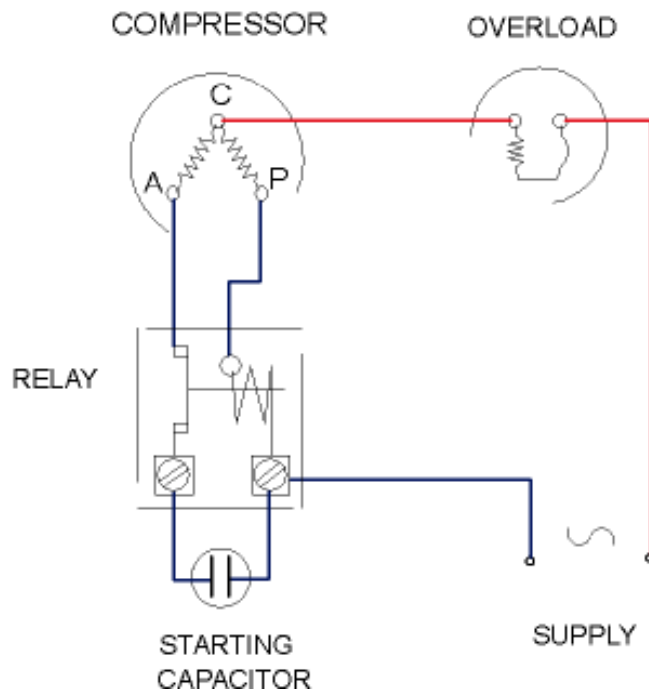
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