



COMPRESSOR TECHNICAL DATA

COMPRESSOR DEFINITION

Designation	EM T6170Z
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	194RA67

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	220-240 / 50	[V / Hz]	
4 Application type	High Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-15°C to 10°C	(5°F to 50°F)	
5 Motor type	CSIR		
6 Starting torque	HST - High starting torque		
7 Expansion device	Capillary tube or Expansion valve		
8 Compressor cooling	Operating voltage range		
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	-	-	-
8.2 LBP (43°C Ambient temperature)	-	-	-
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	16.2	[kgf/cm ²] (230 psig)	/ °C - °F
9.2 Peak (gauge)	20.6	[kgf/cm ²] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3-	[hp]
2 Displacement	7.69	[cm ³] (0.469 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	17.000	
3 Lubricant charge	180	[ml] (6.09 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	7.8	[kg] (17.20 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-38	
3 Start capacitor	53-64(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0318/G6	
6 Start winding resistance	[Ω at 25°C (77°F)] +/- 8%	
7 Run winding resistance	[Ω at 25°C (77°F)] +/- 8%	
8 LRA - Locked rotor amperage (50 Hz)	10.40	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	1.93	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	VDE	



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D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			ASHRAEHBP46 Fan		Evaporating temperature (Condensing temperature		7.2°C (44.96°F) 54.4°C (129.92°F)	
Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
2750	693	806	356	2.03	17.83	7.72	1.95	2.26

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE46 Fan				(Condensing temperature 35°C (+95°F))				
Evaporating temperature	Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-15 (+5)	1413	356	414	203	1.55	7.64	6.96	1.75	2.04	
-10 (+14)	1765	445	517	223	1.60	9.58	7.90	1.99	2.32	
-5 (+23)	2176	548	638	247	1.66	11.85	8.82	2.22	2.58	
0 (+32)	2646	667	775	273	1.74	14.48	9.69	2.44	2.84	
+5 (+41)	3175	800	930	302	1.84	17.47	10.51	2.65	3.08	
+10 (+50)	3764	948	1103	334	1.96	20.84	11.27	2.84	3.30	

TEST CONDITIONS: @220V50Hz		ASHRAE46 Fan				(Condensing temperature 45°C (+113°F))				
Evaporating temperature	Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-15 (+5)	1227	309	360	214	1.58	7.17	5.73	1.44	1.68	
-10 (+14)	1561	393	457	238	1.64	9.15	6.57	1.66	1.93	
-5 (+23)	1947	491	571	264	1.71	11.47	7.39	1.86	2.16	
0 (+32)	2387	601	699	292	1.80	14.12	8.17	2.06	2.39	
+5 (+41)	2879	725	844	323	1.91	17.13	8.90	2.24	2.61	
+10 (+50)	3424	863	1003	357	2.04	20.51	9.59	2.42	2.81	

TEST CONDITIONS: @220V50Hz		ASHRAE46 Fan				(Condensing temperature 55°C (+131°F))				
Evaporating temperature	Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-15 (+5)	1063	268	312	222	1.60	6.77	4.79	1.21	1.40	
-10 (+14)	1358	342	398	248	1.68	8.69	5.47	1.38	1.60	
-5 (+23)	1700	428	498	277	1.77	10.92	6.13	1.55	1.80	
0 (+32)	2087	526	612	308	1.87	13.48	6.77	1.71	1.98	
+5 (+41)	2522	635	739	342	2.00	16.39	7.37	1.86	2.16	
+10 (+50)	3003	757	880	379	2.14	19.66	7.92	2.00	2.32	



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F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	4.86 +0.07/+0.00	[mm]	(0.191" +0.003"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		