

COMPRESSOR DEFINITION

Designation	EM 2P60CLP
Nominal Voltage/Frequency	220 V 60 Hz
Engineering Number	513305576

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	220 / 60	[V / Hz]	
4 Application type	Low Back Pressure		
4.1 Evaporating temperature range	-35°C to -10°C	(-31°F to 14°F)	
5 Motor type	RSIR		
6 Starting torque	LST - Low Starting Torque		
7 Expansion device	Capillary tube		
8 Compressor cooling	Operating voltage range		
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	Static	-	198 to 242 V
8.2 LBP (43°C Ambient temperature)	Static	-	198 to 242 V
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	6.9	[kgf/cm ²] (98 psig)	/ °C - °F
9.2 Peak	7.8	[kgf/cm ²] (111 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/6	[hp]
2 Displacement	9.04	[cm ³] (0.552 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	20.000	
3 Lubricant charge	150	[ml] (5.07 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	7.06	[kg] (15.56 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	8EA17C1/8EA17E61/8EA17E62/8EA17E63/QPS2-A22MG1	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM283KFBYY-53	
6 Start winding resistance	19.80	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	14.70	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	7.70	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	1.73	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	1.90	[A] - Measured according to UL 984
11 Approval boards certification	CE - TUV - UKCA	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V60Hz			ASHRAELBP32 Static		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°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]
605	152	177	122	0.88	1.90	4.98	1.25	1.46

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V60Hz			ASHRAE32 Static		(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]
-35 (-31)	376	95	110	85	0.78	1.18	4.43	1.12	1.30
-30 (-22)	486	123	142	96	0.81	1.52	5.06	1.27	1.48
-25 (-13)	638	161	187	109	0.84	2.00	5.85	1.47	1.71
-20 (- 4)	830	209	243	123	0.88	2.61	6.76	1.70	1.98
-15 (+ 5)	1059	267	310	137	0.93	3.33	7.76	1.95	2.27
-10 (+14)	1323	333	388	151	0.98	4.17	8.79	2.22	2.58

TEST CONDITIONS: @220V60Hz			ASHRAE32 Static		(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]
-35 (-31)	362	91	106	89	0.79	1.13	4.07	1.03	1.19
-30 (-22)	458	115	134	100	0.81	1.43	4.58	1.16	1.34
-25 (-13)	598	151	175	113	0.85	1.88	5.26	1.32	1.54
-20 (- 4)	781	197	229	129	0.90	2.45	6.04	1.52	1.77
-15 (+ 5)	1004	253	294	145	0.95	3.16	6.91	1.74	2.03
-10 (+14)	1265	319	371	162	1.01	3.99	7.82	1.97	2.29

TEST CONDITIONS: @220V60Hz			ASHRAE32 Static		(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]
-35 (-31)	344	87	101	91	0.80	1.08	3.78	0.95	1.11
-30 (-22)	425	107	124	102	0.82	1.33	4.20	1.06	1.23
-25 (-13)	553	139	162	116	0.86	1.74	4.77	1.20	1.40
-20 (- 4)	727	183	213	133	0.91	2.28	5.45	1.37	1.60
-15 (+ 5)	944	238	277	152	0.98	2.97	6.21	1.56	1.82
-10 (+14)	1203	303	352	172	1.05	3.79	7.00	1.76	2.05

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V60Hz		ASHRAE32 Static			(Condensing temperature 65°C (+149°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]
-35	(-31)	320	81	94	91	0.80	1.00	3.52	0.89	1.03
-30	(-22)	386	97	113	101	0.82	1.21	3.86	0.97	1.13
-25	(-13)	503	127	147	117	0.86	1.58	4.35	1.10	1.27
-20	(- 4)	668	168	196	135	0.92	2.10	4.94	1.25	1.45
-15	(+ 5)	879	222	258	156	0.99	2.77	5.60	1.41	1.64
-10	(+14)	1135	286	332	180	1.08	3.58	6.30	1.59	1.84

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EG/F/AMEM Version 2		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.2 +0.12/-0.08	[mm]	(0.323" +0.005"/-0.003")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42° up + 45° to Back		
3.2 DISCHARGE	4.94 +0.08/-0.08	[mm]	(0.194" +0.003"/-0.003")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted 30° up + 24° to Back		
3.3 PROCESS	6.35 +0.08/-0.08	[mm]	(0.250" +0.003"/-0.003")
3.3.1 Material	Copper(OD)		
3.3.2 Shape	Slanted 45° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		