COMPRESSOR DEFINITION

Designation	**EM 2P60CLP**
Nominal Voltage/Frequency	**115-127 V 60 Hz**
Engineering Number	**513304594**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	115-127 / 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 Expantion device	Capillary tube		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	7.7	[kgf/cm²] (109 psig)	/ ºC - ºF
9.2 Peak (gauge)	9.8	[kgf/cm²] (139 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/6	[hp]
2 Displacement	9.04	[cm³] (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)	7.2	[kg] (15.87 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115-127 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	8EA14C1/8EA14E62/8EA14E63/8EA21C1/QPS2-A4R7MG1	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM319KFBYY-53	
6 Start winding resistance	7.00	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	4.90	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	12.30	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	1.88	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	2.17	[A] - Measured according to UL 984
11 Approval boards certification		

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@127V60Hz**			**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]
610	154	179	125	1.63	1.92	4.88	1.23	1.43

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@127V60Hz** — **ASHRAE32** **Static** — (Condensing temperature **35ºC (+95ºF))**

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)**	357	90	105	86	1.46	1.12	4.13	1.04	1.21
-30	**(-22)**	477	120	140	99	1.50	1.50	4.81	1.21	1.41
-25	**(-13)**	634	160	186	112	1.55	1.99	5.65	1.42	1.65
-20	**(- 4)**	827	208	242	125	1.61	2.60	6.60	1.66	1.93
-15	**(+ 5)**	1055	266	309	139	1.68	3.32	7.62	1.92	2.23
-10	**(+14)**	1318	332	386	152	1.76	4.16	8.68	2.19	2.54

TEST CONDITIONS: **@127V60Hz** — **ASHRAE32** **Static** — (Condensing temperature **45ºC (+113ºF))**

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)**	336	85	99	89	1.48	1.05	3.79	0.96	1.11
-30	**(-22)**	447	113	131	102	1.52	1.40	4.38	1.10	1.28
-25	**(-13)**	595	150	174	116	1.57	1.87	5.11	1.29	1.50
-20	**(- 4)**	780	197	229	131	1.63	2.45	5.93	1.49	1.74
-15	**(+ 5)**	1001	252	293	147	1.71	3.15	6.80	1.71	1.99
-10	**(+14)**	1257	317	368	164	1.81	3.97	7.69	1.94	2.25

TEST CONDITIONS: **@127V60Hz** — **ASHRAE32** **Static** — (Condensing temperature **55ºC (+131ºF))**

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)**	314	79	92	90	1.48	0.98	3.50	0.88	1.02
-30	**(-22)**	414	104	121	104	1.52	1.30	4.00	1.01	1.17
-25	**(-13)**	553	139	162	119	1.58	1.74	4.62	1.16	1.35
-20	**(- 4)**	729	184	214	136	1.66	2.29	5.32	1.34	1.56
-15	**(+ 5)**	941	237	276	155	1.75	2.96	6.05	1.52	1.77
-10	**(+14)**	1190	300	349	176	1.87	3.76	6.78	1.71	1.99

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65ºC (+149ºF))**
@127V60Hz **Static**

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)**	290	73	85	89	1.48	0.91	3.24	0.82	0.95
-30	**(-22)**	380	96	111	104	1.53	1.19	3.66	0.92	1.07
-25	**(-13)**	508	128	149	122	1.60	1.59	4.18	1.05	1.23
-20	**(- 4)**	674	170	197	142	1.69	2.12	4.77	1.20	1.40
-15	**(+ 5)**	877	221	257	164	1.81	2.76	5.36	1.35	1.57
-10	**(+14)**	1118	282	328	189	1.95	3.53	5.94	1.50	1.74

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EG/F/AMEM Version 2		
2 Tray holder	No		
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 parallel BP+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 43° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		