

COMPRESSOR DEFINITION

Designation	EM UE60CLP
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	513306258

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 Expansion device	Capillary tube		
8 Compressor cooling	Operating voltage range		
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	-	-	-
8.2 LBP (43°C Ambient temperature)	Static	-	103 to 140 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	9.34	[cm ³] (0.570 cu.in)
2.1 Bore [mm]	26.000	
2.2 Stroke [mm]	17.600	
3 Lubricant charge	180	[ml] (6.09 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	7.74	[kg] (17.06 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

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/QPS2-A4R7MG1	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM427LFBYY-53	
6 Start winding resistance	6.03	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	4.44	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	14.92	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	2.50	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	3.00	[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]
603	152	177	128	2.02	1.89	4.71	1.19	1.38

E - PERFORMANCE - CURVES

TEST CONDITIONS: @127V60Hz		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)	366	92	107	94	1.97	1.15	3.90	0.98	1.14
-30 (-22)	482	122	141	105	2.00	1.51	4.59	1.16	1.34
-25 (-13)	635	160	186	118	2.04	1.99	5.39	1.36	1.58
-20 (- 4)	827	208	242	132	2.07	2.60	6.28	1.58	1.84
-15 (+ 5)	1060	267	311	147	2.12	3.34	7.24	1.82	2.12
-10 (+14)	1337	337	392	162	2.18	4.22	8.25	2.08	2.42

TEST CONDITIONS: @127V60Hz		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)	331	83	97	96	1.97	1.04	3.47	0.87	1.02
-30 (-22)	444	112	130	107	2.00	1.39	4.14	1.04	1.21
-25 (-13)	593	149	174	121	2.03	1.86	4.89	1.23	1.43
-20 (- 4)	780	196	228	136	2.07	2.45	5.71	1.44	1.67
-15 (+ 5)	1007	254	295	153	2.13	3.17	6.58	1.66	1.93
-10 (+14)	1278	322	374	171	2.20	4.03	7.49	1.89	2.19

TEST CONDITIONS: @127V60Hz		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)	304	77	89	98	1.98	0.95	3.12	0.79	0.91
-30 (-22)	408	103	120	109	2.00	1.28	3.75	0.95	1.10
-25 (-13)	548	138	161	123	2.03	1.72	4.44	1.12	1.30
-20 (- 4)	726	183	213	139	2.08	2.28	5.18	1.31	1.52
-15 (+ 5)	943	238	276	158	2.15	2.97	5.95	1.50	1.74
-10 (+14)	1203	303	352	179	2.24	3.79	6.73	1.70	1.97

E - PERFORMANCE - CURVES

TEST CONDITIONS: @127V60Hz		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)	285	72	83	100	1.99	0.89	2.84	0.72	0.83
-30	(-22)	376	95	110	111	2.01	1.18	3.42	0.86	1.00
-25	(-13)	502	127	147	125	2.04	1.58	4.04	1.02	1.18
-20	(- 4)	665	168	195	143	2.10	2.09	4.68	1.18	1.37
-15	(+ 5)	868	219	254	163	2.17	2.73	5.33	1.34	1.56
-10	(+14)	1112	280	326	186	2.28	3.51	5.98	1.51	1.75

F - EXTERNAL CHARACTERISTICS

1 Base plate	New Base Plate EUEM		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	7.84 +0.00/-0.10	[mm]	(0.309" +0.000"/-0.004")
3.1.1 Material	Copper(OD)		
3.1.2 Shape	Slanted 40° 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		