COMPRESSOR DEFINITION

Designation	**EM 2Y60CLC**
Nominal Voltage/Frequency	**115-127 V 60 Hz**
Engineering Number	**513301516**

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	RSCR		
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)	Static	-	103 to 140 V
8.2 LBP (43ºC Ambient temperature)	Static	-	103 to 140 V
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	6.9	[kgf/cm²] (98 psig)	/ ºC - ºF
9.2 Peak	7.8	[kgf/cm²] (111 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/5	[hp]
2 Displacement	8.41	[cm³] (0.513 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	18.600	
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)	5.53	[kg] (12.19 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	8EA14C3/8EA14E63/8EA14E64/QPS2-A4R7MD3	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	12(172)	[µF(VAC minimum)]
5 Motor protection	4TM427KFBYY-53	
6 Start winding resistance	6.40	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	4.90	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	11.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	1.03	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	1.40	[A] - Measured according to UL 984
11 Approval boards certification	IMTRO - TUV	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@115V60Hz**			**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]
570	144	167	97	0.88	1.79	5.90	1.49	1.73

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **35ºC (+95ºF))**
@115V60Hz **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)**	357	90	105	67	0.62	1.12	5.31	1.34	1.56
-30	**(-22)**	462	116	135	77	0.71	1.45	6.03	1.52	1.77
-25	**(-13)**	603	152	177	88	0.80	1.89	6.89	1.74	2.02
-20	**(- 4)**	780	197	229	99	0.90	2.45	7.87	1.98	2.30
-15	**(+ 5)**	994	251	291	111	1.00	3.13	8.96	2.26	2.62
-10	**(+14)**	1244	314	365	123	1.11	3.92	10.15	2.56	2.97

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **45ºC (+113ºF))**
@115V60Hz **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)**	310	78	91	66	0.63	0.97	4.70	1.18	1.38
-30	**(-22)**	417	105	122	77	0.72	1.31	5.39	1.36	1.58
-25	**(-13)**	560	141	164	90	0.83	1.76	6.19	1.56	1.81
-20	**(- 4)**	738	186	216	104	0.95	2.32	7.07	1.78	2.07
-15	**(+ 5)**	952	240	279	118	1.07	3.00	8.03	2.02	2.35
-10	**(+14)**	1201	303	352	133	1.20	3.79	9.05	2.28	2.65

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **55ºC (+131ºF))**
@115V60Hz **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)**	271	68	79	66	0.63	0.85	4.14	1.04	1.21
-30	**(-22)**	375	95	110	78	0.73	1.18	4.83	1.22	1.42
-25	**(-13)**	514	130	151	92	0.85	1.61	5.58	1.41	1.64
-20	**(- 4)**	688	173	201	107	0.98	2.16	6.38	1.61	1.87
-15	**(+ 5)**	896	226	263	124	1.13	2.82	7.21	1.82	2.11
-10	**(+14)**	1139	287	334	141	1.28	3.59	8.06	2.03	2.36

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65ºC (+149ºF))**
@115V60Hz **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)**	239	60	70	66	0.62	0.75	3.62	0.91	1.06
-30	**(-22)**	335	84	98	78	0.73	1.05	4.31	1.09	1.26
-25	**(-13)**	465	117	136	93	0.86	1.46	5.02	1.27	1.47
-20	**(- 4)**	629	158	184	110	1.00	1.98	5.74	1.45	1.68
-15	**(+ 5)**	826	208	242	128	1.16	2.60	6.45	1.63	1.89
-10	**(+14)**	1058	267	310	148	1.34	3.34	7.15	1.80	2.09

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EG/F/AMEM Version 2		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42º 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 48° 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		