COMPRESSOR DEFINITION

Designation	**EM 2I40CLP**
Nominal Voltage/Frequency	**220 V 60 Hz**
Engineering Number	**513304622**

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 Expantion device	Capillary tube		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	Static	-	198 to 242 V
8.2 LBP (43ºC Ambient temperature)	Static	-	198 to 242 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	1/8	[hp]
2 Displacement	5.96	[cm³] (0.364 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	15.000	
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)	7.1	[kg] (15.65 lb.)
5 Nitrogen charge	-	[kgf/cm²]

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	8EA17C1/8EA17E61/8EA17E63/QPS2-A22MG1	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM189NFBYY-53	
6 Start winding resistance	19.68	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	34.23	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	3.85	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	0.66	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	0.78	[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]
381	96	112	90	0.66	1.20	4.24	1.07	1.24

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@220V60Hz** — **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)**	231	58	68	64	0.59	0.72	3.61	0.91	1.06
-30	**(-22)**	302	76	88	70	0.61	0.94	4.30	1.08	1.26
-25	**(-13)**	400	101	117	78	0.63	1.25	5.11	1.29	1.50
-20	**(- 4)**	524	132	153	87	0.65	1.65	5.99	1.51	1.76
-15	**(+ 5)**	671	169	197	97	0.68	2.11	6.91	1.74	2.02
-10	**(+14)**	841	212	246	108	0.71	2.65	7.81	1.97	2.29

TEST CONDITIONS: **@220V60Hz** — **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)**	210	53	62	68	0.60	0.66	3.11	0.78	0.91
-30	**(-22)**	277	70	81	74	0.62	0.87	3.75	0.94	1.10
-25	**(-13)**	371	94	109	83	0.64	1.16	4.49	1.13	1.32
-20	**(- 4)**	492	124	144	93	0.67	1.55	5.31	1.34	1.55
-15	**(+ 5)**	637	161	187	104	0.70	2.01	6.14	1.55	1.80
-10	**(+14)**	805	203	236	116	0.74	2.54	6.96	1.75	2.04

TEST CONDITIONS: **@220V60Hz** — **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)**	187	47	55	71	0.61	0.58	2.64	0.67	0.77
-30	**(-22)**	250	63	73	77	0.63	0.78	3.25	0.82	0.95
-25	**(-13)**	342	86	100	86	0.65	1.07	3.96	1.00	1.16
-20	**(- 4)**	460	116	135	97	0.68	1.45	4.72	1.19	1.38
-15	**(+ 5)**	603	152	177	110	0.72	1.90	5.49	1.38	1.61
-10	**(+14)**	769	194	225	124	0.76	2.43	6.23	1.57	1.83

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65ºC (+149ºF))**
@220V60Hz **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)**	161	41	47	73	0.62	0.50	2.21	0.56	0.65
-30	**(-22)**	221	56	65	80	0.63	0.69	2.81	0.71	0.82
-25	**(-13)**	311	78	91	89	0.66	0.98	3.49	0.88	1.02
-20	**(- 4)**	428	108	125	101	0.69	1.34	4.22	1.06	1.24
-15	**(+ 5)**	569	143	167	115	0.73	1.79	4.95	1.25	1.45
-10	**(+14)**	734	185	215	131	0.79	2.32	5.63	1.42	1.65

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		