COMPRESSOR DEFINITION

Designation	**EM IE40HJP**
Nominal Voltage/Frequency	**115-127 V 60 Hz**
Engineering Number	**513306133**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	115-127 / 60	[V / Hz]	
4 Application type	Low-Medium Back Pressure		
4.1 Evaporating temperature range	-35°C to -5°C	(-31°F to 23°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	-	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	14.2	[kgf/cm²] (202 psig)	/ ºC - ºF
9.2 Peak	15.9	[kgf/cm²] (226 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/8	[hp]
2 Displacement	3.40	[cm³] (0.207 cu.in)
2.1 Bore [mm]	19.000	
2.2 Stroke [mm]	12.000	
3 Lubricant charge	180	[ml] (6.09 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO10	
4 Weight (with oil charge)	6.55	[kg] (14.44 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (2.84 to 4.27 psig)

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	MSC31X 115V	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MSC31A49H3	
6 Start winding resistance	11.50	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	9.30	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	7.60	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	1.28	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	CE - TUV - UKCA - UL	

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]
390	98	114	91	1.18	2.22	4.29	1.08	1.26

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)**	219	55	64	64	1.01	1.24	3.41	0.86	1.00
-30	**(-22)**	299	75	88	73	1.05	1.70	4.12	1.04	1.21
-25	**(-13)**	410	103	120	83	1.10	2.33	4.98	1.25	1.46
-20	**(- 4)**	547	138	160	92	1.15	3.11	5.93	1.49	1.74
-15	**(+ 5)**	705	178	207	102	1.21	4.03	6.92	1.74	2.03
-10	**(+14)**	882	222	258	112	1.28	5.05	7.91	1.99	2.32
-5	**(+23)**	1072	270	314	121	1.35	6.17	8.83	2.23	2.59

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)**	200	51	59	63	1.00	1.13	3.18	0.80	0.93
-30	**(-22)**	278	70	81	73	1.05	1.57	3.82	0.96	1.12
-25	**(-13)**	385	97	113	84	1.10	2.19	4.57	1.15	1.34
-20	**(- 4)**	518	130	152	96	1.17	2.95	5.37	1.35	1.57
-15	**(+ 5)**	671	169	197	109	1.26	3.83	6.17	1.56	1.81
-10	**(+14)**	842	212	247	122	1.35	4.83	6.92	1.74	2.03
-5	**(+23)**	1026	259	301	136	1.46	5.90	7.57	1.91	2.22

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)**	166	42	49	61	1.00	0.94	2.71	0.68	0.79
-30	**(-22)**	242	61	71	73	1.04	1.37	3.34	0.84	0.98
-25	**(-13)**	346	87	101	86	1.11	1.96	4.04	1.02	1.18
-20	**(- 4)**	475	120	139	100	1.20	2.71	4.74	1.20	1.39
-15	**(+ 5)**	625	158	183	116	1.30	3.57	5.41	1.36	1.58
-10	**(+14)**	791	199	232	133	1.43	4.53	5.98	1.51	1.75
-5	**(+23)**	970	244	284	151	1.57	5.58	6.40	1.61	1.87

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)**	126	32	37	57	0.98	0.71	2.20	0.55	0.64
-30	**(-22)**	201	51	59	70	1.03	1.14	2.88	0.73	0.84
-25	**(-13)**	304	77	89	85	1.10	1.73	3.58	0.90	1.05
-20	**(- 4)**	431	109	126	102	1.20	2.45	4.24	1.07	1.24
-15	**(+ 5)**	578	146	169	121	1.33	3.30	4.82	1.22	1.41
-10	**(+14)**	740	187	217	142	1.49	4.24	5.26	1.33	1.54
-5	**(+23)**	914	230	268	165	1.67	5.26	5.51	1.39	1.62

F - EXTERNAL CHARACTERISTICS

1 Base plate	New Base Plate EUEM		
2 Tray holder	No		
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 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		