COMPRESSOR DEFINITION

Designation	**EM I30HER**
Nominal Voltage/Frequency	**115-127 V 60 Hz**
Engineering Number	**513307112**

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/CSIR		
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/Fan	-	98 to 140 V
8.2 LBP (43ºC Ambient temperature)	Static/Fan	-	98 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	1/10	[hp]
2 Displacement	3.00	[cm³] (0.183 cu.in)
2.1 Bore [mm]	19.000	
2.2 Stroke [mm]	10.600	
3 Lubricant charge	170	[ml] (5.75 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO10	
4 Weight (with oil charge)	7.07	[kg] (15.59 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	Current Relay	
2.1 Starting device	213514008/213514075/213515268	
3 Start capacitor	64-77(140)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM734LFBYY-53	
6 Start winding resistance	21.20	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	7.90	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	11.40	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	1.20	[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: **@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]
305	77	89	74	0.99	1.73	4.10	1.03	1.20

E - PERFORMANCE - CURVES

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)**	164	41	48	51	0.85	0.93	3.17	0.80	0.93
-30	**(-22)**	248	62	73	61	0.91	1.40	4.01	1.01	1.17
-25	**(-13)**	328	83	96	71	0.98	1.86	4.60	1.16	1.35
-20	**(- 4)**	414	104	121	82	1.04	2.36	5.09	1.28	1.49
-15	**(+ 5)**	519	131	152	93	1.10	2.96	5.62	1.42	1.65
-10	**(+14)**	652	164	191	102	1.17	3.73	6.35	1.60	1.86
-5	**(+23)**	824	208	241	111	1.24	4.74	7.42	1.87	2.17

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)**	99	25	29	50	0.83	0.56	2.02	0.51	0.59
-30	**(-22)**	187	47	55	59	0.89	1.06	3.11	0.78	0.91
-25	**(-13)**	272	69	80	70	0.96	1.55	3.88	0.98	1.14
-20	**(- 4)**	366	92	107	82	1.04	2.08	4.47	1.13	1.31
-15	**(+ 5)**	479	121	140	95	1.13	2.74	5.03	1.27	1.47
-10	**(+14)**	622	157	182	108	1.22	3.57	5.71	1.44	1.67
-5	**(+23)**	806	203	236	121	1.32	4.64	6.67	1.68	1.95

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)**	56	14	16	48	0.80	0.32	1.17	0.30	0.34
-30	**(-22)**	140	35	41	56	0.86	0.80	2.46	0.62	0.72
-25	**(-13)**	224	57	66	67	0.94	1.27	3.35	0.85	0.98
-20	**(- 4)**	318	80	93	80	1.03	1.81	4.00	1.01	1.17
-15	**(+ 5)**	433	109	127	95	1.14	2.47	4.54	1.14	1.33
-10	**(+14)**	580	146	170	112	1.26	3.32	5.13	1.29	1.50
-5	**(+23)**	769	194	225	130	1.40	4.42	5.91	1.49	1.73

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal EG/F/AMEM version 2		
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 parallel B.Plate 15°		
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	Straight		
3.3 PROCESS	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.3.1 Material	Copper		
3.3.2 Shape	Straight		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		