COMPRESSOR DEFINITION

Designation	**EM Y130HLX**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**513305625**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	220-240 / 50	[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	CSIR		
6 Starting torque	LST/HST - Low/Hight starting sorque		
7 Expantion device	Capillary tube or Expansion valve		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
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	1/3+	[hp]
2 Displacement	11.14	[cm³] (0.680 cu.in)
2.1 Bore [mm]	26.000	
2.2 Stroke [mm]	21.000	
3 Lubricant charge	200	[ml] (6.76 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	7.46	[kg] (16.45 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (2.84 to 4.27 psig)

C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	213515083	
3 Start capacitor	88-108(310)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM762KFBYY-53	
6 Start winding resistance	9.84	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	6.42	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	16.13	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			**ASHRAELBP32**			Evaporating temperature		**-23.3°C (-9.94°F)**
@220V50Hz			**Fan**			(Condensing temperature		**54.4°C (129.92°F))**
Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
1059	267	310	219	1.69	6.02	4.83	1.22	1.42

E - PERFORMANCE - CURVES

TEST CONDITIONS:		**ASHRAE32**					(Condensing temperature **35ºC (+95ºF))**			
@220V50Hz		**Fan**								
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	**(°F)**	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	640	161	188	142	1.48	3.62	4.49	1.13	1.32
-30	**(-22)**	849	214	249	167	1.55	4.81	5.11	1.29	1.50
-25	**(-13)**	1119	282	328	192	1.61	6.35	5.85	1.47	1.71
-20	**(- 4)**	1453	366	426	218	1.68	8.27	6.68	1.68	1.96
-15	**(+ 5)**	1855	467	544	245	1.76	10.59	7.56	1.91	2.22
-10	**(+14)**	2329	587	682	275	1.85	13.34	8.47	2.13	2.48
-5	**(+23)**	2878	725	843	307	1.96	16.56	9.36	2.36	2.74

TEST CONDITIONS:		**ASHRAE32**					(Condensing temperature **45ºC (+113ºF))**			
@220V50Hz		**Fan**								
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	**(°F)**	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	570	144	167	148	1.51	3.22	3.86	0.97	1.13
-30	**(-22)**	776	196	227	174	1.57	4.40	4.46	1.12	1.31
-25	**(-13)**	1042	263	305	202	1.64	5.92	5.16	1.30	1.51
-20	**(- 4)**	1371	346	402	231	1.72	7.80	5.93	1.50	1.74
-15	**(+ 5)**	1768	445	518	262	1.81	10.09	6.74	1.70	1.98
-10	**(+14)**	2235	563	655	296	1.92	12.81	7.55	1.90	2.21
-5	**(+23)**	2777	700	814	334	2.05	15.98	8.33	2.10	2.44

TEST CONDITIONS:		**ASHRAE32**					(Condensing temperature **55ºC (+131ºF))**			
@220V50Hz		**Fan**								
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	**(°F)**	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	501	126	147	149	1.52	2.83	3.37	0.85	0.99
-30	**(-22)**	700	176	205	177	1.59	3.97	3.95	0.99	1.16
-25	**(-13)**	958	242	281	208	1.66	5.44	4.61	1.16	1.35
-20	**(- 4)**	1280	322	375	240	1.74	7.28	5.32	1.34	1.56
-15	**(+ 5)**	1667	420	488	275	1.85	9.52	6.05	1.52	1.77
-10	**(+14)**	2124	535	623	314	1.98	12.17	6.77	1.71	1.98
-5	**(+23)**	2656	669	778	357	2.14	15.28	7.44	1.87	2.18

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65ºC (+149ºF))**
@220V50Hz **Fan**

Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	**(°F)**	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	**(-31)**	433	109	127	145	1.52	2.45	2.97	0.75	0.87
-30	**(-22)**	622	157	182	176	1.58	3.52	3.52	0.89	1.03
-25	**(-13)**	869	219	255	210	1.66	4.93	4.14	1.04	1.21
-20	**(- 4)**	1178	297	345	246	1.76	6.70	4.79	1.21	1.40
-15	**(+ 5)**	1552	391	455	286	1.88	8.86	5.45	1.37	1.60
-10	**(+14)**	1996	503	585	330	2.03	11.43	6.07	1.53	1.78
-5	**(+23)**	2513	633	736	379	2.22	14.45	6.62	1.67	1.94

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal AMEM		
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 0° up + 24° to Back		
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	Slanted 45° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		