

### COMPRESSOR DEFINITION

Designation	EM U5125Y
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513306234

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	220-240 / 50	[ V / Hz ]	
4 Application type	High Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-15°C to 10°C	(5°F to 50°F)	
5 Motor type	RSCR		
6 Starting torque	LST - Low Starting Torque		
7 Expansion device	Capillary tube		
8 Compressor cooling	Operating voltage range		
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	-	-	-
8.2 LBP (43°C Ambient temperature)	-	-	-
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	7.7	[kgf/cm <sup>2</sup> ] (109 psig)	/ °C - °F
9.2 Peak (gauge)	9.8	[kgf/cm <sup>2</sup> ] (139 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/10	[hp]
2 Displacement	4.50	[cm <sup>3</sup> ] (0.275 cu.in)
2.1 Bore [mm]	21.000	
2.2 Stroke [mm]	13.000	
3 Lubricant charge	180	[ml] (6.09 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	7.2	[kg] (15.87 lb.)
5 Nitrogen charge	-	[kgf/cm <sup>2</sup> ]

### C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	V230	
3 Start capacitor	-	[μF(VAC minimum)]
4 Run capacitor	3(440)	[μF(VAC minimum)]
5 Motor protection	AE37FN	
6 Start winding resistance	32.65	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	40.25	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	3.70	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.46	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	0.52	[A] - Measured according to UL 984
11 Approval boards certification	VDE	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			EN12900MBP_HH Static		Evaporating temperature (Condensing temperature		-10°C (14°F) 45°C (113°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]
478	120	140	69	0.36	1.68	6.91	1.74	2.02

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			EN12900HH Static		(Condensing temperature 35°C (+95°F))					
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]
-15	(+5)	432	109	127	59	0.33	1.39	7.32	1.85	2.15
-10	(+14)	541	136	158	63	0.34	1.75	8.58	2.16	2.51
-5	(+23)	669	169	196	66	0.35	2.17	10.07	2.54	2.95
0	(+32)	817	206	239	69	0.36	2.66	11.84	2.98	3.47
+5	(+41)	985	248	289	71	0.37	3.21	13.89	3.50	4.07
+10	(+50)	1173	296	344	72	0.38	3.84	16.27	4.10	4.77

TEST CONDITIONS: @220V50Hz			EN12900HH Static		(Condensing temperature 45°C (+113°F))					
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]
-15	(+5)	377	95	111	64	0.34	1.32	5.93	1.49	1.74
-10	(+14)	477	120	140	69	0.36	1.67	6.90	1.74	2.02
-5	(+23)	594	150	174	74	0.38	2.09	8.02	2.02	2.35
0	(+32)	730	184	214	78	0.40	2.58	9.33	2.35	2.73
+5	(+41)	884	223	259	81	0.42	3.13	10.85	2.73	3.18
+10	(+50)	1057	266	310	84	0.43	3.76	12.61	3.18	3.69

TEST CONDITIONS: @220V50Hz			EN12900HH Static		(Condensing temperature 55°C (+131°F))					
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]
-15	(+5)	321	81	94	67	0.35	1.23	4.79	1.21	1.40
-10	(+14)	410	103	120	74	0.38	1.58	5.57	1.40	1.63
-5	(+23)	515	130	151	80	0.41	1.99	6.43	1.62	1.88
0	(+32)	638	161	187	86	0.43	2.47	7.38	1.86	2.16
+5	(+41)	777	196	228	92	0.46	3.02	8.46	2.13	2.48
+10	(+50)	933	235	273	96	0.47	3.64	9.70	2.44	2.84

### F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EUEM		
2 Tray holder	Yes		
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 42° 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 parallel BP+24°to Back		
3.3 PROCESS	6 +0.08/-0.08	[mm]	(0.236" +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		