

### COMPRESSOR DEFINITION

Designation	EM U5132Y
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	877AA90

### 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	RSIR-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 temperature			
9.1 Operating	6.9	[kgf/cm <sup>2</sup> ] (98 psig)	/ °C - °F
9.2 Peak	7.8	[kgf/cm <sup>2</sup> ] (111 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/7	[hp]
2 Displacement	6.76	[cm <sup>3</sup> ] (0.413 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	17.000	
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)	7.4	[kg] (16.31 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	4(440)	[μF(VAC minimum)]
5 Motor protection	MRA58160-3166	
6 Start winding resistance	21.70	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	24.30	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
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]
720	181	211	104	0.59	2.53	6.92	1.74	2.03

### 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)	653	165	191	89	0.50	2.11	7.37	1.86	2.16
-10	(+14)	813	205	238	95	0.52	2.63	8.57	2.16	2.51
-5	(+23)	1002	253	294	101	0.55	3.25	9.94	2.50	2.91
0	(+32)	1220	307	357	106	0.57	3.96	11.48	2.89	3.36
+5	(+41)	1466	369	430	111	0.60	4.78	13.20	3.33	3.87
+10	(+50)	1741	439	510	115	0.62	5.70	15.10	3.81	4.43

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)	574	145	168	95	0.52	2.01	6.04	1.52	1.77
-10	(+14)	719	181	211	103	0.55	2.52	6.98	1.76	2.04
-5	(+23)	891	224	261	111	0.58	3.13	8.03	2.02	2.35
0	(+32)	1090	275	319	118	0.61	3.84	9.21	2.32	2.70
+5	(+41)	1315	331	385	125	0.65	4.66	10.51	2.65	3.08
+10	(+50)	1567	395	459	131	0.68	5.58	11.95	3.01	3.50

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)	501	126	147	100	0.54	1.92	4.98	1.25	1.46
-10	(+14)	629	159	184	110	0.58	2.42	5.71	1.44	1.67
-5	(+23)	783	197	229	120	0.62	3.02	6.51	1.64	1.91
0	(+32)	961	242	282	130	0.66	3.72	7.38	1.86	2.16
+5	(+41)	1164	293	341	140	0.70	4.52	8.34	2.10	2.44
+10	(+50)	1392	351	408	148	0.75	5.43	9.38	2.36	2.75

### F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
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°		
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 +0.08/-0.08	[mm]	(0.236" +0.003"/-0.003")
3.3.1 Material	Copper(OD)		
3.3.2 Shape	Slanted 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		