

### COMPRESSOR DEFINITION

Designation	<b>EM Y40CLC</b>
Nominal Voltage/Frequency	<b>220-240 V 50 Hz</b>
Engineering Number	<b>897DA90</b>

### 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	Low Back Pressure		
4.1 Evaporating temperature range	-35°C to -10°C	(-31°F to 14°F)	
5 Motor type	RSIR		
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)	Static	198 to 254 V	-
8.2 LBP (43°C Ambient temperature)	Static	198 to 254 V	-
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		[hp]
2 Displacement	7.23	[cm <sup>3</sup> ] (0.441 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	16.000	
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)	7.65	[kg] (16.87 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	MI2021	
3 Start capacitor	-	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	AE37FN10	
6 Start winding resistance	25.40	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	24.60	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	3.90	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.49	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	VDE	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			<b>CECOMAFLBP</b> Static		Evaporating temperature (Condensing temperature	<b>-25°C (-13°F)</b> <b>55°C (131°F)</b>		
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]
310	78	91	75	0.50	1.18	4.12	1.04	1.21

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			<b>CECOMAF</b> Static		(Condensing temperature <b>45°C (+113°F)</b> )				
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]
<b>-35 (-31)</b>	196	49	57	52	0.44	0.68	3.77	0.95	1.10
<b>-30 (-22)</b>	272	68	80	62	0.46	0.95	4.38	1.10	1.28
<b>-25 (-13)</b>	361	91	106	72	0.48	1.26	5.01	1.26	1.47
<b>-20 (- 4)</b>	466	118	137	82	0.51	1.63	5.68	1.43	1.66
<b>-15 (+ 5)</b>	591	149	173	92	0.54	2.06	6.41	1.62	1.88
<b>-10 (+14)</b>	738	186	216	102	0.57	2.58	7.22	1.82	2.12

TEST CONDITIONS: @220V50Hz			<b>CECOMAF</b> Static		(Condensing temperature <b>55°C (+131°F)</b> )				
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]
<b>-35 (-31)</b>	159	40	47	52	0.44	0.60	3.05	0.77	0.89
<b>-30 (-22)</b>	229	58	67	64	0.47	0.87	3.58	0.90	1.05
<b>-25 (-13)</b>	310	78	91	75	0.50	1.18	4.11	1.04	1.21
<b>-20 (- 4)</b>	405	102	119	87	0.53	1.55	4.66	1.17	1.37
<b>-15 (+ 5)</b>	518	131	152	99	0.57	1.98	5.24	1.32	1.54
<b>-10 (+14)</b>	651	164	191	111	0.61	2.50	5.87	1.48	1.72

TEST CONDITIONS: @220V50Hz			<b>CECOMAF</b> Static		(Condensing temperature <b>65°C (+149°F)</b> )				
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]
<b>-35 (-31)</b>	130	33	38	52	0.44	0.55	2.48	0.63	0.73
<b>-30 (-22)</b>	191	48	56	65	0.47	0.81	2.94	0.74	0.86
<b>-25 (-13)</b>	262	66	77	78	0.51	1.11	3.37	0.85	0.99
<b>-20 (- 4)</b>	345	87	101	91	0.55	1.46	3.80	0.96	1.11
<b>-15 (+ 5)</b>	444	112	130	105	0.59	1.89	4.22	1.06	1.24
<b>-10 (+14)</b>	560	141	164	120	0.64	2.39	4.68	1.18	1.37

### 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		