

COMPRESSOR DEFINITION

Designation	EM Z55CLC
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513309022

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	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)	Static	187 to 255 V	-
8.2 LBP (43°C Ambient temperature)	Static	187 to 255 V	-
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 ²] (109 psig)	/ °C - °F
9.2 Peak (gauge)	9.8	[kgf/cm ²] (139 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	9.34	[cm ³] (0.570 cu.in)
2.1 Bore [mm]	26.000	
2.2 Stroke [mm]	17.600	
3 Lubricant charge	180	[ml] (6.09 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	MINERAL / ISO7	
4 Weight (with oil charge)	7.94	[kg] (17.50 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

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	5(300)	[µF(VAC minimum)]
5 Motor protection	T0225/07	
6 Start winding resistance	16.40	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	20.30	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	4.60	[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: @220V50Hz			CECOMAFLBP Static		Evaporating temperature (Condensing temperature		-25°C (-13°F) 55°C (131°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]
422	106	124	93	0.44	1.61	4.54	1.14	1.33

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			CECOMAF 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]
-35 (-31)	291	73	85	67	0.33	1.01	4.33	1.09	1.27
-30 (-22)	386	97	113	78	0.38	1.34	4.94	1.24	1.45
-25 (-13)	506	128	148	88	0.42	1.76	5.73	1.44	1.68
-20 (- 4)	644	162	189	98	0.46	2.25	6.59	1.66	1.93
-15 (+ 5)	790	199	232	107	0.50	2.76	7.38	1.86	2.16
-10 (+14)	935	236	274	118	0.55	3.27	7.98	2.01	2.34

TEST CONDITIONS: @220V50Hz			CECOMAF 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]
-35 (-31)	234	59	69	69	0.34	0.89	3.40	0.86	1.00
-30 (-22)	312	79	91	81	0.39	1.19	3.85	0.97	1.13
-25 (-13)	423	107	124	93	0.44	1.61	4.54	1.14	1.33
-20 (- 4)	559	141	164	104	0.49	2.13	5.34	1.35	1.56
-15 (+ 5)	710	179	208	116	0.54	2.71	6.13	1.54	1.80
-10 (+14)	868	219	254	129	0.59	3.32	6.78	1.71	1.99

TEST CONDITIONS: @220V50Hz			CECOMAF Static		(Condensing temperature 65°C (+149°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]
-35 (-31)	209	53	61	71	0.33	0.88	2.92	0.73	0.85
-30 (-22)	255	64	75	84	0.39	1.09	3.10	0.78	0.91
-25 (-13)	342	86	100	96	0.45	1.46	3.59	0.90	1.05
-20 (- 4)	461	116	135	109	0.51	1.96	4.24	1.07	1.24
-15 (+ 5)	603	152	177	123	0.57	2.56	4.93	1.24	1.44
-10 (+14)	758	191	222	138	0.64	3.22	5.53	1.39	1.62

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EUEM		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	8.1 +0.10/+0.00	[mm]	(0.319" +0.004"/+0.000")
3.1.1 Material	Copper(OD)		
3.1.2 Shape	Slanted 42° up + 45° to Back		
3.2 DISCHARGE	5.1 +0.10/+0.00	[mm]	(0.201" +0.004"/+0.000")
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		