

COMPRESSOR DEFINITION

Designation	EM I32CLP
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513305028

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

B - MECHANICAL DATA

1 Commercial designation	1/7	[hp]
2 Displacement	5.96	[cm ³] (0.364 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	15.000	
3 Lubricant charge	160	[ml] (5.41 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	8.04	[kg] (17.72 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	8EA17C1/QPS2-A22MG1	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	BT53-105	
6 Start winding resistance	21.00	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	39.45	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	3.35	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.74	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	0.81	[A] - Measured according to UL 984
11 Approval boards certification		

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			ASHRAE LBP-NOFAN Static		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°F) 54.4°C (129.92°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]
326	82	96	81	0.60	1.02	4.05	1.02	1.19

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32-NOFAN 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]
-35 (-31)	184	46	54	57	0.53	0.58	3.22	0.81	0.94
-30 (-22)	253	64	74	64	0.56	0.79	3.96	1.00	1.16
-25 (-13)	339	85	99	71	0.58	1.06	4.81	1.21	1.41
-20 (- 4)	441	111	129	77	0.61	1.39	5.74	1.45	1.68
-15 (+ 5)	560	141	164	83	0.63	1.76	6.76	1.70	1.98
-10 (+14)	695	175	204	89	0.65	2.19	7.85	1.98	2.30

TEST CONDITIONS: @220V50Hz		ASHRAE32-NOFAN 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)	166	42	49	59	0.53	0.52	2.82	0.71	0.83
-30 (-22)	234	59	69	67	0.56	0.73	3.50	0.88	1.03
-25 (-13)	318	80	93	74	0.59	1.00	4.26	1.07	1.25
-20 (- 4)	418	105	123	82	0.61	1.31	5.08	1.28	1.49
-15 (+ 5)	535	135	157	90	0.64	1.68	5.95	1.50	1.74
-10 (+14)	668	168	196	97	0.66	2.11	6.86	1.73	2.01

TEST CONDITIONS: @220V50Hz		ASHRAE32-NOFAN 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)	148	37	43	60	0.54	0.46	2.47	0.62	0.72
-30 (-22)	213	54	63	69	0.57	0.67	3.11	0.78	0.91
-25 (-13)	295	74	86	78	0.60	0.93	3.79	0.96	1.11
-20 (- 4)	392	99	115	87	0.63	1.23	4.51	1.14	1.32
-15 (+ 5)	506	127	148	96	0.65	1.59	5.25	1.32	1.54
-10 (+14)	636	160	186	106	0.68	2.01	6.00	1.51	1.76

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32-NOFAN 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)	130	33	38	60	0.55	0.41	2.15	0.54	0.63
-30	(-22)	191	48	56	70	0.58	0.60	2.75	0.69	0.81
-25	(-13)	269	68	79	80	0.61	0.84	3.37	0.85	0.99
-20	(- 4)	363	91	106	91	0.64	1.14	4.00	1.01	1.17
-15	(+ 5)	472	119	138	103	0.66	1.49	4.61	1.16	1.35
-10	(+14)	598	151	175	115	0.68	1.89	5.21	1.31	1.53

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EG/F/AMEM Version 2		
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	Straight		
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	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.3.1 Material	Copper		
3.3.2 Shape	Straight		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		