

COMPRESSOR DEFINITION

Designation	EM R32CLP
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513300389

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	176 to 255 V	-
8.2 LBP (43°C Ambient temperature)	Static	176 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	1/8	[hp]
2 Displacement	6.20	[cm ³] (0.378 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	15.600	
3 Lubricant charge	150	[ml] (5.07 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	6.9	[kg] (15.21 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm ²] (2.84 to 4.27 psig)

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	8EA17B3/8EA17C3/QP2-20A/QPS2-A22MD3	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	2.5(300)	[µF(VAC minimum)]
5 Motor protection	BT32-120A61	
6 Start winding resistance	21.10	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	33.00	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	4.07	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.79	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	0.92	[A] - Measured according to UL 984
11 Approval boards certification	CCC	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			ASHRAELBP32 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]
338	85	99	59	0.32	1.06	5.74	1.45	1.68

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32 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)	206	52	60	42	0.23	0.65	5.00	1.26	1.46
-30	(-22)	280	70	82	48	0.26	0.88	5.90	1.49	1.73
-25	(-13)	361	91	106	53	0.28	1.13	6.72	1.69	1.97
-20	(- 4)	460	116	135	58	0.30	1.44	7.62	1.92	2.23
-15	(+ 5)	587	148	172	63	0.32	1.85	8.75	2.21	2.56
-10	(+14)	752	189	220	71	0.36	2.37	10.26	2.59	3.01

TEST CONDITIONS: @220V50Hz		ASHRAE32 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)	195	49	57	44	0.25	0.61	4.58	1.16	1.34
-30	(-22)	277	70	81	53	0.29	0.87	5.65	1.42	1.66
-25	(-13)	363	91	106	60	0.32	1.14	6.48	1.63	1.90
-20	(- 4)	461	116	135	65	0.34	1.45	7.22	1.82	2.12
-15	(+ 5)	583	147	171	70	0.35	1.83	8.02	2.02	2.35
-10	(+14)	737	186	216	77	0.38	2.33	9.04	2.28	2.65

TEST CONDITIONS: @220V50Hz		ASHRAE32 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)	130	33	38	35	0.20	0.41	3.21	0.81	0.94
-30	(-22)	226	57	66	50	0.28	0.71	4.69	1.18	1.37
-25	(-13)	320	81	94	62	0.33	1.00	5.76	1.45	1.69
-20	(- 4)	421	106	123	71	0.37	1.32	6.58	1.66	1.93
-15	(+ 5)	541	136	158	79	0.40	1.70	7.30	1.84	2.14
-10	(+14)	688	173	202	86	0.43	2.17	8.07	2.03	2.37

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32 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)	27	7	8	6	0.03	0.09	0.49	0.12	0.14
-30	(-22)	140	35	41	30	0.16	0.44	2.63	0.66	0.77
-25	(-13)	246	62	72	49	0.26	0.77	4.19	1.06	1.23
-20	(- 4)	355	89	104	65	0.33	1.11	5.34	1.34	1.56
-15	(+ 5)	476	120	139	79	0.39	1.50	6.22	1.57	1.82
-10	(+14)	620	156	182	91	0.44	1.96	6.99	1.76	2.05

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	6.2 +0.05/+0.05	[mm]	(0.244" +0.002"/+0.002")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 25° up + 45° to Back		
3.2 DISCHARGE	4.9 +0.10/-0.05	[mm]	(0.193" +0.004"/-0.002")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted 0° up + 24° to Back		
3.3 PROCESS	6.2 +0.05/+0.05	[mm]	(0.244" +0.002"/+0.002")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 40° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		