

COMPRESSOR DEFINITION

Designation	EM U32CLP
Nominal Voltage/Frequency	200-230 V 50 Hz
Engineering Number	513300188

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	200-230 / 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	160 to 260 V	-
8.2 LBP (43°C Ambient temperature)	Static	160 to 260 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	5.96	[cm ³] (0.364 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	15.000	
3 Lubricant charge	150	[ml] (5.07 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO22	
4 Weight (with oil charge)	7.31	[kg] (16.12 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	200-230V 50Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	7M220MC1	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM134NFBYY-53	
6 Start winding resistance		[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance		[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] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	CCC - VDE	

D - PERFORMANCE - CHECK POINT DATA

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)	61	15	18	51	0.50	0.19	1.19	0.30	0.35	
-30 (-22)	82	21	24	57	0.51	0.26	1.45	0.36	0.42	
-25 (-13)	107	27	31	63	0.52	0.34	1.71	0.43	0.50	
-20 (- 4)	137	35	40	69	0.54	0.43	2.00	0.50	0.59	
-15 (+ 5)	173	44	51	75	0.56	0.54	2.31	0.58	0.68	
-10 (+14)	215	54	63	81	0.58	0.68	2.66	0.67	0.78	

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)	56	14	16	52	0.50	0.18	1.08	0.27	0.32	
-30 (-22)	76	19	22	59	0.51	0.24	1.30	0.33	0.38	
-25 (-13)	101	25	30	66	0.53	0.32	1.53	0.39	0.45	
-20 (- 4)	131	33	38	74	0.55	0.41	1.78	0.45	0.52	
-15 (+ 5)	167	42	49	81	0.57	0.52	2.04	0.51	0.60	
-10 (+14)	208	53	61	89	0.60	0.66	2.34	0.59	0.69	

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)	50	13	15	50	0.49	0.16	1.01	0.25	0.30	
-30 (-22)	70	18	20	58	0.51	0.22	1.20	0.30	0.35	
-25 (-13)	93	24	27	67	0.53	0.29	1.40	0.35	0.41	
-20 (- 4)	123	31	36	76	0.56	0.39	1.61	0.41	0.47	
-15 (+ 5)	158	40	46	86	0.59	0.50	1.84	0.46	0.54	
-10 (+14)	199	50	58	95	0.62	0.63	2.09	0.53	0.61	

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)	44	11	13	48	0.49	0.14	0.91	0.23	0.27	
-30 (-22)	62	16	18	57	0.51	0.19	1.08	0.27	0.32	
-25 (-13)	84	21	25	67	0.53	0.27	1.26	0.32	0.37	
-20 (- 4)	113	28	33	78	0.56	0.35	1.44	0.36	0.42	
-15 (+ 5)	147	37	43	90	0.60	0.46	1.63	0.41	0.48	
-10 (+14)	188	47	55	102	0.64	0.59	1.84	0.46	0.54	

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal EUEM		
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	Slanted 40° up + 0° 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 42°		
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	Slanted 40° up + 0° to Back		
3.4 Oil cooler (Copper)	6.5 +0.09/-0.09	[mm]	(0.256" +0.004"/-0.004")
3.5 Connector sealing	Rubber Plugs		