

COMPRESSOR DEFINITION

Designation	EM Y3118Y
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	711CA72

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-Medium Back Pressure (Light Commercial)		
4.1 Evaporating temperature range	-35°C to 0°C	(-31°F to 32°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)	-	-	-
8.2 LBP (43°C Ambient temperature)	-	-	-
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)	
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/5	[hp]
2 Displacement	12,21	[cm ³] (0.745 cu.in)
2.1 Bore [mm]	26,000	
2.2 Stroke [mm]	23,000	
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)	7,7	[kg] (16.98 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	MI2021/V230	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	AE19BU	
6 Start winding resistance	15.23	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	15.03	[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	VDE	

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]	
716	180	210	143	1,07	2,25	5,02	1,27	1,47	

E - PERFORMANCE - CURVES

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)	390	98	114	100	0,95	1,22	3,88	0,98	1,14
-30	(-22)	515	130	151	116	0,98	1,62	4,47	1,13	1,31
-25	(-13)	683	172	200	133	1,02	2,14	5,16	1,30	1,51
-20	(- 4)	889	224	261	150	1,07	2,79	5,92	1,49	1,73
-15	(+ 5)	1133	285	332	168	1,12	3,57	6,72	1,69	1,97
-10	(+14)	1410	355	413	187	1,18	4,45	7,54	1,90	2,21
-5	(+23)	1720	433	504	206	1,24	5,44	8,36	2,11	2,45
0	(+32)	2059	519	603	225	1,31	6,53	9,14	2,30	2,68

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)	359	90	105	101	0,95	1,12	3,58	0,90	1,05
-30	(-22)	480	121	141	118	0,98	1,51	4,11	1,03	1,20
-25	(-13)	643	162	188	137	1,03	2,02	4,71	1,19	1,38
-20	(- 4)	845	213	248	157	1,08	2,66	5,37	1,35	1,57
-15	(+ 5)	1083	273	317	178	1,15	3,41	6,05	1,53	1,77
-10	(+14)	1355	342	397	201	1,22	4,28	6,74	1,70	1,97
-5	(+23)	1659	418	486	225	1,31	5,25	7,39	1,86	2,17
0	(+32)	1992	502	584	249	1,39	6,32	8,00	2,02	2,34

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)	332	84	97	101	0,94	1,04	3,26	0,82	0,96
-30	(-22)	446	112	131	120	0,98	1,40	3,75	0,95	1,10
-25	(-13)	600	151	176	140	1,03	1,88	4,31	1,08	1,26
-20	(- 4)	794	200	233	162	1,09	2,50	4,89	1,23	1,43
-15	(+ 5)	1023	258	300	187	1,17	3,22	5,48	1,38	1,61
-10	(+14)	1287	324	377	213	1,27	4,06	6,05	1,52	1,77
-5	(+23)	1582	399	463	241	1,37	5,00	6,58	1,66	1,93
0	(+32)	1906	480	558	271	1,48	6,05	7,04	1,77	2,06

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard
2 Tray holder	No
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° up + 45° to Back
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	Slanted 0° up + 45° to Back
3.3 PROCESS	6,1 +0.10/+0.00 [mm] (0.240" +0.004"/+0.000")
3.3.1 Material	Copper
3.3.2 Shape	Slanted 45° up + 45° to Back
3.4 Oil cooler (Copper)	No [mm]
3.5 Connector sealing	Rubber Plugs