

COMPRESSOR DEFINITION

Designation	NB M1112Y
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	817AA47

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	198 to 254 V	-
8.2 LBP (43°C Ambient temperature)	Static	198 to 254 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	8.77	[cm ³] (0.535 cu.in)
2.1 Bore [mm]	26.497	
2.2 Stroke [mm]	15.920	
3 Lubricant charge	350	[ml] (11.84 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	MINERAL / ISO15	
4 Weight (with oil charge)	10.06	[kg] (22.18 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	-	[µF(VAC minimum)]
5 Motor protection	T0536/07	
6 Start winding resistance	62.90	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	14.10	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	5.20	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.72	[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]
351	88	103	100	0.72	1.34	3.51	0.88	1.03

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	280	71	82	68	0.62	0.90	4.11	1.04	1.21
-30 (-22)	371	93	109	81	0.66	1.19	4.59	1.16	1.34
-25 (-13)	484	122	142	94	0.70	1.55	5.21	1.31	1.53
-20 (- 4)	621	157	182	105	0.73	2.00	5.97	1.51	1.75
-15 (+ 5)	785	198	230	115	0.76	2.52	6.86	1.73	2.01
-10 (+14)	976	246	286	124	0.79	3.15	7.85	1.98	2.30

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)	234	59	68	72	0.64	0.81	3.25	0.82	0.95
-30 (-22)	318	80	93	85	0.68	1.10	3.74	0.94	1.09
-25 (-13)	422	106	124	97	0.71	1.47	4.32	1.09	1.26
-20 (- 4)	548	138	161	109	0.75	1.91	4.98	1.25	1.46
-15 (+ 5)	697	176	204	122	0.79	2.43	5.70	1.44	1.67
-10 (+14)	871	219	255	134	0.83	3.05	6.48	1.63	1.90

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)	181	46	53	75	0.64	0.69	2.46	0.62	0.72
-30 (-22)	258	65	76	87	0.68	0.98	2.97	0.75	0.87
-25 (-13)	353	89	103	100	0.71	1.35	3.52	0.89	1.03
-20 (- 4)	467	118	137	113	0.76	1.78	4.10	1.03	1.20
-15 (+ 5)	601	151	176	128	0.81	2.30	4.68	1.18	1.37
-10 (+14)	757	191	222	144	0.86	2.90	5.26	1.33	1.54

E - PERFORMANCE - CURVES

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)	133	33	39	77	0.64	0.56	1.71	0.43	0.50
-30	(-22)	202	51	59	89	0.68	0.85	2.26	0.57	0.66
-25	(-13)	286	72	84	103	0.72	1.21	2.79	0.70	0.82
-20	(- 4)	387	97	113	118	0.78	1.64	3.29	0.83	0.97
-15	(+ 5)	505	127	148	136	0.84	2.15	3.75	0.94	1.10
-10	(+14)	642	162	188	156	0.91	2.74	4.14	1.04	1.21

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°		
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 parallel to Base Plate		
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 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		