

COMPRESSOR DEFINITION

Designation	NB M1114Y
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	817BA47

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	9.99	[cm ³] (0.610 cu.in)
2.1 Bore [mm]	26.497	
2.2 Stroke [mm]	18.120	
3 Lubricant charge	350	[ml] (11.84 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	11	[kg] (24.25 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	2019	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	AD58FJ10	
6 Start winding resistance	58.00	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	12.40	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	5.90	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.82	[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			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]
541	136	159	120	0.84	1.70	4.51	1.14	1.32

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)	308	77	90	81	0.71	0.96	3.82	0.96	1.12	
-30 (-22)	419	106	123	93	0.75	1.31	4.52	1.14	1.32	
-25 (-13)	558	141	164	105	0.79	1.75	5.30	1.34	1.55	
-20 (- 4)	727	183	213	118	0.84	2.28	6.16	1.55	1.80	
-15 (+ 5)	924	233	271	130	0.88	2.91	7.09	1.79	2.08	
-10 (+14)	1152	290	337	142	0.93	3.63	8.10	2.04	2.37	

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)	282	71	83	81	0.71	0.88	3.46	0.87	1.01	
-30 (-22)	390	98	114	95	0.75	1.22	4.09	1.03	1.20	
-25 (-13)	526	133	154	110	0.80	1.65	4.78	1.20	1.40	
-20 (- 4)	691	174	203	125	0.85	2.17	5.53	1.39	1.62	
-15 (+ 5)	886	223	259	140	0.91	2.79	6.33	1.60	1.86	
-10 (+14)	1110	280	325	154	0.97	3.50	7.20	1.81	2.11	

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)	248	62	73	81	0.71	0.78	3.07	0.77	0.90	
-30 (-22)	353	89	103	97	0.76	1.11	3.65	0.92	1.07	
-25 (-13)	486	123	142	114	0.81	1.53	4.27	1.08	1.25	
-20 (- 4)	648	163	190	131	0.87	2.04	4.94	1.24	1.45	
-15 (+ 5)	839	211	246	148	0.94	2.64	5.65	1.42	1.66	
-10 (+14)	1059	267	310	166	1.01	3.34	6.40	1.61	1.88	

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)	206	52	60	79	0.70	0.65	2.60	0.66	0.76
-30	(-22)	308	78	90	98	0.75	0.97	3.16	0.80	0.93
-25	(-13)	438	110	128	117	0.81	1.38	3.75	0.94	1.10
-20	(- 4)	596	150	175	137	0.88	1.87	4.36	1.10	1.28
-15	(+ 5)	784	197	230	157	0.96	2.47	5.00	1.26	1.47
-10	(+14)	1001	252	293	176	1.05	3.16	5.67	1.43	1.66

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		