

### COMPRESSOR DEFINITION

Designation	<b>NB M1118Y</b>
Nominal Voltage/Frequency	<b>220-240 V 50 Hz</b>
Engineering Number	<b>818BA47</b>

### 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 <sup>2</sup> ] (109 psig)	/ °C - °F
9.2 Peak (gauge)	9.8	[kgf/cm <sup>2</sup> ] (139 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	14.28	[cm <sup>3</sup> ] (0.871 cu.in)
2.1 Bore [mm]	30.157	
2.2 Stroke [mm]	20.000	
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 <sup>2</sup> ]

### 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	AD55BU10	
6 Start winding resistance	49.80	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	8.40	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	8.10	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	1.10	[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]
597	150	175	157	1.07	2.28	3.80	0.96	1.11

### 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)	469	118	137	110	0.96	1.50	4.27	1.08	1.25
-30	(-22)	622	157	182	126	1.00	2.00	4.94	1.24	1.45
-25	(-13)	798	201	234	142	1.04	2.57	5.63	1.42	1.65
-20	(- 4)	1004	253	294	158	1.09	3.23	6.35	1.60	1.86
-15	(+ 5)	1252	316	367	175	1.15	4.03	7.13	1.80	2.09
-10	(+14)	1551	391	454	194	1.22	5.00	7.97	2.01	2.34

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)	401	101	118	113	0.96	1.39	3.54	0.89	1.04
-30	(-22)	542	136	159	132	1.01	1.89	4.10	1.03	1.20
-25	(-13)	699	176	205	150	1.06	2.44	4.67	1.18	1.37
-20	(- 4)	884	223	259	169	1.12	3.08	5.25	1.32	1.54
-15	(+ 5)	1106	279	324	189	1.20	3.86	5.86	1.48	1.72
-10	(+14)	1374	346	403	211	1.28	4.81	6.52	1.64	1.91

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)	327	83	96	116	0.97	1.24	2.82	0.71	0.83
-30	(-22)	456	115	134	136	1.02	1.74	3.32	0.84	0.97
-25	(-13)	598	151	175	157	1.08	2.28	3.80	0.96	1.11
-20	(- 4)	763	192	224	178	1.15	2.91	4.28	1.08	1.26
-15	(+ 5)	960	242	281	201	1.24	3.68	4.77	1.20	1.40
-10	(+14)	1200	302	351	227	1.34	4.61	5.29	1.33	1.55

### 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)	243	61	71	118	0.98	1.03	2.07	0.52	0.61
-30	(-22)	362	91	106	140	1.03	1.52	2.55	0.64	0.75
-25	(-13)	490	123	143	163	1.10	2.06	2.99	0.75	0.88
-20	(- 4)	636	160	186	187	1.18	2.69	3.41	0.86	1.00
-15	(+ 5)	810	204	237	213	1.28	3.45	3.82	0.96	1.12
-10	(+14)	1022	258	299	242	1.39	4.36	4.23	1.07	1.24

### 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		