

### COMPRESSOR DEFINITION

Designation	<b>NB M1119Y</b>
Nominal Voltage/Frequency	<b>200-240 V 50 Hz / 230 V 60 Hz</b>
Engineering Number	<b>818FN55</b>

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	200-240 / 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	-	207 to 253 V
8.2 LBP (43°C Ambient temperature)	Static	-	207 to 253 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)	10.75	[kg] (23.70 lb.)
5 Nitrogen charge	-	[kgf/cm <sup>2</sup> ]

### C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	200-240 V 50 Hz / 230 V 60 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	AD11FV10	
6 Start winding resistance	34.70	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	8.60	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	VDE	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @230V60Hz			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]
713	180	209	185	1.19	2.72	3.86	0.97	1.13

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V60Hz		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)	553	139	162	133	1.06	1.77	4.15	1.05	1.22
-30	(-22)	730	184	214	153	1.11	2.34	4.81	1.21	1.41
-25	(-13)	960	242	281	173	1.16	3.08	5.56	1.40	1.63
-20	(- 4)	1241	313	364	194	1.23	3.99	6.40	1.61	1.87
-15	(+ 5)	1576	397	462	216	1.30	5.07	7.29	1.84	2.14
-10	(+14)	1964	495	575	239	1.38	6.33	8.22	2.07	2.41

TEST CONDITIONS: @230V60Hz		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)	472	119	138	135	1.06	1.64	3.51	0.88	1.03
-30	(-22)	630	159	185	156	1.12	2.19	4.04	1.02	1.18
-25	(-13)	836	211	245	180	1.18	2.91	4.65	1.17	1.36
-20	(- 4)	1090	275	319	205	1.26	3.80	5.31	1.34	1.56
-15	(+ 5)	1392	351	408	231	1.35	4.86	6.02	1.52	1.76
-10	(+14)	1742	439	511	259	1.44	6.10	6.74	1.70	1.98

TEST CONDITIONS: @230V60Hz		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)	390	98	114	135	1.06	1.48	2.90	0.73	0.85
-30	(-22)	529	133	155	158	1.12	2.01	3.35	0.84	0.98
-25	(-13)	712	179	209	184	1.20	2.71	3.85	0.97	1.13
-20	(- 4)	938	236	275	213	1.29	3.58	4.39	1.11	1.29
-15	(+ 5)	1207	304	354	244	1.39	4.62	4.95	1.25	1.45
-10	(+14)	1520	383	445	277	1.51	5.83	5.50	1.39	1.61

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V60Hz		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)	309	78	90	133	1.05	1.30	2.32	0.59	0.68
-30	(-22)	429	108	126	158	1.11	1.81	2.72	0.69	0.80
-25	(-13)	588	148	172	186	1.20	2.49	3.16	0.80	0.93
-20	(- 4)	785	198	230	218	1.30	3.33	3.61	0.91	1.06
-15	(+ 5)	1021	257	299	253	1.42	4.34	4.05	1.02	1.19
-10	(+14)	1296	327	380	291	1.56	5.52	4.47	1.13	1.31

### 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	5.1 +0.10/+0.00	[mm]	(0.201" +0.004"/+0.000")
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		