

### COMPRESSOR DEFINITION

Designation	<b>NB M1116Y</b>
Nominal Voltage/Frequency	<b>220 V 60 Hz</b>
Engineering Number	<b>818AU47</b>

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	220 / 60	[ 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)	-	-	-
8.2 LBP (43°C Ambient temperature)	Static	-	198 to 242 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	12.11	[cm <sup>3</sup> ] (0.739 cu.in)
2.1 Bore [mm]	27.775	
2.2 Stroke [mm]	20.000	
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)	10.6	[kg] (23.37 lb.)
5 Nitrogen charge	-	[kgf/cm <sup>2</sup> ]

### C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220 V 60 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	MSP321LZ-3166	
6 Start winding resistance	31.00	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	7.40	[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		

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V60Hz			<b>CECOMAFLBP</b> 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]
617	155	181	176	1.64	2.35	3.51	0.88	1.03

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V60Hz		<b>CECOMAF</b> 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)	468	118	137	132	1.55	1.50	3.53	0.89	1.03
-30	(-22)	624	157	183	147	1.58	2.01	4.24	1.07	1.24
-25	(-13)	807	203	236	163	1.62	2.59	4.95	1.25	1.45
-20	(- 4)	1023	258	300	180	1.66	3.29	5.69	1.43	1.67
-15	(+ 5)	1280	323	375	198	1.70	4.12	6.46	1.63	1.89
-10	(+14)	1587	400	465	217	1.75	5.11	7.30	1.84	2.14

TEST CONDITIONS: @220V60Hz		<b>CECOMAF</b> 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)	398	100	117	134	1.55	1.38	2.97	0.75	0.87
-30	(-22)	547	138	160	152	1.59	1.90	3.59	0.90	1.05
-25	(-13)	717	181	210	171	1.63	2.50	4.20	1.06	1.23
-20	(- 4)	915	231	268	190	1.68	3.19	4.81	1.21	1.41
-15	(+ 5)	1150	290	337	211	1.73	4.02	5.45	1.37	1.60
-10	(+14)	1429	360	419	232	1.79	5.00	6.14	1.55	1.80

TEST CONDITIONS: @220V60Hz		<b>CECOMAF</b> 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)	323	81	95	133	1.55	1.23	2.45	0.62	0.72
-30	(-22)	462	116	135	153	1.59	1.76	3.00	0.76	0.88
-25	(-13)	617	156	181	175	1.64	2.35	3.52	0.89	1.03
-20	(- 4)	797	201	233	198	1.69	3.04	4.03	1.02	1.18
-15	(+ 5)	1007	254	295	221	1.76	3.86	4.56	1.15	1.33
-10	(+14)	1257	317	368	246	1.83	4.83	5.11	1.29	1.50

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V60Hz		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)	254	64	74	130	1.55	1.07	1.95	0.49	0.57
-30	(-22)	382	96	112	154	1.60	1.61	2.45	0.62	0.72
-25	(-13)	522	132	153	179	1.65	2.20	2.90	0.73	0.85
-20	(- 4)	680	171	199	205	1.72	2.88	3.33	0.84	0.98
-15	(+ 5)	865	218	253	231	1.79	3.68	3.76	0.95	1.10
-10	(+14)	1084	273	318	259	1.87	4.63	4.20	1.06	1.23

### 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		