

COMPRESSOR DEFINITION

Designation	NB U1114Y
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	813BD47

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	208-230 / 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	RSCR		
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	-	187 to 244 V
8.2 LBP (43°C Ambient temperature)	Static	-	187 to 244 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	MINERAL / ISO7	
4 Weight (with oil charge)	10.2	[kg] (22.49 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	208-230 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	3(450)	[µF(VAC minimum)]
5 Motor protection	T0503/07	
6 Start winding resistance	[Ω at 25°C (77°F)] +/- 8%	
7 Run winding resistance	[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]
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A]
11 Approval boards certification		

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @208V60Hz			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]
668	168	196	122	0.65	2.10	5.48	1.38	1.61

E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V60Hz		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)	408	103	119	88	0.47	1.28	4.64	1.17	1.36
-30	(-22)	541	136	158	99	0.53	1.69	5.48	1.38	1.60
-25	(-13)	695	175	204	110	0.59	2.18	6.31	1.59	1.85
-20	(- 4)	881	222	258	123	0.65	2.77	7.16	1.80	2.10
-15	(+ 5)	1109	280	325	137	0.72	3.49	8.06	2.03	2.36
-10	(+14)	1390	350	407	153	0.79	4.38	9.04	2.28	2.65

TEST CONDITIONS: @208V60Hz		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)	363	92	106	87	0.48	1.14	4.18	1.05	1.22
-30	(-22)	499	126	146	100	0.55	1.56	4.98	1.25	1.46
-25	(-13)	653	165	191	114	0.61	2.05	5.74	1.45	1.68
-20	(- 4)	837	211	245	129	0.68	2.63	6.50	1.64	1.90
-15	(+ 5)	1060	267	311	146	0.76	3.34	7.28	1.83	2.13
-10	(+14)	1333	336	390	164	0.84	4.20	8.11	2.04	2.38

TEST CONDITIONS: @208V60Hz		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)	314	79	92	86	0.47	0.98	3.65	0.92	1.07
-30	(-22)	452	114	132	101	0.55	1.42	4.45	1.12	1.30
-25	(-13)	606	153	178	117	0.63	1.90	5.18	1.31	1.52
-20	(- 4)	787	198	231	134	0.71	2.47	5.89	1.48	1.72
-15	(+ 5)	1005	253	294	153	0.79	3.16	6.58	1.66	1.93
-10	(+14)	1270	320	372	174	0.89	4.01	7.30	1.84	2.14

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		