

COMPRESSOR DEFINITION

Designation	NB U1115Y
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	814AA68

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	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	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	11.02	[cm ³] (0.672 cu.in)
2.1 Bore [mm]	26.497	
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 / ISO7	
4 Weight (with oil charge)	10.75	[kg] (23.70 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	4(450)	[µF(VAC minimum)]
5 Motor protection	AD55BU10	
6 Start winding resistance	14.30	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	15.80	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	5.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.51	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	CCIB - 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]
491	124	144	109	0.50	1.87	4.50	1.13	1.32

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)	383	97	112	78	0.37	1.23	4.93	1.24	1.44
-30	(-22)	502	126	147	88	0.41	1.61	5.71	1.44	1.67
-25	(-13)	645	162	189	99	0.46	2.07	6.55	1.65	1.92
-20	(- 4)	817	206	239	110	0.50	2.62	7.45	1.88	2.18
-15	(+ 5)	1022	258	300	121	0.55	3.29	8.43	2.12	2.47
-10	(+14)	1266	319	371	133	0.60	4.08	9.47	2.39	2.77

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)	326	82	95	78	0.37	1.13	4.16	1.05	1.22
-30	(-22)	438	110	128	91	0.42	1.53	4.80	1.21	1.41
-25	(-13)	571	144	167	104	0.48	1.99	5.48	1.38	1.60
-20	(- 4)	729	184	214	118	0.54	2.54	6.19	1.56	1.81
-15	(+ 5)	915	231	268	132	0.60	3.20	6.94	1.75	2.03
-10	(+14)	1135	286	332	146	0.67	3.97	7.74	1.95	2.27

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)	259	65	76	77	0.36	0.99	3.38	0.85	0.99
-30	(-22)	367	92	108	93	0.43	1.40	3.93	0.99	1.15
-25	(-13)	490	124	144	109	0.50	1.87	4.49	1.13	1.32
-20	(- 4)	633	160	186	125	0.57	2.42	5.06	1.28	1.48
-15	(+ 5)	800	202	235	142	0.64	3.07	5.64	1.42	1.65
-10	(+14)	996	251	292	160	0.72	3.83	6.24	1.57	1.83

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)	195	49	57	74	0.36	0.82	2.65	0.67	0.78
-30	(-22)	297	75	87	93	0.44	1.25	3.15	0.79	0.92
-25	(-13)	411	104	120	112	0.52	1.73	3.64	0.92	1.07
-20	(- 4)	540	136	158	132	0.60	2.29	4.11	1.04	1.20
-15	(+ 5)	688	173	202	151	0.69	2.93	4.56	1.15	1.34
-10	(+14)	861	217	252	172	0.78	3.67	5.01	1.26	1.47

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 B.Plate 30°		
3.3 PROCESS	6 +0.08/-0.08	[mm]	(0.236" +0.003"/-0.003")
3.3.1 Material	Copper(OD)		
3.3.2 Shape	Slanted 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		