

COMPRESSOR DEFINITION

Designation	NB U1116Y
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	814BA42

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	12.11	[cm ³] (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 / ISO7	
4 Weight (with oil charge)	10.81	[kg] (23.83 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)	0.55	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	CCIB - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			CECOMAF 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]
540	136	158	119	0.55	2.06	4.55	1.15	1.33

E - PERFORMANCE - CURVES

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	86	0.46	1.13	3.75	0.95	1.10
-30 (-22)	460	116	135	100	0.49	1.60	4.59	1.16	1.34
-25 (-13)	612	154	179	114	0.53	2.13	5.35	1.35	1.57
-20 (- 4)	788	198	231	130	0.59	2.75	6.08	1.53	1.78
-15 (+ 5)	991	250	290	146	0.65	3.46	6.80	1.71	1.99
-10 (+14)	1226	309	359	163	0.72	4.29	7.55	1.90	2.21

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)	298	75	87	88	0.41	1.14	3.39	0.85	0.99
-30 (-22)	411	103	120	103	0.48	1.56	3.97	1.00	1.16
-25 (-13)	539	136	158	120	0.55	2.05	4.52	1.14	1.32
-20 (- 4)	690	174	202	137	0.62	2.63	5.05	1.27	1.48
-15 (+ 5)	866	218	254	154	0.71	3.32	5.61	1.41	1.64
-10 (+14)	1073	270	314	172	0.80	4.12	6.22	1.57	1.82

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)	250	63	73	81	0.38	1.06	3.08	0.78	0.90
-30 (-22)	345	87	101	102	0.47	1.45	3.38	0.85	0.99
-25 (-13)	454	114	133	124	0.56	1.92	3.67	0.92	1.07
-20 (- 4)	584	147	171	146	0.66	2.47	3.97	1.00	1.16
-15 (+ 5)	738	186	216	169	0.76	3.14	4.32	1.09	1.27
-10 (+14)	920	232	270	193	0.87	3.93	4.75	1.20	1.39

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	Straight		
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		