

COMPRESSOR DEFINITION

Designation	NJ 6220Z
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	144HG11

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	115 / 60	[V / Hz]	
4 Application type	High Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-15°C to 10°C	(5°F to 50°F)	
5 Motor type	CSIR		
6 Starting torque	HST - Hight starting torque		
7 Expansion device	Capillary tube or Expansion valve		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	-	-	-
8.2 LBP (43°C Ambient temperature)	-	-	-
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	16.2	[kgf/cm ²] (230 psig)	/ °C - °F
9.2 Peak (gauge)	20.6	[kgf/cm ²] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1	[hp]
2 Displacement	26.11	[cm ³] (1.593 cu.in)
2.1 Bore [mm]	41.770	
2.2 Stroke [mm]	19.066	
3 Lubricant charge	750	[ml] (25.36 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	19.8	[kg] (43.65 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm ²] (2.84 to 4.27 psig)

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115 V 60 Hz 1~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA7AC3C-115	
3 Start capacitor	340-408(165)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	CRA39009-3031	
6 Start winding resistance	3.06	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	0.46	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	72.00	[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	UL	

D - PERFORMANCE - CHECK POINT DATA

E - PERFORMANCE - CURVES

TEST CONDITIONS: @100V60Hz		ASHRAE46 Fan			(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]
-15	(+ 5)	4584	1155	1343	724	10.35	24.82	6.31	1.59	1.85
-10	(+14)	5676	1430	1663	796	10.65	30.79	7.15	1.80	2.10
-5	(+23)	7195	1813	2108	863	10.97	39.16	8.35	2.10	2.45
0	(+32)	9142	2304	2679	925	11.30	50.00	9.88	2.49	2.90
+5	(+41)	11517	2902	3375	981	11.64	63.36	11.73	2.96	3.44
+10	(+50)	14321	3609	4196	1033	12.01	79.31	13.86	3.49	4.06

TEST CONDITIONS: @100V60Hz		ASHRAE46 Fan			(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]
-15	(+ 5)	3846	969	1127	729	10.30	22.41	5.30	1.33	1.55
-10	(+14)	5055	1274	1481	824	10.76	29.66	6.14	1.55	1.80
-5	(+23)	6558	1653	1922	915	11.25	38.66	7.15	1.80	2.09
0	(+32)	8355	2106	2448	1003	11.76	49.48	8.31	2.09	2.43
+5	(+41)	10446	2632	3061	1088	12.31	62.18	9.59	2.42	2.81
+10	(+50)	12830	3233	3759	1170	12.89	76.83	10.99	2.77	3.22

TEST CONDITIONS: @100V60Hz		ASHRAE46 Fan			(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]
-15	(+ 5)	3087	778	904	734	10.25	19.69	4.21	1.06	1.23
-10	(+14)	4407	1111	1291	852	10.87	28.19	5.15	1.30	1.51
-5	(+23)	5888	1484	1725	969	11.54	37.81	6.08	1.53	1.78
0	(+32)	7528	1897	2206	1084	12.25	48.60	6.97	1.76	2.04
+5	(+41)	9327	2351	2733	1199	13.00	60.62	7.80	1.97	2.29
+10	(+50)	11287	2844	3307	1313	13.80	73.95	8.57	2.16	2.51

F - EXTERNAL CHARACTERISTICS

1 Base plate	American Standard		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	9.6 +0.07/+0.00	[mm]	(0.378" +0.003"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Vertical		
3.2 DISCHARGE	8 +0.07/+0.00	[mm]	(0.315" +0.003"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted J		
3.3 PROCESS	6.42 +0.08/+0.00	[mm]	(0.253" +0.003"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Vertical		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		