COMPRESSOR DEFINITION

Designation	**NJ 6220Z**
Nominal Voltage/Frequency	**208-230 V 60 Hz**
Engineering Number	**144HD11**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	208-230 / 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 Expantion device	Capillary tube or Expansion valve		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	16.2	[kgf/cm²] (230 psig)	/ ºC - ºF
9.2 Peak (gauge)	20.6	[kgf/cm²] (293 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1	[hp]
2 Displacement	26.11	[cm³] (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)	20.2	[kg] (44.53 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (2.84 to 4.27 psig)

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	3ARR2KCP78S	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0820/20	
6 Start winding resistance	8.09	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	1.45	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	42.00	[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

TEST CONDITIONS: **@208V60Hz**			**ASHRAEHBP46** **Fan**		Evaporating temperature (Condensing temperature	**7.2°C (44.96°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]
9090	2291	2664	1192	7.47	58.94	7.63	1.92	2.24

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@208V60Hz** — **ASHRAE46** **Fan** — (Condensing temperature **35ºC (+95ºF))**

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)**	4190	1056	1228	634	5.50	22.64	6.60	1.66	1.93
-10	**(+14)**	5630	1419	1650	725	5.77	30.56	7.76	1.96	2.28
-5	**(+23)**	7260	1830	2127	816	6.06	39.56	8.91	2.25	2.61
0	**(+32)**	9081	2288	2661	906	6.37	49.70	10.04	2.53	2.94
+5	**(+41)**	11093	2795	3251	995	6.69	61.03	11.15	2.81	3.27
+10	**(+50)**	13296	3351	3896	1084	7.03	73.60	12.24	3.09	3.59

TEST CONDITIONS: **@208V60Hz** — **ASHRAE46** **Fan** — (Condensing temperature **45ºC (+113ºF))**

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)**	3273	825	959	629	5.48	19.14	5.21	1.31	1.53
-10	**(+14)**	4557	1148	1335	740	5.82	26.72	6.14	1.55	1.80
-5	**(+23)**	6048	1524	1772	853	6.18	35.59	7.08	1.78	2.07
0	**(+32)**	7748	1953	2270	966	6.58	45.83	8.02	2.02	2.35
+5	**(+41)**	9657	2434	2830	1079	7.00	57.47	8.96	2.26	2.62
+10	**(+50)**	11774	2967	3450	1192	7.46	70.57	9.90	2.49	2.90

TEST CONDITIONS: **@208V60Hz** — **ASHRAE46** **Fan** — (Condensing temperature **55ºC (+131ºF))**

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)**	2545	641	746	608	5.41	16.22	4.19	1.05	1.23
-10	**(+14)**	3599	907	1055	739	5.80	23.02	4.88	1.23	1.43
-5	**(+23)**	4879	1229	1430	871	6.23	31.34	5.60	1.41	1.64
0	**(+32)**	6384	1609	1871	1005	6.71	41.24	6.35	1.60	1.86
+5	**(+41)**	8116	2045	2378	1141	7.24	52.77	7.11	1.79	2.08
+10	**(+50)**	10074	2539	2952	1277	7.81	65.98	7.89	1.99	2.31

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		