

COMPRESSOR DEFINITION

Designation	NJ 6220Z
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	144CA19

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	220-240 / 50	[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 temperature			
9.1 Operating	14.2	[kgf/cm ²] (202 psig)	/ °C - °F
9.2 Peak	15.9	[kgf/cm ²] (226 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)	20.5	[kg] (45.19 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	Current Relay	
2.1 Starting device		
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	15HM1994-248	
6 Start winding resistance	13.62	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	2.11	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			EN12900HBP Fan		Evaporating temperature (Condensing temperature		5°C (41°F) 50°C (122°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]
7069	1781	2071	971	6.17	52.00	7.28	1.83	2.13

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			EN12900 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)	3522	887	1032	605	4.40	21.82	5.81	1.47	1.70
-10	(+14)	4620	1164	1354	667	4.54	28.82	6.93	1.75	2.03
-5	(+23)	5831	1469	1709	721	4.69	36.54	8.10	2.04	2.37
0	(+32)	7215	1818	2114	771	4.83	45.46	9.36	2.36	2.74
+5	(+41)	8834	2226	2588	822	4.98	56.08	10.73	2.70	3.14
+10	(+50)	10746	2708	3149	880	5.12	68.88	12.22	3.08	3.58

TEST CONDITIONS: @220V50Hz			EN12900 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)	2831	714	830	594	4.39	19.26	4.77	1.20	1.40
-10	(+14)	3802	958	1114	676	4.60	25.99	5.61	1.41	1.64
-5	(+23)	4864	1226	1425	751	4.81	33.43	6.48	1.63	1.90
0	(+32)	6078	1532	1781	822	5.03	42.05	7.39	1.86	2.17
+5	(+41)	7503	1891	2199	895	5.26	52.36	8.38	2.11	2.45
+10	(+50)	9201	2319	2696	975	5.51	64.84	9.45	2.38	2.77

TEST CONDITIONS: @220V50Hz			EN12900 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)	2135	538	625	582	4.39	16.16	3.67	0.93	1.08
-10	(+14)	2990	754	876	685	4.65	22.70	4.35	1.10	1.28
-5	(+23)	3916	987	1147	780	4.93	29.92	5.03	1.27	1.47
0	(+32)	4970	1253	1456	872	5.24	38.32	5.71	1.44	1.67
+5	(+41)	6215	1566	1821	967	5.56	48.38	6.43	1.62	1.88
+10	(+50)	7711	1943	2259	1071	5.90	60.59	7.19	1.81	2.11

F - EXTERNAL CHARACTERISTICS

1 Base plate	American Standard
2 Tray holder	No
3 Connectors	
3.1 SUCTION	12.7 +0.25/-0.25 [mm] (0.500" +0.010"/-0.010")
3.1.1 Material	Steel
3.1.2 Shape	ROTOLOCK(Ex. thr. 1"-14UNS-2A)
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