

COMPRESSOR DEFINITION

Designation	J 6220Z
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	164HD01

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 - High 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	890	[ml] (30.10 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	20.25	[kg] (44.64 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	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	T0736/C9	
6 Start winding resistance	8.09	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.45	[Ω at 25°C (77°F)] +/- 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)	7.40	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @200V50Hz			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]
8692	2190	2547	1045	7.26	56.36	8.32	2.10	2.44

E - PERFORMANCE - CURVES

TEST CONDITIONS: @200V50Hz			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)	3918	987	1148	586	5.33	21.22	6.66	1.68	1.95
-10 (+14)	4851	1222	1421	640	5.49	26.32	7.62	1.92	2.23
-5 (+23)	6149	1550	1802	701	5.69	33.47	8.78	2.21	2.57
0 (+32)	7814	1969	2290	770	5.91	42.73	10.13	2.55	2.97
+5 (+41)	9844	2481	2885	845	6.16	54.16	11.62	2.93	3.40
+10 (+50)	12240	3085	3587	928	6.45	67.79	13.22	3.33	3.87

TEST CONDITIONS: @200V50Hz			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)	3287	828	963	563	5.26	19.16	5.83	1.47	1.71
-10 (+14)	4321	1089	1266	653	5.56	25.35	6.62	1.67	1.94
-5 (+23)	5605	1412	1642	743	5.89	33.04	7.55	1.90	2.21
0 (+32)	7141	1799	2092	833	6.23	42.29	8.58	2.16	2.51
+5 (+41)	8928	2250	2616	922	6.60	53.15	9.69	2.44	2.84
+10 (+50)	10965	2763	3213	1011	6.98	65.66	10.84	2.73	3.18

TEST CONDITIONS: @200V50Hz			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)	2638	665	773	539	5.18	16.83	4.92	1.24	1.44
-10 (+14)	3767	949	1104	666	5.64	24.09	5.62	1.42	1.65
-5 (+23)	5032	1268	1475	786	6.10	32.31	6.38	1.61	1.87
0 (+32)	6434	1621	1885	898	6.57	41.53	7.18	1.81	2.10
+5 (+41)	7972	2009	2336	1002	7.05	51.81	7.99	2.01	2.34
+10 (+50)	9646	2431	2827	1098	7.54	63.20	8.76	2.21	2.57

E - PERFORMANCE - CURVES

TEST CONDITIONS: @200V60Hz		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	700	5.43	24.82	6.52	1.64	1.91	
-10 (+14)	5676	1430	1663	761	5.60	30.79	7.50	1.89	2.20	
-5 (+23)	7195	1813	2108	829	5.80	39.16	8.69	2.19	2.55	
0 (+32)	9142	2304	2679	906	6.03	50.00	10.07	2.54	2.95	
+5 (+41)	11517	2902	3375	989	6.29	63.36	11.61	2.93	3.40	
+10 (+50)	14321	3609	4196	1080	6.58	79.31	13.28	3.35	3.89	

TEST CONDITIONS: @200V60Hz		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	680	5.36	22.41	5.65	1.42	1.66	
-10 (+14)	5055	1274	1481	780	5.68	29.66	6.49	1.63	1.90	
-5 (+23)	6558	1653	1922	880	6.01	38.66	7.46	1.88	2.18	
0 (+32)	8355	2106	2448	979	6.36	49.48	8.53	2.15	2.50	
+5 (+41)	10446	2632	3061	1079	6.73	62.18	9.69	2.44	2.84	
+10 (+50)	12830	3233	3759	1178	7.12	76.83	10.89	2.74	3.19	

TEST CONDITIONS: @200V60Hz		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	660	5.29	19.69	4.70	1.18	1.38	
-10 (+14)	4407	1111	1291	800	5.75	28.19	5.47	1.38	1.60	
-5 (+23)	5888	1484	1725	932	6.22	37.81	6.30	1.59	1.85	
0 (+32)	7528	1897	2206	1056	6.70	48.60	7.15	1.80	2.09	
+5 (+41)	9327	2351	2733	1172	7.19	60.62	7.99	2.01	2.34	
+10 (+50)	11287	2844	3307	1280	7.69	73.95	8.80	2.22	2.58	

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	9.6 +0.07/+0.00	[mm]	(0.378" +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		