

COMPRESSOR DEFINITION

Designation	J 6220Z
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	164HG01

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	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	115 V 60 Hz 1~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	3ARR3B2L3	
3 Start capacitor	340-408(110)	[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)	70.00	[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)	13.40	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @100V50Hz			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	1070	13.08	56.36	8.12	2.05	2.38

E - PERFORMANCE - CURVES

TEST CONDITIONS: @100V50Hz		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	605	10.14	21.22	6.45	1.62	1.89
-10	(+14)	4851	1222	1421	670	10.44	26.32	7.27	1.83	2.13
-5	(+23)	6149	1550	1802	730	10.75	33.47	8.44	2.13	2.47
0	(+32)	7814	1969	2290	786	11.07	42.73	9.94	2.50	2.91
+5	(+41)	9844	2481	2885	837	11.41	54.16	11.75	2.96	3.44
+10	(+50)	12240	3085	3587	883	11.77	67.79	13.86	3.49	4.06

TEST CONDITIONS: @100V50Hz		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	606	10.09	19.16	5.45	1.37	1.60
-10	(+14)	4321	1089	1266	691	10.54	25.35	6.26	1.58	1.83
-5	(+23)	5605	1412	1642	773	11.02	33.04	7.23	1.82	2.12
0	(+32)	7141	1799	2092	852	11.53	42.29	8.35	2.10	2.45
+5	(+41)	8928	2250	2616	929	12.06	53.15	9.60	2.42	2.81
+10	(+50)	10965	2763	3213	1003	12.63	65.66	10.96	2.76	3.21

TEST CONDITIONS: @100V50Hz		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	607	10.05	16.83	4.35	1.10	1.28
-10	(+14)	3767	949	1104	713	10.66	24.09	5.26	1.33	1.54
-5	(+23)	5032	1268	1475	818	11.31	32.31	6.15	1.55	1.80
0	(+32)	6434	1621	1885	922	12.00	41.53	7.00	1.77	2.05
+5	(+41)	7972	2009	2336	1025	12.74	51.81	7.80	1.97	2.29
+10	(+50)	9646	2431	2827	1128	13.53	63.20	8.52	2.15	2.50

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	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		