

COMPRESSOR DEFINITION

Designation	T 6220E
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	116JG80

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-22		
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	CSCR		
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)	21.7	[kgf/cm ²] (309 psig)	/ °C - °F
9.2 Peak (gauge)	24.2	[kgf/cm ²] (344 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1-	[hp]
2 Displacement	17.39	[cm ³] (1.061 cu.in)
2.1 Bore [mm]	34.120	
2.2 Stroke [mm]	19.030	
3 Lubricant charge	550	[ml] (18.60 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO46	
4 Weight (with oil charge)	16.85	[kg] (37.15 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	3ARR3B23P3	
3 Start capacitor	145-175(165)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	CRA39010-3031	
6 Start winding resistance	4.15	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	0.60	[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)	11.80	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @115V60Hz			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]
9068	2285	2657	1173	11.30	56.00	7.73	1.95	2.27

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V50Hz			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)	3280	827	961	524	4.97	17.20	6.28	1.58	1.84
-10	(+14)	4609	1162	1351	609	5.84	24.31	7.54	1.90	2.21
-5	(+23)	5927	1494	1737	688	6.63	31.42	8.60	2.17	2.52
0	(+32)	7233	1823	2119	763	7.35	38.54	9.49	2.39	2.78
+5	(+41)	8527	2149	2499	833	7.99	45.72	10.26	2.58	3.01
+10	(+50)	9809	2472	2874	898	8.55	52.99	10.91	2.75	3.20

TEST CONDITIONS: @115V50Hz			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)	3032	764	888	559	5.44	17.05	5.42	1.36	1.59
-10	(+14)	4117	1038	1206	652	6.33	23.19	6.31	1.59	1.85
-5	(+23)	5276	1329	1546	740	7.16	29.84	7.14	1.80	2.09
0	(+32)	6507	1640	1907	823	7.92	37.03	7.92	2.00	2.32
+5	(+41)	7811	1968	2289	899	8.63	44.79	8.69	2.19	2.55
+10	(+50)	9187	2315	2692	970	9.28	53.17	9.46	2.38	2.77

TEST CONDITIONS: @115V50Hz			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)	2768	698	811	595	5.93	16.69	4.64	1.17	1.36
-10	(+14)	3606	909	1057	698	6.84	21.86	5.19	1.31	1.52
-5	(+23)	4602	1160	1348	795	7.71	28.07	5.80	1.46	1.70
0	(+32)	5755	1450	1686	885	8.53	35.33	6.48	1.63	1.90
+5	(+41)	7065	1780	2070	968	9.31	43.70	7.27	1.83	2.13
+10	(+50)	8532	2150	2500	1045	10.05	53.19	8.19	2.06	2.40

E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 35°C (+95°F))					
@115V60Hz		Fan								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-15	(+ 5)	3838	967	1125	633	5.82	20.12	6.09	1.53	1.78
-10	(+14)	5393	1359	1580	727	6.84	28.45	7.39	1.86	2.16
-5	(+23)	6934	1747	2032	815	7.76	36.76	8.49	2.14	2.49
0	(+32)	8462	2132	2480	898	8.60	45.09	9.44	2.38	2.77
+5	(+41)	9976	2514	2923	975	9.34	53.49	10.25	2.58	3.00
+10	(+50)	11477	2892	3363	1048	10.00	62.00	10.94	2.76	3.21

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 45°C (+113°F))					
@115V60Hz		Fan								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-15	(+ 5)	3548	894	1040	676	6.36	19.95	5.24	1.32	1.54
-10	(+14)	4818	1214	1412	779	7.40	27.13	6.18	1.56	1.81
-5	(+23)	6172	1555	1809	877	8.37	34.91	7.05	1.78	2.07
0	(+32)	7612	1918	2231	968	9.27	43.32	7.87	1.98	2.31
+5	(+41)	9138	2303	2678	1053	10.10	52.40	8.68	2.19	2.54
+10	(+50)	10748	2708	3149	1132	10.86	62.20	9.49	2.39	2.78

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 55°C (+131°F))					
@115V60Hz		Fan								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-15	(+ 5)	3239	816	949	721	6.94	19.53	4.48	1.13	1.31
-10	(+14)	4220	1063	1236	834	8.00	25.58	5.08	1.28	1.49
-5	(+23)	5384	1357	1578	941	9.02	32.84	5.73	1.44	1.68
0	(+32)	6733	1697	1973	1041	9.98	41.34	6.45	1.63	1.89
+5	(+41)	8266	2083	2422	1134	10.90	51.12	7.27	1.83	2.13
+10	(+50)	9982	2516	2925	1220	11.76	62.23	8.20	2.07	2.40

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
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	6.42 +0.08/+0.00	[mm]	(0.253" +0.003"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Vertical		
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		