

COMPRESSOR DEFINITION

Designation	T 6222E
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	116KG80

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	20.44	[cm ³] (1.247 cu.in)
2.1 Bore [mm]	36.990	
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)	15.3	[kg] (33.73 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	3ARR3B3S3	
3 Start capacitor	189-227(165)	[µF(VAC minimum)]
4 Run capacitor	25(450)	[µF(VAC minimum)]
5 Motor protection	CRA39009-3031	
6 Start winding resistance	3.94	[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)	71.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	14.00	[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: @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]
8890	2240	2605	1220	11.80	54.90	7.29	1.84	2.14

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)	4077	1027	1195	629	5.97	21.38	6.50	1.64	1.90
-10	(+14)	5164	1301	1513	730	7.01	27.24	7.05	1.78	2.07
-5	(+23)	6403	1614	1876	826	7.96	33.94	7.73	1.95	2.27
0	(+32)	7779	1960	2280	916	8.82	41.45	8.49	2.14	2.49
+5	(+41)	9278	2338	2719	1000	9.59	49.74	9.29	2.34	2.72
+10	(+50)	10883	2743	3189	1078	10.26	58.80	10.09	2.54	2.96

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)	3878	977	1136	670	6.52	21.78	5.78	1.46	1.69
-10	(+14)	4784	1206	1402	783	7.59	26.95	6.12	1.54	1.79
-5	(+23)	5904	1488	1730	888	8.59	33.40	6.65	1.67	1.95
0	(+32)	7222	1820	2116	987	9.51	41.10	7.32	1.84	2.14
+5	(+41)	8723	2198	2556	1079	10.36	50.02	8.09	2.04	2.37
+10	(+50)	10394	2619	3046	1164	11.14	60.15	8.92	2.25	2.61

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)	3680	927	1078	714	7.12	22.19	5.14	1.29	1.51
-10	(+14)	4405	1110	1291	838	8.21	26.72	5.28	1.33	1.55
-5	(+23)	5405	1362	1584	954	9.25	32.96	5.67	1.43	1.66
0	(+32)	6664	1679	1953	1062	10.24	40.90	6.27	1.58	1.84
+5	(+41)	8169	2059	2394	1162	11.18	50.51	7.02	1.77	2.06
+10	(+50)	9904	2496	2902	1254	12.06	61.76	7.90	1.99	2.32

E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 35°C (+95°F))					
@100V60Hz		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)	4770	1202	1398	760	6.98	25.01	6.30	1.59	1.84
-10	(+14)	6041	1522	1770	872	8.20	31.87	6.91	1.74	2.03
-5	(+23)	7491	1888	2195	978	9.32	39.71	7.64	1.93	2.24
0	(+32)	9102	2294	2667	1078	10.32	48.50	8.45	2.13	2.48
+5	(+41)	10855	2735	3181	1171	11.21	58.20	9.29	2.34	2.72
+10	(+50)	12733	3209	3731	1257	12.00	68.79	10.12	2.55	2.97

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 45°C (+113°F))					
@100V60Hz		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)	4538	1144	1330	811	7.63	25.49	5.59	1.41	1.64
-10	(+14)	5597	1411	1640	935	8.88	31.53	5.99	1.51	1.76
-5	(+23)	6907	1741	2024	1052	10.05	39.08	6.57	1.65	1.92
0	(+32)	8449	2129	2476	1162	11.13	48.08	7.28	1.83	2.13
+5	(+41)	10206	2572	2991	1264	12.13	58.53	8.08	2.04	2.37
+10	(+50)	12160	3064	3563	1358	13.03	70.37	8.94	2.25	2.62

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 55°C (+131°F))					
@100V60Hz		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)	4306	1085	1262	865	8.32	25.96	4.97	1.25	1.46
-10	(+14)	5153	1299	1510	1001	9.60	31.26	5.17	1.30	1.51
-5	(+23)	6323	1593	1853	1129	10.82	38.56	5.60	1.41	1.64
0	(+32)	7797	1965	2285	1249	11.98	47.85	6.23	1.57	1.83
+5	(+41)	9557	2408	2801	1361	13.08	59.09	7.02	1.77	2.06
+10	(+50)	11587	2920	3395	1464	14.11	72.25	7.92	2.00	2.32

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		