

COMPRESSOR DEFINITION

Designation	T 6220GK
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	931BD70

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	208-230 / 60	[V / Hz]	
4 Application type	Medium Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-20°C to 0°C	(-4°F to 32°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)	25.7	[kgf/cm ²] (365 psig)	/ °C - °F
9.2 Peak (gauge)	28.7	[kgf/cm ²] (408 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	ESTER / ISO22	
4 Weight (with oil charge)	16.58	[kg] (36.55 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	Voltage Relay	
2.1 Starting device	3ARR3B6V3	
3 Start capacitor	43-53(330)	[μF(VAC minimum)]
4 Run capacitor	15(450)	[μF(VAC minimum)]
5 Motor protection	T0748/C9	
6 Start winding resistance	6.00	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	2.15	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	30.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	6.52	[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: @208V60Hz			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]
9605	2420	2814	1324	6.52	79.07	7.25	1.83	2.12

E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V50Hz			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]
-20	(- 4)	3658	922	1072	471	3.62	23.22	7.77	1.96	2.28
-15	(+ 5)	4567	1151	1338	532	3.87	29.15	8.58	2.16	2.52
-10	(+14)	5645	1423	1654	603	4.15	36.26	9.36	2.36	2.74
-5	(+23)	6894	1737	2020	684	4.47	44.61	10.07	2.54	2.95
0	(+32)	8312	2095	2436	777	4.84	54.25	10.71	2.70	3.14
+5	(+41)	9901	2495	2901	881	5.25	65.27	11.25	2.84	3.30
+10	(+50)	11659	2938	3416	996	5.71	77.71	11.68	2.94	3.42

TEST CONDITIONS: @208V50Hz			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]
-20	(- 4)	2974	749	871	517	3.82	20.84	5.74	1.45	1.68
-15	(+ 5)	3822	963	1120	599	4.11	26.94	6.39	1.61	1.87
-10	(+14)	4825	1216	1414	686	4.45	34.24	7.05	1.78	2.07
-5	(+23)	5983	1508	1753	778	4.82	42.81	7.70	1.94	2.25
0	(+32)	7295	1838	2138	877	5.23	52.70	8.30	2.09	2.43
+5	(+41)	8761	2208	2567	982	5.69	64.00	8.86	2.23	2.60
+10	(+50)	10382	2616	3042	1093	6.20	76.74	9.35	2.36	2.74

TEST CONDITIONS: @208V50Hz			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]
-20	(- 4)	2262	570	663	564	4.02	17.79	4.02	1.01	1.18
-15	(+ 5)	3047	768	893	668	4.37	24.12	4.56	1.15	1.33
-10	(+14)	3971	1001	1163	772	4.76	31.68	5.13	1.29	1.50
-5	(+23)	5033	1268	1475	877	5.18	40.54	5.74	1.45	1.68
0	(+32)	6235	1571	1827	982	5.65	50.75	6.35	1.60	1.86
+5	(+41)	7576	1909	2220	1089	6.16	62.39	6.96	1.75	2.04
+10	(+50)	9055	2282	2653	1197	6.72	75.50	7.54	1.90	2.21

E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 35°C (+95°F))					
@208V60Hz		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]
-20	(- 4)	4280	1079	1254	569	3.69	27.17	7.53	1.90	2.21
-15	(+ 5)	5343	1346	1566	639	3.94	34.11	8.36	2.11	2.45
-10	(+14)	6605	1664	1935	719	4.24	42.42	9.18	2.31	2.69
-5	(+23)	8066	2033	2364	811	4.57	52.19	9.94	2.51	2.91
0	(+32)	9726	2451	2850	914	4.94	63.48	10.65	2.68	3.12
+5	(+41)	11585	2919	3395	1030	5.35	76.37	11.27	2.84	3.30
+10	(+50)	13642	3438	3998	1158	5.79	90.93	11.79	2.97	3.45

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 45°C (+113°F))					
@208V60Hz		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]
-20	(- 4)	3480	877	1020	629	3.89	24.38	5.52	1.39	1.62
-15	(+ 5)	4472	1127	1310	721	4.20	31.52	6.21	1.57	1.82
-10	(+14)	5645	1423	1654	819	4.54	40.06	6.91	1.74	2.02
-5	(+23)	7000	1764	2051	922	4.92	50.08	7.60	1.91	2.23
0	(+32)	8535	2151	2501	1032	5.34	61.66	8.26	2.08	2.42
+5	(+41)	10250	2583	3004	1148	5.80	74.87	8.87	2.24	2.60
+10	(+50)	12147	3061	3559	1272	6.29	89.78	9.42	2.37	2.76

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 55°C (+131°F))					
@208V60Hz		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]
-20	(- 4)	2647	667	776	690	4.10	20.82	3.84	0.97	1.13
-15	(+ 5)	3565	898	1045	806	4.46	28.22	4.42	1.11	1.29
-10	(+14)	4646	1171	1361	922	4.85	37.07	5.03	1.27	1.47
-5	(+23)	5889	1484	1726	1038	5.29	47.43	5.67	1.43	1.66
0	(+32)	7295	1838	2138	1155	5.76	59.38	6.32	1.59	1.85
+5	(+41)	8863	2234	2597	1274	6.27	72.99	6.95	1.75	2.04
+10	(+50)	10594	2670	3104	1394	6.82	88.33	7.56	1.90	2.21

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		