

COMPRESSOR DEFINITION

Designation	T 6213Z
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	206DD23

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	1/2+	[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)	14	[kg] (30.86 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	MTRPH-0072	
3 Start capacitor	64-77(330)	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	T0573/01	
6 Start winding resistance	9.00	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	2.30	[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)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	5.00	[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]
5855	1475	1716	835	4.70	37.96	7.01	1.77	2.05

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]
-15	(+ 5)	1975	498	579	415	3.69	10.67	4.75	1.20	1.39
-10	(+14)	2851	718	835	439	3.75	15.47	6.51	1.64	1.91
-5	(+23)	3821	963	1120	476	3.87	20.82	8.02	2.02	2.35
0	(+32)	4886	1231	1432	527	4.05	26.74	9.26	2.33	2.71
+5	(+41)	6045	1523	1771	592	4.29	33.26	10.22	2.58	3.00
+10	(+50)	7298	1839	2138	669	4.59	40.40	10.91	2.75	3.20

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]
-15	(+ 5)	1790	451	525	382	3.59	10.47	4.69	1.18	1.37
-10	(+14)	2517	634	738	437	3.75	14.76	5.75	1.45	1.68
-5	(+23)	3348	844	981	498	3.95	19.70	6.72	1.69	1.97
0	(+32)	4282	1079	1255	564	4.18	25.33	7.60	1.92	2.23
+5	(+41)	5321	1341	1559	636	4.46	31.67	8.38	2.11	2.46
+10	(+50)	6463	1629	1894	713	4.77	38.74	9.05	2.28	2.65

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]
-15	(+ 5)	1598	403	468	348	3.50	10.18	4.59	1.16	1.34
-10	(+14)	2170	547	636	436	3.75	13.88	4.99	1.26	1.46
-5	(+23)	2855	720	837	521	4.03	18.34	5.48	1.38	1.61
0	(+32)	3654	921	1071	603	4.32	23.61	6.05	1.52	1.77
+5	(+41)	4567	1151	1338	682	4.64	29.69	6.69	1.69	1.96
+10	(+50)	5594	1410	1639	758	4.97	36.63	7.39	1.86	2.16

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]
-15	(+ 5)	2686	677	787	492	3.75	14.53	5.45	1.37	1.60
-10	(+14)	3459	872	1014	521	3.82	18.77	6.66	1.68	1.95
-5	(+23)	4406	1110	1291	564	3.95	24.00	7.81	1.97	2.29
0	(+32)	5528	1393	1620	620	4.13	30.24	8.89	2.24	2.61
+5	(+41)	6824	1720	2000	691	4.38	37.54	9.87	2.49	2.89
+10	(+50)	8294	2090	2430	776	4.68	45.92	10.70	2.70	3.14

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]
-15	(+ 5)	2286	576	670	460	3.67	13.35	4.96	1.25	1.45
-10	(+14)	3008	758	881	522	3.83	17.64	5.76	1.45	1.69
-5	(+23)	3884	979	1138	590	4.03	22.87	6.59	1.66	1.93
0	(+32)	4915	1239	1440	664	4.27	29.08	7.42	1.87	2.17
+5	(+41)	6099	1537	1787	743	4.55	36.30	8.22	2.07	2.41
+10	(+50)	7437	1874	2179	828	4.87	44.56	8.96	2.26	2.63

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]
-15	(+ 5)	1869	471	548	427	3.56	11.91	4.39	1.11	1.29
-10	(+14)	2538	640	744	524	3.83	16.23	4.84	1.22	1.42
-5	(+23)	3340	842	979	618	4.11	21.45	5.39	1.36	1.58
0	(+32)	4275	1077	1253	709	4.41	27.61	6.03	1.52	1.77
+5	(+41)	5343	1346	1566	797	4.73	34.73	6.71	1.69	1.97
+10	(+50)	6544	1649	1918	882	5.06	42.86	7.42	1.87	2.17

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	Slanted 42°		
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	Straight		
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	Slanted 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		