

### COMPRESSOR DEFINITION

Designation	T 6213Z
Nominal Voltage/Frequency	200-240 V 50 Hz / 230 V 60 Hz
Engineering Number	203LN11

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	200-240 / 50	[ 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 <sup>2</sup> ] (230 psig)	/ °C - °F
9.2 Peak (gauge)	20.6	[kgf/cm <sup>2</sup> ] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/2+	[hp]
2 Displacement	17.39	[cm <sup>3</sup> ] (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 <sup>2</sup> ] (2.84 to 4.27 psig)

### C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	200-240 V 50 Hz / 230 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-0030	
3 Start capacitor	64-77(330)	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	T0573/01	
6 Start winding resistance	19.50	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	3.30	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	23.30	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	4.40	[A] - Measured according to UL 984
11 Approval boards certification	IMQ	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @200V50Hz			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]
5005	1261	1467	677	4.32	32.45	7.39	1.86	2.17

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @200V50Hz			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)	2291	577	671	372	3.16	12.38	6.16	1.55	1.81
-10	(+14)	3094	780	907	425	3.33	16.80	7.26	1.83	2.13
-5	(+23)	3996	1007	1171	476	3.51	21.78	8.40	2.12	2.46
0	(+32)	5007	1262	1467	523	3.69	27.40	9.60	2.42	2.81
+5	(+41)	6135	1546	1798	566	3.88	33.75	10.85	2.73	3.18
+10	(+50)	7389	1862	2165	606	4.06	40.90	12.17	3.07	3.57

TEST CONDITIONS: @200V50Hz			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)	1965	495	576	377	3.21	11.50	5.23	1.32	1.53
-10	(+14)	2619	660	767	431	3.37	15.35	6.07	1.53	1.78
-5	(+23)	3395	855	995	487	3.56	19.97	6.96	1.75	2.04
0	(+32)	4302	1084	1261	545	3.78	25.44	7.88	1.99	2.31
+5	(+41)	5350	1348	1568	604	4.02	31.84	8.85	2.23	2.59
+10	(+50)	6547	1650	1918	665	4.29	39.25	9.87	2.49	2.89

TEST CONDITIONS: @200V50Hz			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)	1639	413	480	382	3.26	10.43	4.27	1.07	1.25
-10	(+14)	2143	540	628	437	3.41	13.70	4.93	1.24	1.44
-5	(+23)	2793	704	818	498	3.61	17.95	5.62	1.42	1.65
0	(+32)	3597	907	1054	567	3.87	23.25	6.34	1.60	1.86
+5	(+41)	4565	1150	1338	642	4.17	29.68	7.09	1.79	2.08
+10	(+50)	5705	1438	1672	724	4.52	37.34	7.88	1.99	2.31

### E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 35°C (+95°F))					
@200V60Hz		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)	2680	675	785	435	3.22	14.48	6.17	1.55	1.81
-10	(+14)	3620	912	1061	498	3.40	19.65	7.26	1.83	2.13
-5	(+23)	4675	1178	1370	557	3.58	25.48	8.40	2.12	2.46
0	(+32)	5857	1476	1716	612	3.77	32.06	9.60	2.42	2.81
+5	(+41)	7177	1809	2103	662	3.95	39.48	10.85	2.73	3.18
+10	(+50)	8645	2179	2533	709	4.14	47.85	12.17	3.07	3.57

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 45°C (+113°F))					
@200V60Hz		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)	2299	579	674	441	3.27	13.46	5.23	1.32	1.53
-10	(+14)	3064	772	898	504	3.44	17.96	6.07	1.53	1.78
-5	(+23)	3972	1001	1164	570	3.63	23.36	6.95	1.75	2.04
0	(+32)	5033	1268	1475	638	3.85	29.76	7.88	1.98	2.31
+5	(+41)	6259	1577	1834	707	4.10	37.25	8.84	2.23	2.59
+10	(+50)	7660	1930	2244	778	4.37	45.92	9.87	2.49	2.89

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 55°C (+131°F))					
@200V60Hz		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)	1917	483	562	447	3.32	12.21	4.27	1.08	1.25
-10	(+14)	2508	632	735	511	3.48	16.03	4.93	1.24	1.45
-5	(+23)	3268	824	958	583	3.69	21.00	5.62	1.42	1.65
0	(+32)	4209	1061	1233	663	3.94	27.20	6.34	1.60	1.86
+5	(+41)	5340	1346	1565	751	4.25	34.73	7.09	1.79	2.08
+10	(+50)	6674	1682	1956	847	4.61	43.69	7.89	1.99	2.31

### F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8 +0.07/+0.00	[mm]	(0.315" +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	8 +0.07/+0.00	[mm]	(0.315" +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		