

COMPRESSOR DEFINITION

Designation	NB 6132Z
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	293DG70

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
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	CSIR		
6 Starting torque	HST - Hight 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	1/6	[hp]
2 Displacement	5.01	[cm ³] (0.306 cu.in)
2.1 Bore [mm]	21.996	
2.2 Stroke [mm]	13.200	
3 Lubricant charge	350	[ml] (11.84 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	10	[kg] (22.05 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	Current Relay	
2.1 Starting device	MTRP-49	
3 Start capacitor	145-175(165)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0537/G9	
6 Start winding resistance	10.40	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	2.90	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	15.10	[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)	2.84	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @100V50Hz			ASHRAEHBP46 Static		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]
1516	382	444	234	2.50	9.83	6.48	1.63	1.90

E - PERFORMANCE - CURVES

TEST CONDITIONS: @100V50Hz		ASHRAE46 Static				(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)	742	187	217	128	1.64	4.01	5.80	1.46	1.70
-10	(+14)	942	237	276	143	1.76	5.11	6.59	1.66	1.93
-5	(+23)	1185	299	347	159	1.89	6.45	7.45	1.88	2.18
0	(+32)	1470	370	431	176	2.01	8.04	8.35	2.10	2.45
+5	(+41)	1798	453	527	194	2.14	9.89	9.27	2.34	2.72
+10	(+50)	2169	547	636	213	2.26	12.01	10.19	2.57	2.98

TEST CONDITIONS: @100V50Hz		ASHRAE46 Static				(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)	647	163	190	131	1.65	3.78	4.93	1.24	1.44
-10	(+14)	828	209	243	149	1.80	4.86	5.56	1.40	1.63
-5	(+23)	1047	264	307	168	1.95	6.16	6.25	1.57	1.83
0	(+32)	1303	328	382	187	2.10	7.71	6.96	1.75	2.04
+5	(+41)	1598	403	468	208	2.25	9.51	7.68	1.94	2.25
+10	(+50)	1932	487	566	230	2.40	11.58	8.40	2.12	2.46

TEST CONDITIONS: @100V50Hz		ASHRAE46 Static				(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)	549	138	161	135	1.66	3.50	4.07	1.03	1.19
-10	(+14)	709	179	208	155	1.83	4.54	4.57	1.15	1.34
-5	(+23)	903	228	265	176	2.01	5.80	5.12	1.29	1.50
0	(+32)	1130	285	331	199	2.18	7.30	5.68	1.43	1.66
+5	(+41)	1390	350	407	223	2.36	9.04	6.24	1.57	1.83
+10	(+50)	1685	425	494	248	2.53	11.04	6.79	1.71	1.99

E - PERFORMANCE - CURVES

TEST CONDITIONS: @100V60Hz		ASHRAE46 Static			(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)	868	219	254	150	1.98	4.69	5.78	1.46	1.69	
-10 (+14)	1102	278	323	167	2.13	5.98	6.60	1.66	1.93	
-5 (+23)	1386	349	406	186	2.28	7.55	7.46	1.88	2.19	
0 (+32)	1720	433	504	206	2.43	9.41	8.35	2.10	2.45	
+5 (+41)	2104	530	616	227	2.58	11.57	9.26	2.33	2.71	
+10 (+50)	2537	639	743	249	2.73	14.05	10.19	2.57	2.99	

TEST CONDITIONS: @100V60Hz		ASHRAE46 Static			(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)	758	191	222	154	1.99	4.43	4.92	1.24	1.44	
-10 (+14)	969	244	284	174	2.17	5.68	5.57	1.40	1.63	
-5 (+23)	1225	309	359	196	2.35	7.21	6.25	1.57	1.83	
0 (+32)	1525	384	447	219	2.53	9.02	6.95	1.75	2.04	
+5 (+41)	1870	471	548	244	2.71	11.13	7.67	1.93	2.25	
+10 (+50)	2260	569	662	269	2.89	13.54	8.40	2.12	2.46	

TEST CONDITIONS: @100V60Hz		ASHRAE46 Static			(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)	643	162	188	158	2.00	4.10	4.07	1.03	1.19	
-10 (+14)	830	209	243	181	2.21	5.31	4.58	1.16	1.34	
-5 (+23)	1056	266	309	206	2.42	6.78	5.12	1.29	1.50	
0 (+32)	1322	333	387	233	2.63	8.54	5.68	1.43	1.66	
+5 (+41)	1627	410	477	261	2.84	10.58	6.24	1.57	1.83	
+10 (+50)	1971	497	578	290	3.05	12.91	6.79	1.71	1.99	

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.03 +0.07/+0.00	[mm]	(0.316" +0.003"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	6.45 +0.10/+0.00	[mm]	(0.254" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.45 +0.10/+0.00	[mm]	(0.254" +0.004"/+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		