

### COMPRESSOR DEFINITION

Designation	<b>NB 5125Z</b>
Nominal Voltage/Frequency	<b>220-240 V 50 Hz</b>
Engineering Number	<b>293AA42</b>

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	220-240 / 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	RSIR		
6 Starting torque	LST - Low Starting Torque		
7 Expansion device	Capillary tube		
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	1/8	[hp]
2 Displacement	3.78	[cm <sup>3</sup> ] (0.231 cu.in)
2.1 Bore [mm]	19.089	
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)	8.95	[kg] (19.73 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	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-0013	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0570/G5	
6 Start winding resistance	55.80	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	21.14	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	6.70	[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)	1.00	[A] - Measured according to UL 984
11 Approval boards certification	IMQ	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			<b>ASHRAEHBP46</b> 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]
992	250	291	155	0.97	6.43	6.40	1.61	1.88

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		<b>ASHRAE46</b> 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)	466	118	137	96	0.79	2.52	4.86	1.23	1.42
-10	(+14)	603	152	177	104	0.80	3.27	5.83	1.47	1.71
-5	(+23)	773	195	226	111	0.82	4.21	6.94	1.75	2.03
0	(+32)	974	245	285	119	0.84	5.33	8.16	2.06	2.39
+5	(+41)	1207	304	354	127	0.87	6.64	9.51	2.40	2.79
+10	(+50)	1472	371	431	134	0.90	8.15	10.98	2.77	3.22

TEST CONDITIONS: @220V50Hz		<b>ASHRAE46</b> 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)	397	100	116	96	0.79	2.32	4.15	1.04	1.21
-10	(+14)	520	131	152	106	0.81	3.05	4.90	1.23	1.44
-5	(+23)	671	169	196	117	0.84	3.95	5.74	1.45	1.68
0	(+32)	849	214	249	127	0.87	5.02	6.66	1.68	1.95
+5	(+41)	1056	266	309	138	0.91	6.28	7.66	1.93	2.24
+10	(+50)	1290	325	378	148	0.95	7.73	8.72	2.20	2.56

TEST CONDITIONS: @220V50Hz		<b>ASHRAE46</b> 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)	327	83	96	96	0.79	2.09	3.40	0.86	1.00
-10	(+14)	436	110	128	109	0.82	2.79	4.01	1.01	1.18
-5	(+23)	569	143	167	122	0.86	3.65	4.67	1.18	1.37
0	(+32)	725	183	212	135	0.90	4.68	5.36	1.35	1.57
+5	(+41)	904	228	265	149	0.95	5.88	6.08	1.53	1.78
+10	(+50)	1108	279	325	162	1.00	7.25	6.83	1.72	2.00

### F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	4.86 +0.07/+0.00	[mm]	(0.191" +0.003"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.1 +0.10/+0.00	[mm]	(0.240" +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		