

COMPRESSOR DEFINITION

Designation	NB 5128Z
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	293BA47

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 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	1/8+	[hp]
2 Displacement	4.51	[cm ³] (0.275 cu.in)
2.1 Bore [mm]	20.873	
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)	9.35	[kg] (20.61 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	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-0010	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0570/G5	
6 Start winding resistance	55.32	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	18.81	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	-	[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)	-	[A] - Measured according to UL 984
11 Approval boards certification	IMQ	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			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]
1190	300	349	185	1.10	7.72	6.43	1.62	1.88

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		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)	591	149	173	110	0.85	3.20	5.38	1.36	1.58
-10	(+14)	749	189	220	120	0.88	4.07	6.25	1.57	1.83
-5	(+23)	945	238	277	131	0.91	5.15	7.23	1.82	2.12
0	(+32)	1177	297	345	142	0.94	6.44	8.31	2.09	2.44
+5	(+41)	1447	365	424	153	0.97	7.96	9.48	2.39	2.78
+10	(+50)	1752	441	513	163	1.02	9.70	10.73	2.70	3.14

TEST CONDITIONS: @220V50Hz		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)	504	127	148	111	0.85	2.95	4.54	1.15	1.33
-10	(+14)	646	163	189	124	0.89	3.79	5.22	1.32	1.53
-5	(+23)	821	207	241	137	0.93	4.84	5.98	1.51	1.75
0	(+32)	1029	259	302	151	0.97	6.09	6.81	1.72	1.99
+5	(+41)	1269	320	372	165	1.02	7.55	7.69	1.94	2.25
+10	(+50)	1540	388	451	179	1.08	9.23	8.61	2.17	2.52

TEST CONDITIONS: @220V50Hz		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)	417	105	122	112	0.85	2.66	3.71	0.94	1.09
-10	(+14)	543	137	159	128	0.90	3.47	4.26	1.07	1.25
-5	(+23)	698	176	204	144	0.95	4.48	4.86	1.22	1.42
0	(+32)	881	222	258	160	1.00	5.69	5.49	1.38	1.61
+5	(+41)	1091	275	320	177	1.07	7.09	6.15	1.55	1.80
+10	(+50)	1329	335	389	195	1.14	8.70	6.82	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		