

COMPRESSOR DEFINITION

Designation	NE K6187Z
Nominal Voltage/Frequency	200-230 V 50 Hz / 208-230 V 60 Hz
Engineering Number	269BB51

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	200-230 / 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 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	1/3	[hp]
2 Displacement	9.99	[cm ³] (0.610 cu.in)
2.1 Bore [mm]	26.497	
2.2 Stroke [mm]	18.120	
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)	11.6	[kg] (25.57 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	200-230 V 50 Hz / 208-230 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-0029	
3 Start capacitor	53-64(330)	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	T0606/G6	
6 Start winding resistance	19.90	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	4.09	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50/60 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50/60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	UL - VDE	

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]
3805	959	1115	485	2.97	24.67	7.85	1.98	2.30

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)	1624	409	476	235	2.38	8.78	6.89	1.74	2.02
-10	(+14)	2047	516	600	257	2.43	11.11	7.98	2.01	2.34
-5	(+23)	2566	647	752	278	2.49	13.98	9.23	2.33	2.70
0	(+32)	3183	802	933	300	2.55	17.42	10.62	2.68	3.11
+5	(+41)	3897	982	1142	322	2.62	21.44	12.11	3.05	3.55
+10	(+50)	4708	1187	1380	344	2.69	26.07	13.68	3.45	4.01

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)	1399	353	410	249	2.40	8.17	5.63	1.42	1.65
-10	(+14)	1786	450	523	276	2.48	10.47	6.46	1.63	1.89
-5	(+23)	2259	569	662	303	2.56	13.30	7.43	1.87	2.18
0	(+32)	2819	710	826	330	2.65	16.68	8.54	2.15	2.50
+5	(+41)	3467	874	1016	356	2.74	20.63	9.73	2.45	2.85
+10	(+50)	4201	1059	1231	383	2.84	25.17	10.98	2.77	3.22

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)	1364	344	400	257	2.42	8.70	5.29	1.33	1.55
-10	(+14)	1666	420	488	291	2.52	10.65	5.73	1.44	1.68
-5	(+23)	2043	515	599	324	2.62	13.12	6.32	1.59	1.85
0	(+32)	2497	629	732	356	2.73	16.12	7.02	1.77	2.06
+5	(+41)	3028	763	887	389	2.85	19.68	7.79	1.96	2.28
+10	(+50)	3636	916	1066	421	2.98	23.82	8.62	2.17	2.53

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)	1783	449	522	245	2.17	9.64	7.26	1.83	2.13
-10	(+14)	2287	576	670	265	2.27	12.42	8.64	2.18	2.53
-5	(+23)	2870	723	841	286	2.38	15.64	10.06	2.53	2.95
0	(+32)	3535	891	1036	307	2.51	19.34	11.52	2.90	3.37
+5	(+41)	4287	1080	1256	329	2.65	23.58	13.02	3.28	3.81
+10	(+50)	5128	1292	1503	352	2.80	28.39	14.56	3.67	4.27

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)	1579	398	463	270	2.17	9.23	5.86	1.48	1.72
-10	(+14)	2038	514	597	300	2.30	11.95	6.79	1.71	1.99
-5	(+23)	2576	649	755	331	2.45	15.16	7.77	1.96	2.28
0	(+32)	3197	806	937	364	2.60	18.91	8.78	2.21	2.57
+5	(+41)	3905	984	1144	397	2.75	23.24	9.83	2.48	2.88
+10	(+50)	4703	1185	1378	431	2.91	28.19	10.93	2.75	3.20

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)	1399	353	410	295	2.18	8.91	4.74	1.19	1.39
-10	(+14)	1798	453	527	335	2.34	11.50	5.37	1.35	1.57
-5	(+23)	2276	574	667	377	2.51	14.62	6.04	1.52	1.77
0	(+32)	2838	715	832	420	2.68	18.34	6.75	1.70	1.98
+5	(+41)	3487	879	1022	465	2.86	22.67	7.50	1.89	2.20
+10	(+50)	4228	1066	1239	510	3.02	27.68	8.29	2.09	2.43

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.1 +0.10/+0.00	[mm]	(0.319" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	8.1 +0.10/+0.00	[mm]	(0.319" +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		