

COMPRESSOR DEFINITION

Designation	NE K6212Z
Nominal Voltage/Frequency	200-230 V 50 Hz / 208-230 V 60 Hz
Engineering Number	269AB51

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	CSCR		
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	1/2	[hp]
2 Displacement	14.28	[cm ³] (0.871 cu.in)
2.1 Bore [mm]	30.157	
2.2 Stroke [mm]	20.000	
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	Voltage Relay	
2.1 Starting device	3ARR3B10AA3	
3 Start capacitor	64-77(330)	[µF(VAC minimum)]
4 Run capacitor	10(440)	[µF(VAC minimum)]
5 Motor protection	T0883/G9	
6 Start winding resistance	12.50	[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 (50/60 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]
5032	1268	1474	747	4.30	32.63	6.74	1.70	1.97

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)	2233	563	654	335	3.08	12.07	6.68	1.68	1.96
-10	(+14)	2830	713	829	370	3.19	15.36	7.65	1.93	2.24
-5	(+23)	3545	893	1039	408	3.31	19.31	8.68	2.19	2.54
0	(+32)	4377	1103	1283	449	3.44	23.95	9.74	2.45	2.85
+5	(+41)	5326	1342	1561	492	3.60	29.30	10.82	2.73	3.17
+10	(+50)	6392	1611	1873	537	3.78	35.38	11.91	3.00	3.49

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)	1943	490	569	358	3.15	11.35	5.42	1.37	1.59
-10	(+14)	2468	622	723	400	3.28	14.47	6.17	1.56	1.81
-5	(+23)	3097	780	907	444	3.42	18.23	6.98	1.76	2.04
0	(+32)	3829	965	1122	490	3.58	22.66	7.81	1.97	2.29
+5	(+41)	4665	1176	1367	539	3.76	27.76	8.66	2.18	2.54
+10	(+50)	5603	1412	1642	590	3.96	33.58	9.51	2.40	2.79

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)	1675	422	491	375	3.19	10.68	4.48	1.13	1.31
-10	(+14)	2144	540	628	425	3.35	13.71	5.05	1.27	1.48
-5	(+23)	2703	681	792	477	3.52	17.36	5.66	1.43	1.66
0	(+32)	3352	845	982	531	3.72	21.64	6.31	1.59	1.85
+5	(+41)	4091	1031	1199	587	3.94	26.59	6.97	1.76	2.04
+10	(+50)	4918	1239	1441	645	4.19	32.22	7.61	1.92	2.23

E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V60Hz		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)	2645	667	775	370	2.69	14.31	7.15	1.80	2.09	
-10 (+14)	3334	840	977	418	2.87	18.09	7.97	2.01	2.34	
-5 (+23)	4133	1041	1211	474	3.09	22.51	8.72	2.20	2.55	
0 (+32)	5042	1270	1477	538	3.36	27.58	9.38	2.36	2.75	
+5 (+41)	6062	1528	1776	609	3.67	33.35	9.96	2.51	2.92	
+10 (+50)	7194	1813	2108	688	4.02	39.84	10.46	2.64	3.07	

TEST CONDITIONS: @208V60Hz		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)	2268	572	665	395	2.78	13.25	5.75	1.45	1.69	
-10 (+14)	2891	729	847	450	2.99	16.95	6.43	1.62	1.88	
-5 (+23)	3613	910	1059	512	3.25	21.27	7.06	1.78	2.07	
0 (+32)	4434	1117	1299	581	3.55	26.23	7.63	1.92	2.23	
+5 (+41)	5355	1350	1569	657	3.89	31.87	8.14	2.05	2.39	
+10 (+50)	6378	1607	1869	740	4.27	38.22	8.61	2.17	2.52	

TEST CONDITIONS: @208V60Hz		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)	1947	491	571	413	2.85	12.40	4.70	1.19	1.38	
-10 (+14)	2486	627	729	478	3.10	15.90	5.20	1.31	1.52	
-5 (+23)	3113	784	912	549	3.40	20.00	5.66	1.43	1.66	
0 (+32)	3828	965	1122	627	3.74	24.73	6.10	1.54	1.79	
+5 (+41)	4633	1168	1358	711	4.12	30.12	6.52	1.64	1.91	
+10 (+50)	5529	1393	1620	802	4.54	36.20	6.91	1.74	2.02	

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	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		