

### COMPRESSOR DEFINITION

Designation	NE K6160Z
Nominal Voltage/Frequency	200-230 V 50 Hz / 208-230 V 60 Hz
Engineering Number	267BB92

### 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 temperature			
9.1 Operating	14.2	[kgf/cm <sup>2</sup> ] (202 psig)	/ °C - °F
9.2 Peak	15.9	[kgf/cm <sup>2</sup> ] (226 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/4	[hp]
2 Displacement	7.28	[cm <sup>3</sup> ] (0.444 cu.in)
2.1 Bore [mm]	26.497	
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)	10.4	[kg] (22.93 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	200-230 V 50 Hz / 208-230 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-41	
3 Start capacitor	53-64(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MRP40AMK-3259	
6 Start winding resistance	20.12	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	5.30	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	13.50	[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	KC - 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]
2884	727	845	350	2.15	18.70	8.24	2.08	2.41

### 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)	1202	303	352	180	1.82	6.50	6.68	1.68	1.96
-10	(+14)	1508	380	442	196	1.87	8.18	7.69	1.94	2.25
-5	(+23)	1890	476	554	210	1.91	10.29	8.99	2.26	2.63
0	(+32)	2348	592	688	223	1.95	12.85	10.55	2.66	3.09
+5	(+41)	2883	727	845	233	1.98	15.86	12.38	3.12	3.63
+10	(+50)	3495	881	1024	242	2.01	19.35	14.43	3.64	4.23

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)	1029	259	302	189	1.86	6.01	5.45	1.37	1.60
-10	(+14)	1303	328	382	210	1.92	7.64	6.20	1.56	1.82
-5	(+23)	1648	415	483	229	1.98	9.70	7.18	1.81	2.10
0	(+32)	2066	521	605	246	2.03	12.22	8.36	2.11	2.45
+5	(+41)	2554	644	749	262	2.08	15.20	9.73	2.45	2.85
+10	(+50)	3115	785	913	277	2.12	18.67	11.27	2.84	3.30

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)	857	216	251	195	1.88	5.46	4.38	1.10	1.28
-10	(+14)	1099	277	322	220	1.96	7.03	5.01	1.26	1.47
-5	(+23)	1409	355	413	244	2.03	9.05	5.79	1.46	1.70
0	(+32)	1786	450	523	266	2.10	11.53	6.71	1.69	1.97
+5	(+41)	2229	562	653	288	2.16	14.49	7.75	1.95	2.27
+10	(+50)	2740	690	803	308	2.23	17.94	8.89	2.24	2.60

### 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]
-15	(+ 5)	1407	355	412	196	1.54	7.61	7.17	1.81	2.10
-10	(+14)	1754	442	514	215	1.61	9.52	8.18	2.06	2.40
-5	(+23)	2194	553	643	234	1.68	11.95	9.40	2.37	2.76
0	(+32)	2726	687	799	252	1.75	14.92	10.81	2.73	3.17
+5	(+41)	3352	845	982	271	1.82	18.44	12.39	3.12	3.63
+10	(+50)	4070	1026	1193	288	1.90	22.53	14.11	3.55	4.13

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]
-15	(+ 5)	1220	307	358	207	1.57	7.13	5.91	1.49	1.73
-10	(+14)	1543	389	452	231	1.66	9.05	6.68	1.68	1.96
-5	(+23)	1946	490	570	255	1.76	11.46	7.61	1.92	2.23
0	(+32)	2427	611	711	279	1.85	14.36	8.68	2.19	2.54
+5	(+41)	2986	753	875	303	1.95	17.77	9.84	2.48	2.88
+10	(+50)	3625	914	1062	327	2.05	21.72	11.09	2.80	3.25

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]
-15	(+ 5)	1018	257	298	216	1.62	6.49	4.71	1.19	1.38
-10	(+14)	1324	334	388	246	1.72	8.47	5.37	1.35	1.57
-5	(+23)	1694	427	497	276	1.83	10.88	6.13	1.54	1.80
0	(+32)	2130	537	624	306	1.95	13.76	6.96	1.75	2.04
+5	(+41)	2631	663	771	336	2.08	17.10	7.84	1.97	2.30
+10	(+50)	3196	805	937	366	2.21	20.93	8.74	2.20	2.56

### F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
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	6.45 +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		