

COMPRESSOR DEFINITION

Designation	NE 6210Z
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	262FD71

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	208-230 / 60	[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	1/2-	[hp]
2 Displacement	13.54	[cm ³] (0.826 cu.in)
2.1 Bore [mm]	29.362	
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)	11.05	[kg] (24.36 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	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-59	
3 Start capacitor	64-77(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0634/G6	
6 Start winding resistance	21.25	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	3.40	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	23.80	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	3.90	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @200V50Hz			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]
4093	1031	1199	567	3.27	26.54	7.22	1.82	2.12

E - PERFORMANCE - CURVES

TEST CONDITIONS: @200V50Hz		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)	2011	507	589	315	2.43	10.88	6.38	1.61	1.87
-10	(+14)	2535	639	743	348	2.56	13.75	7.30	1.84	2.14
-5	(+23)	3200	807	938	384	2.71	17.43	8.32	2.10	2.44
0	(+32)	3988	1005	1169	424	2.88	21.82	9.40	2.37	2.75
+5	(+41)	4877	1229	1429	466	3.06	26.84	10.46	2.63	3.06
+10	(+50)	5848	1474	1713	511	3.27	32.37	11.45	2.88	3.35

TEST CONDITIONS: @200V50Hz		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)	1720	433	504	320	2.47	10.05	5.37	1.35	1.57
-10	(+14)	2194	553	643	362	2.62	12.87	6.07	1.53	1.78
-5	(+23)	2800	706	821	407	2.79	16.49	6.88	1.73	2.02
0	(+32)	3517	886	1031	454	2.99	20.81	7.74	1.95	2.27
+5	(+41)	4325	1090	1267	504	3.20	25.74	8.59	2.16	2.52
+10	(+50)	5203	1311	1525	555	3.44	31.18	9.37	2.36	2.75

TEST CONDITIONS: @200V50Hz		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)	1428	360	418	325	2.51	9.09	4.39	1.11	1.29
-10	(+14)	1854	467	543	377	2.67	11.86	4.93	1.24	1.44
-5	(+23)	2400	605	703	430	2.87	15.42	5.58	1.41	1.63
0	(+32)	3046	768	893	485	3.10	19.67	6.28	1.58	1.84
+5	(+41)	3773	951	1105	541	3.35	24.52	6.98	1.76	2.04
+10	(+50)	4558	1149	1336	599	3.62	29.86	7.61	1.92	2.23

E - PERFORMANCE - CURVES

TEST CONDITIONS: @200V60Hz		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]
-15	(+ 5)	2424	611	710	380	2.94	13.11	6.37	1.60	1.87
-10	(+14)	3054	770	895	420	3.08	16.57	7.29	1.84	2.14
-5	(+23)	3856	972	1130	464	3.26	21.00	8.32	2.10	2.44
0	(+32)	4805	1211	1408	511	3.46	26.30	9.39	2.37	2.75
+5	(+41)	5876	1481	1722	562	3.68	32.34	10.45	2.63	3.06
+10	(+50)	7046	1775	2065	616	3.93	39.00	11.44	2.88	3.35

TEST CONDITIONS: @200V60Hz		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]
-15	(+ 5)	2073	522	607	386	2.98	12.11	5.36	1.35	1.57
-10	(+14)	2644	666	775	437	3.16	15.51	6.06	1.53	1.78
-5	(+23)	3374	850	989	491	3.37	19.87	6.87	1.73	2.01
0	(+32)	4238	1068	1242	548	3.60	25.08	7.73	1.95	2.27
+5	(+41)	5211	1313	1527	607	3.87	31.02	8.58	2.16	2.52
+10	(+50)	6269	1580	1837	669	4.15	37.57	9.37	2.36	2.74

TEST CONDITIONS: @200V60Hz		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]
-15	(+ 5)	1721	434	504	392	3.02	10.96	4.39	1.11	1.29
-10	(+14)	2234	563	655	454	3.23	14.30	4.93	1.24	1.44
-5	(+23)	2892	729	847	518	3.48	18.58	5.58	1.41	1.63
0	(+32)	3671	925	1076	584	3.75	23.70	6.28	1.58	1.84
+5	(+41)	4545	1145	1332	653	4.05	29.54	6.97	1.76	2.04
+10	(+50)	5492	1384	1609	722	4.37	35.97	7.60	1.92	2.23

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.03 +0.07/+0.00	[mm]	(0.316" +0.003"/+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		