

COMPRESSOR DEFINITION

Designation	NE 6170Z
Nominal Voltage/Frequency	200-240 V 50 Hz / 230 V 60 Hz
Engineering Number	262RN51

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	200-240 / 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	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	1/4+	[hp]
2 Displacement	8.77	[cm ³] (0.535 cu.in)
2.1 Bore [mm]	26.497	
2.2 Stroke [mm]	15.920	
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	[kg] (24.25 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm ²] (2.84 to 4.27 psig)

C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	200-240 V 50 Hz / 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	T0660/G5	
6 Start winding resistance	36.20	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	5.65	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	13.20	[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)	2.34	[A] - Measured according to UL 984
11 Approval boards certification	IMQ	

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]
2698	680	791	330	2.26	17.49	8.18	2.06	2.40

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)	1291	325	378	196	3.64	6.98	6.58	1.66	1.93
-10	(+14)	1655	417	485	215	3.79	8.98	7.71	1.94	2.26
-5	(+23)	2111	532	619	233	3.95	11.50	9.07	2.29	2.66
0	(+32)	2660	670	779	250	4.11	14.55	10.63	2.68	3.12
+5	(+41)	3301	832	967	267	4.27	18.16	12.37	3.12	3.62
+10	(+50)	4035	1017	1182	283	4.42	22.34	14.25	3.59	4.18

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)	1074	271	315	195	3.60	6.27	5.52	1.39	1.62
-10	(+14)	1406	354	412	220	3.81	8.25	6.40	1.61	1.87
-5	(+23)	1819	458	533	244	4.03	10.71	7.44	1.88	2.18
0	(+32)	2312	583	678	268	4.24	13.68	8.62	2.17	2.53
+5	(+41)	2886	727	846	291	4.46	17.18	9.91	2.50	2.90
+10	(+50)	3540	892	1037	314	4.67	21.21	11.29	2.84	3.31

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)	847	213	248	194	3.56	5.40	4.37	1.10	1.28
-10	(+14)	1147	289	336	225	3.83	7.34	5.09	1.28	1.49
-5	(+23)	1515	382	444	256	4.11	9.73	5.91	1.49	1.73
0	(+32)	1951	492	572	287	4.38	12.60	6.81	1.72	2.00
+5	(+41)	2455	619	719	317	4.66	15.96	7.75	1.95	2.27
+10	(+50)	3027	763	887	347	4.93	19.83	8.71	2.20	2.55

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]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-15 (+5)	1511	381	443	239	3.64	8.17	6.30	1.59	1.85	
-10 (+14)	1936	488	567	255	3.79	10.51	7.60	1.91	2.23	
-5 (+23)	2470	622	724	273	3.95	13.45	9.05	2.28	2.65	
0 (+32)	3112	784	912	292	4.11	17.02	10.64	2.68	3.12	
+5 (+41)	3862	973	1132	313	4.27	21.25	12.33	3.11	3.61	
+10 (+50)	4720	1190	1383	335	4.42	26.14	14.10	3.55	4.13	

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]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-15 (+5)	1256	316	368	233	3.60	7.33	5.40	1.36	1.58	
-10 (+14)	1645	415	482	259	3.81	9.65	6.35	1.60	1.86	
-5 (+23)	2128	536	624	286	4.03	12.53	7.43	1.87	2.18	
0 (+32)	2706	682	793	314	4.24	16.01	8.62	2.17	2.53	
+5 (+41)	3377	851	990	342	4.46	20.10	9.88	2.49	2.90	
+10 (+50)	4142	1044	1214	370	4.67	24.82	11.19	2.82	3.28	

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]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-15 (+5)	991	250	290	227	3.56	6.32	4.37	1.10	1.28	
-10 (+14)	1342	338	393	263	3.83	8.58	5.09	1.28	1.49	
-5 (+23)	1772	447	519	300	4.11	11.38	5.91	1.49	1.73	
0 (+32)	2282	575	669	336	4.38	14.74	6.80	1.71	1.99	
+5 (+41)	2872	724	841	371	4.66	18.67	7.75	1.95	2.27	
+10 (+50)	3541	892	1038	406	4.93	23.19	8.71	2.20	2.55	

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		