

COMPRESSOR DEFINITION

Designation	NE 6160Z
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	261BA50

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	220-240 / 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 - 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	1/4	[hp]
2 Displacement	7.99	[cm ³] (0.488 cu.in)
2.1 Bore [mm]	27.775	
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)	10.33	[kg] (22.77 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	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-42	
3 Start capacitor	43-53(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM743KFBYY-153	
6 Start winding resistance	30.80	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	8.30	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	-	[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	IMQ	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			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]
2347	591	688	299	1.80	15.22	7.85	1.98	2.30

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			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)	1149	289	337	185	1.40	6.22	6.18	1.56	1.81
-10 (+14)	1400	353	410	194	1.46	7.59	7.26	1.83	2.13
-5 (+23)	1766	445	517	208	1.53	9.61	8.51	2.15	2.49
0 (+32)	2247	566	659	226	1.59	12.29	9.90	2.50	2.90
+5 (+41)	2844	717	833	249	1.65	15.65	11.38	2.87	3.33
+10 (+50)	3556	896	1042	277	1.71	19.70	12.88	3.25	3.78

TEST CONDITIONS: @220V50Hz			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)	890	224	261	172	1.40	5.19	5.16	1.30	1.51
-10 (+14)	1168	294	342	193	1.48	6.85	6.06	1.53	1.77
-5 (+23)	1529	385	448	216	1.55	9.01	7.09	1.79	2.08
0 (+32)	1971	497	578	241	1.63	11.68	8.20	2.07	2.40
+5 (+41)	2496	629	731	267	1.70	14.86	9.36	2.36	2.74
+10 (+50)	3103	782	909	295	1.78	18.58	10.49	2.64	3.07

TEST CONDITIONS: @220V50Hz			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)	623	157	182	158	1.40	3.97	3.98	1.00	1.17
-10 (+14)	927	234	272	192	1.49	5.93	4.78	1.21	1.40
-5 (+23)	1280	323	375	224	1.58	8.22	5.67	1.43	1.66
0 (+32)	1682	424	493	256	1.67	10.86	6.59	1.66	1.93
+5 (+41)	2133	537	625	286	1.76	13.86	7.50	1.89	2.20
+10 (+50)	2633	663	771	315	1.85	17.25	8.34	2.10	2.44

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		