

### COMPRESSOR DEFINITION

Designation	NE 2130Z
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	262DD70

### 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	Low Back Pressure R134a		
4.1 Evaporating temperature range	-30°C to -5°C	(-22°F to 23°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 <sup>2</sup> ] (230 psig)	/ °C - °F
9.2 Peak (gauge)	20.6	[kgf/cm <sup>2</sup> ] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/3	[hp]
2 Displacement	12.11	[cm <sup>3</sup> ] (0.739 cu.in)
2.1 Bore [mm]	27.775	
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)	10.95	[kg] (24.14 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	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-0012	
3 Start capacitor	72-88(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MRP56AMN-3261	
6 Start winding resistance	13.20	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	4.70	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	20.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	2.40	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	UL	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @208V60Hz			ASHRAELBP32 Fan		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°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]
1265	319	371	285	2.10	7.19	4.44	1.12	1.30

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V60Hz		ASHRAE32 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]
-35	(-31)	817	206	239	208	1.80	4.62	3.80	0.96	1.11
-30	(-22)	997	251	292	228	1.87	5.65	4.36	1.10	1.28
-25	(-13)	1260	317	369	255	1.97	7.15	4.96	1.25	1.45
-20	(- 4)	1606	405	471	288	2.11	9.14	5.57	1.40	1.63
-15	(+ 5)	2035	513	596	329	2.28	11.62	6.17	1.56	1.81
-10	(+14)	2548	642	747	378	2.48	14.60	6.74	1.70	1.97

TEST CONDITIONS: @208V60Hz		ASHRAE32 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]
-35	(-31)	702	177	206	201	1.81	3.96	3.44	0.87	1.01
-30	(-22)	912	230	267	229	1.89	5.17	3.98	1.00	1.17
-25	(-13)	1196	301	350	263	2.01	6.79	4.55	1.15	1.33
-20	(- 4)	1552	391	455	302	2.16	8.83	5.13	1.29	1.50
-15	(+ 5)	1981	499	580	348	2.35	11.31	5.69	1.43	1.67
-10	(+14)	2482	625	727	400	2.57	14.22	6.21	1.56	1.82

TEST CONDITIONS: @208V60Hz		ASHRAE32 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]
-35	(-31)	588	148	172	193	1.82	3.32	3.08	0.78	0.90
-30	(-22)	830	209	243	230	1.91	4.70	3.62	0.91	1.06
-25	(-13)	1134	286	332	271	2.04	6.44	4.18	1.05	1.22
-20	(- 4)	1500	378	440	316	2.21	8.54	4.73	1.19	1.39
-15	(+ 5)	1928	486	565	367	2.42	11.01	5.26	1.33	1.54
-10	(+14)	2419	610	709	422	2.66	13.86	5.74	1.45	1.68

### 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		