

### COMPRESSOR DEFINITION

Designation	NE 1130Z
Nominal Voltage/Frequency	200-220 V 50 Hz / 230 V 60 Hz
Engineering Number	263IK50

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	200-220 / 50	[ 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	RSIR		
6 Starting torque	LST - Low Starting Torque		
7 Expansion device	Capillary tube		
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	1/3	[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)	10.9	[kg] (24.03 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	200-220 V 50 Hz / 230 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-0050	
3 Start capacitor	-	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	T0620/G6	
6 Start winding resistance	21.46	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	4.12	[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)	2.36	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	CCC - IMQ	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @200V50Hz			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]
1103	278	323	261	2.47	6.27	4.23	1.07	1.24

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @200V50Hz			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]
-30 (-22)	858	216	251	212	2.18	4.86	4.05	1.02	1.19
-25 (-13)	1138	287	334	237	2.44	6.46	4.81	1.21	1.41
-20 (- 4)	1475	372	432	267	2.70	8.40	5.52	1.39	1.62
-15 (+ 5)	1869	471	548	302	2.97	10.67	6.19	1.56	1.81
-10 (+14)	2319	584	680	341	3.24	13.29	6.80	1.71	1.99
-5 (+23)	2826	712	828	384	3.50	16.26	7.35	1.85	2.15

TEST CONDITIONS: @200V50Hz			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]
-30 (-22)	806	203	236	215	2.07	4.57	3.75	0.94	1.10
-25 (-13)	1070	270	314	244	2.39	6.08	4.38	1.10	1.28
-20 (- 4)	1394	351	409	280	2.70	7.94	4.99	1.26	1.46
-15 (+ 5)	1779	448	521	320	3.02	10.16	5.57	1.40	1.63
-10 (+14)	2224	560	652	364	3.34	12.74	6.11	1.54	1.79
-5 (+23)	2729	688	800	412	3.66	15.70	6.62	1.67	1.94

TEST CONDITIONS: @200V50Hz			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]
-30 (-22)	755	190	221	217	1.98	4.28	3.47	0.88	1.02
-25 (-13)	1004	253	294	251	2.35	5.70	4.00	1.01	1.17
-20 (- 4)	1316	332	386	291	2.72	7.49	4.52	1.14	1.32
-15 (+ 5)	1692	426	496	336	3.09	9.66	5.03	1.27	1.47
-10 (+14)	2132	537	625	386	3.46	12.21	5.53	1.39	1.62
-5 (+23)	2635	664	772	439	3.82	15.16	6.00	1.51	1.76

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @200V60Hz		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]
-30 (-22)	1004	253	294	240	2.55	5.69	4.18	1.05	1.22	
-25 (-13)	1331	336	390	271	2.85	7.56	4.92	1.24	1.44	
-20 (- 4)	1726	435	506	306	3.16	9.82	5.64	1.42	1.65	
-15 (+ 5)	2186	551	641	346	3.47	12.48	6.32	1.59	1.85	
-10 (+14)	2714	684	795	391	3.78	15.55	6.95	1.75	2.04	
-5 (+23)	3307	833	969	440	4.09	19.03	7.51	1.89	2.20	

TEST CONDITIONS: @200V60Hz		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]
-30 (-22)	941	237	276	243	2.42	5.33	3.87	0.97	1.13	
-25 (-13)	1251	315	366	279	2.79	7.10	4.48	1.13	1.31	
-20 (- 4)	1631	411	478	320	3.16	9.28	5.09	1.28	1.49	
-15 (+ 5)	2081	524	610	366	3.53	11.88	5.69	1.43	1.67	
-10 (+14)	2602	656	762	416	3.90	14.91	6.25	1.58	1.83	
-5 (+23)	3193	805	936	471	4.27	18.37	6.77	1.71	1.98	

TEST CONDITIONS: @200V60Hz		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]
-30 (-22)	882	222	258	246	2.32	5.00	3.58	0.90	1.05	
-25 (-13)	1174	296	344	288	2.75	6.67	4.08	1.03	1.20	
-20 (- 4)	1540	388	451	335	3.18	8.76	4.60	1.16	1.35	
-15 (+ 5)	1980	499	580	387	3.61	11.30	5.12	1.29	1.50	
-10 (+14)	2494	629	731	443	4.04	14.29	5.63	1.42	1.65	
-5 (+23)	3083	777	903	504	4.47	17.73	6.11	1.54	1.79	

### 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		