

COMPRESSOR DEFINITION

Designation	NE U3130ZX
Nominal Voltage/Frequency	200 V 50-60 Hz
Engineering Number	279ER71

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	200 / 50-60	[V / Hz]	
4 Application type	Low-Medium Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-35°C to 0°C	(-31°F to 32°F)	
5 Motor type	3PHASE		
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 ²] (202 psig)	/ °C - °F
9.2 Peak	15.9	[kgf/cm ²] (226 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3	[hp]
2 Displacement	12.11	[cm ³] (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)	11.4	[kg] (25.13 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	200 V 50-60 Hz 3 ~ (Three phase)	
2 Starting device type	3PHASE	
2.1 Starting device		
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	34HM207-66	
6 Start winding resistance		[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance		[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50/60 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50/60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification		

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]
1192	300	349	252	1.54	6.77	4.73	1.19	1.39

TEST CONDITIONS: @200V60Hz			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]
1405	354	412	282	1.26	7.98	4.98	1.25	1.46

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]
-35	(-31)	674	170	197	172	1.44	3.81	3.91	0.99	1.15
-30	(-22)	974	245	285	196	1.47	5.52	4.97	1.25	1.46
-25	(-13)	1314	331	385	221	1.50	7.46	5.95	1.50	1.74
-20	(- 4)	1695	427	497	247	1.54	9.65	6.87	1.73	2.01
-15	(+ 5)	2116	533	620	274	1.57	12.08	7.73	1.95	2.26
-10	(+14)	2578	650	755	301	1.61	14.77	8.55	2.15	2.50
-5	(+23)	3080	776	902	329	1.64	17.72	9.34	2.35	2.74
0	(+32)	3622	913	1061	358	1.68	20.94	10.13	2.55	2.97

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]
-35	(-31)	624	157	183	176	1.45	3.53	3.55	0.89	1.04
-30	(-22)	924	233	271	204	1.48	5.24	4.53	1.14	1.33
-25	(-13)	1261	318	369	233	1.52	7.16	5.42	1.37	1.59
-20	(- 4)	1633	412	479	263	1.56	9.30	6.22	1.57	1.82
-15	(+ 5)	2042	515	598	294	1.60	11.66	6.94	1.75	2.03
-10	(+14)	2488	627	729	327	1.65	14.25	7.61	1.92	2.23
-5	(+23)	2969	748	870	360	1.70	17.08	8.24	2.08	2.41
0	(+32)	3487	879	1022	395	1.75	20.16	8.83	2.23	2.59

E - PERFORMANCE - CURVES

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]
-35	(-31)	550	139	161	172	1.46	3.11	3.20	0.81	0.94
-30	(-22)	852	215	250	204	1.49	4.83	4.14	1.04	1.21
-25	(-13)	1186	299	347	238	1.52	6.73	4.96	1.25	1.45
-20	(- 4)	1552	391	455	274	1.57	8.83	5.67	1.43	1.66
-15	(+ 5)	1951	492	572	311	1.62	11.13	6.29	1.59	1.84
-10	(+14)	2382	600	698	349	1.68	13.64	6.84	1.72	2.00
-5	(+23)	2845	717	834	389	1.74	16.37	7.32	1.85	2.15
0	(+32)	3341	842	979	430	1.82	19.31	7.76	1.96	2.27

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]
-35	(-31)	778	196	228	179	1.10	4.40	4.36	1.10	1.28
-30	(-22)	1117	281	327	212	1.15	6.33	5.28	1.33	1.55
-25	(-13)	1506	379	441	246	1.20	8.55	6.13	1.55	1.80
-20	(- 4)	1945	490	570	281	1.27	11.07	6.93	1.75	2.03
-15	(+ 5)	2434	613	713	316	1.34	13.89	7.69	1.94	2.25
-10	(+14)	2973	749	871	353	1.41	17.03	8.41	2.12	2.46
-5	(+23)	3562	898	1044	391	1.49	20.50	9.11	2.30	2.67
0	(+32)	4202	1059	1231	429	1.58	24.29	9.80	2.47	2.87

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]
-35	(-31)	725	183	212	182	1.09	4.10	3.95	1.00	1.16
-30	(-22)	1049	264	307	218	1.16	5.95	4.80	1.21	1.41
-25	(-13)	1422	358	417	256	1.23	8.08	5.57	1.40	1.63
-20	(- 4)	1845	465	541	294	1.31	10.50	6.29	1.59	1.84
-15	(+ 5)	2318	584	679	334	1.39	13.23	6.96	1.75	2.04
-10	(+14)	2840	716	832	374	1.48	16.27	7.60	1.91	2.23
-5	(+23)	3412	860	1000	416	1.58	19.63	8.21	2.07	2.40
0	(+32)	4033	1016	1182	458	1.68	23.32	8.80	2.22	2.58

E - PERFORMANCE - CURVES

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]
-35	(-31)	606	153	177	175	1.09	3.42	3.48	0.88	1.02
-30	(-22)	932	235	273	218	1.17	5.28	4.26	1.07	1.25
-25	(-13)	1307	329	383	263	1.26	7.42	4.96	1.25	1.45
-20	(- 4)	1732	436	507	308	1.36	9.85	5.61	1.41	1.64
-15	(+ 5)	2205	556	646	355	1.46	12.58	6.21	1.56	1.82
-10	(+14)	2727	687	799	403	1.56	15.62	6.76	1.70	1.98
-5	(+23)	3299	831	967	452	1.67	18.98	7.30	1.84	2.14
0	(+32)	3919	988	1148	502	1.79	22.65	7.81	1.97	2.29

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
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	6.45 +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		