

COMPRESSOR DEFINITION

Designation	NE U6212Z
Nominal Voltage/Frequency	200-230 V 50 Hz / 208-230 V 60 Hz
Engineering Number	269MB71

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	200-230 / 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	CSCR		
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 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	1/2	[hp]
2 Displacement	14.28	[cm ³] (0.871 cu.in)
2.1 Bore [mm]	30.157	
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)	11.6	[kg] (25.57 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	200-230 V 50 Hz / 208-230 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA3H3C-108	
3 Start capacitor	108-130(330)	[µF(VAC minimum)]
4 Run capacitor	12.5(400)	[µF(VAC minimum)]
5 Motor protection	MRA38173-3261	
6 Start winding resistance	10.90	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	3.59	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	26.00/26.00	[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	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @208V60Hz			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]
5796	1461	1698	693	3.37	37.58	8.36	2.11	2.45

E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V50Hz		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)	2407	607	705	317	1.96	13.02	7.60	1.91	2.23
-10	(+14)	3047	768	893	347	2.21	16.54	8.78	2.21	2.57
-5	(+23)	3816	962	1118	381	2.30	20.79	10.02	2.52	2.93
0	(+32)	4713	1188	1381	418	2.36	25.79	11.27	2.84	3.30
+5	(+41)	5738	1446	1681	458	2.48	31.57	12.52	3.15	3.67
+10	(+50)	6890	1736	2019	502	2.80	38.14	13.74	3.46	4.03

TEST CONDITIONS: @208V50Hz		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)	2129	537	624	339	2.06	12.44	6.27	1.58	1.84
-10	(+14)	2706	682	793	376	2.31	15.87	7.20	1.81	2.11
-5	(+23)	3402	857	997	415	2.42	20.03	8.20	2.07	2.40
0	(+32)	4218	1063	1236	457	2.51	24.95	9.24	2.33	2.71
+5	(+41)	5151	1298	1509	501	2.68	30.66	10.30	2.59	3.02
+10	(+50)	6202	1563	1817	547	3.06	37.17	11.34	2.86	3.32

TEST CONDITIONS: @208V50Hz		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)	1852	467	543	358	2.19	11.80	5.18	1.31	1.52
-10	(+14)	2370	597	695	403	2.38	15.16	5.87	1.48	1.72
-5	(+23)	2999	756	879	451	2.44	19.27	6.65	1.68	1.95
0	(+32)	3738	942	1095	499	2.48	24.14	7.49	1.89	2.19
+5	(+41)	4585	1155	1344	549	2.62	29.81	8.36	2.11	2.45
+10	(+50)	5540	1396	1623	600	2.99	36.28	9.24	2.33	2.71

E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V60Hz		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)	2820	711	826	365	1.79	15.25	7.72	1.94	2.26	
-10 (+14)	3550	895	1040	408	1.99	19.27	8.70	2.19	2.55	
-5 (+23)	4422	1114	1296	457	2.22	24.09	9.68	2.44	2.84	
0 (+32)	5436	1370	1593	511	2.48	29.75	10.64	2.68	3.12	
+5 (+41)	6594	1662	1932	571	2.77	36.27	11.54	2.91	3.38	
+10 (+50)	7894	1989	2313	637	3.10	43.71	12.39	3.12	3.63	

TEST CONDITIONS: @208V60Hz		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)	2498	630	732	392	1.90	14.60	6.37	1.60	1.87	
-10 (+14)	3164	797	927	441	2.13	18.55	7.18	1.81	2.10	
-5 (+23)	3964	999	1162	494	2.39	23.34	8.03	2.02	2.35	
0 (+32)	4899	1234	1435	552	2.67	28.98	8.88	2.24	2.60	
+5 (+41)	5969	1504	1749	615	2.98	35.52	9.71	2.45	2.85	
+10 (+50)	7174	1808	2102	682	3.31	42.99	10.51	2.65	3.08	

TEST CONDITIONS: @208V60Hz		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)	2188	551	641	411	1.99	13.94	5.32	1.34	1.56	
-10 (+14)	2780	701	815	469	2.27	17.78	5.93	1.49	1.74	
-5 (+23)	3499	882	1025	530	2.56	22.48	6.59	1.66	1.93	
0 (+32)	4344	1095	1273	595	2.87	28.06	7.29	1.84	2.14	
+5 (+41)	5317	1340	1558	664	3.21	34.57	8.01	2.02	2.35	
+10 (+50)	6417	1617	1880	736	3.56	42.03	8.72	2.20	2.56	

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		