



## COMPRESSOR TECHNICAL DATA

### COMPRESSOR DEFINITION

Designation	<b>NE U6214Z</b>
Nominal Voltage/Frequency	<b>220-240 V 50 Hz</b>
Engineering Number	<b>269NA51</b>

### 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 - 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	1/2	[hp]
2 Displacement	16.80	[cm <sup>3</sup> ] (1.025 cu.in)
2.1 Bore [mm]	31.190	
2.2 Stroke [mm]	22.000	
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 <sup>2</sup> ]

### C - ELECTRICAL 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	MTRPH-0048-65	
3 Start capacitor	108-130(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MST20APK-3259	
6 Start winding resistance	14.26	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	4.25	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	22.00	[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)	4.21	[A] - Measured according to UL 984
11 Approval boards certification	VDE	



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### 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]
5582	1407	1636	764	4.03	36.19	7.31	1.84	2.14

### 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)	2748	692	805	385	2.60	14.86	7.14	1.80	2.09
-10	(+14)	3465	873	1015	430	2.74	18.80	8.06	2.03	2.36
-5	(+23)	4321	1089	1266	481	2.91	23.54	8.98	2.26	2.63
0	(+32)	5317	1340	1558	537	3.12	29.09	9.89	2.49	2.90
+5	(+41)	6451	1626	1890	599	3.35	35.49	10.77	2.71	3.16
+10	(+50)	7725	1947	2264	666	3.62	42.77	11.60	2.92	3.40

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)	2427	612	711	415	2.69	14.18	5.86	1.48	1.72
-10	(+14)	3085	777	904	467	2.86	18.09	6.61	1.67	1.94
-5	(+23)	3868	975	1133	524	3.06	22.77	7.37	1.86	2.16
0	(+32)	4776	1203	1399	587	3.30	28.26	8.13	2.05	2.38
+5	(+41)	5808	1464	1702	656	3.57	34.57	8.86	2.23	2.60
+10	(+50)	6966	1755	2041	730	3.87	41.74	9.55	2.41	2.80

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)	2108	531	618	438	2.75	13.43	4.82	1.21	1.41
-10	(+14)	2691	678	788	501	2.97	17.21	5.36	1.35	1.57
-5	(+23)	3385	853	992	571	3.22	21.74	5.93	1.49	1.74
0	(+32)	4190	1056	1228	646	3.51	27.06	6.49	1.63	1.90
+5	(+41)	5105	1287	1496	727	3.84	33.19	7.03	1.77	2.06
+10	(+50)	6132	1545	1797	813	4.21	40.16	7.54	1.90	2.21



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### 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		