COMPRESSOR DEFINITION

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

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 - Hight starting torque		
7 Expantion device	Capillary tube or Expansion valve		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	16.2	[kgf/cm²] (230 psig)	/ ºC - ºF
9.2 Peak (gauge)	20.6	[kgf/cm²] (293 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/2	[hp]
2 Displacement	16.80	[cm³] (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	0.2 to 0.3	[kgf/cm²](2.84 to 4.27 psig)

C - ELETRICAL 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 25ºC (77ºF)] +/- 8%
7 Run winding resistance	4.25	[Ω at 25ºC (77ºF)] +/- 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		

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			**ASHRAEHBP46**		Evaporating temperature	**7.2°C (44.96°F)**		
@220V50Hz			**Fan**		(Condensing temperature	**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

TEST CONDITIONS:			**EN12900HBP_HH**		Evaporating temperature	**5°C (41°F)**		
@220V50Hz			**Fan**		(Condensing temperature	**50°C (122°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]
4978	1254	1459	688	3.71	34.03	7.24	1.82	2.12

E - PERFORMANCE - CURVES

TEST CONDITIONS:		**ASHRAE46**	(Condensing temperature **35ºC (+95ºF))**
@220V50Hz		**Fan**	

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:		**ASHRAE46**	(Condensing temperature **45ºC (+113ºF))**
@220V50Hz		**Fan**	

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

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE46** (Condensing temperature **55ºC (+131ºF))**
@220V50Hz **Fan**

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

TEST CONDITIONS: **EN12900HH** (Condensing temperature **35ºC (+95ºF))**
@220V50Hz **Fan**

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)**	2564	646	751	387	2.62	14.99	6.62	1.67	1.94
-10	**(+14)**	3233	815	947	432	2.76	18.98	7.49	1.89	2.19
-5	**(+23)**	4027	1015	1180	482	2.92	23.73	8.35	2.10	2.45
0	**(+32)**	4946	1246	1449	538	3.12	29.30	9.19	2.31	2.69
+5	**(+41)**	5990	1510	1755	600	3.35	35.70	9.99	2.52	2.93
+10	**(+50)**	7161	1805	2098	666	3.61	42.99	10.75	2.71	3.15

TEST CONDITIONS: **EN12900HH** (Condensing temperature **45ºC (+113ºF))**
@220V50Hz **Fan**

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)**	2241	565	657	415	2.70	14.29	5.40	1.36	1.58
-10	**(+14)**	2852	719	836	467	2.87	18.25	6.11	1.54	1.79
-5	**(+23)**	3574	901	1047	524	3.07	22.98	6.81	1.72	2.00
0	**(+32)**	4408	1111	1292	587	3.30	28.50	7.50	1.89	2.20
+5	**(+41)**	5355	1349	1569	656	3.57	34.86	8.16	2.06	2.39
+10	**(+50)**	6414	1616	1880	730	3.87	42.08	8.79	2.22	2.58

TEST CONDITIONS: **EN12900HH** (Condensing temperature **55ºC (+131ºF))**
@220V50Hz **Fan**

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)**	1936	488	567	438	2.76	13.62	4.42	1.11	1.30
-10	**(+14)**	2470	622	724	501	2.97	17.45	4.93	1.24	1.45
-5	**(+23)**	3103	782	909	569	3.22	22.04	5.45	1.37	1.60
0	**(+32)**	3835	967	1124	644	3.51	27.41	5.96	1.50	1.75
+5	**(+41)**	4667	1176	1367	724	3.83	33.60	6.45	1.62	1.89
+10	**(+50)**	5598	1411	1640	810	4.20	40.64	6.91	1.74	2.02

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		