

COMPRESSOR DEFINITION

Designation	NE U6210Z
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	268HA51

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 ²] (230 psig)	/ °C - °F
9.2 Peak (gauge)	20.6	[kgf/cm ²] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/2	[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)	10.6	[kg] (23.37 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

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	MTRP-49-65	
3 Start capacitor	64-77(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0874/G6	
6 Start winding resistance	27.64	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	5.04	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	18.50	[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)	3.15	[A] - Measured according to UL 984
11 Approval boards certification	VDE	

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]	
4202	1059	1231	519	3.05	27.24	8.10	2.04	2.37	

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)	2023	510	593	282	2.37	10.94	7.18	1.81	2.10
-10	(+14)	2557	644	749	309	2.42	13.88	8.27	2.08	2.42
-5	(+23)	3199	806	937	341	2.50	17.42	9.37	2.36	2.75
0	(+32)	3949	995	1157	377	2.60	21.61	10.48	2.64	3.07
+5	(+41)	4808	1212	1409	416	2.72	26.45	11.56	2.91	3.39
+10	(+50)	5774	1455	1692	459	2.87	31.97	12.58	3.17	3.69

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)	1780	449	522	302	2.43	10.40	5.88	1.48	1.72
-10	(+14)	2269	572	665	336	2.49	13.30	6.76	1.70	1.98
-5	(+23)	2860	721	838	372	2.58	16.84	7.69	1.94	2.25
0	(+32)	3555	896	1042	411	2.70	21.03	8.65	2.18	2.53
+5	(+41)	4353	1097	1275	453	2.83	25.91	9.61	2.42	2.82
+10	(+50)	5253	1324	1539	498	2.99	31.48	10.54	2.66	3.09

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)	1544	389	453	318	2.46	9.84	4.86	1.22	1.42
-10	(+14)	1975	498	579	359	2.56	12.63	5.50	1.39	1.61
-5	(+23)	2503	631	733	402	2.68	16.08	6.22	1.57	1.82
0	(+32)	3129	788	917	447	2.82	20.21	7.00	1.76	2.05
+5	(+41)	3853	971	1129	494	2.98	25.05	7.80	1.97	2.29
+10	(+50)	4673	1178	1369	543	3.15	30.60	8.61	2.17	2.52

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		