

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

TEST CONDITIONS: @220V50Hz			EN12900HBP_HH Fan		Evaporating temperature (Condensing temperature		5°C (41°F) 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]
3762	948	1102	474	2,41	25,72	7,94	2,00	2,33

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

E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 55°C (+131°F))					
@220V50Hz		Fan								
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
	+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 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	

TEST CONDITIONS:		EN12900HH			(Condensing temperature 35°C (+95°F))					
@220V50Hz		Fan								
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
	+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-15 (+5)	1904	480	558	284	2,38	11,13	6,72	1,69	1,97	
-10 (+14)	2400	605	703	312	2,44	14,09	7,69	1,94	2,25	
-5 (+23)	3000	756	879	344	2,52	17,69	8,71	2,20	2,55	
0 (+32)	3704	933	1085	380	2,62	21,95	9,75	2,46	2,86	
+5 (+41)	4512	1137	1322	419	2,75	26,89	10,76	2,71	3,15	
+10 (+50)	5422	1366	1589	463	2,89	32,54	11,72	2,95	3,43	

TEST CONDITIONS:		EN12900HH			(Condensing temperature 45°C (+113°F))					
@220V50Hz		Fan								
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
	+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-15 (+5)	1670	421	489	302	2,41	10,65	5,51	1,39	1,61	
-10 (+14)	2098	529	615	336	2,49	13,43	6,25	1,57	1,83	
-5 (+23)	2628	662	770	372	2,59	16,89	7,06	1,78	2,07	
0 (+32)	3259	821	955	411	2,71	21,07	7,93	2,00	2,32	
+5 (+41)	3991	1006	1170	454	2,84	25,98	8,81	2,22	2,58	
+10 (+50)	4825	1216	1414	499	2,99	31,65	9,67	2,44	2,83	

TEST CONDITIONS:		EN12900HH			(Condensing temperature 55°C (+131°F))					
@220V50Hz		Fan								
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE			
	+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%			
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
-15 (+5)	1452	366	426	318	2,45	10,22	4,57	1,15	1,34	
-10 (+14)	1807	455	530	359	2,56	12,77	5,04	1,27	1,48	
-5 (+23)	2262	570	663	402	2,68	16,06	5,62	1,42	1,65	
0 (+32)	2815	709	825	447	2,82	20,11	6,29	1,58	1,84	
+5 (+41)	3466	873	1016	494	2,98	24,96	7,01	1,77	2,05	
+10 (+50)	4216	1063	1235	544	3,15	30,61	7,76	1,95	2,27	

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		