

COMPRESSOR DEFINITION

Designation	NE U6212Z
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	268GA51

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	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)	11,14	[kg] (24.56 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm ²] (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	MTRP-0012	
3 Start capacitor	53-64(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0964/G6	
6 Start winding resistance	27.92	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	4.53	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	20.00	[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)	3.90	[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]
4845	1221	1420	628	3,81	31,41	7,72	1,95	2,26

TEST CONDITIONS: @220V50Hz			EN12900HBP 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]
4335	1092	1270	573	3,64	31,89	7,56	1,91	2,22

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)	2334	588	684	344	3,02	12,63	6,79	1,71	1,99
-10 (+14)	2944	742	863	377	3,08	15,98	7,82	1,97	2,29
-5 (+23)	3690	930	1081	413	3,16	20,10	8,93	2,25	2,62
0 (+32)	4572	1152	1340	452	3,26	25,01	10,11	2,55	2,96
+5 (+41)	5591	1409	1638	494	3,38	30,76	11,32	2,85	3,32
+10 (+50)	6746	1700	1977	538	3,52	37,35	12,55	3,16	3,68

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)	2042	515	598	371	3,10	11,93	5,51	1,39	1,61
-10 (+14)	2612	658	765	411	3,18	15,32	6,36	1,60	1,86
-5 (+23)	3303	832	968	453	3,27	19,45	7,29	1,84	2,14
0 (+32)	4115	1037	1206	497	3,39	24,35	8,27	2,08	2,42
+5 (+41)	5047	1272	1479	544	3,53	30,04	9,28	2,34	2,72
+10 (+50)	6101	1537	1788	593	3,69	36,56	10,30	2,59	3,02

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)	1772	447	519	390	3,13	11,29	4,55	1,15	1,33	
-10 (+14)	2283	575	669	439	3,24	14,60	5,20	1,31	1,52	
-5 (+23)	2899	731	850	490	3,37	18,63	5,91	1,49	1,73	
0 (+32)	3621	912	1061	543	3,52	23,39	6,67	1,68	1,95	
+5 (+41)	4448	1121	1303	598	3,69	28,91	7,44	1,88	2,18	
+10 (+50)	5380	1356	1576	655	3,89	35,23	8,21	2,07	2,41	

TEST CONDITIONS:		EN12900			(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)	2196	553	643	350	3,10	13,63	6,27	1,58	1,84	
-10 (+14)	2774	699	813	383	3,15	17,29	7,25	1,83	2,12	
-5 (+23)	3476	876	1019	419	3,23	21,77	8,29	2,09	2,43	
0 (+32)	4305	1085	1261	458	3,33	27,13	9,40	2,37	2,75	
+5 (+41)	5258	1325	1541	499	3,47	33,39	10,53	2,65	3,09	
+10 (+50)	6337	1597	1857	543	3,64	40,61	11,68	2,94	3,42	

TEST CONDITIONS:		EN12900			(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)	1880	474	551	373	3,14	12,78	5,04	1,27	1,48	
-10 (+14)	2412	608	707	413	3,21	16,49	5,84	1,47	1,71	
-5 (+23)	3052	769	894	455	3,30	20,98	6,71	1,69	1,97	
0 (+32)	3800	958	1114	500	3,43	26,30	7,61	1,92	2,23	
+5 (+41)	4657	1174	1365	546	3,58	32,50	8,53	2,15	2,50	
+10 (+50)	5623	1417	1648	595	3,76	39,62	9,44	2,38	2,77	

TEST CONDITIONS:		EN12900			(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)	1536	387	450	394	3,18	11,61	3,91	0,98	1,14	
-10 (+14)	2028	511	594	441	3,28	15,41	4,59	1,16	1,34	
-5 (+23)	2610	658	765	491	3,39	19,96	5,31	1,34	1,56	
0 (+32)	3284	828	962	543	3,53	25,31	6,05	1,52	1,77	
+5 (+41)	4050	1020	1187	597	3,70	31,50	6,79	1,71	1,99	
+10 (+50)	4906	1236	1438	654	3,90	38,56	7,51	1,89	2,20	

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	8,1 +0.10/+0.00	[mm]	(0.319" +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		