

COMPRESSOR DEFINITION

Designation	NE U6212GK
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	958HA51

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	220-240 / 50	[V / Hz]	
4 Application type	Medium Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-20°C to 10°C	(-4°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 (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)	25.7	[kgf/cm ²] (365 psig)	/ °C - °F
9.2 Peak (gauge)	28.7	[kgf/cm ²] (408 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/2	[hp]
2 Displacement	8.77	[cm ³] (0.535 cu.in)
2.1 Bore [mm]	26.497	
2.2 Stroke [mm]	15.920	
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	[kg] (24.25 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	MTRPH-0055-65	
3 Start capacitor	53-64(330)	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	T1019/G9	
6 Start winding resistance	27.40	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	4.87	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	19.00	[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)	-	[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]
4906	1236	1438	645	3.77	40.39	7.60	1.92	2.23

E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE46					(Condensing temperature35°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]
-20	(- 4)	2327	586	682	357	2.87	14.77	6.51	1.64	1.91
-15	(+ 5)	2886	727	846	387	2.94	18.43	7.46	1.88	2.19
-10	(+14)	3543	893	1038	416	3.02	22.76	8.52	2.15	2.50
-5	(+23)	4298	1083	1259	444	3.10	27.81	9.69	2.44	2.84
0	(+32)	5152	1298	1510	470	3.19	33.62	10.96	2.76	3.21
+5	(+41)	6103	1538	1788	495	3.29	40.25	12.33	3.11	3.61
+10	(+50)	7153	1802	2096	518	3.40	47.74	13.80	3.48	4.04

TEST CONDITIONS: @220V50Hz				ASHRAE46 Fan		(Condensing temperature 45°C (+113°F))				
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]
-20	(- 4)	1952	492	572	378	2.94	13.67	5.17	1.30	1.52
-15	(+ 5)	2453	618	719	416	3.03	17.30	5.90	1.49	1.73
-10	(+14)	3038	765	890	452	3.13	21.56	6.71	1.69	1.97
-5	(+23)	3705	934	1086	488	3.23	26.51	7.58	1.91	2.22
0	(+32)	4455	1123	1305	522	3.35	32.19	8.52	2.15	2.50
+5	(+41)	5288	1333	1550	556	3.47	38.65	9.52	2.40	2.79
+10	(+50)	6205	1564	1818	588	3.61	45.94	10.57	2.66	3.10

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]
-20	(- 4)	1589	400	466	404	3.01	12.50	3.93	0.99	1.15
-15	(+ 5)	2029	511	595	449	3.12	16.07	4.52	1.14	1.33
-10	(+14)	2537	639	743	493	3.25	20.24	5.15	1.30	1.51
-5	(+23)	3112	784	912	536	3.39	25.06	5.81	1.46	1.70
0	(+32)	3756	946	1100	579	3.54	30.57	6.50	1.64	1.90
+5	(+41)	4467	1126	1309	620	3.70	36.84	7.20	1.82	2.11
+10	(+50)	5245	1322	1537	661	3.87	43.90	7.93	2.00	2.32

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		

DEVELOPMENT