

COMPRESSOR DEFINITION

Designation	NE K6144GK
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	957GA50

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 - 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 temperature			
9.1 Operating (gauge)	25.2	[kgf/cm ²] (358 psig)	/ °C - °F
9.2 Peak (gauge)	28.3	[kgf/cm ²] (402 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/4	[hp]
2 Displacement	4.51	[cm ³] (0.275 cu.in)
2.1 Bore [mm]	20.873	
2.2 Stroke [mm]	13.200	
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)	10.4	[kg] (22.93 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-38	
3 Start capacitor	43-53(330)	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	T0186/G6	
6 Start winding resistance	27.40	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	7.90	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	9.60	[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	IMQ	

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]
2435	614	714	313	1.77	20.05	7.78	1.96	2.28

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]
-20	(- 4)	1216	306	356	178	1.28	7.72	6.82	1.72	2.00
-15	(+ 5)	1465	369	429	193	1.32	9.36	7.60	1.91	2.23
-10	(+14)	1781	449	522	206	1.37	11.44	8.63	2.18	2.53
-5	(+23)	2164	545	634	218	1.41	14.00	9.92	2.50	2.91
0	(+32)	2615	659	766	229	1.45	17.06	11.44	2.88	3.35
+5	(+41)	3134	790	918	238	1.48	20.67	13.18	3.32	3.86
+10	(+50)	3725	939	1091	246	1.51	24.86	15.13	3.81	4.43

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]
-20	(- 4)	1041	262	305	190	1.30	7.29	5.51	1.39	1.61
-15	(+ 5)	1252	316	367	209	1.37	8.83	6.00	1.51	1.76
-10	(+14)	1522	383	446	227	1.44	10.80	6.71	1.69	1.97
-5	(+23)	1850	466	542	243	1.50	13.23	7.60	1.92	2.23
0	(+32)	2238	564	656	258	1.55	16.17	8.67	2.19	2.54
+5	(+41)	2687	677	787	271	1.60	19.64	9.91	2.50	2.90
+10	(+50)	3198	806	937	283	1.65	23.68	11.30	2.85	3.31

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)	848	214	248	201	1.32	6.67	4.21	1.06	1.23
-15	(+ 5)	1027	259	301	225	1.41	8.13	4.58	1.15	1.34
-10	(+14)	1256	316	368	247	1.50	10.02	5.09	1.28	1.49
-5	(+23)	1535	387	450	268	1.58	12.36	5.73	1.45	1.68
0	(+32)	1866	470	547	287	1.66	15.20	6.50	1.64	1.91
+5	(+41)	2250	567	659	305	1.73	18.56	7.38	1.86	2.16
+10	(+50)	2688	677	788	322	1.80	22.49	8.35	2.10	2.45

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		