COMPRESSOR TECHNICAL DATA

COMPRESSOR DEFINITION

Designation	**NEK2121GK**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**957DA51**

CERTIFIED PRODUCT ASERCOM

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	Low Back Pressure		
4.1 Evaporating temperature range	-40°C to -10°C		
5 Motor type	CSIR		
6 Starting torque	HST - Hight starting torque		
7 Expantion device	Capillary tube or Expansion valve		
8 Compressor cooling	Static cooled	Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
	-	-	-
	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	24.7	[bar]	
9.2 Peak (gauge)	27.7	[bar]	
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/4+	[hp]
2 Displacement	5.44	[cm³]
2.1 Bore	20.88	
2.2 Stroke	15.94	
3 Lubricant charge	350	[ml]
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight(with oil charge)	10.4	[kg]
5 Nitrogen charge	0.2 to 0.3	[bar]

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 (external)	T0050/G6	
6 Start winding resistance	27.40	[ohm at 25ºC] +/- 8%
7 Run winding resistance	7.90	[ohm at 25ºC] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	9.6	[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:	**EN12900LBP HH**	Evap. Temp **–35°C** Return Gas +32°C
@220V50Hz	**Static cooled**	Cond. Temp **+40°C** Liquid Subcooling 0 K

Cooling capacity +/- 5%	Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%
[W]	[W]	[A]	[Kg/h]	[W/W]
156	157	1.15	3.90	0.99

E - PERFORMANCE - CURVES

TEST CONDITIONS: **EN12900 HH** Condensing temperature **35ºC**
@220V50Hz **Static cooled**

Evaporating temperature	Cooling capacity +/- 5%	Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%
°C	[W]	[W]	[A]	[Kg/h]	[W/W]
-40	128	132	1.09	3.03	0.97
-35	172	153	1.15	4.09	1.12
-30	226	173	1.21	5.40	1.31
-25	292	193	1.28	6.99	1.52
-20	369	211	1.34	8.87	1.75
-15	457	229	1.41	11.06	2.00
-10	557	245	1.47	13.59	2.27

TEST CONDITIONS: **EN12900 HH** Condensing temperature **45ºC**
@220V50Hz **Static cooled**

Evaporating temperature	Cooling capacity +/- 5%	Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%
°C	[W]	[W]	[A]	[Kg/h]	[W/W]
-40	104	135	1.09	2.76	0.77
-35	139	157	1.16	3.71	0.88
-30	183	180	1.23	4.91	1.02
-25	238	204	1.31	6.40	1.17
-20	302	228	1.39	8.18	1.33
-15	377	252	1.48	10.29	1.50
-10	463	275	1.57	12.73	1.68

TEST CONDITIONS: **EN12900 HH** Condensing temperature **55ºC**
@220V50Hz **Static cooled**

Evaporating temperature	Cooling capacity +/- 5%	Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%
°C	[W]	[W]	[A]	[Kg/h]	[W/W]
-40	-	-	-	-	-
-35	108	156	1.16	3.32	0.69
-30	143	182	1.25	4.44	0.79
-25	188	209	1.34	5.85	0.90
-20	241	238	1.44	7.56	1.01
-15	303	268	1.55	9.60	1.13
-10	375	299	1.67	11.98	1.26

F - EXTERNAL CHARACTERISTICS

1 Base plate	European	
2 Tray holder	No	
3 Connectors		
3.1 SUCTION	8.1 +0.10/+0.00	[mm]
3.1.1 Material	Copper	
3.1.2 Shape	Slanted 42°	
3.2 DISCHARGE	6.1 +0.10/+0.00	[mm]
3.2.1 Material	Copper	
3.2.2 Shape	Straight	
3.3 PROCESS	6.1 +0.10/+0.00	[mm]
3.3.1 Material	Copper	
3.3.2 Shape	Slanted 42°	
3.4 Oil cooler (Copper)	No	[mm]
3.5 Connector sealing	Rubber Plugs	