

COMPRESSOR DEFINITION

Designation	NEK2150GK
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	959AA51


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 - High starting torque		
7 Expansion device	Capillary tube or Expansion valve		
8 Compressor cooling	Fan cooled	Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	-	-	-
8.2 LBP (43°C 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	1/2+	[hp]
2 Displacement	12.12	[cm³]
2.1 Bore	27.78	
2.2 Stroke	20.0	
3 Lubricant charge	350	[ml]
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight(with oil charge)	11.6	[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	MTRP0012	
3 Start capacitor	72-88 (330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection (external)	T0634	
6 Start winding resistance	30.4	[ohm at 25°C] +/- 8%
7 Run winding resistance	4.2	[ohm at 25°C] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	19.5	[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		EN12900LBP household Fan Cooled		Evap. temp. -35°C	Return Gas +32°C
				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]
346		354	2.87	8.74	0.98

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		EN12900 household Fan Cooled		Condensing temperature		35°C
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	290	303	2.75	6.85	0.96	
-35	381	347	2.86	9.07	1.10	
-30	493	392	2.97	11.76	1.26	
-25	627	438	3.10	14.99	1.43	
-20	785	484	3.24	18.85	1.62	
-15	969	532	3.40	23.43	1.82	
-10	1180	582	3.57	34.67	2.03	

TEST CONDITIONS: @220V50Hz		EN12900 household Fan Cooled		Condensing temperature		45°C
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	235	311	2.77	6.21	0.76	
-35	313	359	2.88	8.38	0.87	
-30	408	410	3.01	10.97	1.00	
-25	522	464	3.17	14.08	1.13	
-20	657	521	3.34	17.79	1.26	
-15	814	580	3.55	22.18	1.40	
-10	995	643	3.78	27.33	1.55	

TEST CONDITIONS: @220V50Hz		EN12900 household Fan cooled		Condensing temperature		55°C
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	249	367	2.90	7.58	0.68	
-30	326	424	3.05	10.08	0.77	
-25	419	486	3.23	13.07	0.86	
-20	529	553	3.45	16.62	0.96	
-15	657	624	3.69	20.81	1.05	
-10	807	700	3.98	25.74	1.15	

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard
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