

COMPRESSOR DEFINITION

Designation	NEK2125GK
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	957EA51



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	1/3+	[hp]
2 Displacement	6.20	[cm³]
2.1 Bore	20.88	
2.2 Stroke	18.12	
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	MTRPH-0028	
3 Start capacitor	53-64 (330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection (external)	T0186/G6	
6 Start winding resistance	27.70	[ohm at 25°C] +/- 8%
7 Run winding resistance	6.0	[ohm at 25°C] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	12.4	[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 HH 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]
	178	199	1.86	4.46	0.90

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		EN12900 HH 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	146	167	1.81	3.44	0.87
-35	195	193	1.86	4.63	1.01
-30	258	215	1.91	6.14	1.20
-25	333	236	1.96	7.97	1.41
-20	421	256	2.01	10.10	1.64
-15	518	277	2.07	12.53	1.87
-10	626	299	2.13	15.24	2.09

TEST CONDITIONS: @220V50Hz		EN12900 HH 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	120	172	1.81	3.18	0.70
-35	160	201	1.86	4.28	0.80
-30	213	228	1.92	5.72	0.94
-25	278	253	1.98	7.48	1.10
-20	354	279	2.05	9.56	1.27
-15	439	306	2.13	11.96	1.44
-10	534	335	2.21	14.65	1.59

TEST CONDITIONS: @220V50Hz		EN12900 HH 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	128	203	1.88	3.91	0.63
-30	169	233	1.94	5.22	0.72
-25	221	263	2.01	6.89	0.84
-20	283	293	2.09	8.88	0.97
-15	354	326	2.19	11.20	1.09
-10	434	361	2.30	13.84	1.20

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	