

COMPRESSOR DEFINITION

Designation	NEK2117GK
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	957BA42


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	Static 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	1/4	[hp]
2 Displacement	4.51	[cm ³]
2.1 Bore	20.88	
2.2 Stroke	13.2	
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)	T0186/G6	
6 Start winding resistance	27.40	[ohm at 25°C] +/- 8%
7 Run winding resistance	7.90	[ohm at 25°C] +/- 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: @220V50Hz		EN12900LBP HH Static 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]
125		133	1.09	3.14	0.94

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		EN12900 HH Static 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	103		115	1.07	2.43	0.89
-35	140		132	1.10	3.32	1.06
-30	184		147	1.14	4.39	1.26
-25	237		160	1.18	5.68	1.48
-20	300		175	1.22	7.20	1.72
-15	371		191	1.26	8.97	1.95
-10	452		210	1.31	11.02	2.15

TEST CONDITIONS: @220V50Hz		EN12900 HH Static 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	80		111	1.04	2.12	0.72
-35	111		132	1.09	2.97	0.84
-30	149		151	1.14	3.99	0.98
-25	194		168	1.20	5.21	1.15
-20	246		186	1.26	6.65	1.32
-15	306		204	1.32	8.33	1.50
-10	374		226	1.39	10.27	1.66

TEST CONDITIONS: @220V50Hz		EN12900 HH Static 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	86		128	1.10	2.62	0.67
-30	117		152	1.16	3.62	0.77
-25	154		175	1.23	4.81	0.88
-20	197		196	1.30	6.19	1.00
-15	247		219	1.38	7.81	1.13
-10	303		244	1.46	9.67	1.24

F - EXTERNAL CHARACTERISTICS

1 Base plate	European	
2 Tray holder	No	
3 Connectors		
3.1 SUCTION	6.1 +0.10/+0.00	[mm]
3.1.1 Material	Copper	
3.1.2 Shape	Slanted 42°	
3.2 DISCHARGE	4.86 +0.07/+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	