

COMPRESSOR DEFINITION

Designation	NJ 9238GK
Nominal Voltage/Frequency	230 V 50 Hz
Engineering Number	943RV01

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	230 / 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	CSCR		
6 Starting torque	HST - Hight 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	25.2	[kgf/cm ²] (358 psig)	/ °C - °F
9.2 Peak	28.3	[kgf/cm ²] (402 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1 1/2	[hp]
2 Displacement	32.67	[cm ³] (1.994 cu.in)
2.1 Bore [mm]	41.770	
2.2 Stroke [mm]	23.850	
3 Lubricant charge	750	[ml] (25.36 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	22.1	[kg] (48.72 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	230 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA3H3C-108	
3 Start capacitor	130-156(330)	[µF(VAC minimum)]
4 Run capacitor	25(400)	[µF(VAC minimum)]
5 Motor protection	T0878/C9 OR MRA3764-	
6 Start winding resistance	5.46	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.83	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	43.00	[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	CCC - IRAM - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @230V50Hz			EN12900MBP Fan		Evaporating temperature (Condensing temperature		-10°C (14°F) 45°C (113°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]
8272	2085	2424	1521	7.44	72.81	5.44	1.37	1.59

E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V50Hz			EN12900 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)	6496	1637	1903	1178	6.08	49.35	5.51	1.39	1.61
-15	(+ 5)	8236	2076	2413	1311	6.57	63.08	6.28	1.58	1.84
-10	(+14)	10206	2572	2991	1447	7.09	78.83	7.06	1.78	2.07
-5	(+23)	12431	3133	3643	1583	7.65	97.03	7.85	1.98	2.30
0	(+32)	14937	3764	4377	1720	8.22	118.10	8.68	2.19	2.54
+5	(+41)	17750	4473	5201	1855	8.83	142.46	9.57	2.41	2.80
+10	(+50)	20895	5265	6123	1988	9.46	170.53	10.52	2.65	3.08

TEST CONDITIONS: @230V50Hz			EN12900 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)	5142	1296	1507	1215	6.20	44.41	4.24	1.07	1.24
-15	(+ 5)	6617	1668	1939	1365	6.80	57.66	4.85	1.22	1.42
-10	(+14)	8273	2085	2424	1521	7.43	72.81	5.43	1.37	1.59
-5	(+23)	10134	2554	2970	1683	8.10	90.28	6.02	1.52	1.76
0	(+32)	12227	3081	3583	1849	8.81	110.49	6.62	1.67	1.94
+5	(+41)	14577	3673	4271	2019	9.56	133.87	7.25	1.83	2.12
+10	(+50)	17210	4337	5043	2191	10.35	160.83	7.93	2.00	2.32

TEST CONDITIONS: @230V50Hz			EN12900 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)	3992	1006	1170	1256	6.37	40.58	3.18	0.80	0.93
-15	(+ 5)	5165	1302	1513	1417	7.01	53.00	3.64	0.92	1.07
-10	(+14)	6468	1630	1895	1590	7.70	67.19	4.07	1.03	1.19
-5	(+23)	7928	1998	2323	1773	8.44	83.57	4.47	1.13	1.31
0	(+32)	9570	2412	2804	1965	9.23	102.56	4.87	1.23	1.43
+5	(+41)	11420	2878	3346	2165	10.07	124.59	5.27	1.33	1.54
+10	(+50)	13503	3403	3957	2371	10.96	150.09	5.70	1.44	1.67

F - EXTERNAL CHARACTERISTICS

1 Base plate	American Standard		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	12.77 +0.08/+0.00	[mm]	(0.503" +0.003"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Vertical		
3.2 DISCHARGE	8 +0.07/+0.00	[mm]	(0.315" +0.003"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted J		
3.3 PROCESS	6.42 +0.08/+0.00	[mm]	(0.253" +0.003"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Vertical		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		