

COMPRESSOR DEFINITION

Designation	NJ 9238GK
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	943RD11

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	208-230 / 60	[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	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA6M3C-114	
3 Start capacitor	145-175(330)	[µF(VAC minimum)]
4 Run capacitor	30(400)	[µF(VAC minimum)]
5 Motor protection	15HM1990-248	
6 Start winding resistance	3.33	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.01	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	60.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	CCC - UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @230V60Hz			ARIMBP Fan		Evaporating temperature (Condensing temperature		-6.7°C (19.94°F) 48.9°C (120.02°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]
9339	2353	2737	1984	9.15	100.64	4.71	1.19	1.38

E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V60Hz		ARI4 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)	7320	1845	2145	1453	6.97	61.79	5.02	1.27	1.47
-15	(+ 5)	9219	2323	2701	1598	7.57	78.83	5.76	1.45	1.69
-10	(+14)	11351	2860	3326	1747	8.19	98.24	6.50	1.64	1.91
-5	(+23)	13714	3456	4019	1899	8.82	120.39	7.23	1.82	2.12
0	(+32)	16309	4110	4779	2055	9.46	145.65	7.95	2.00	2.33
+5	(+41)	19136	4822	5607	2214	10.13	174.36	8.65	2.18	2.53
+10	(+50)	22195	5593	6504	2376	10.82	206.89	9.33	2.35	2.73

TEST CONDITIONS: @230V60Hz		ARI4 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)	5554	1400	1628	1488	7.09	54.38	3.76	0.95	1.10
-15	(+ 5)	7192	1812	2107	1646	7.76	71.02	4.37	1.10	1.28
-10	(+14)	9065	2284	2656	1813	8.48	90.68	4.99	1.26	1.46
-5	(+23)	11173	2816	3274	1991	9.24	113.73	5.59	1.41	1.64
0	(+32)	13516	3406	3960	2177	10.05	140.52	6.19	1.56	1.81
+5	(+41)	16094	4056	4716	2374	10.92	171.42	6.78	1.71	1.99
+10	(+50)	18906	4764	5540	2580	11.84	206.78	7.34	1.85	2.15

TEST CONDITIONS: @230V60Hz		ARI4 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)	4249	1071	1245	1493	7.13	49.88	2.83	0.71	0.83
-15	(+ 5)	5414	1364	1586	1673	7.87	64.40	3.24	0.82	0.95
-10	(+14)	6817	1718	1998	1869	8.69	82.58	3.66	0.92	1.07
-5	(+23)	8458	2132	2479	2080	9.59	104.80	4.07	1.03	1.19
0	(+32)	10338	2605	3029	2308	10.57	131.41	4.48	1.13	1.31
+5	(+41)	12455	3139	3650	2551	11.64	162.76	4.88	1.23	1.43
+10	(+50)	14810	3732	4340	2810	12.79	199.23	5.27	1.33	1.54

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		