

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: @208V60Hz			ASHRAEHBP46 Fan		Evaporating temperature (Condensing temperature		7.2°C (44.96°F) 54.4°C (129.92°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]
18466	4653	5411	2676	13.25	152.02	6.90	1.74	2.02

E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V60Hz			ASHRAE46 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)	8811	2220	2582	1383	6.76	55.94	6.36	1.60	1.86
-15	(+ 5)	10925	2753	3201	1529	7.42	69.76	7.16	1.80	2.10
-10	(+14)	13473	3395	3948	1687	8.16	86.53	8.00	2.02	2.34
-5	(+23)	16455	4147	4822	1857	8.99	106.44	8.86	2.23	2.60
0	(+32)	19871	5008	5823	2039	9.90	129.68	9.74	2.45	2.85
+5	(+41)	23721	5978	6951	2233	10.91	156.44	10.62	2.68	3.11
+10	(+50)	28006	7057	8206	2439	12.01	186.93	11.49	2.90	3.37

TEST CONDITIONS: @208V60Hz			ASHRAE46 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)	7234	1823	2120	1395	6.83	50.62	5.19	1.31	1.52
-15	(+ 5)	9168	2310	2686	1574	7.68	64.64	5.83	1.47	1.71
-10	(+14)	11449	2885	3355	1763	8.59	81.28	6.49	1.64	1.90
-5	(+23)	14077	3547	4125	1964	9.56	100.74	7.16	1.80	2.10
0	(+32)	17051	4297	4996	2176	10.60	123.21	7.84	1.97	2.30
+5	(+41)	20372	5134	5969	2398	11.70	148.88	8.50	2.14	2.49
+10	(+50)	24040	6058	7044	2633	12.87	177.94	9.14	2.30	2.68

TEST CONDITIONS: @208V60Hz			ASHRAE46 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)	5733	1445	1680	1410	6.96	45.12	4.07	1.03	1.19
-15	(+ 5)	7433	1873	2178	1620	7.99	58.87	4.58	1.15	1.34
-10	(+14)	9392	2367	2752	1839	9.05	74.91	5.10	1.28	1.49
-5	(+23)	11610	2926	3402	2069	10.15	93.44	5.61	1.41	1.64
0	(+32)	14087	3550	4128	2310	11.29	114.66	6.11	1.54	1.79
+5	(+41)	16824	4240	4930	2560	12.47	138.76	6.58	1.66	1.93
+10	(+50)	19820	4995	5808	2821	13.69	165.92	7.01	1.77	2.06

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		