

COMPRESSOR DEFINITION

Designation	NJ 9238GS
Nominal Voltage/Frequency	380 V 60 Hz
Engineering Number	947RP11

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	380 / 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	3PHASE		
6 Starting torque	HST - High 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)	21.4	[kg] (47.18 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	380 V 60 Hz 1 ~ (Three phase)	
2 Starting device type	3PHASE	
2.1 Starting device		
3 Start capacitor	-	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	34HM260	
6 Start winding resistance		[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	6.30	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	24.00	[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		

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @380V60Hz			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]
8784	2214	2574	1988	4.17	94.66	4.42	1.11	1.30

E - PERFORMANCE - CURVES

TEST CONDITIONS: @380V60Hz		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)	6905	1740	2023	1382	3.46	58.33	4.98	1.26	1.46
-15	(+ 5)	8659	2182	2537	1554	3.64	74.02	5.57	1.40	1.63
-10	(+14)	10656	2685	3123	1722	3.83	92.20	6.19	1.56	1.81
-5	(+23)	12898	3250	3779	1887	4.03	113.21	6.85	1.73	2.01
0	(+32)	15384	3877	4508	2048	4.24	137.38	7.52	1.90	2.20
+5	(+41)	18114	4565	5308	2204	4.45	165.06	8.22	2.07	2.41
+10	(+50)	21088	5314	6179	2356	4.68	196.58	8.93	2.25	2.62

TEST CONDITIONS: @380V60Hz		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)	5341	1346	1565	1434	3.51	52.23	3.76	0.95	1.10
-15	(+ 5)	6849	1726	2007	1621	3.71	67.63	4.23	1.07	1.24
-10	(+14)	8582	2163	2515	1811	3.94	85.89	4.73	1.19	1.39
-5	(+23)	10542	2657	3089	2003	4.18	107.36	5.24	1.32	1.54
0	(+32)	12729	3208	3730	2198	4.44	132.38	5.78	1.46	1.69
+5	(+41)	15142	3816	4437	2395	4.72	161.28	6.32	1.59	1.85
+10	(+50)	17781	4481	5210	2594	5.02	194.41	6.87	1.73	2.01

TEST CONDITIONS: @380V60Hz		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)	4051	1021	1187	1460	3.54	47.58	2.76	0.70	0.81
-15	(+ 5)	5140	1295	1506	1673	3.77	61.16	3.07	0.77	0.90
-10	(+14)	6438	1622	1886	1895	4.04	77.98	3.40	0.86	1.00
-5	(+23)	7944	2002	2328	2126	4.33	98.40	3.74	0.94	1.10
0	(+32)	9659	2434	2830	2366	4.66	122.74	4.09	1.03	1.20
+5	(+41)	11582	2919	3394	2614	5.02	151.34	4.43	1.12	1.30
+10	(+50)	13714	3456	4019	2871	5.41	184.55	4.77	1.20	1.40

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		