

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			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]
17841	4496	5228	2764	5.21	146.88	6.45	1.63	1.89

E - PERFORMANCE - CURVES

TEST CONDITIONS: @380V60Hz		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)	8371	2110	2453	1388	3.46	53.08	6.02	1.52	1.77
-15	(+ 5)	10503	2647	3078	1551	3.63	67.09	6.77	1.71	1.98
-10	(+14)	12935	3260	3790	1717	3.81	83.12	7.53	1.90	2.21
-5	(+23)	15665	3948	4590	1887	4.02	101.36	8.31	2.09	2.43
0	(+32)	18694	4711	5478	2060	4.24	122.00	9.08	2.29	2.66
+5	(+41)	22023	5550	6453	2237	4.48	145.22	9.85	2.48	2.89
+10	(+50)	25650	6464	7516	2417	4.74	171.19	10.60	2.67	3.11

TEST CONDITIONS: @380V60Hz		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)	6944	1750	2035	1446	3.51	48.70	4.82	1.21	1.41
-15	(+ 5)	8823	2223	2585	1628	3.70	62.20	5.42	1.37	1.59
-10	(+14)	11010	2774	3226	1817	3.92	78.09	6.05	1.52	1.77
-5	(+23)	13504	3403	3957	2014	4.16	96.55	6.70	1.69	1.96
0	(+32)	16307	4109	4778	2217	4.42	117.76	7.35	1.85	2.15
+5	(+41)	19417	4893	5690	2429	4.71	141.90	8.00	2.02	2.34
+10	(+50)	22835	5755	6691	2647	5.02	169.15	8.64	2.18	2.53

TEST CONDITIONS: @380V60Hz		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)	5571	1404	1633	1476	3.53	43.79	3.77	0.95	1.10
-15	(+ 5)	7080	1784	2075	1688	3.77	56.05	4.20	1.06	1.23
-10	(+14)	8905	2244	2609	1911	4.04	71.05	4.66	1.18	1.37
-5	(+23)	11047	2784	3237	2146	4.34	88.97	5.15	1.30	1.51
0	(+32)	13505	3403	3957	2391	4.68	109.99	5.65	1.42	1.65
+5	(+41)	16280	4103	4770	2648	5.04	134.29	6.15	1.55	1.80
+10	(+50)	19371	4882	5676	2915	5.43	162.06	6.64	1.67	1.95

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		