

COMPRESSOR DEFINITION

Designation	NJ 9232GK
Nominal Voltage/Frequency	208-230 V 60 Hz / 200 V 50 Hz
Engineering Number	943ND01

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 R404A)		
4.1 Evaporating temperature range	-20°C to 0°C	(-4°F to 32°F)	
5 Motor type	CSCR		
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 pressures/temperature			
9.1 Operating (gauge)	25.7	[kgf/cm ²] (365 psig)	/ °C - °F
9.2 Peak (gauge)	28.7	[kgf/cm ²] (408 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1 1/4	[hp]
2 Displacement	26.11	[cm ³] (1.593 cu.in)
2.1 Bore [mm]	41.770	
2.2 Stroke [mm]	19.066	
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)	21.5	[kg] (47.40 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	208-230 V 60 Hz / 200 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	3ARR3B3AV3	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	20(440)	[µF(VAC minimum)]
5 Motor protection	T0826/20	
6 Start winding resistance	5.56	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.23	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	-	[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	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]
16053	4045	4704	1960	9.70	132.16	8.19	2.06	2.40

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)	6745	1700	1977	1077	5.87	42.83	6.26	1.58	1.83
-15	(+ 5)	8605	2168	2521	1185	6.24	54.92	7.26	1.83	2.13
-10	(+14)	10902	2747	3195	1287	6.60	70.01	8.47	2.14	2.48
-5	(+23)	13637	3437	3996	1382	6.96	88.24	9.87	2.49	2.89
0	(+32)	16810	4236	4926	1470	7.32	109.73	11.43	2.88	3.35
+5	(+41)	20421	5146	5984	1551	7.69	134.62	13.14	3.31	3.85
+10	(+50)	24469	6166	7170	1625	8.08	163.06	14.98	3.78	4.39

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)	5629	1419	1649	1083	5.89	39.43	5.20	1.31	1.53
-15	(+ 5)	7297	1839	2138	1221	6.43	51.43	5.97	1.51	1.75
-10	(+14)	9328	2351	2733	1354	6.96	66.21	6.88	1.73	2.02
-5	(+23)	11724	2954	3435	1481	7.49	83.90	7.91	1.99	2.32
0	(+32)	14484	3650	4244	1603	8.02	104.62	9.04	2.28	2.65
+5	(+41)	17607	4437	5159	1719	8.56	128.52	10.26	2.59	3.01
+10	(+50)	21093	5315	6181	1828	9.11	155.73	11.54	2.91	3.38

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)	4470	1127	1310	1088	5.92	35.16	4.11	1.03	1.20
-15	(+ 5)	5934	1495	1739	1258	6.62	46.97	4.72	1.19	1.38
-10	(+14)	7687	1937	2253	1424	7.32	61.33	5.40	1.36	1.58
-5	(+23)	9731	2452	2851	1585	8.01	78.36	6.14	1.55	1.80
0	(+32)	12064	3040	3535	1742	8.71	98.21	6.92	1.74	2.03
+5	(+41)	14687	3701	4304	1894	9.42	121.01	7.72	1.94	2.26
+10	(+50)	17600	4435	5157	2041	10.14	146.89	8.51	2.15	2.49

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	9.6 +0.07/+0.00	[mm]	(0.378" +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		