

### COMPRESSOR DEFINITION

Designation	NJ 2212GK
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	943BA01

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	220-240 / 50	[ V / Hz ]	
4 Application type	Low Back Pressure R404A		
4.1 Evaporating temperature range	-40°C to -10°C	(-40°F to 14°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 pressures/temperature			
9.1 Operating (gauge)	25.7	[kgf/cm <sup>2</sup> ] (365 psig)	/ °C - °F
9.2 Peak (gauge)	28.7	[kgf/cm <sup>2</sup> ] (408 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1 1/2	[hp]
2 Displacement	34.38	[cm <sup>3</sup> ] (2.098 cu.in)
2.1 Bore [mm]	42.850	
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)	21.45	[kg] (47.29 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm <sup>2</sup> ] (2.84 to 4.27 psig)

### C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 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	3HM190-105	
6 Start winding resistance	7.25	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.95	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	IMQ	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			ASHRAELBP32 Fan		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°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]
5150	1298	1509	1150	5.62	34.91	4.48	1.13	1.31

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			ASHRAE32 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]
-40	(-40)	2148	541	629	658	3.59	14.43	3.28	0.83	0.96
-35	(-31)	3278	826	961	777	4.02	22.11	4.20	1.06	1.23
-30	(-22)	4578	1154	1341	903	4.51	30.98	5.06	1.27	1.48
-25	(-13)	6054	1526	1774	1036	5.07	41.13	5.85	1.47	1.71
-20	(- 4)	7713	1944	2260	1176	5.69	52.67	6.58	1.66	1.93
-15	(+ 5)	9564	2410	2802	1324	6.36	65.70	7.24	1.82	2.12
-10	(+14)	11612	2926	3402	1480	7.10	80.33	7.83	1.97	2.29

TEST CONDITIONS: @220V50Hz			ASHRAE32 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]
-40	(-40)	1827	460	535	610	3.41	12.26	3.00	0.76	0.88
-35	(-31)	2785	702	816	750	3.90	18.74	3.71	0.93	1.09
-30	(-22)	3960	998	1160	900	4.48	26.74	4.40	1.11	1.29
-25	(-13)	5361	1351	1571	1058	5.13	36.35	5.06	1.28	1.48
-20	(- 4)	6994	1762	2049	1227	5.87	47.66	5.70	1.44	1.67
-15	(+ 5)	8867	2234	2598	1405	6.69	60.80	6.31	1.59	1.85
-10	(+14)	10986	2768	3219	1593	7.58	75.85	6.89	1.74	2.02

TEST CONDITIONS: @220V50Hz			ASHRAE32 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]
-40	(-40)	1585	399	464	566	3.23	10.61	2.78	0.70	0.82
-35	(-31)	2387	602	700	722	3.78	16.04	3.33	0.84	0.98
-30	(-22)	3457	871	1013	890	4.44	23.29	3.90	0.98	1.14
-25	(-13)	4800	1210	1407	1069	5.20	32.48	4.48	1.13	1.31
-20	(- 4)	6425	1619	1883	1260	6.05	43.70	5.08	1.28	1.49
-15	(+ 5)	8338	2101	2443	1463	7.01	57.06	5.69	1.43	1.67
-10	(+14)	10546	2658	3090	1678	8.06	72.66	6.30	1.59	1.85

### 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		