

COMPRESSOR DEFINITION

Designation	NJ X2219GK
Nominal Voltage/Frequency	230 V 50 Hz
Engineering Number	945FV21

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	230 / 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 - 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	2	[hp]
2 Displacement	37.88	[cm ³] (2.312 cu.in)
2.1 Bore [mm]	44.980	
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)	22.8	[kg] (50.26 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	230 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA2AM3C-104	
3 Start capacitor	108-130(330)	[µF(VAC minimum)]
4 Run capacitor	25(400)	[µF(VAC minimum)]
5 Motor protection	USP-703-88	
6 Start winding resistance		[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance		[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	38.00	[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	CCC - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @230V50Hz			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]	
7062	1780	2069	1454	6.68	47.88	4.86	1.22	1.42	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V50Hz			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)	3392	855	994	815	4.04	22.80	4.15	1.05	1.22
-35	(-31)	4373	1102	1281	931	4.50	29.49	4.71	1.19	1.38
-30	(-22)	5668	1428	1661	1058	5.02	38.34	5.36	1.35	1.57
-25	(-13)	7276	1834	2132	1195	5.60	49.43	6.08	1.53	1.78
-20	(- 4)	9198	2318	2695	1342	6.23	62.82	6.85	1.73	2.01
-15	(+ 5)	11435	2882	3351	1500	6.93	78.57	7.63	1.92	2.23
-10	(+14)	13986	3524	4098	1668	7.68	96.75	8.39	2.11	2.46

TEST CONDITIONS: @230V50Hz			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)	3157	796	925	838	4.09	21.17	3.77	0.95	1.11
-35	(-31)	4104	1034	1203	970	4.64	27.62	4.24	1.07	1.24
-30	(-22)	5347	1347	1567	1114	5.25	36.10	4.80	1.21	1.41
-25	(-13)	6885	1735	2018	1272	5.93	46.68	5.41	1.36	1.58
-20	(- 4)	8720	2197	2555	1442	6.67	59.43	6.04	1.52	1.77
-15	(+ 5)	10850	2734	3179	1625	7.47	74.40	6.68	1.68	1.96
-10	(+14)	13277	3346	3890	1821	8.34	91.67	7.29	1.84	2.14

TEST CONDITIONS: @230V50Hz			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)	2814	709	825	840	4.03	18.83	3.35	0.84	0.98
-35	(-31)	3733	941	1094	992	4.69	25.08	3.76	0.95	1.10
-30	(-22)	4930	1242	1444	1159	5.42	33.22	4.25	1.07	1.24
-25	(-13)	6404	1614	1876	1341	6.22	43.33	4.77	1.20	1.40
-20	(- 4)	8156	2055	2390	1539	7.10	55.47	5.31	1.34	1.56
-15	(+ 5)	10186	2567	2985	1751	8.05	69.70	5.83	1.47	1.71
-10	(+14)	12494	3148	3661	1980	9.08	86.09	6.30	1.59	1.85

F - EXTERNAL CHARACTERISTICS

1 Base plate	American Standard		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	12.81 +0.04/-0.04	[mm]	(0.504" +0.002"/-0.002")
3.1.1 Material	Copper		
3.1.2 Shape	Vertical		
3.2 DISCHARGE	8.04 +0.04/-0.04	[mm]	(0.317" +0.002"/-0.002")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted J		
3.3 PROCESS	6.45 +0.10/+0.00	[mm]	(0.254" +0.004"/+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		