

COMPRESSOR DEFINITION

Designation	NJ 2192GJ
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	943CA19

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 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 1/4	[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	[kg] (46.30 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	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA2L3C	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	15(440)	[µF(VAC minimum)]
5 Motor protection	15HM1962-248	
6 Start winding resistance	7.43	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.92	[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	CCC - 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]
4054	1022	1188	947	5.10	27.48	4.28	1.08	1.25

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)	1924	485	564	544	3.54	12.93	3.52	0.89	1.03
-35	(-31)	2527	637	740	629	3.84	17.04	4.04	1.02	1.18
-30	(-22)	3350	844	982	721	4.18	22.66	4.66	1.17	1.36
-25	(-13)	4391	1106	1287	819	4.57	29.83	5.35	1.35	1.57
-20	(- 4)	5647	1423	1655	923	4.99	38.57	6.10	1.54	1.79
-15	(+ 5)	7116	1793	2085	1032	5.46	48.90	6.89	1.74	2.02
-10	(+14)	8797	2217	2578	1146	5.98	60.85	7.69	1.94	2.25

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)	1553	391	455	525	3.45	10.42	2.95	0.74	0.87
-35	(-31)	2185	551	640	632	3.84	14.71	3.46	0.87	1.01
-30	(-22)	3002	756	880	744	4.26	20.27	4.03	1.02	1.18
-25	(-13)	4002	1008	1173	860	4.72	27.13	4.65	1.17	1.36
-20	(- 4)	5182	1306	1518	979	5.22	35.31	5.30	1.33	1.55
-15	(+ 5)	6539	1648	1916	1101	5.75	44.84	5.95	1.50	1.74
-10	(+14)	8073	2034	2366	1224	6.31	55.74	6.58	1.66	1.93

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)	1208	304	354	506	3.37	8.08	2.41	0.61	0.71
-35	(-31)	1889	476	554	638	3.86	12.70	2.94	0.74	0.86
-30	(-22)	2720	685	797	773	4.37	18.34	3.50	0.88	1.02
-25	(-13)	3698	932	1084	908	4.92	25.03	4.07	1.03	1.19
-20	(- 4)	4822	1215	1413	1045	5.49	32.79	4.64	1.17	1.36
-15	(+ 5)	6088	1534	1784	1181	6.10	41.66	5.18	1.30	1.52
-10	(+14)	7494	1889	2196	1317	6.72	51.64	5.67	1.43	1.66

F - EXTERNAL CHARACTERISTICS

1 Base plate	American Standard
2 Tray holder	No
3 Connectors	
3.1 SUCTION	12.7 +0.25/-0.25 [mm] (0.500" +0.010"/-0.010")
3.1.1 Material	Steel
3.1.2 Shape	ROTOLOCK(Ex. thr. 1"-14UNS-2A)
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