

COMPRESSOR DEFINITION

Designation	NJ 2192GJ
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	943CD19

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	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)	21.8	[kg] (48.06 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 1~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA3G3C-101	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	17.5(400)	[µF(VAC minimum)]
5 Motor protection	15HM1962-248	
6 Start winding resistance	5.11	[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)	44.00	[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	KC - UL - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @208V60Hz			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]	
4775	1203	1399	1055	5.44	32.37	4.53	1.14	1.33	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V60Hz		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)	2201	555	645	610	3.00	14.79	3.58	0.90	1.05
-35	(-31)	2958	745	867	723	3.64	19.95	4.11	1.04	1.21
-30	(-22)	3958	997	1160	847	4.32	26.77	4.69	1.18	1.37
-25	(-13)	5199	1310	1523	980	5.02	35.32	5.29	1.33	1.55
-20	(- 4)	6681	1684	1958	1124	5.76	45.63	5.92	1.49	1.73
-15	(+ 5)	8405	2118	2463	1278	6.52	57.75	6.56	1.65	1.92
-10	(+14)	10370	2613	3039	1443	7.29	71.73	7.22	1.82	2.11

TEST CONDITIONS: @208V60Hz		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)	1551	391	455	535	3.03	10.40	2.93	0.74	0.86
-35	(-31)	2379	600	697	681	3.66	16.01	3.52	0.89	1.03
-30	(-22)	3427	864	1004	836	4.37	23.14	4.11	1.03	1.20
-25	(-13)	4694	1183	1375	1001	5.15	31.83	4.69	1.18	1.37
-20	(- 4)	6181	1558	1811	1174	6.00	42.13	5.26	1.33	1.54
-15	(+ 5)	7887	1987	2311	1356	6.90	54.08	5.81	1.46	1.70
-10	(+14)	9813	2473	2875	1547	7.87	67.75	6.33	1.60	1.85

TEST CONDITIONS: @208V60Hz		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)	1082	273	317	470	3.09	7.24	2.30	0.58	0.67
-35	(-31)	1953	492	572	651	3.73	13.12	2.96	0.75	0.87
-30	(-22)	3021	761	885	840	4.49	20.36	3.57	0.90	1.05
-25	(-13)	4288	1081	1256	1036	5.36	29.01	4.15	1.05	1.22
-20	(- 4)	5752	1450	1686	1239	6.33	39.12	4.67	1.18	1.37
-15	(+ 5)	7414	1868	2173	1451	7.40	50.73	5.13	1.29	1.50
-10	(+14)	9274	2337	2717	1670	8.56	63.90	5.53	1.39	1.62

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