COMPRESSOR DEFINITION

Designation	**NJ 2212GJ**
Nominal Voltage/Frequency	**208-230 V 60 Hz**
Engineering Number	**943HD11**

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 Expantion device	Capillary tube or Expansion valve		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	25.2	[kgf/cm²] (358 psig)	/ ºC - ºF
9.2 Peak	28.3	[kgf/cm²] (402 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1 1/2	[hp]
2 Displacement	34.38	[cm³] (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)	21.3	[kg] (46.96 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELECTRICAL 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	RVA2L3C-112	
3 Start capacitor	130-156(330)	[µF(VAC minimum)]
4 Run capacitor	20(400)	[µF(VAC minimum)]
5 Motor protection	USP-703-88	
6 Start winding resistance	5.12	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	1.07	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	54.00	[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	CCC - CE - IMTRO - UKCA - UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			ASHRAELBP32		Evaporating temperature		-23.3°C (-9.94°F)	
@208V60Hz			Fan		(Condensing temperature		54.4°C (129.92°F))	
Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
6309	1590	1849	1427	7.39	42.77	4.42	1.11	1.30

E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE32				(Condensing temperature 35ºC (+95ºF))				
@208V60Hz		Fan								
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	**(-40)**	2864	722	839	776	4.29	19.25	3.68	0.93	1.08
-35	**(-31)**	4000	1008	1172	948	5.09	26.98	4.22	1.06	1.24
-30	**(-22)**	5364	1352	1572	1122	5.93	36.30	4.78	1.20	1.40
-25	**(-13)**	6956	1753	2038	1299	6.79	47.26	5.36	1.35	1.57
-20	**(- 4)**	8776	2212	2572	1478	7.69	59.93	5.94	1.50	1.74
-15	**(+ 5)**	10824	2728	3172	1661	8.62	74.36	6.52	1.64	1.91
-10	**(+14)**	13100	3301	3838	1846	9.58	90.62	7.09	1.79	2.08

TEST CONDITIONS:		ASHRAE32				(Condensing temperature 45ºC (+113ºF))				
@208V60Hz		Fan								
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	**(-40)**	2398	604	703	751	4.18	16.08	3.21	0.81	0.94
-35	**(-31)**	3422	862	1003	923	4.97	23.03	3.72	0.94	1.09
-30	**(-22)**	4708	1186	1380	1110	5.86	31.79	4.24	1.07	1.24
-25	**(-13)**	6256	1577	1833	1313	6.85	42.42	4.76	1.20	1.39
-20	**(- 4)**	8066	2033	2364	1531	7.94	54.98	5.26	1.33	1.54
-15	**(+ 5)**	10138	2555	2971	1764	9.13	69.52	5.75	1.45	1.68
-10	**(+14)**	12472	3143	3655	2012	10.42	86.11	6.20	1.56	1.82

TEST CONDITIONS:		ASHRAE32				(Condensing temperature 55ºC (+131ºF))				
@208V60Hz		Fan								
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	**(-40)**	1815	457	532	669	3.81	12.15	2.70	0.68	0.79
-35	**(-31)**	2721	686	797	845	4.60	18.28	3.23	0.81	0.95
-30	**(-22)**	3923	989	1150	1049	5.56	26.44	3.74	0.94	1.10
-25	**(-13)**	5422	1366	1589	1281	6.69	36.69	4.23	1.07	1.24
-20	**(- 4)**	7216	1819	2115	1540	7.99	49.08	4.69	1.18	1.37
-15	**(+ 5)**	9307	2345	2727	1828	9.45	63.69	5.10	1.28	1.49
-10	**(+14)**	11694	2947	3427	2143	11.09	80.57	5.46	1.38	1.60

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	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		