

### COMPRESSOR DEFINITION

Designation	NJ 9226P
Nominal Voltage/Frequency	380-420 V 50 Hz / 440-480 V 60 Hz
Engineering Number	148MM01

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-22		
3 Nominal voltage and frequency	380-420 / 50	[ V / Hz ]	
4 Application type	Medium-High Back pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-20°C to 10°C	(-4°F to 50°F)	
5 Motor type	3PHASE		
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 pressures/temperature			
9.1 Operating (gauge)	21.7	[kgf/cm <sup>2</sup> ] (309 psig)	/ °C - °F
9.2 Peak (gauge)	24.2	[kgf/cm <sup>2</sup> ] (344 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1+	[hp]
2 Displacement	21.71	[cm <sup>3</sup> ] (1.325 cu.in)
2.1 Bore [mm]	38.087	
2.2 Stroke [mm]	19.066	
3 Lubricant charge	750	[ml] (25.36 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO46	
4 Weight (with oil charge)	19.1	[kg] (42.11 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	380-420 V 50 Hz / 440-480 V 60 Hz 3 ~ (Three phase)	
2 Starting device type	3PHASE	
2.1 Starting device		
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	31HM26-36	
6 Start winding resistance	9.33	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	9.33	[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		

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @440V60Hz			ASHRAEHBP46 Fan		Evaporating temperature (Condensing temperature		7.2°C (44.96°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]
12080	3044	3540	1328	2.13	74.61	9.10	2.29	2.67

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @440V50Hz			ASHRAE46 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]
-20	(- 4)	3579	902	1049	664	1.24	18.71	5.38	1.36	1.58
-15	(+ 5)	4846	1221	1420	699	1.30	25.45	6.94	1.75	2.03
-10	(+14)	6332	1596	1855	736	1.37	33.39	8.61	2.17	2.52
-5	(+23)	8037	2025	2355	775	1.44	42.58	10.38	2.61	3.04
0	(+32)	9962	2510	2919	815	1.51	53.07	12.23	3.08	3.58
+5	(+41)	12107	3051	3548	856	1.59	64.92	14.14	3.56	4.14
+10	(+50)	14471	3647	4240	899	1.68	78.19	16.10	4.06	4.72

TEST CONDITIONS: @440V50Hz			ASHRAE46 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]
-20	(- 4)	3312	835	971	652	1.20	18.52	5.09	1.28	1.49
-15	(+ 5)	4360	1099	1278	724	1.34	24.46	6.02	1.52	1.76
-10	(+14)	5634	1420	1651	792	1.46	31.73	7.10	1.79	2.08
-5	(+23)	7136	1798	2091	857	1.58	40.38	8.31	2.10	2.44
0	(+32)	8864	2234	2597	919	1.70	50.47	9.65	2.43	2.83
+5	(+41)	10819	2726	3170	977	1.81	62.06	11.08	2.79	3.25
+10	(+50)	13001	3276	3810	1032	1.91	75.20	12.60	3.18	3.69

TEST CONDITIONS: @440V50Hz			ASHRAE46 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]
-20	(- 4)	3034	765	889	640	1.17	18.23	4.73	1.19	1.38
-15	(+ 5)	3854	971	1129	750	1.37	23.26	5.15	1.30	1.51
-10	(+14)	4908	1237	1438	851	1.56	29.76	5.77	1.45	1.69
-5	(+23)	6197	1562	1816	944	1.73	37.78	6.56	1.65	1.92
0	(+32)	7720	1945	2262	1028	1.89	47.38	7.51	1.89	2.20
+5	(+41)	9477	2388	2777	1104	2.03	58.61	8.59	2.16	2.52
+10	(+50)	11469	2890	3361	1171	2.16	71.52	9.79	2.47	2.87

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @440V60Hz		ASHRAE46 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]
-20	(- 4)	4187	1055	1227	790	1.26	21.89	5.29	1.33	1.55
-15	(+ 5)	5669	1429	1661	830	1.33	29.78	6.84	1.72	2.00
-10	(+14)	7408	1867	2171	871	1.39	39.07	8.51	2.14	2.49
-5	(+23)	9404	2370	2756	914	1.47	49.82	10.29	2.59	3.02
0	(+32)	11656	2937	3416	958	1.54	62.10	12.16	3.06	3.56
+5	(+41)	14165	3570	4151	1004	1.63	75.96	14.10	3.55	4.13
+10	(+50)	16931	4267	4961	1052	1.71	91.48	16.09	4.05	4.71

TEST CONDITIONS: @440V60Hz		ASHRAE46 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]
-20	(- 4)	3875	977	1136	787	1.23	21.67	4.94	1.24	1.45
-15	(+ 5)	5101	1285	1495	866	1.36	28.62	5.89	1.48	1.73
-10	(+14)	6592	1661	1932	941	1.49	37.12	6.99	1.76	2.05
-5	(+23)	8349	2104	2446	1013	1.61	47.25	8.23	2.07	2.41
0	(+32)	10371	2613	3039	1081	1.73	59.06	9.59	2.42	2.81
+5	(+41)	12658	3190	3709	1146	1.84	72.61	11.05	2.79	3.24
+10	(+50)	15211	3833	4457	1207	1.95	87.98	12.59	3.17	3.69

TEST CONDITIONS: @440V60Hz		ASHRAE46 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]
-20	(- 4)	3549	894	1040	783	1.19	21.32	4.52	1.14	1.33
-15	(+ 5)	4509	1136	1321	903	1.40	27.21	5.00	1.26	1.47
-10	(+14)	5742	1447	1683	1014	1.59	34.82	5.67	1.43	1.66
-5	(+23)	7250	1827	2124	1116	1.77	44.20	6.49	1.64	1.90
0	(+32)	9032	2276	2647	1209	1.93	55.43	7.47	1.88	2.19
+5	(+41)	11089	2794	3249	1294	2.07	68.57	8.58	2.16	2.51
+10	(+50)	13419	3382	3932	1369	2.20	83.68	9.80	2.47	2.87

### F - EXTERNAL CHARACTERISTICS

1 Base plate	American Standard		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	9.6 +0.07/+0.00	[mm]	(0.378" +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		