

COMPRESSOR DEFINITION

Designation	NJ 9226E
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	144ID09

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-22		
3 Nominal voltage and frequency	208-230 / 60	[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	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	21.7	[kgf/cm ²] (309 psig)	/ °C - °F
9.2 Peak	24.2	[kgf/cm ²] (344 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1+	[hp]
2 Displacement	21.71	[cm ³] (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)	20.53	[kg] (45.26 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm ²] (2.84 to 4.27 psig)

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	RVA4AL3C-649	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	20(440)	[µF(VAC minimum)]
5 Motor protection	T0736/C9	
6 Start winding resistance	7.76	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.78	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	-	[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	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @208V60Hz			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]
12280	3095	3598	1480	7.30	75.84	8.30	2.09	2.43

E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V50Hz			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)	3539	892	1037	729	3.08	18.49	4.85	1.22	1.42
-15	(+ 5)	4612	1162	1352	802	3.48	24.25	5.74	1.45	1.68
-10	(+14)	5822	1467	1706	868	3.84	30.72	6.70	1.69	1.96
-5	(+23)	7206	1816	2112	925	4.16	38.17	7.80	1.97	2.29
0	(+32)	8807	2219	2581	974	4.43	46.90	9.06	2.28	2.66
+5	(+41)	10663	2687	3124	1013	4.64	57.17	10.55	2.66	3.09
+10	(+50)	12814	3229	3755	1041	4.80	69.25	12.29	3.10	3.60

TEST CONDITIONS: @208V50Hz			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)	3201	807	938	724	3.09	17.89	4.44	1.12	1.30
-15	(+ 5)	4174	1052	1223	807	3.52	23.42	5.18	1.30	1.52
-10	(+14)	5281	1331	1547	888	3.95	29.74	5.94	1.50	1.74
-5	(+23)	6560	1653	1922	965	4.35	37.13	6.78	1.71	1.99
0	(+32)	8052	2029	2360	1037	4.74	45.86	7.74	1.95	2.27
+5	(+41)	9797	2469	2871	1105	5.10	56.20	8.86	2.23	2.60
+10	(+50)	11834	2982	3468	1166	5.44	68.44	10.18	2.57	2.98

TEST CONDITIONS: @208V50Hz			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)	2861	721	838	718	3.08	17.21	3.96	1.00	1.16
-15	(+ 5)	3736	941	1095	812	3.56	22.53	4.61	1.16	1.35
-10	(+14)	4740	1195	1389	908	4.04	28.72	5.25	1.32	1.54
-5	(+23)	5915	1490	1733	1004	4.54	36.06	5.90	1.49	1.73
0	(+32)	7299	1839	2139	1101	5.05	44.81	6.62	1.67	1.94
+5	(+41)	8932	2251	2617	1197	5.56	55.26	7.44	1.88	2.18
+10	(+50)	10855	2736	3181	1290	6.07	67.67	8.42	2.12	2.47

E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V60Hz		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)	4720	1189	1383	775	3.64	24.60	6.13	1.55	1.80
-15	(+ 5)	6306	1589	1848	861	4.11	33.11	7.34	1.85	2.15
-10	(+14)	8115	2045	2378	942	4.54	42.83	8.62	2.17	2.53
-5	(+23)	10147	2557	2973	1017	4.93	53.81	9.98	2.52	2.92
0	(+32)	12402	3125	3634	1087	5.27	66.12	11.41	2.88	3.34
+5	(+41)	14880	3750	4360	1151	5.58	79.81	12.92	3.25	3.78
+10	(+50)	17581	4431	5152	1210	5.84	94.93	14.50	3.65	4.25

TEST CONDITIONS: @208V60Hz		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)	3857	972	1130	815	4.06	21.58	4.67	1.18	1.37
-15	(+ 5)	5182	1306	1519	920	4.51	29.09	5.58	1.41	1.64
-10	(+14)	6716	1692	1968	1021	4.96	37.83	6.54	1.65	1.92
-5	(+23)	8458	2131	2478	1117	5.40	47.86	7.55	1.90	2.21
0	(+32)	10407	2623	3050	1209	5.84	59.26	8.61	2.17	2.52
+5	(+41)	12565	3166	3682	1296	6.28	72.06	9.73	2.45	2.85
+10	(+50)	14931	3763	4375	1379	6.72	86.33	10.90	2.75	3.19

TEST CONDITIONS: @208V60Hz		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)	3539	892	1037	839	4.41	21.33	4.24	1.07	1.24
-15	(+ 5)	4694	1183	1375	964	4.85	28.32	4.90	1.24	1.44
-10	(+14)	6042	1523	1770	1086	5.32	36.58	5.59	1.41	1.64
-5	(+23)	7583	1911	2222	1205	5.83	46.16	6.31	1.59	1.85
0	(+32)	9317	2348	2730	1320	6.38	57.13	7.06	1.78	2.07
+5	(+41)	11245	2834	3295	1432	6.97	69.54	7.83	1.97	2.29
+10	(+50)	13366	3368	3916	1541	7.60	83.45	8.64	2.18	2.53

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	9.6 +0.07/+0.00	[mm]	(0.378" +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		