

COMPRESSOR DEFINITION

Designation	NJ 9232E
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	143MD01

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 pressures/temperature			
9.1 Operating (gauge)	21.7	[kgf/cm ²] (309 psig)	/ °C - °F
9.2 Peak (gauge)	24.2	[kgf/cm ²] (344 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	ALQUILB / ISO46	
4 Weight (with oil charge)	22.1	[kg] (48.72 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	RVA4AL3C-649	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	20(440)	[µF(VAC minimum)]
5 Motor protection	T0873/C9	
6 Start winding resistance	5.65	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	0.99	[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]	
13984	3524	4098	1766	8.96	86.36	7.92	2.00	2.32	

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)	5150	1298	1509	901	4.70	26.91	5.73	1.44	1.68
-15	(+ 5)	7246	1826	2123	993	5.14	38.06	7.29	1.84	2.13
-10	(+14)	9406	2370	2756	1086	5.59	49.61	8.65	2.18	2.54
-5	(+23)	11644	2934	3412	1183	6.07	61.69	9.85	2.48	2.89
0	(+32)	13972	3521	4094	1282	6.55	74.44	10.90	2.75	3.20
+5	(+41)	16405	4134	4807	1386	7.05	87.97	11.84	2.98	3.47
+10	(+50)	18956	4777	5555	1494	7.55	102.42	12.68	3.20	3.72

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)	4244	1069	1244	911	4.75	23.75	4.67	1.18	1.37
-15	(+ 5)	6082	1533	1782	1027	5.32	34.12	5.91	1.49	1.73
-10	(+14)	8023	2022	2351	1147	5.91	45.17	6.99	1.76	2.05
-5	(+23)	10080	2540	2954	1271	6.51	57.04	7.93	2.00	2.32
0	(+32)	12266	3091	3594	1400	7.13	69.84	8.77	2.21	2.57
+5	(+41)	14595	3678	4277	1535	7.75	83.72	9.51	2.40	2.79
+10	(+50)	17081	4304	5005	1675	8.38	98.80	10.20	2.57	2.99

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)	3395	856	995	926	4.77	20.41	3.67	0.93	1.08
-15	(+ 5)	4975	1254	1458	1065	5.47	30.01	4.67	1.18	1.37
-10	(+14)	6696	1687	1962	1211	6.20	40.59	5.53	1.39	1.62
-5	(+23)	8571	2160	2511	1362	6.94	52.26	6.30	1.59	1.85
0	(+32)	10613	2675	3110	1520	7.70	65.15	6.98	1.76	2.05
+5	(+41)	12837	3235	3762	1686	8.46	79.39	7.61	1.92	2.23
+10	(+50)	15257	3845	4471	1859	9.22	95.12	8.21	2.07	2.41

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		