

COMPRESSOR DEFINITION

Designation	NJ 9232E
Nominal Voltage/Frequency	230 V 50 Hz
Engineering Number	143MV01

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-22		
3 Nominal voltage and frequency	230 / 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	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 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)	21.3	[kg] (46.96 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	230 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA2M3C-111	
3 Start capacitor	130-156(250)	[µF(VAC minimum)]
4 Run capacitor	15(440)	[µF(VAC minimum)]
5 Motor protection	T0825/C9	
6 Start winding resistance	7.40	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.60	[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: @230V50Hz			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]
12353	3113	3620	1384	6.72	76.29	8.93	2.25	2.62

E - PERFORMANCE - CURVES

TEST CONDITIONS: @230V50Hz			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)	4362	1099	1278	704	4.22	22.82	6.20	1.56	1.82
-15	(+ 5)	5841	1472	1712	807	4.46	30.68	7.23	1.82	2.12
-10	(+14)	7643	1926	2239	897	4.69	40.30	8.51	2.14	2.49
-5	(+23)	9766	2461	2862	975	4.91	51.73	10.02	2.52	2.94
0	(+32)	12213	3078	3579	1041	5.13	65.06	11.76	2.96	3.45
+5	(+41)	14982	3775	4390	1094	5.33	80.35	13.72	3.46	4.02
+10	(+50)	18073	4555	5296	1135	5.52	97.66	15.89	4.00	4.66

TEST CONDITIONS: @230V50Hz			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)	3962	998	1161	760	4.20	22.14	5.23	1.32	1.53
-15	(+ 5)	5208	1312	1526	869	4.59	29.22	6.00	1.51	1.76
-10	(+14)	6754	1702	1979	969	4.96	38.04	6.96	1.75	2.04
-5	(+23)	8601	2167	2520	1060	5.31	48.69	8.09	2.04	2.37
0	(+32)	10748	2708	3149	1143	5.63	61.22	9.38	2.36	2.75
+5	(+41)	13196	3325	3867	1217	5.93	75.70	10.85	2.73	3.18
+10	(+50)	15944	4018	4672	1282	6.20	92.20	12.46	3.14	3.65

TEST CONDITIONS: @230V50Hz			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)	3548	894	1040	819	4.17	21.32	4.30	1.08	1.26
-15	(+ 5)	4548	1146	1333	933	4.73	27.45	4.89	1.23	1.43
-10	(+14)	5827	1468	1707	1043	5.25	35.33	5.61	1.41	1.64
-5	(+23)	7384	1861	2164	1148	5.73	45.01	6.44	1.62	1.89
0	(+32)	9220	2323	2702	1249	6.16	56.57	7.38	1.86	2.16
+5	(+41)	11335	2856	3321	1344	6.56	70.09	8.42	2.12	2.47
+10	(+50)	13728	3459	4023	1435	6.92	85.62	9.57	2.41	2.80

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		