

COMPRESSOR DEFINITION

Designation	NE 9213E
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	263EG71

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-22		
3 Nominal voltage and frequency	115 / 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	3/4	[hp]
2 Displacement	12.11	[cm ³] (0.739 cu.in)
2.1 Bore [mm]	27.775	
2.2 Stroke [mm]	20.000	
3 Lubricant charge	350	[ml] (11.84 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO46	
4 Weight (with oil charge)	11.3	[kg] (24.91 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	115 V 60 Hz 1~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA4AI3C-646	
3 Start capacitor	72-88(250)	[µF(VAC minimum)]
4 Run capacitor	20(450)	[µF(VAC minimum)]
5 Motor protection	T0736/G9	
6 Start winding resistance	[Ω at 25°C (77°F)] +/- 8%	
7 Run winding resistance	[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)	7.88	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @100V50Hz			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]
5430	1368	1591	740	7.16	33.54	7.34	1.85	2.15

E - PERFORMANCE - CURVES

TEST CONDITIONS: @100V50Hz			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)	2352	593	689	415	3.53	12.31	5.65	1.42	1.65
-15	(+ 5)	2913	734	854	449	4.02	15.30	6.51	1.64	1.91
-10	(+14)	3643	918	1068	485	4.47	19.20	7.52	1.89	2.20
-5	(+23)	4536	1143	1329	525	4.88	24.02	8.63	2.17	2.53
0	(+32)	5584	1407	1636	570	5.26	29.75	9.79	2.47	2.87
+5	(+41)	6783	1709	1987	619	5.63	36.38	10.95	2.76	3.21
+10	(+50)	8124	2047	2381	674	5.97	43.90	12.06	3.04	3.53

TEST CONDITIONS: @100V50Hz			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)	2044	515	599	420	3.66	11.42	4.86	1.23	1.42
-15	(+ 5)	2546	642	746	466	4.16	14.28	5.47	1.38	1.60
-10	(+14)	3201	807	938	513	4.66	18.03	6.24	1.57	1.83
-5	(+23)	4001	1008	1172	563	5.14	22.65	7.10	1.79	2.08
0	(+32)	4940	1245	1448	616	5.62	28.14	8.02	2.02	2.35
+5	(+41)	6013	1515	1762	673	6.10	34.49	8.94	2.25	2.62
+10	(+50)	7212	1817	2113	735	6.59	41.70	9.80	2.47	2.87

TEST CONDITIONS: @100V50Hz			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)	1736	437	509	425	3.78	10.43	4.09	1.03	1.20
-15	(+ 5)	2179	549	639	483	4.31	13.16	4.51	1.14	1.32
-10	(+14)	2758	695	808	541	4.85	16.72	5.08	1.28	1.49
-5	(+23)	3466	873	1016	601	5.40	21.13	5.76	1.45	1.69
0	(+32)	4297	1083	1259	663	5.98	26.36	6.49	1.63	1.90
+5	(+41)	5244	1321	1537	728	6.58	32.42	7.22	1.82	2.11
+10	(+50)	6301	1588	1846	797	7.22	39.30	7.89	1.99	2.31

E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 35°C (+95°F))					
@100V60Hz		Fan								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(- 4)	2727	687	799	482	4.10	14.27	5.65	1.42	1.66
-15	(+ 5)	3379	852	990	521	4.66	17.74	6.51	1.64	1.91
-10	(+14)	4226	1065	1238	563	5.18	22.28	7.52	1.89	2.20
-5	(+23)	5262	1326	1542	609	5.66	27.87	8.63	2.17	2.53
0	(+32)	6478	1632	1898	661	6.11	34.51	9.79	2.47	2.87
+5	(+41)	7868	1983	2305	718	6.53	42.20	10.95	2.76	3.21
+10	(+50)	9424	2375	2761	782	6.93	50.92	12.06	3.04	3.53

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 45°C (+113°F))					
@100V60Hz		Fan								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(- 4)	2371	597	695	487	4.24	13.24	4.86	1.23	1.42
-15	(+ 5)	2954	744	865	540	4.83	16.57	5.47	1.38	1.60
-10	(+14)	3713	936	1088	595	5.40	20.92	6.23	1.57	1.83
-5	(+23)	4641	1170	1360	653	5.96	26.28	7.10	1.79	2.08
0	(+32)	5731	1444	1679	715	6.52	32.64	8.02	2.02	2.35
+5	(+41)	6975	1758	2044	781	7.08	40.01	8.93	2.25	2.62
+10	(+50)	8366	2108	2451	853	7.65	48.38	9.80	2.47	2.87

TEST CONDITIONS:		ASHRAE46			(Condensing temperature 55°C (+131°F))					
@100V60Hz		Fan								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(- 4)	2014	507	590	493	4.39	12.10	4.10	1.03	1.20
-15	(+ 5)	2528	637	741	560	5.00	15.26	4.51	1.14	1.32
-10	(+14)	3199	806	937	628	5.62	19.40	5.08	1.28	1.49
-5	(+23)	4020	1013	1178	697	6.26	24.51	5.76	1.45	1.69
0	(+32)	4984	1256	1460	769	6.93	30.58	6.49	1.64	1.90
+5	(+41)	6082	1533	1782	845	7.64	37.61	7.22	1.82	2.11
+10	(+50)	7308	1842	2142	924	8.37	45.59	7.89	1.99	2.31

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.03 +0.07/+0.00	[mm]	(0.316" +0.003"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	6.45 +0.10/+0.00	[mm]	(0.254" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.45 +0.10/+0.00	[mm]	(0.254" +0.004"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		