COMPRESSOR DEFINITION

Designation	**NE 9213E**
Nominal Voltage/Frequency	**208-230 V 60 Hz**
Engineering Number	**263ED71**

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 - Hight starting torque		
7 Expantion device	Capillary tube or Expansion valve		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	21.7	[kgf/cm²] (309 psig)	/ ºC - ºF
9.2 Peak (gauge)	24.2	[kgf/cm²] (344 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	3/4	[hp]
2 Displacement	12.11	[cm³] (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)	11.65	[kg] (25.68 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (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	3ARR3B10B3	
3 Start capacitor	72-88(330)	[µF(VAC minimum)]
4 Run capacitor	15(450)	[µF(VAC minimum)]
5 Motor protection	T0624/G9	
6 Start winding resistance	11.30	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	3.13	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	25.90	[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)	4.00	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			**ASHRAEHBP46**		Evaporating temperature	**7.2°C (44.96°F)**		
@200V50Hz			**Fan**		(Condensing temperature	**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]
5672	1429	1662	736	3.58	35.03	7.71	1.94	2.26

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE46** (Condensing temperature **35ºC (+95ºF))**
@200V50Hz **Fan**

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)**	2409	607	706	408	2.21	12.61	5.89	1.48	1.73
-15	**(+ 5)**	2975	750	872	445	2.45	15.62	6.70	1.69	1.96
-10	**(+14)**	3683	928	1079	483	2.70	19.42	7.64	1.92	2.24
-5	**(+23)**	4535	1143	1329	522	2.95	24.02	8.68	2.19	2.54
0	**(+32)**	5530	1393	1620	563	3.19	29.46	9.82	2.47	2.88
+5	**(+41)**	6668	1680	1954	604	3.44	35.76	11.03	2.78	3.23
+10	**(+50)**	7949	2003	2329	647	3.69	42.96	12.29	3.10	3.60

TEST CONDITIONS: **ASHRAE46** (Condensing temperature **45ºC (+113ºF))**
@200V50Hz **Fan**

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)**	2030	512	595	412	2.26	11.33	4.92	1.24	1.44
-15	**(+ 5)**	2574	649	754	459	2.55	14.44	5.61	1.41	1.64
-10	**(+14)**	3240	817	949	507	2.85	18.26	6.39	1.61	1.87
-5	**(+23)**	4028	1015	1180	556	3.14	22.81	7.24	1.82	2.12
0	**(+32)**	4936	1244	1446	605	3.44	28.12	8.15	2.05	2.39
+5	**(+41)**	5967	1504	1748	656	3.73	34.23	9.10	2.29	2.67
+10	**(+50)**	7119	1794	2086	707	4.03	41.16	10.07	2.54	2.95

TEST CONDITIONS: **ASHRAE46** (Condensing temperature **55ºC (+131ºF))**
@200V50Hz **Fan**

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)**	1638	413	480	417	2.32	9.84	3.93	0.99	1.15
-15	**(+ 5)**	2158	544	632	475	2.66	13.02	4.54	1.14	1.33
-10	**(+14)**	2778	700	814	533	3.01	16.84	5.21	1.31	1.53
-5	**(+23)**	3498	881	1025	591	3.35	21.32	5.92	1.49	1.73
0	**(+32)**	4317	1088	1265	650	3.70	26.49	6.65	1.68	1.95
+5	**(+41)**	5236	1320	1534	709	4.04	32.38	7.39	1.86	2.17
+10	**(+50)**	6255	1576	1833	769	4.39	39.02	8.12	2.05	2.38

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE46** (Condensing temperature **35ºC (+95ºF))**
@200V60Hz **Fan**

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)**	2685	677	787	478	2.21	14.05	5.61	1.41	1.64
-15	**(+ 5)**	3405	858	998	521	2.45	17.88	6.55	1.65	1.92
-10	**(+14)**	4276	1078	1253	565	2.70	22.54	7.57	1.91	2.22
-5	**(+23)**	5298	1335	1552	611	2.95	28.06	8.67	2.19	2.54
0	**(+32)**	6470	1630	1896	658	3.19	34.47	9.83	2.48	2.88
+5	**(+41)**	7793	1964	2284	707	3.44	41.79	11.02	2.78	3.23
+10	**(+50)**	9267	2335	2716	757	3.69	50.08	12.24	3.09	3.59

TEST CONDITIONS: **ASHRAE46** (Condensing temperature **45ºC (+113ºF))**
@200V60Hz **Fan**

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)**	2308	582	676	483	2.26	12.89	4.78	1.20	1.40
-15	**(+ 5)**	2974	749	871	538	2.55	16.68	5.53	1.39	1.62
-10	**(+14)**	3774	951	1106	594	2.85	21.26	6.35	1.60	1.86
-5	**(+23)**	4708	1186	1380	650	3.14	26.65	7.23	1.82	2.12
0	**(+32)**	5775	1455	1692	708	3.44	32.90	8.15	2.05	2.39
+5	**(+41)**	6977	1758	2044	767	3.73	40.02	9.10	2.29	2.67
+10	**(+50)**	8312	2095	2436	827	4.03	48.06	10.05	2.53	2.95

TEST CONDITIONS: **ASHRAE46** (Condensing temperature **55ºC (+131ºF))**
@200V60Hz **Fan**

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)**	1915	483	561	488	2.32	11.51	3.93	0.99	1.15
-15	**(+ 5)**	2524	636	740	555	2.66	15.24	4.54	1.14	1.33
-10	**(+14)**	3250	819	952	623	3.01	19.70	5.21	1.31	1.53
-5	**(+23)**	4092	1031	1199	691	3.35	24.94	5.92	1.49	1.73
0	**(+32)**	5051	1273	1480	760	3.70	30.99	6.65	1.68	1.95
+5	**(+41)**	6126	1544	1795	830	4.04	37.88	7.39	1.86	2.17
+10	**(+50)**	7318	1844	2144	900	4.39	45.64	8.12	2.05	2.38

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		