

### COMPRESSOR DEFINITION

Designation	NE U6212U
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	862HA51

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	220-240 / 50	[ V / Hz ]	
4 Application type	Medium 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 temperature			
9.1 Operating	18.4	[kgf/cm <sup>2</sup> ] (262 psig)	/ °C - °F
9.2 Peak	20.6	[kgf/cm <sup>2</sup> ] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/2	[hp]
2 Displacement	9.99	[cm <sup>3</sup> ] (0.610 cu.in)
2.1 Bore [mm]	26.497	
2.2 Stroke [mm]	18.120	
3 Lubricant charge	350	[ml] (11.84 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	AB / ISO32	
4 Weight (with oil charge)	11.2	[kg] (24.69 lb.)
5 Nitrogen charge	-	[kgf/cm <sup>2</sup> ]

### C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA6M3C-114	
3 Start capacitor	53-64(330)	[µF(VAC minimum)]
4 Run capacitor	5(400)	[µF(VAC minimum)]
5 Motor protection	T0916/G9	
6 Start winding resistance	27.92	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	4.53	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	20.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	2.83	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	CCC - VDE	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			ASHRAEHBP46 Fan		Evaporating temperature (Condensing temperature		7.2°C (44.96°F) 54.4°C (129.92°F)	
Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
4767	1201	1397	501	2.98	16.32	9.51	2.40	2.79

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			ASHRAE46 Fan		(Condensing temperature 35°C (+95°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(- 4)	2179	549	638	310	2.39	6.14	7.04	1.77	2.06
-15	(+ 5)	2696	679	790	332	2.44	7.64	8.12	2.05	2.38
-10	(+14)	3300	832	967	351	2.48	9.39	9.41	2.37	2.76
-5	(+23)	3993	1006	1170	366	2.51	11.41	10.92	2.75	3.20
0	(+32)	4772	1203	1398	378	2.55	13.72	12.66	3.19	3.71
+5	(+41)	5639	1421	1652	386	2.58	16.31	14.63	3.69	4.29
+10	(+50)	6592	1661	1932	390	2.61	19.21	16.84	4.24	4.93

TEST CONDITIONS: @220V50Hz			ASHRAE46 Fan		(Condensing temperature 45°C (+113°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(- 4)	1891	476	554	332	2.41	5.77	5.71	1.44	1.67
-15	(+ 5)	2355	593	690	359	2.49	7.21	6.56	1.65	1.92
-10	(+14)	2903	732	851	383	2.56	8.93	7.55	1.90	2.21
-5	(+23)	3536	891	1036	405	2.63	10.93	8.70	2.19	2.55
0	(+32)	4253	1072	1246	424	2.69	13.23	10.01	2.52	2.93
+5	(+41)	5053	1273	1481	440	2.75	15.83	11.48	2.89	3.36
+10	(+50)	5937	1496	1740	454	2.80	18.75	13.12	3.31	3.85

TEST CONDITIONS: @220V50Hz			ASHRAE46 Fan		(Condensing temperature 55°C (+131°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-20	(- 4)	1616	407	473	350	2.48	5.38	4.59	1.16	1.34
-15	(+ 5)	2020	509	592	383	2.58	6.76	5.30	1.34	1.55
-10	(+14)	2506	632	734	413	2.67	8.42	6.09	1.53	1.78
-5	(+23)	3073	774	900	442	2.75	10.39	6.97	1.76	2.04
0	(+32)	3720	937	1090	468	2.83	12.66	7.94	2.00	2.33
+5	(+41)	4447	1121	1303	493	2.90	15.26	9.01	2.27	2.64
+10	(+50)	5255	1324	1540	516	2.96	18.18	10.19	2.57	2.98

### F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.1 +0.10/+0.00	[mm]	(0.319" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.1 +0.10/+0.00	[mm]	(0.240" +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		