

### 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	CSIR		
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 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	Current Relay	
2.1 Starting device	MTRP-0012	
3 Start capacitor	53-64(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM758PFB	
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)	3.37	[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			EN12900MBP_HH Fan		Evaporating temperature (Condensing temperature		-10°C (14°F) 45°C (113°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]
2707	682	793	405	3.13	9.12	6.68	1.68	1.96

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			EN12900HH 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)	2054	518	602	326	2.93	6.27	6.30	1.59	1.85
-15	(+ 5)	2529	637	741	349	2.99	7.76	7.23	1.82	2.12
-10	(+14)	3086	778	904	369	3.04	9.52	8.36	2.11	2.45
-5	(+23)	3726	939	1092	385	3.08	11.55	9.69	2.44	2.84
0	(+32)	4448	1121	1303	397	3.11	13.87	11.22	2.83	3.29
+5	(+41)	5252	1324	1539	406	3.14	16.49	12.95	3.26	3.80
+10	(+50)	6138	1547	1799	411	3.16	19.44	14.89	3.75	4.36

TEST CONDITIONS: @220V50Hz			EN12900HH 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)	1779	448	521	354	3.02	5.94	5.04	1.27	1.48
-15	(+ 5)	2196	553	644	381	3.07	7.36	5.77	1.45	1.69
-10	(+14)	2697	680	790	406	3.12	9.08	6.64	1.67	1.95
-5	(+23)	3281	827	961	427	3.17	11.11	7.66	1.93	2.24
0	(+32)	3947	995	1157	447	3.22	13.46	8.83	2.22	2.59
+5	(+41)	4696	1183	1376	463	3.27	16.15	10.14	2.56	2.97
+10	(+50)	5526	1393	1619	477	3.31	19.18	11.61	2.93	3.40

TEST CONDITIONS: @220V50Hz			EN12900HH 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)	1490	376	437	372	3.02	5.50	3.99	1.01	1.17
-15	(+ 5)	1841	464	539	406	3.11	6.83	4.55	1.15	1.33
-10	(+14)	2275	573	667	439	3.20	8.49	5.20	1.31	1.52
-5	(+23)	2792	704	818	470	3.29	10.49	5.95	1.50	1.74
0	(+32)	3392	855	994	499	3.38	12.84	6.79	1.71	1.99
+5	(+41)	4075	1027	1194	527	3.48	15.56	7.72	1.95	2.26
+10	(+50)	4840	1220	1418	553	3.58	18.66	8.76	2.21	2.57

### 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		