

COMPRESSOR DEFINITION

Designation	NE U6214U
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	862GA51

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 - 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 ²] (262 psig)	/ °C - °F
9.2 Peak	20.6	[kgf/cm ²] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/2	[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	ESTER / ISO22	
4 Weight (with oil charge)	11.2	[kg] (24.69 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL 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	RVA4L3C-566	
3 Start capacitor	53-64(330)	[µF(VAC minimum)]
4 Run capacitor	7(440)	[µF(VAC minimum)]
5 Motor protection	T0874/G9	
6 Start winding resistance	27.95	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	5.11	[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	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 +/- 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]
3220	811	944	447	2.37	10.85	7.21	1.82	2.11

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		EN12900HH 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)	2472	623	724	350	1.98	7.55	7.06	1.78	2.07
-15	(+ 5)	3026	763	887	378	2.09	9.29	8.02	2.02	2.35
-10	(+14)	3681	928	1079	404	2.19	11.35	9.13	2.30	2.68
-5	(+23)	4438	1118	1300	428	2.29	13.75	10.38	2.62	3.04
0	(+32)	5296	1335	1552	451	2.39	16.51	11.75	2.96	3.44
+5	(+41)	6256	1576	1833	473	2.49	19.65	13.23	3.33	3.88
+10	(+50)	7317	1844	2144	495	2.58	23.17	14.79	3.73	4.33

TEST CONDITIONS: @220V50Hz		EN12900HH 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)	2131	537	624	378	2.10	7.11	5.65	1.42	1.65
-15	(+ 5)	2629	662	770	412	2.23	8.81	6.38	1.61	1.87
-10	(+14)	3218	811	943	444	2.36	10.84	7.24	1.83	2.12
-5	(+23)	3900	983	1143	474	2.48	13.21	8.21	2.07	2.41
0	(+32)	4673	1178	1369	504	2.61	15.94	9.27	2.34	2.72
+5	(+41)	5538	1396	1623	533	2.73	19.04	10.40	2.62	3.05
+10	(+50)	6496	1637	1903	562	2.85	22.54	11.58	2.92	3.39

TEST CONDITIONS: @220V50Hz		EN12900HH 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)	1811	456	531	402	2.18	6.69	4.50	1.13	1.32
-15	(+ 5)	2241	565	657	444	2.35	8.32	5.05	1.27	1.48
-10	(+14)	2753	694	807	483	2.52	10.27	5.70	1.44	1.67
-5	(+23)	3347	843	981	521	2.68	12.57	6.42	1.62	1.88
0	(+32)	4023	1014	1179	559	2.85	15.23	7.20	1.81	2.11
+5	(+41)	4782	1205	1401	596	3.01	18.26	8.02	2.02	2.35
+10	(+50)	5623	1417	1648	634	3.17	21.69	8.86	2.23	2.60

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		