COMPRESSOR DEFINITION

Designation	**NE K6214U**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**863HA51**

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 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 temperature			
9.1 Operating	18.4	[kgf/cm²] (262 psig)	/ ºC - ºF
9.2 Peak	20.6	[kgf/cm²] (293 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/2	[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	AB / ISO32	
4 Weight (with oil charge)	11.7	[kg] (25.79 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (2.84 to 4.27 psig)

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	RVA4M3C-110	
3 Start capacitor	53-64(330)	[µF(VAC minimum)]
4 Run capacitor	17.5(400)	[µF(VAC minimum)]
5 Motor protection	T0874/G9	
6 Start winding resistance	18.67	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	4.19	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	17.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	3.96	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			**EN12900MBP_HH**		Evaporating temperature	**-10°C (14°F)**		
@220V50Hz			**Fan**		(Condensing temperature	**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]
3049	768	893	435	2.29	10.27	7.01	1.77	2.05

E - PERFORMANCE - CURVES

TEST CONDITIONS:		**EN12900HH**				(Condensing temperature **35ºC (+95ºF))**				
@220V50Hz		**Fan**								
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)**	2342	590	686	341	1.88	7.18	6.83	1.72	2.00
-15	**(+ 5)**	2872	724	842	370	2.01	8.81	7.77	1.96	2.28
-10	**(+14)**	3502	883	1026	397	2.13	10.78	8.84	2.23	2.59
-5	**(+23)**	4234	1067	1241	422	2.24	13.10	10.04	2.53	2.94
0	**(+32)**	5066	1277	1484	446	2.35	15.79	11.36	2.86	3.33
+5	**(+41)**	5999	1512	1758	468	2.45	18.84	12.81	3.23	3.75
+10	**(+50)**	7033	1772	2061	489	2.55	22.28	14.38	3.62	4.21

TEST CONDITIONS:		**EN12900HH**				(Condensing temperature **45ºC (+113ºF))**				
@220V50Hz		**Fan**								
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)**	1986	500	582	366	2.01	6.60	5.47	1.38	1.60
-15	**(+ 5)**	2494	628	731	402	2.15	8.36	6.21	1.57	1.82
-10	**(+14)**	3066	773	898	436	2.29	10.34	7.02	1.77	2.06
-5	**(+23)**	3703	933	1085	468	2.43	12.56	7.88	1.99	2.31
0	**(+32)**	4403	1110	1290	499	2.56	15.03	8.81	2.22	2.58
+5	**(+41)**	5168	1302	1514	528	2.69	17.77	9.79	2.47	2.87
+10	**(+50)**	5996	1511	1757	555	2.82	20.78	10.82	2.73	3.17

TEST CONDITIONS:		**EN12900HH**				(Condensing temperature **55ºC (+131ºF))**				
@220V50Hz		**Fan**								
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)**	1697	428	497	388	2.08	6.27	4.37	1.10	1.28
-15	**(+ 5)**	2101	529	616	431	2.27	7.80	4.86	1.22	1.42
-10	**(+14)**	2533	638	742	474	2.46	9.45	5.34	1.35	1.57
-5	**(+23)**	2992	754	877	515	2.65	11.23	5.82	1.47	1.70
0	**(+32)**	3478	876	1019	555	2.84	13.16	6.28	1.58	1.84
+5	**(+41)**	3991	1006	1169	593	3.03	15.24	6.74	1.70	1.97
+10	**(+50)**	4531	1142	1328	630	3.22	17.48	7.18	1.81	2.10

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		