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	CSIR		
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	Current Relay	
2.1 Starting device	MTRP-0027	
3 Start capacitor	53-64(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0741/G6	
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)	3.53	[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]
3002	757	880	460	2.75	10.11	6.53	1.65	1.91

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)**	2311	582	677	364	2.56	7.08	6.30	1.59	1.85
-15	**(+ 5)**	2818	710	826	395	2.68	8.65	7.14	1.80	2.09
-10	**(+14)**	3428	864	1004	424	2.79	10.55	8.10	2.04	2.37
-5	**(+23)**	4139	1043	1213	452	2.90	12.81	9.17	2.31	2.69
0	**(+32)**	4953	1248	1451	479	3.00	15.43	10.36	2.61	3.03
+5	**(+41)**	5869	1479	1720	504	3.10	18.43	11.65	2.93	3.41
+10	**(+50)**	6888	1736	2018	528	3.19	21.83	13.04	3.29	3.82

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)**	1910	481	560	394	2.66	6.35	4.90	1.24	1.44
-15	**(+ 5)**	2420	610	709	433	2.81	8.11	5.60	1.41	1.64
-10	**(+14)**	2995	755	878	470	2.95	10.10	6.35	1.60	1.86
-5	**(+23)**	3636	916	1065	506	3.10	12.33	7.15	1.80	2.10
0	**(+32)**	4342	1094	1272	540	3.24	14.82	8.01	2.02	2.35
+5	**(+41)**	5113	1289	1498	573	3.39	17.58	8.92	2.25	2.61
+10	**(+50)**	5950	1499	1744	604	3.53	20.62	9.88	2.49	2.89

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)**	1701	429	498	418	2.74	6.28	4.06	1.02	1.19
-15	**(+ 5)**	2101	530	616	468	2.93	7.80	4.48	1.13	1.31
-10	**(+14)**	2530	638	741	516	3.13	9.45	4.90	1.23	1.44
-5	**(+23)**	2989	753	876	563	3.33	11.22	5.32	1.34	1.56
0	**(+32)**	3475	876	1018	609	3.53	13.15	5.73	1.44	1.68
+5	**(+41)**	3991	1006	1169	652	3.74	15.24	6.13	1.54	1.80
+10	**(+50)**	4535	1143	1329	694	3.95	17.50	6.52	1.64	1.91

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		