HWS1000/ME

DA032-01-01/ME

SPECIFICATIONS

	ITEMS / MODEL			HWS1000/ME -24	HWS1000/ME -36	HWS1000/ME -48				
1	Nominal Output Voltage		V	24	36	48				
2	Maximum Output Current		A	46	30.7	23				
3	Peak output Current (*13)	at 200VAC	A	58.5	39	29.2				
4	Maximum Output Power		W	1104	1104	1104				
5	Peak Output Power (*13)	at 200VAC	W	1404	1404	1404				
6	Efficiency (Typ) (*1)	at 100VAC	%	85	85	86				
		at 200VAC	%	87	88	88				
7	Input Voltage Range (*2)		-	85 - 265VAC (47 - 63Hz) or 120 - 330VDC						
8	Input Current (100/200VAC)(Typ) (*1)		A	13.5/7.0						
9	Inrush Current (100/200VAC)(Typ) (*3)		A	20/40						
10	PFHC		-	Built to meet IEC61000-3-2						
11	Voltage Fluctuations / Flicker Emissions		-	Built to meet IEC61000-3-3						
12	Power Factor (100/200VAC)(Typ) (*1)		-	0.98/0.95						
13	Output Voltage Range		V	19.2-28.8	28.8-43.2	38.4-52.8				
14	Maximum Ripple & Noise (*4)	0 - +71°C	mV	150	200	200				
		-10 - 0°C	mV	180	240	500				
15	Maximum Line Regulation (*5)		mV	96	144	192				
16	Maximum Load Regulation (*6)		mV	150	150	300				
17	Temperature Coefficient		-	Less than 0.02%/°C						
18	Over Current Protection (*7)		-	105%- (Peak output current)						
19	Over Voltage Protection (*8)		V	30.0-34.8	45.0-49.7	55.2-60.0				
20	Hold-up Time (Typ) (*9)		-	20ms						
21	Leakage Current (*10)		-	Less than 0.5mA. 0.2mA(Typ) at 100VAC / 0.4mA(typ) at 230VAC						
22	Remote Sensing		-	Possible						
23	Remote ON/OFF control		-	Possible						
24	Monitoring Signal		-	PF(Open Collector Output)						
25	Output Voltage External Control		-	Possible						
26	Parallel Operation		-	Possible						
27	Series Operation		-	Possible						
28	Operating Temperature (*11)		-	-10 - +71, Start up -20 - +71°C						
		-10 - +40°C	%	100						
		+50°C	%	100						
		+71°C	%	50						
29	Operating Humidity		-	10 - 90%RH (No dewdrop)						
30	Storage Temperature		-	-30 - +85°C						
31	Storage Humidity		-	10 - 95%RH (No dewdrop)						
32	Cooling		-	Forced Air By Blower Fan						
33	Withstand Voltage		-	Input - FG : 2kVAC (20mA), Input - Output : 3kVAC (20mA) Output-FG : 500VAC (300mA), Output-CNT:100VAC (100mA) for 1min.						
34	Isolation Resistance		-	More than 100Mohm Output - FG ... 500VDC More than 10Mohm Output - CNT ... 100VDC at 25°C and 70%RH						
35	Vibration		-	At no operating, 10 - 55Hz (Sweep for 1min.) 19.6m/s^2 Constant, X,Y,Z 1h each.						
36	Shock (In package)		-	Less than 196.1m/s^2						
37	Safety (*12)		-	Built to meet UL60601-1, EN60601-1,CSA-C22.2 No.601.1-M90(C-UL)						
38	Line DIP		-	Built to meet SEMI-F47 (200VAC Line only)						
39	Conducted Emission		-	Built to meet EN55011/EN55022-A, FCC-ClassA, VCCI-ClassA, CISPR-ClassA.						
40	Radiated Emission		-	Built to meet EN55011/EN55022-A, FCC-ClassA, VCCI-ClassA, CISPR-ClassA.						
41	Immunity		-	Built to meet IEC61000-4-2(Level 2,3), -3(Level 3), -4(Level 3), -5(Level 3,4), -6(Level 3), -8(Level 4), -11						
42	Weight		g	MAX.3200						
43	Size (W x H x D)		mm	126.5 x 82 x 240 (Refer to Outline Drawing)						

*Read instruction manual carefully, before using the power supply unit.

=NOTES=

*1. At Ta=25°C and maximum output power.

*2. For cases where conformance to various safety specs (UL, CSA, EN) are required, input voltage range will be 100 - 240VAC(50/60Hz).

*3. First in-rush current. Not applicable for the in-rush current to Noise Filter less than 0.2ms.

*4. Measure with JEITA RC-9131A probe, Bandwidth of scope :100MHz. (at 100uF electric capacitor and 0.47uF film capacitor on the test fixture board.)

*5. 85 - 265VAC , constant load.

*6. No load-Full load, constant input voltage.

*7. Constant current limit with automatic recovery. An output will be intercepted if it continues for about 5 seconds. Output current exceeding maximum rated output current for more than 10 seconds continuously will result to output shutdown.

*8. OVP circuit will shut down output, manual reset (Power cycle) or ON/OFF CNT signal reset.

*9. At 100/200VAC, nominal output voltage and maximum output current.

*10. Measured by the each measuring method of UL, CSA, EN and DENAN (at 60Hz), Ta=25°C. When using it as a patient care equipment, all outer surfaces of the equipment shall be constructed of nonconductive material. See clause 19.5DV.2 of UL60601-1.

*11. Ratings - Derating at standard mounting.
- Load (%) is percent of maximum output power or maximum output current, whichever is greater.
- As for other mountings, refer to derating curve (DA032-01-02/ME-_).

*12. As for UL60601-1, EN60601-1 and CSA-C22.2 No.601.1-M90(C-UL) basic insulation.

*13. Peak output current is less than 10 seconds, and duty 35% max. (200VAC Line only)

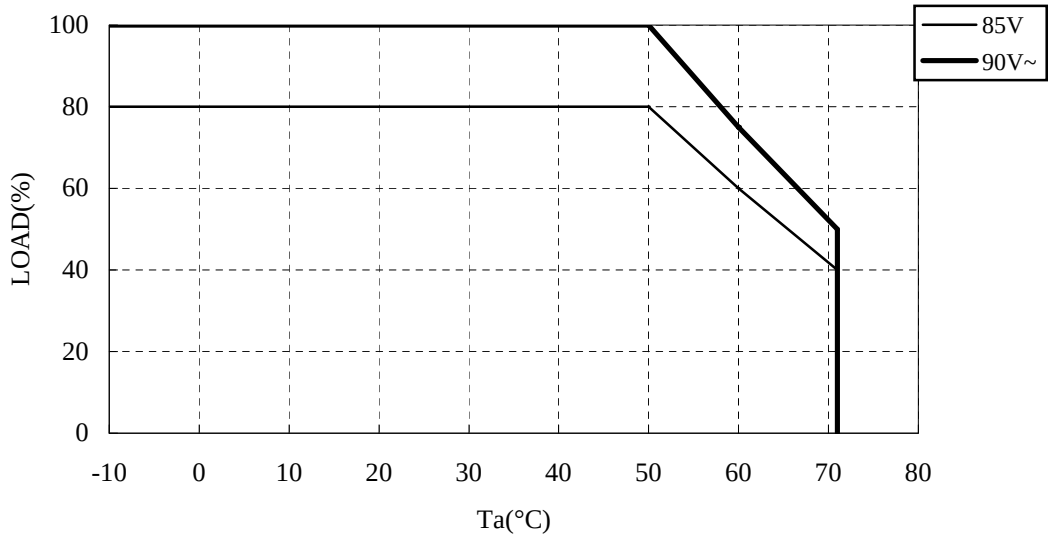
HWS1000/ME

DA032-01-02/ME

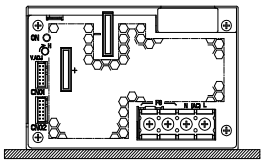
OUTPUT DERATING

Ta(°C)	LOAD(%)	
	MOUNTING A,B,C,D	
	85V	90V~
-10 ~+50	80	100
71	40	50

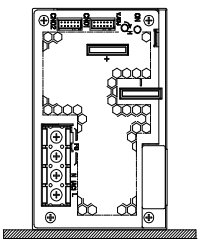
OUTPUT DERATING CURVE



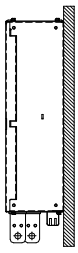
MOUNTING A
(STANDARD MOUNTING)



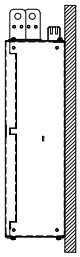
MOUNTING B



MOUNTING C



MOUNTING D



Inhibit