

HWS1000/ME

DA032-01-01/ME-B

SPECIFICATIONS

ITEMS		MODEL	HWS1000 -24/ME	HWS1000 -36/ME	HWS1000 -48/ME					
1	Nominal Output Voltage	V	24	36	48					
2	Maximum Output Current	A	46	30.7	23					
3	Peak output Current (*13)	at 200VAC	58.5	39	29.2					
4	Maximum Output Power	W	1104	1104	1104					
5	Peak Output Power (*13)	at 200VAC	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 Condensing)							
30	Storage Temperature	-	-30 - +85°C							
31	Storage Humidity	-	10 - 95%RH (No Condensing)							
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)	-	Approved by 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=

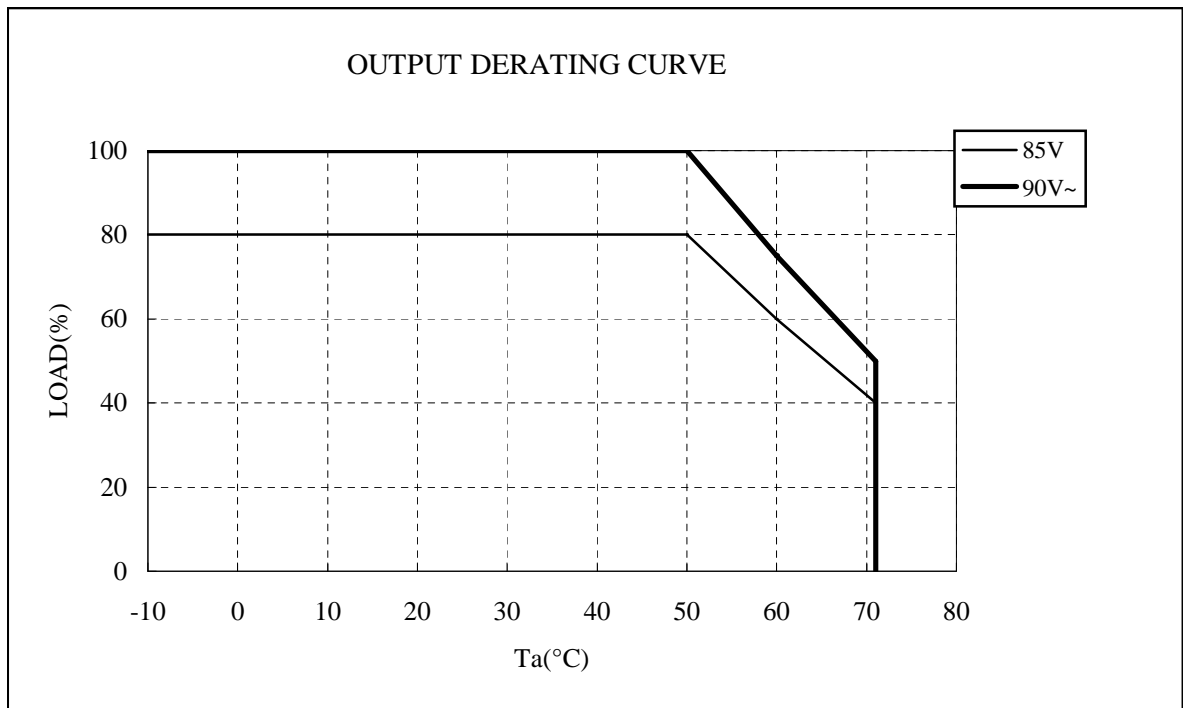
- *1. At Ta=25°C and maximum output power.
- *2. For cases where conformance to various safety specs (UL, CSA, EN) are required, input voltage range will be 100 - 240VAC(50/60Hz).
- *3. First in-rush current. Not applicable to the first 0.2ms in-rush current flowing into the power supply noise filter.
- *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. Over current condition for more than 5 seconds will cause the output to shutdown.
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

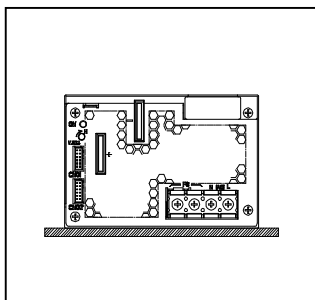
DA032-01-02/ME-A

OUTPUT DERATING

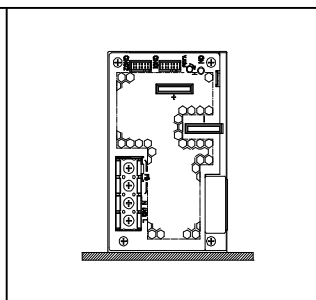
Ta(°C)	LOAD(%)	
	MOUNTING A,B,C,D,G,H	
	85V	90V~
-10 ~+50	80	100
71	40	50



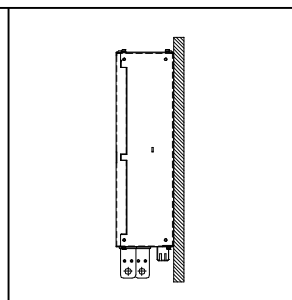
MOUNTING A
(STANDARD MOUNTING)



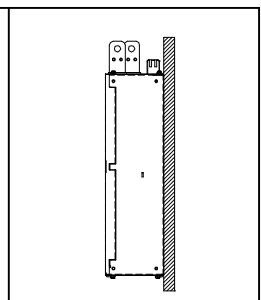
MOUNTING B



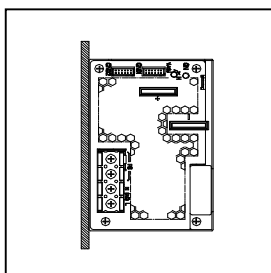
MOUNTING C



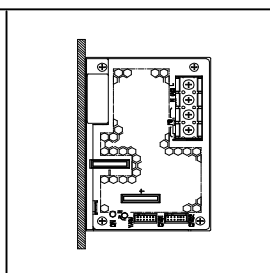
MOUNTING D



MOUNTING G



MOUNTING H



Inhibit

