

SPECIFICATIONS

DA033-01-01

MODEL		HWS1800T	HWS1800T	HWS1800T	HWS1800T	HWS1800T	HWS1800T	HWS1800T	HWS1800T	HWS1800T	HWS1800T		
ITEMS		-3	-5	-6	-7	-12	-15	-24	-36	-48	-60		
1	Nominal Output Voltage	V	3.3	5	6	7.5	12	15	24	36	48	60	
2	Maximum Output Current	A	300	300	250	200	125	100	75	50	37.5	30	
3	Peak output Current (*12)	A	-	-	300	240	150	120	105	70	52.5	42	
4	Maximum Output Power	W	990	1500	1500	1500	1500	1500	1800	1800	1800	1800	
5	Peak Output Power (*12)	W	-	-	1800	1800	1800	1800	2520	2520	2520	2520	
6	Efficiency (200VAC)(Typ) (*1)	%	75	81	82	84	84	84	88	88	90	90	
7	Input Voltage Range (*2)	-	3 phase 170 - 265VAC (47-63Hz)										
8	Input Current (200VAC)(Typ) (*1)	A	4.5	6.0				7.0					
9	Inrush Current (Typ) (*3)	A	40A at 200VAC										
10	Power Factor (200VAC)(Typ) (*1)	-	0.94										
11	Output Voltage Range	V	2.64-3.96	4.0-6.0	4.8-7.2	6.0-9.0	9.6-14.4	12.0-18.0	19.2-28.8	28.8-43.2	38.4-52.8	48.0-66.0	
12	Maximum Ripple & Noise	+25~+71°C	mV	150	150	150	150	200	200	250	250	300	400
		0°C	mV	200	200	200	200	200	200	250	250	300	400
		(*4) -10°C	mV	220	220	220	220	250	250	300	300	400	600
13	Maximum Line Regulation (*5)	mV	36	36	36	40	48	60	96	144	192	240	
14	Maximum Load Regulation (*6)	mV	60	60	60	60	72	90	144	216	288	360	
15	Temperature Coefficient	-	Less than 0.02%/°C										
16	Over Current Protection (*7)	A	315.0-	315.0-	303.0-	242.4-	151.5-	121.2-	106.0-	70.7-	53.0-	42.4-	
17	Over Voltage Protection (*8)	V	4.12-4.62	6.25-7.0	7.5-8.4	9.37-10.5	15.0-17.4	18.7-21.8	30.0-34.8	45.0-49.7	55.2-60.0	69.0-75.0	
18	Hold-up Time (Typ) (*9)	-	20ms						18ms				
19	Leakage Current (*10)	-	2.6mA MAX at 240VAC										
20	Remote Sensing	-	Possible										
21	Remote ON/OFF control	-	Possible										
22	Monitoring Signal	-	PF(Open Collector Output)										
23	Output Voltage External Control	-	Possible										
24	Parallel Operation	-	Possible										
25	Series Operation	-	Possible										
26	Operating Temperature (*11)	°C		-10 - +71, Start up -20 - +71									
		-10 - +40°C	W	990	1500				1800				
		+50°C	W	825	1250	1500				1680			
		+60°C	W	660	1000	1125				1300			
		+71°C	W	495	750				900				
27	Operating Humidity	-	10 - 90%RH (No dewdrop)										
28	Storage Temperature	-	-30 - +85°C										
29	Storage Humidity	-	10 - 95%RH (No dewdrop)										
30	Cooling	-	Forced Air By Blower Fan										
31	Withstand Voltage	-	Input - FG : 2kVAC (20mA), Input - Output : 3kVAC (20mA) Output-FG : 500VAC (300mA), (60V model 651VAC(390mA)), Output-CNT:100VAC (100mA) for 1min.										
32	Isolation Resistance	-	More than 100Mohm Output - FG ... 500VDC More than 10Mohm Output - CNT ... 100VDC at 25°C and 70%RH										
33	Vibration	-	At no operating, 10 - 55Hz (Sweep for 1min.) 19.6m/s ² Constant, X,Y,Z 1h each.										
34	Shock (In package)	-	Less than 196.1m/s ²										
35	Safety	-	Built to meet UL60950-1, CSA60950-1.										
36	Line DIP	-	Built to meet SEMI-F47										
37	Conducted Emission	-	Built to meet EN55011/EN55022-A, FCC-A, VCCI-A										
38	Radiated Emission	-	Built to meet EN55011/EN55022-A, FCC-A, VCCI-A										
39	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										
40	Weight (Typ)	g	4000				3800						
41	Size (W x H x D)	mm	126.5 x 82 x 280 (Refer to Outline Drawing)										

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

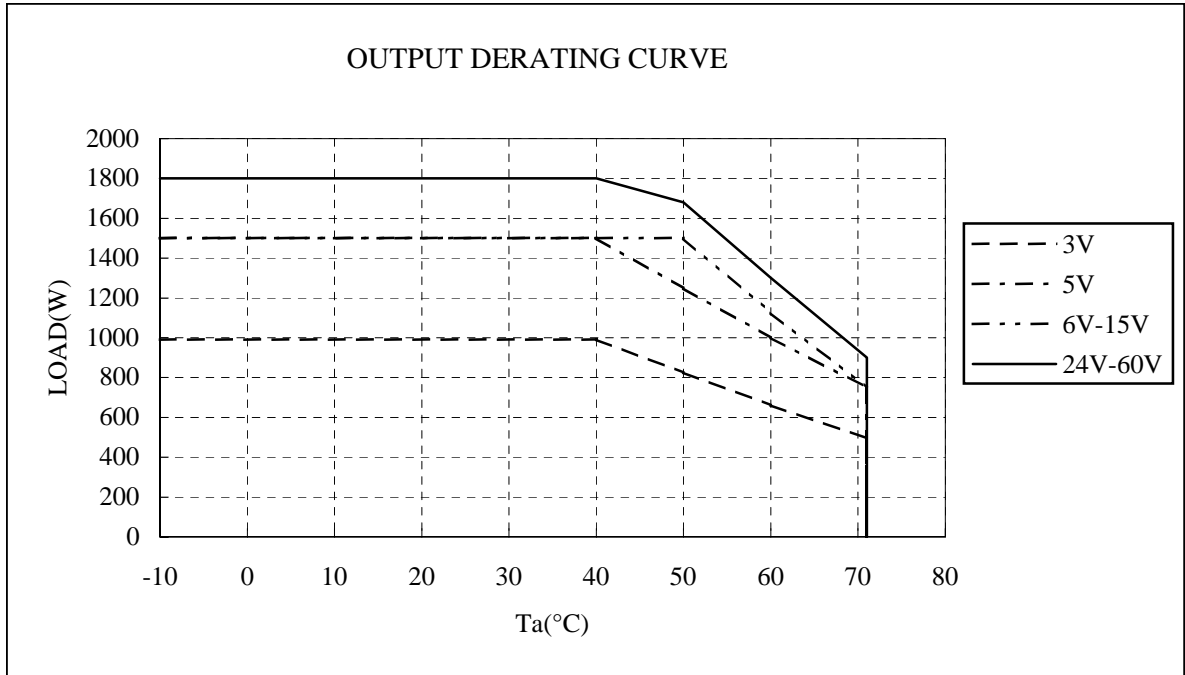
=NOTES=

- *1. At Ta=25°C and maximum output power.
- *2. For cases where conformance to various safety specs (UL, CSA) are required, input voltage range will be 200 - 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.)
Between -10 degrees C and 25 degrees C, it becomes the value which connected each value in a straight line.
- *5. 170 - 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 then 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 200VAC(50/60Hz), nominal output voltage and maximum output current.
- *10. Measured by the each measuring method of UL, CSA (at 60Hz), Ta=25°C.
- *11. Ratings - Derating at standard mounting.
- As for other mountings, refer to derating curve (DA033-01-02_).
- *12. Peak output current is less than 10 seconds, and duty 35% max.

OUTPUT DERATING

DA033-01-02

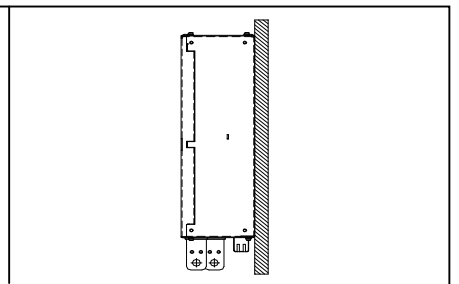
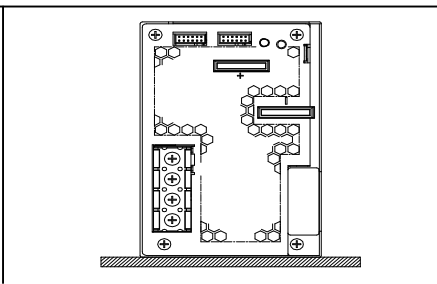
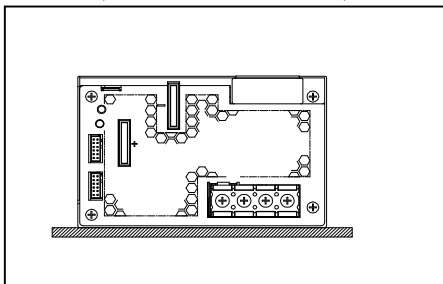
Ta(°C)	Mounting Output	LOAD(w)			
		A,B,C,D			
		3V	5V	6V-15V	24V-60V
-10 - +40		990	1500	1500	1800
50		825	1250	1500	1680
60		660	1000	1125	1300
71		495	750	750	900



MOUNTING A
(STANDARD MOUNTING)

MOUNTING B

MOUNTING C



MOUNTING D

Inhibit

