

HWS600

SPECIFICATIONS

A232-01-01D

ITEMS	MODEL		HWS600	HWS600	HWS600	HWS600	HWS600	HWS600	
			-3	-5	-12	-15	-24	-48	
1	Nominal Output Voltage	V	3.3	5	12	15	24	48	
2	Maximum Output Current (*13)	A	120	120	53	43	27(31)	13	
3	Maximum Output Power	W	396	600	636	645	648	624	
4	Efficiency (Typ) (*1)	100VAC	%	75	80	80	81	82	83
		200VAC	%	78	83	83	84	85	86
5	Input Voltage Range (*2)	-	85 - 265VAC (47 - 63Hz) or 120 - 330VDC						
6	Input Current (100/200VAC)(Typ) (*1)	A	5.4/2.6	7.5/3.6	8.1/3.9				
7	Inrush Current(Typ) (*3)	-	20A at 100VAC, 40A at 200VAC						
8	PFHC	-	Designed to meet IEC61000-3-2						
9	Power Factor (100/200VAC)(Typ) (*1)	-	0.99/0.95						
10	Output Voltage Range	V	2.64 - 3.96	4.0 - 6.0	9.6 - 14.4	12.0 - 18.0	19.2 - 28.8	38.4 - 52.8	
11	Maximum Ripple & Noise (*4)	0≤Ta≤70°C	mV	120	120	150	150	150	350
		-10≤Ta<0°C	mV	180	180	200	200	200	400
12	Maximum Line Regulation (*5)	mV	20	20	48	60	96	192	
13	Maximum Load Regulation (*6)	mV	30	30	72	90	144	288	
14	Temperature Coefficient	-	Less than 0.02% / °C						
15	Over Current Protection (*7)	A	126 -	126 -	55.7 -	45.2 -	31.4 -	13.7 -	
16	Over Voltage Protection (*8)	V	4.13 - 4.95	6.25 - 7.25	15.0 - 17.4	18.8 - 21.8	30.0 - 34.8	55.2 - 64.8	
17	Hold-up Time (Typ) (*9)	-	20ms						
18	Leakage Current (*10)	-	Less than 0.75mA. 0.2mA(Typ) at 100VAC / 0.44mA(Typ) at 230VAC						
19	Remote Sensing	-	Possible						
20	Remote ON/OFF control	-	Possible						
21	Monitoring Signal	-	PF(Open Collector Output)						
22	Parallel Operation	-	Possible						
23	Series Operation	-	Possible						
24	Operating Temperature (*11)	-	-10 - +70°C (-10 - +50°C:100%, +70°C:50%)						
25	Operating Humidity	-	10 - 90%RH (No dewdrop)						
26	Storage Temperature	-	-30 - +85°C						
27	Storage Humidity	-	10 - 95%RH (No dewdrop)						
28	Cooling	-	Forced Air By Blower Fan						
29	Withstand Voltage	-	Input - FG : 2.5kVAC (20mA), Input - Output : 3kVAC (20mA) Output - FG : 500VAC (100mA), Output - CNT : 100VAC (100mA) for 1min						
30	Isolation Resistance	-	More than 100MΩ Output - FG : 500VDC More than 10MΩ Output - CNT : 100VDC at 25°C and 70%RH						
31	Vibration	-	At no operating, 10 - 55Hz (Sweep for 1min) 19.6m/s ² Constant, X,Y,Z 1hour each.						
32	Shock (In package)	-	Less than 196.1m/s ²						
33	Safety (*12)	-	Approved by UL60950-1, CSA60950-1, EN60950-1, EN50178, UL508(24V model only). Designed to meet DENAN						
34	Line DIP	-	Designed to meet SEMI-F47 (200VAC Line only)						
35	Conducted Emission	-	Designed to meet EN55011/EN55022-B, FCC-B, VCCI-B						
36	Radiated Emission	-	Designed to meet EN55011/EN55022-B, FCC-B, VCCI-B						
37	Immunity	-	Designed 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						
38	Weight(Typ.)	-	1.6kg						
39	Size (W x H x D)	mm	100 x 82 x 165 (Refer to Outline Drawing)						

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

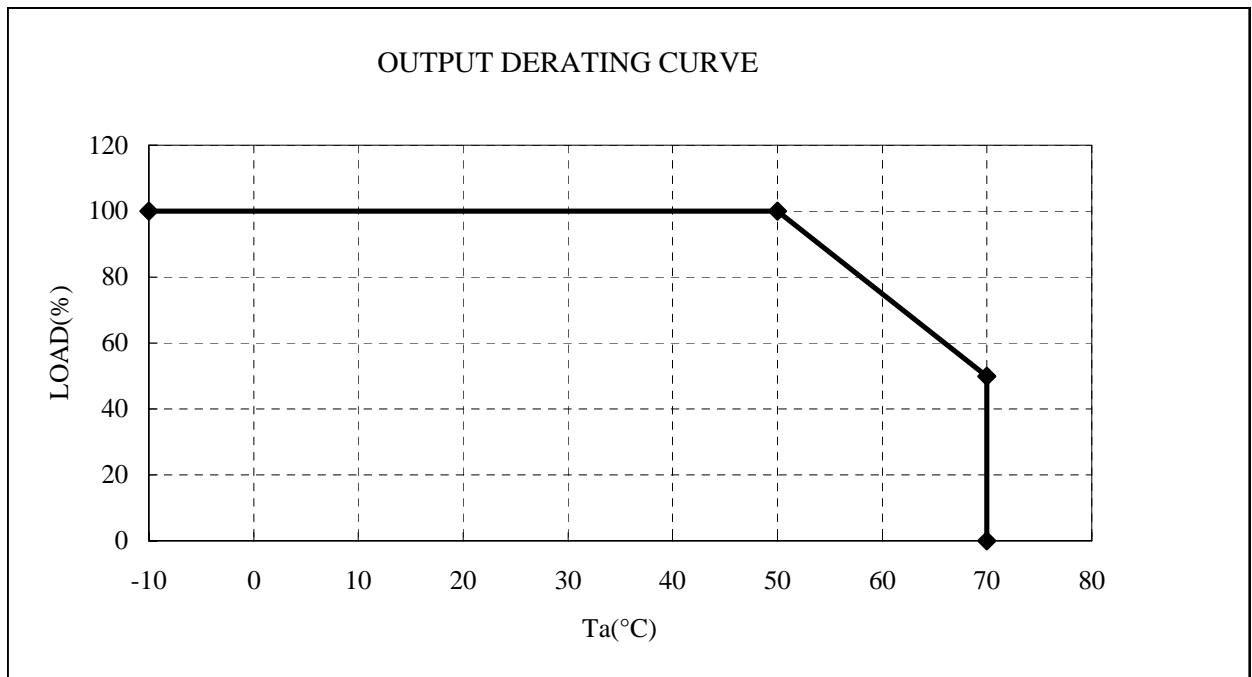
=NOTES=

- *1. At 100/200VAC, Ta=25°C and maximum output power.
- *2. For cases where conformance to various safety specs (UL, CSA, EN) are required, to be described as 100 - 240VAC(50/60Hz).
- *3. Not applicable for the inrush current to Noise Filter for less than 0.2ms.
Inrush Current is 30A(Typ) when PFHC start-up.
- *4. Measure with JEITA RC-9131A probe, Bandwidth of scope :100MHZ.
- *5. 85 - 265VAC, constant load.
- *6. No load - Full load, constant input voltage.
- *7. 3V and 5V model: Constant current limit and hiccup with automatic recovery.
12 - 48V model: Constant current limit with automatic recovery.
Avoid to operate at over load or short circuit condition for more than 30seconds.
- *8. OVP circuit will shut the output down, manual reset (CNT reset or Re-power on).
- *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.
- *11. Ratings - Derating at standard mounting. Refer to output derating curve.(A232-01-02_)
- Load (%) is percent of maximum output power or maximum output current, whichever is greater.
- *12. As for DENAN, designed to meet at 100VAC.
- *13. () : Peak output current at 200VAC. Operating time at peak output is less than 10sec, duty is less than 35%.

OUTPUT DERATING

A232-01-02

Ta(°C)	LOAD(%)	
	MOUNTING A	MOUNTING B
-10 ~ +50	100	100
70	50	50



MOUNTING A
(STANDARD MOUNTING)

MOUNTING B

DON'T USE

