

For Green Innovation Era Ultra High Efficient Complying with 80Plus

Peak Power 1000W
ATX Power Supply!!

Continuous: 822W Peak: 1000W
Model: HPCSA-1000P-E2S

Will be released August 2010!

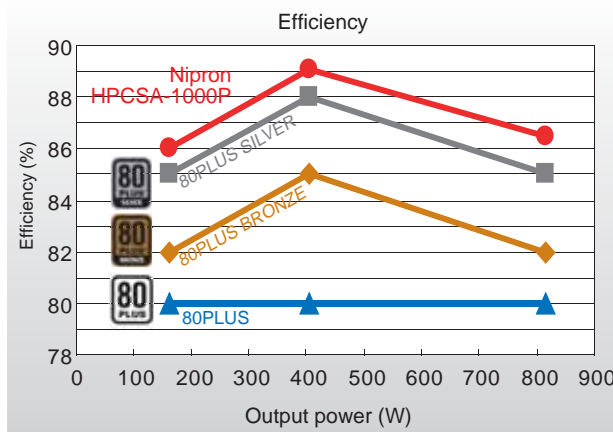


*Safety standard acquisitions scheduled in December 2010.
* Products specification is subject to change due to under development.

Contribute to reduction of world's power loss.

Complying with 80Plus, high efficiency ATX power supply with huge capacity 1000W

High power is now required as processing speed of recent CPU and GPU has much improved. On the contrary, however, CO₂ reduction is required and while many users increasingly demand highly efficient power supply. Under those circumstances, we, Nipron, have developed HPCSA-1000P-E2S as the first shot that provides 1000 peak output to meet 80Plus. This power supply has reduced conduction loss and switching loss by adopting new material, silicon carbide, resulting in drastic conversion efficiency improvement.



What's 80Plus ?

80 Plus is an American certification program, for power saving of electric equipments. Requires more than 80% of efficiency at AC115V input and 20%, 50%, 100% rated capacity with more than 90% power factor (with PFC for harmonic). There are 4 grades 80PLUS, 80PLUS BRONZE, 80PLUS SILVER, 80PLUS GOLD by efficiency.

Load Factor	80 PLUS	80 PLUS BRONZE	80 PLUS SILVER	80 PLUS GOLD
at 20%	80%	82%	85%	87%
at 50%	80%	85%	88%	90%
at 100%	80%	82%	85%	87%

Comparison of electric bills and CO₂ emission

Comparison of electric bills and CO₂ emission between HPCSA-100P-E2S and general switching power supply with efficiency 70% is shown below.

Conditions: AC 115V input, 800W output, 24-hour continuous running for 365 days

	Efficiency	Input power	Electric bill*1	CO ₂ emission per year*2
HPCSA-1000P-E2S	86.5%	924.9W	162,035 yen	3,062.5kg
Power supply with efficiency 70%	70.0%	1142.9W	200,229 yen	3784.3kg
Difference	16.5%	-218.0W	-38,194 yen	-721.8kg

(*1) 20 yen/kWh (*2) 0.378kgCO₂/kWh

Less than 1W standby power complying with ErP directive

Contribute to reduction of CO₂ emission and saving electric bills by control standby power 1W max.

What's ErP directive ?

ErP directive is one of environmental legislation and regulations for products developed by EU, used to be called EuP directive. Intend to assigned class such as household electrical appliance and office electrical equipment. There are some requirements such as environmental design, and affix CE mark. Issued on Jan 7th, 2010

Power consumption at "Off Mode"

Over 1.00W (0.50W) power consumption of equipments at off mode is prohibited.

Power consumption at "Standby Mode"

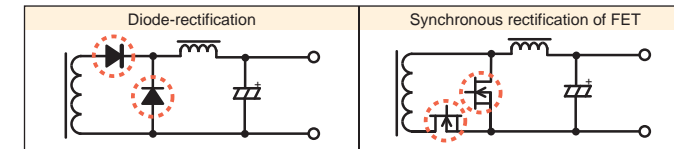
Over 1.00W (0.50W) power consumption of equipments that only input reactivate function, or input reactivate function, only indicate reactivate functions available at standby mode is prohibited.

*Inside of () is effective from Jan 17th, 2013

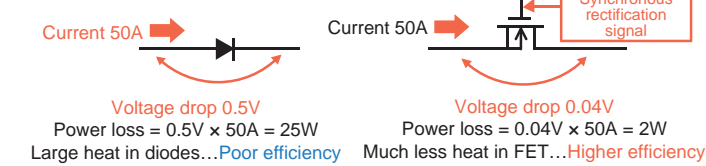
*Built-in types are excepted for ErP directive.

Synchronous rectification circuit equipped

HPCSA-1000P-E2S has synchronous rectification circuit and achieves high efficiency.



If loaded current is 50A, diode drop voltage will be 0.5V and FET drop voltage will be 0.04V. FET is much smaller than diode and can save power loss. Total amount of power loss will be 25W (0.5V x 50A) with diode and 2W (0.04A x 50A) with FET.

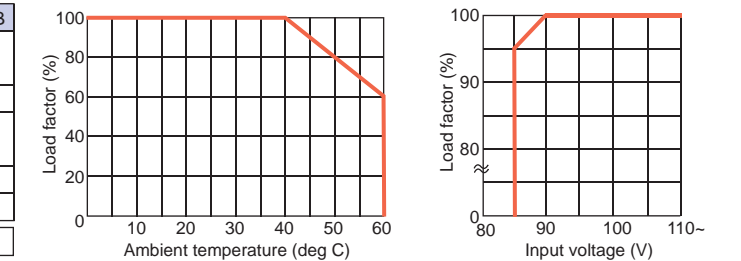


Specifications

I/O specifications

Input voltage	AC85~264V (Worldwide range) *Derating is required (to 90V)							
Output voltage	+3.3V	+5V	+12V1	+12V2	+12V3	+12V4	-12V	+5VSB
Max current/Max power (Continuous)	25A Total 207.5W	25A Total 207.5W	18A Total 822W	18A Total 822W	18A Total 822W	18A Total 822W	0.4A	3A
Peak current/Peak power (Within 5s)	30A Total 249W	30A Total 249W	25A Total 1000W	25A Total 1000W	25A Total 1000W	25A Total 1000W	0.6A	4A
Minimum current	0A	0A	0A	0A	0A	0A	0A	0A
Deminsion	150(W) x 85(H) x 190(D) mm EPS size							

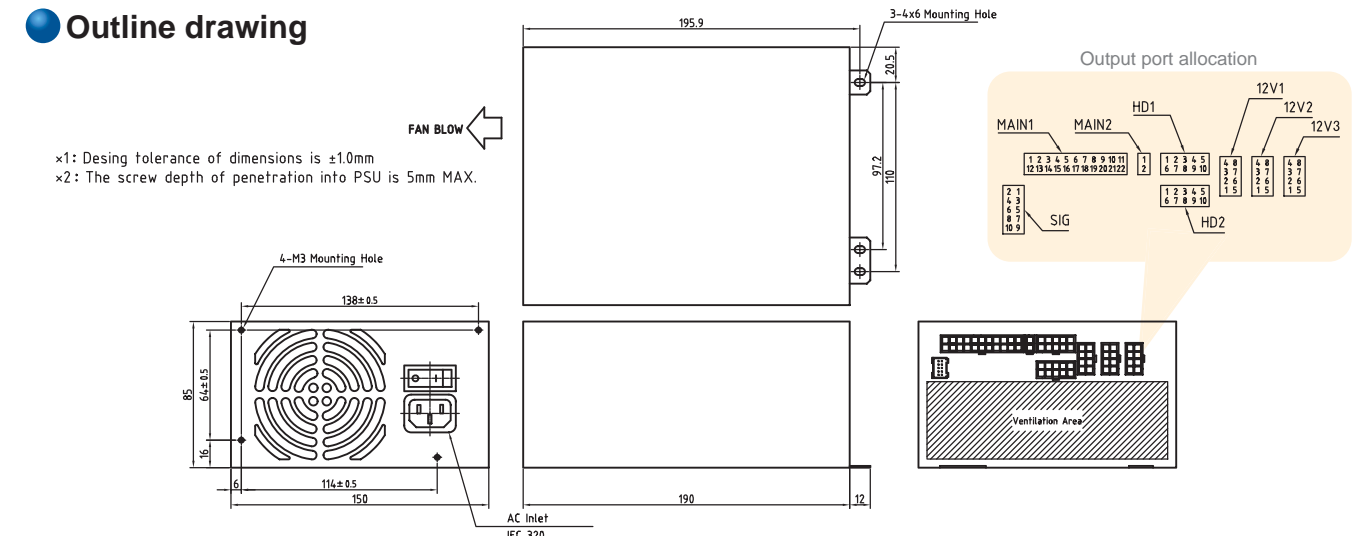
Ambient temperature and output derating
*Value may be changed according to situation as under safety standard application



Output connectors

Port	Model name	Connector type/length	Connector specifications	Acceptable cable(s)	Port	Model name	Connector type/length	Connector specifications	Acceptable cable(s)
Main	WH-M2022-500	500x15 20Pin	20pin main connector	1	12V 1,2,3	WH-V0808-500	500x15 12V 8Pin	+12V8Pin connector	3
	WH-M2422-500	500x15 24Pin	24pin main connector			WH-V0408-500	500x15 12V 4Pin	+12V4Pin connector	
HD 1,2	WH-PP610-850	550x15	Peripheral connectorx5 FDD connectorx1	2		WH-VG208-500	500x15 12V 4Pin PCI-E 6Pin	+12V4Pin connector PCI-E6Pin connector	
	WH-PS610-850	550x15	SATA connectorx2 Peripheral connectorx3 FDD connectorx1			WH-VV208-500-02	500x15 12V 8Pin 12V 8Pin	+12V8Pin connectorx2	
	WH-PS710-850	550x15	SATA connectorx4 Peripheral connectorx2 FDD connectorx1			WH-VG208-500-02	500x15 12V 8Pin PCI-E 6Pin	+12V8Pin connector PCI-E6Pin connector	
						WH-G0808-500	500x15 PCI-E 8Pin(6Pin+2Pin)	PCI-E8Pin connector	
						WH-GG208-500	500x15 PCI-E 6Pin PCI-E 8Pin(6Pin+2Pin)	PCI-E6Pin connector PCI-E8Pin connector	

Outline drawing



Sorry to have kept you waiting, now 1000W here from Nipron as well. <http://www.nipron.co.jp/>

Sales on account (NET 30 days) is acceptable with track record and quick review. Nipron Web Sales <http://www.nipron.co.jp/>