

NEW PRODUCT

Releasing in 2013

## High power & High efficiency Unit type AC-DC switching mode power supply

1500W type released in the GPSA series: unit type AC-DC switching mode power supply!!

High-performance power supply with many functionality included as standard, such as parallel operation, 12VSB, and blackout detection signals.

# GPSA-1500

## Ultrahigh efficiency

At 100VAC input, 48VDC output

**Max. 90% typ!**

At 230VAC input, 48VDC output

**Max. 93% typ!**



Copper bar type

Block terminal type

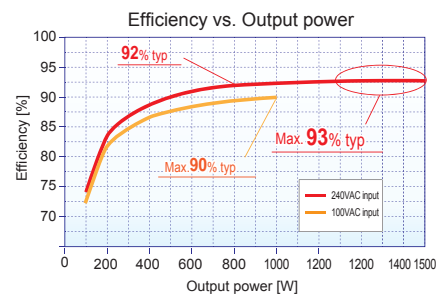
Continuous (max.) **1050W/1510W**  
(At 100VAC) (At 200VAC)

Peak (max.) **1320W/2040W**  
(At 100VAC) (At 200VAC)

### High efficiency with full-bridge phase-shift circuit

Efficiency 93% with 240VAC input achieved.

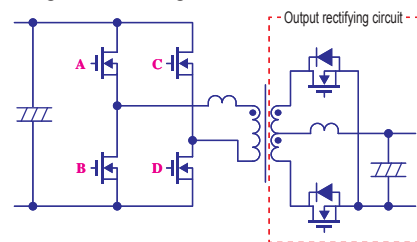
Reducing the heat generation of power supply enables to achieve the long lifetime not only power supply itself but also as whole system.



### What is "full-bridge phase-shift circuit"?

The full-bridge phase-shift circuit drives each FET (A,B,C, and D) by phase shifting which leads voltage resonance and soft switching. Resulting reducing the switching loss and noises.

Furthermore, GPSA-1500 achieves high efficiency by not taking the general diode circuit but synchronous rectifying method for output rectifying circuit.



### High efficiency, high power

Similar size as competitors' 1000W type but it outputs rated 1500W at 200V input

	GPSA-1500-24	Competitor's equivalent	Competitor's equivalent
Dimension [mm]			
Rated output	100VAC: 44A 200VAC: 63A	44A	46A
Peak output	100VAC: 55A 200VAC: 85A	51A	58.5A
Efficiency*	100VAC: 90%typ 200VAC: 92.5%typ	84%typ	85%typ
Voltage adjustable range	21.6~28.0V	16.5~26.4V	19.2~28.8V

\*The value of competitor's equivalent model is from their catalog

### High peak power

### Parallel operation available

### Various input/output signals

PS\_ON signal/Fan monitor signal/PWR\_OK signal  
Blackout detection signal/Remote sensing

### Model with backup functionality at blackout will be added to the lineup

### +12V standby output

▶ Standby power SPEC:

Voltage: 12VDC Current: 0.5A Power: 6W

▶ Low standby power consumption! Power consumption at standby mode complied with ErP directive!

### Product specification

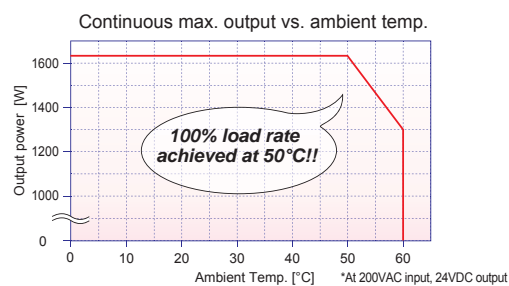
Input	85-264 VAC (worldwide range)		
Output voltage	+24V	+48V	+12VSB (Common)
Max. current / power (At 100VAC)	44A 1056W	23A 1104W	0.5A 6W
Max. current / power (At 200VAC)	63A 1512W	34A 1632W	0.5A 6W
Peak current / power (At 100VAC, 5s max.)	55A 1320W	27.5A 1320W	0.5A 6W
Peak current / power (At 200VAC, 5s max.)	85A 2040W	44A 2112W	0.5A 6W
Min. current	0A	0A	0A
Dimension	82(W)×128(H)×250(D) [Except fan guard (+5mm), and copper bar (+34mm)]		

\*This model is under development, so the outline/specification may be subject to change

### Large capacity output even at high temp.

Continuous 1200W output available at 60°C at 200 VAC input.

Excellent performance under high temp. environment such as in warehouses.



NEW PRODUCT

## High efficiency & Low standby power consumption Fanless ATX power supply

# HPCFL-400P

Compliant with ErP directive Lot6

Standby power consumption (an example of actual measurement)

⚡ 100VAC **0.04W** ⚡ 230VAC **0.04W**



Continuous (max.) **170W / 305W**  
(Natural air cooling) (Forced air cooling)

Peak (max.) **400W**

### High efficiency (80 PLUS BRONZE level)

▶ Efficiency actually measured (At 50% load)

**87.3%** at 115 VAC input **89.0%** at 240 VAC input

### Min. load current 0A for all outputs (Haswell compliant)

### Product specification

Input	85-264 VAC (worldwide range)				
Output voltage	+3.3V	+5V	+12V	-12V	+5VSB
Max. current / power (Natural air cooling)	10A 83W max.	10A 83W max.	14A 168W	0.2A 2.4W	1A 5W
Max. current / power (Forced air cooling)	16A 90W max.	16A 90W max.	25A 300W	0.5A 6W	1.5A 7.5W
Peak current / power (5 sec max.)	20A 120W max.	20A 120W max.	30A 360W	0.5A 6W	2A 10W
Min. current	0A	0A	0A	0A	0A
Dimension	106(W)×37(H)×225(D)				

\*This model is under development, so the outline/specification may be subject to change

NEW PRODUCT

## High efficiency & Low standby power 1000W class Nonstop power supply

# HNSP4-1000P

Compliant with ErP directive Lot6

Standby power consumption (an example of actual measurement)

⚡ 100VAC **0.06W** ⚡ 230VAC **0.07W**



Continuous (max.) **822W**  
Peak (max.) **1000W**

\*The front panel is scheduled to be a black panel as same as HPCSA-1000P-E2S.

### Dedicated battery package

**BS25A-H350/2.5L**

### Backup time

⇒Approx. 5 min. at 700W



### 80 PLUS SILVER scheduled to be approved

▶ An actual measurement value at 50% load

**88.5%** at 115 VAC input **89.2%** at 240 VAC input

### Min. load current 0A for all outputs (Haswell compliant)

### Silent with built-in thermal sensing speed fan

### High efficiency with synchronous rectification circuit

### Compliant with ErP directive (Standby power consumption lower than 0.5W)

Input	85-264 VAC (worldwide range) 350VDC(Dedicated battery package)						
Output voltage	+3.3V	+5V	+12V1	+12V2	+12V3	+12V4	-12V +5VSB
Max. current / power	25A 207.5W max.	25A 207.5W max.	18A 822W max.	18A 822W max.	18A 822W max.	18A 822W max.	0.4A 4.8W 3A 15W
Peak current / power (5 sec max.)	30A 249W max.	30A 249W max.	25A 1000W max.	25A 1000W max.	25A 1000W max.	25A 1000W max.	0.6A 7.2W 4A 20W
Min. current	0A	0A	0A	0A	0A	0A	0A
Dimension	150(W)×85(H)×190(D)						

\*This model is under development, so the outline/specification may be subject to change

## Build "Eco-Friendly System" with 100TBFL

With the combination of these new products introduced in this page, and "The 100-year Converter: 100TBFL", you can achieve the development and system construction of equipment utilizing solar-generated electricity.

