

# CLIPPERS SERIES



High-Level Online UPS

1KVA - 3KVA

## Applications:



Data Center



Telecom



Networking



Computer

## Professional On-Line UPS Solutions

Ideal for medium-density power protection demand, power guardian. FSP CLIPPERS series provides Rack/Tower to fit diverse environment. Despite its compact footprint, Clippers incorporates internal battery packs which can be accessed via the front panel for maintenance checks and replacement without removing the UPS from its rack mounting. The LCD display panel can be easily shifted by pressing buttons to suit the installation format, vertical stand or horizontal rack mount. Besides, IT personnel can manage equipment well from learning intuitive information via LCD display.

## GENERAL FEATURES

- True double-conversion online UPS
- Output power factor 1.0
- User-friendly and easy-shift LCD display
- Rack/Tower design
- Programmable power management outlets for 1K-3K models
- 50/60 Hz frequency converter mode
- ECO and advanced ECO mode for energy saving
- Hot-swappable battery design

# CLIPPERS SERIES

## True double-conversion online UPS

A true double conversion UPS will rectify input power to offer clean, pure, high level quality power with  $\pm 1\%$  voltage output regulation to fully protect mission-critical devices such as sensitive networks, small computer centers servers, telecom applications, as well as for industrial applications.

## Output power factor 1.0

CLIPPERS series is a high-density UPS with output power factor 1.0 to provide higher performance and efficiency to critical applications.

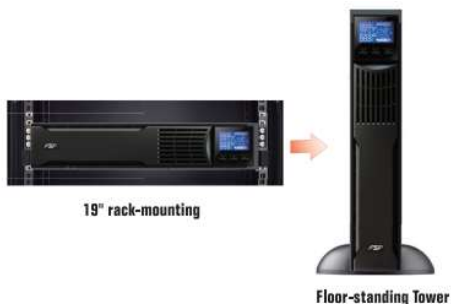
## User-friendly and easy-shift LCD display

The front panel digital display can be easily shifted through LCD setting to suit the installation format, vertically stand or flat wall mount.



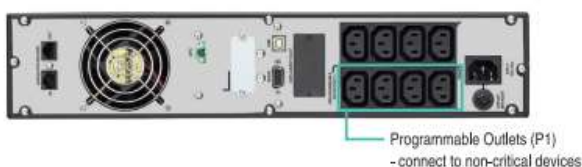
## Rack / Tower design

CLIPPERS series is designed in true universal-mount case. It can be easily installed as floor-standing tower or in 19-inch rackmount bracket.



## Programmable power management outlets

With programmable power management outlets, users can easily and independently control load segments. During power failure, this feature will extend battery time to mission critical devices by shutting down the non-critical devices.



## 50/60 Hz frequency converter mode

Lock output frequency at 50Hz or 60Hz to suit power sensitive equipments.

## Eco and advanced ECO mode for energy saving

Thanks FSP CLIPPERS smart design, operation efficiency up to 96% ECO mode implemented. Furthermore, CLIPPERS 1-3K even offers advanced ECO mode to allow UPS to operate at higher efficiency up to 98% for more energy saving.

In these operation modes, load is supplied by the utility. When utility failure, UPS inverter will assume control the load and provide clean power continuity to the connected devices.



## Emergency Power Off function (EPO)

The safety function can guarantee & secure the emergency responders, fire fighters not exposed to dangerous voltage, electrical hazard from the device. This is important if equipment is emitting smoke, fire, or flood, or if person is being electrocuted.

## Hot-swappable battery design

This design ensures clean and uninterruptible power to protected equipment during battery replacement.



## RJ-45 Surge protector

CLIPPERS implements RJ-45 Surge Protection ports to prevent Ethernet network damage caused by lighting or ground surges.

## Intelligent slot for SNMP or Relay Card



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MODEL	CLIPPERS RT 1K	CLIPPERS RT 2K	CLIPPERS RT 3K
PHASE	Single phase with ground		
CAPACITY	1000 VA / 1000 W	2000 VA / 2000 W	3000 VA / 3000 W
EINGANG			
Voltage	220/230/240 VAC		
Voltage Range	110-300 VAC $\pm$ 5% @ 50% load; 160 - 300 VAC $\pm$ 5% @ 100% load		
Frequency Range	40Hz ~ 70 Hz		
Power Factor	$\geq$ 0.99 @ Norminal Voltage (100% load)		
OUTPUT			
Voltage	220/230/240 VAC		
AC Voltage Regulation (Batt. Mode)	$\pm$ 1%		
Frequency Range (Synchronized Range)	46~54 Hz or 56~64 Hz		
Frequency Range (Batt. Mode)	50 Hz $\pm$ 0.1 Hz or 60Hz $\pm$ 0.1 Hz		
Harmonic Distortion	$\leq$ 2% THD (Linear Load); $\leq$ 4% THD (Non-linear Load)		
Transfer Time	Line mode to Battery mode Inverter to Bypass	Zero 4 ms (Typical)	
Waveform (Batt. Mode)	Pure sine wave		
EFFICIENCY			
AC Mode	89%	91%	91%
ECO Mode	96%	96%	96%
Battery Mode	88%	90%	90%
BATTERY			
Battery Type	12V / 9AH	12V / 9AH	12 V / 9 AH
Numbers	2	4	6
Typical Recharge Time	4 hours recovery to 90% capacity		
Charging Current( MAX )	12A 2A-12A adjustable	12A 2A-12A adjustable	8A 2A-8A adjustable
Charging Voltage	27.4 VDC $\pm$ 1AH	54.8 VDC $\pm$ 1%	82.1 VDC $\pm$ 1%
INDICATORS			
LCD Display	Load level, Battery level, AC mode, Battery mode, Bypass mode and Fault indicator		
ALARM			
Battery Mode	Sounding every 4 seconds		
Low Battery	Sounding every seconds		
Overload	Sounding twice every seconds		
Fault	Continuously sounding		
AC INPUT & OUTPUT CONNECTORS			
AC Input Connector	1 x IEC 320 x C14	1 x IEC 320 x C20	1 x IEC 320 x C20
AC Output Connector	6 x IEC 320 x C13	8 x IEC 320 x C13	1 x IEC 320 C19 / 6 x IEC 320 C13
PHYSICAL			
Dimension, D x W x H (mm)	310 x 438 x 88 [2U]	510 x 438 x 88 [2U]	630 x 438 x 88 [2U]
Net Weight (kgs)	11.6	19.5	27.5
MANAGEMENT			
Smart RS-232/USB	Supports Windows® 2000/2003/XP/Vista/2008/7/8/10, Linux and MAC		
SNMP(Optional)	Power management from SNMP manager and web browser		
ENVIRONMENT			
Humidity	20-95 % RH @ 0- 40°C		
Noise Level	$\leq$ 55 dBA		

\*Derate capacity to 95% when the output voltage is adjusted to 115VAC, derate capacity to 90% when the output voltage is adjusted to 110VAC and derate capacity to 80% when the output voltage is adjusted to 100VAC/200VAC/208VAC.

\*\*If standard UPS is equipped with additional charger, the available setting options become 2A, 3A and 4A.  
Product specifications are subject to change without further notice.



Backup Time Table for CLIPPERS Series

Battery Bank	Backup Time with Load				
	25%	50%	75%	100%	
CLIPPERS 1K	internal battery (2x9AH batteries)	23	9	5	3
	+1 BB-24/18RT (6x9AH batteries)	90	40	25	17
CLIPPERS 2K	internal battery (4x9AH batteries)	24	10	5	3
	+1 BB-48/18RT (12x9AH batteries)	90	41	25	17
	+2 BB-48/18RT (20x9AH batteries)	150	79	48	33
CLIPPERS 3K	internal battery (6x9AH batteries)	24	10	5	3
	+1 BB-72/18RT (18x9AH batteries)	90	41	25	17
	+2 BB-72/18RT (30x9AH batteries)	150	79	48	33

