

# Premium featured ONLINE UPS



## CLIPPERS SERIES



Data Center



Genset



Batt.Charger



Emergency Power Backup

Clippers series is a premium featured online double-conversion UPS with Rack/Tower design and high efficiency to reduce customer's TCO (total cost of ownership).

The internal hot-swappable battery increases system reliability and reduces MTTR; the parallel function is designed for future equipment expansion

Its special firmware design can adapt various applications like laser printer, ultrasound device and supporting long back-up time with battery monitoring.

## GENERAL FEATURES

- True double conversion
- Output power factor=1
- Output voltage regulation < 1%
- Higher output crest ratio 3:1
- 50Hz/60Hz frequency converter mode
- Programmable power management outlets
- Emergency power off function (EPO)
- Hot swappable battery design
- ECO mode for energy saving
- Support for laser printers and ultrasound systems
- Full time over-voltage cut-off and surge protection
- High power factor charger with low ripple current
- Low input THDi to reduce power system pollution
- Adjustable charging current via LCD panel
- Smart battery charger design to optimize battery performance
- Genset compatible



FORTRON/SOURCE

# On Line | Clippers Series

## 1K/2K/3K



MODEL	Clippers 1K	Clippers 2K	Clippers 3K
<b>PHASE</b>	Single phase with ground		
<b>CAPACITY</b>	1000VA / 1000W	2000VA / 2000W	3000VA / 3000W
<b>INPUT</b>			
Nominal Voltage	220 / 230 / 240 Vac		
Voltage Range	@ 50% load @100% load	110~300 Vac ± 5% 160~300 Vac ± 5%	
Frequency Range	40~70Hz		
Harmonic Distortion(THDi)	@ 50% load @100% load	≥ 5% @ Nominal Input Voltage	
Power Factor (@100% load)	≥ 0.99 @ Nominal Voltage		
<b>OUTPUT</b>			
Output Voltage	220 / 230 / 240 Vac		
AC Voltage Regulation(Batt.Mode)	± 1%		
Frequency Range (Synchronized Range)	46~54Hz or 56~64Hz		
Frequency Range (Batt. Mode)	50Hz or 60Hz ± 0.1Hz		
Current Crest Ratio	3:1 (max.)		
Harmonic Distortion	Linear Load Non-linear load	≤ 2 % ≤ 4 %	
Transfer Time	Line to Battery Inverter to Bypass	Zero 4 ms (Typical)	
Waveform(Batt. Mode)	Pure Sinewave		
Overload	AC mode Battery mode	100~110% : 10mins ; 110~130% : 1 min ; >130% :1s 100~110% : 30s ; 110~130% : 10s ; >130% :1s	
<b>EFFICIENCY</b>			
AC Mode@full charged battery	≤ 89%	≤ 91%	≤ 91%
ECO Mode@full charged battery		≤ 96%	
Battery Mode	≤ 88%	≤ 90%	≤ 90%
<b>BATTERY</b>			
Battery Type	12V / 9Ah		
Numbers	2	4	6
Typical Recharge Time(recover to 90% capacity)	3 hours		
Charging Current (Default 2A)	Max: 12A	Max: 8A	Max: 8A
Charging Voltage (Vdc ± 1%)	27.4	54.8	82.1
<b>PHYSICAL</b>			
Dimension, W x H x D (mm)	438 x 88 x 410	438 x 88 x 510	438 x 88 x 630
Net Weight (without battery) (kgs)	6.6	9.4	12.4
Net Weight (with battery)(kgs)	11.6	19.5	27.5
<b>ENVIRONMENT</b>			
Humidity(non-condensing)	20-90 % RH @ 0- 40°C		
Noise Level (@ 1 Meter)	≤ 50 dBA		
Altitude(Max 3000m)	10% de-rating for over 1000m		
<b>MANAGEMENT</b>			
Smart RS-232/USB SNMP(Optional)	Supports Windows® 2000/2003/XP/Vista/2008/7/8/10, Linux and MAC Power management from SNMP manager and web browser		
<b>STANDARD</b>			
EMC/safety	EMC EN62040-2 C2 for CE models		

\* Product specifications are subject to change without further notice

MODEL	BATTERY	Backup Time Table for Clippers Series (min)			
		25%	50%	75%	100%
Clippers 1 K	Internal 2*9Ah	23	9	5	3
	+1 BB-24/18RT (4*9Ah)	90	40	25	17
	+2 BB-24/18RT (8*9Ah)	150	77	46	32
Clippers 2 K	Internal 4*9Ah	24	10	5	3
	+1 BB-48/18RT (8*9Ah)	90	41	25	17
	+2 BB-24/18RT (16*9Ah)	150	79	48	33
Clippers 3 K	Internal 6*9Ah	24	10	5	3
	+1 BB-72/18RT (12*9Ah)	90	41	25	17
	+2 BB-72/18RT (24*9Ah)	150	79	48	33



Higher load power capacity



Super Charger 12A



High Efficiency 96%



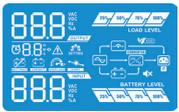
Emergency Power Backup



Zero transfer time

### User-friendly LCD display

The front panel display can be easily shifted through LCD setting to suit the installation format



### Programmable outlet

Prioritizing connected equipment's required backup time.



Programmable Outlets (P1) connect to non-critical devices

### CV / CF Mode

Providing constant voltage and constant frequency



### Special application

Compatible with genset, ISO Transformer And motor-driven equipment.



### Hot-Swappable battery

Battery replacement can be done without turning off the UPS from the operation



### Parallel option

Parallel ability up to 3 units to reach maximum 30KW (Only for upcoming model 6K & 10k)



Battery Cabinet				
Model	P/N	Pictures	Compatible Clippers Series Model	Battery
BB-24/18RT	MPF0005500GP		Clippers 1K	Battery Bank 24V/18Ah (Rack&Tower) with 4 pieces 9Ah 12V Batteries
BB-48/18RT	MPF0005600GP		Clippers 2K	Battery Bank 48V/18Ah (Rack&Tower) with 8 pieces 9Ah 12V Batteries
BB-72/18RT	MPF0005800GP		Clippers 3K	Battery Bank 72V/18Ah (Rack&Tower) with 12 pieces 9Ah 12V Batteries

Network Management				
SNMP card SNMP box	MPF0000400GP 31-011163-07G		<ol style="list-style-type: none"> <li>1. Allows control and monitoring of UPS</li> <li>2. Real-time dynamic graphs of UPS data</li> <li>3. Warning notifications via audible alarm, broadcast, mobile messenger, e-mail</li> </ol>	
Modbus card	S98-000051-07091G		<ol style="list-style-type: none"> <li>1. Real-time control and monitoring of UPS</li> <li>2. Supports Modbus RTU protocol</li> <li>3. Provides MODBUS functions including read Holding Registers and write Registers</li> <li>4. Provides surge protection</li> </ol>	
Relay card	MPF0007500GP		<ol style="list-style-type: none"> <li>1. The AS400 communication card provides contact closures for remote monitoring UPS.</li> <li>2. To meet different application requirement, the AS400 card is capable of selection the status of the dry-contact signal (active close or active open) by setting jumper.</li> </ol>	
Environment Monitor Device	98-000069-00G		<ol style="list-style-type: none"> <li>1. Measure temperatures between 0 to 100°C with an accuracy of <math>\pm 1.5^{\circ}\text{C}</math></li> <li>2. Measure relative humidity between 10 to 90% RH with an accuracy of <math>\pm 3\%</math> Optional smoke alarm available</li> </ol>	
Automatic Transfer Switch	MPF0013500GP		<ol style="list-style-type: none"> <li>1. Max output power 10 A for IEC-C13 outlets, 16 A for IEC-C19 outlet</li> <li>2. Transfer time 9-12ms (Typical), 16ms max.</li> </ol>	