CLIPPERS RT 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
- Rack/Tower 2 in 1 design with rotatable LCD
- Super Charger up to 12A for 1K, 8A for 2K/3K
- 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

FSP GROUP
FORTRON/SOURCE

On Line | Clippers Series

1K/2K/3K

MODEL		CLIPPERS RT 1K	CLIPPERS RT 2K	CLIPPERS RT 3K
PHASE			Single phase with ground	
CAPACITY		1000VA / 1000W	2000VA / 2000W	3000VA / 3000W
INPUT				
Nominal Voltage			220 / 230 / 240 Vac	
Voltage Range	@ 50% load		110~300 Vac ± 5%	
	@100% load		160~300 Vac ± 5%	
Frequency Range			40~70Hz	
Harmonic Distortion(THDi)	@ 50% load		≧ 5% @ Nominal Input Voltage	
	@100% load			
Power Factor (@100% load)			≧ 0.99 @ Nominal Voltage	
OUTPUT				
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		≦ 2 %	
	Non-linear load		≦ 4 %	
Transfer Time	Line to Battery		Zero	
	Inverter to Bypass		4 ms (Typical)	
Waveform(Batt. Mode)			Pure Sinewave	
Overload	AC mode		100~110% : 10mins ; 110~130% : 1 min ; >130% :1s	
	Battery mode		100~110% : 30s ; 110~130% : 10s ; >130% :1s	
EFFICIENCY				
AC Mode@full charged battery		≦ 89%	≦ 91%	≦ 91%
ECO Mode@full charged battery			≦ 96%	
Battery Mode		≦ 88%	≦ 90%	≦ 90%
BATTERY				
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
PHYSICAL				
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
ENVIRONMENT				
Humidity(non-condensing)			20-90 % RH @ 0- 40°C	
Noise Level (@ 1 Meter)			≦50 dBA	
Altitude(Max 3000m)			10% de-rating for over 1000m	
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	
STANDARD				
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

On Line | Clippers Series

6KL/10KL

TECHNICAL SPECIFICATIONS

MODEL		CLIPPERS RT 6KL	CLIPPERS RT 10KL
PHASE		Single phase with ground	
CAPACITY		6000 VA / 6000 W	10000 VA / 10000 W
INPUT			
Voltage		220/230/240 VAC	
Voltage Range		110-300 VAC ± 3% @ 50% load	
		176-300 VAC ± 3% @ 100% load	
Frequency Range		46~54 or 56~64 Hz	
Harmonic Distortion(THDi)		< 6% (50% load)	
		< 4% (100% load)	
Power Factor(@100% load)		≧ 0.99 @ nominal voltage	
OUTPUT			
Voltage		220/230/240 VAC	
AC Voltage Regulation (Batt. Mode)		± 1%	
Frequency Range (Synchronized Range)		46~54 Hz or 56~64 Hz	
Frequency Range (Batt. Mode)		50 Hz ± 0.1 Hz or 60Hz ± 0.1 Hz	
Harmonic Distortion	Linear Load	< 1%	
	Non-linear load	< 4%	
Transfer Time	AC Mode to Batt. Mode	0 ms	
	Inverter to Bypass	0 ms	
Waveform		Pure sine wave	
EFFICIENCY			
AC Mode@full charged battery		94.5%	
ECO Mode@full charged battery		98.5%	
Battery Mode		92.0%	
BATTERY			
Battery Type		depend on application	
Numbers		16 ~ 20	16 ~ 20
Charging Voltage(Vdc ± 1%)		218.4~273	218.4~273
Charging Current(Default 2A)		4 A	
OPERATING ENVIRONMENT			
Humidity(non-condensing)		20-95 % RH @ 0- 40°C	
Noise Level (@ 1 Meter)		≦55 dBA	≦58 dBA
Altitude(Max 3000m)		10% de-rating for over 1000m	
OPERATING ENVIRONMENT			
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	
STANDARD			
EMC/safety		EMC EN62040-2 C2 for CE models	

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Backup Time Table for Custos Series

	Battery Bank	Backup Time with Load (Min) 25%	50%	75%	100 %
CLIPPERS RT 6KL	+1 BB-240/9RT (20 x 9AH Batteries)	43.0	20.0	12.9	8.0
	+2 BB-240/9RT (40 x 9AH Batteries)	99.0	46.0	31.7	22.7
	+3 BB-240/9RT (60 x 9AH Batteries)	150.0	71.0	43.5	30.4
CLIPPERS RT 10KL	+1 BB-240/9RT (20 x 9AH Batteries)	22.0	9.0	6.0	3.0
	+2 BB-240/9RT (40 x 9AH Batteries)	54.0	23.0	16.9	12.0
	+3 BB-240/9RT (60 x 9AH Batteries)	88.0	38.0	23.0	16.0

On Line | Clippers Series

1K/2K/3K/6K/10K

PF = 1

Higher load power capacity

Super Charger 12A

LOW HIGH

High Efficiency 96%

Emergency Power Backup

0 ms

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.

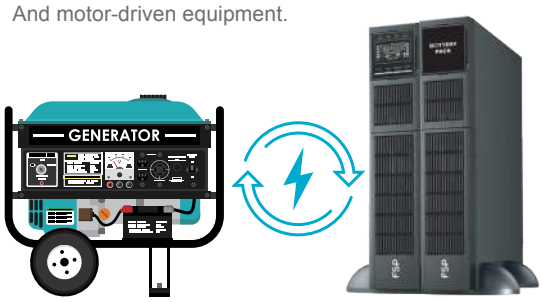
Programmable Outlets (P1) connect to non-critical devices

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 model Clippers RT 6KL & Clippers RT 10KL

Accessory

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		1. Allows control and monitoring of UPS 2. Real-time dynamic graphs of UPS data 3. Warning notifications via audible alarm, broadcast, mobile messenger, e-mail
Modbus card	S98-000051-07091G		1. Real-time control and monitoring of UPS 2. Supports Modbus RTU protocol 3. Provides MODBUS functions including read Holding Registers and write Registers 4. Provides surge protection
Relay card	MPF0007500GP		1. The AS400 communication card provides contact closures for remote monitoring UPS. 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.
Environment Monitor Device	98-000069-00G		1. Measure temperatures between 0 to 100°C with an accuracy of ±1.5°C 2. Measure relative humidity between 10 to 90% RH with an accuracy of ±3% Optional smoke alarm available
Automatic Transfer Switch	MPF0013500GP		1. Max output power 10 A for IEC-C13 outlets,16 A for IEC-C19 outlet 2. Transfer time 9-12ms (Typical), 16ms max.