

Premium featured **ONLINE** UPS



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



FORTRON/SOURCE



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



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

		Backup Time with Load (Min)			
	Battery Bank	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

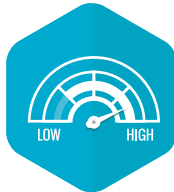




Higher load
power capacity



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

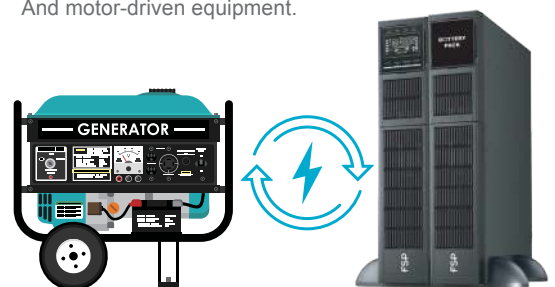
CV / CF Mode

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 model Clippers RT 6KL & Clippers RT 10KL



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 $\pm 1.5^{\circ}\text{C}$ 2. Measure relative humidity between 10 to 90% RH with an accuracy of $\pm 3\%$ 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.	