



• DATA CENTER • • TRANSPORT • • MALLS •


MTW500 MODULAR UPS

UNINTERRUPTIBLE POWER SUPPLIES


50-600kVA

3P/3P ONLINE DOUBLE CONVERSION


- ➔ DSP CONTROL
- ➔ SMART SLEEP FUNCTION
- ➔ GRAPHIC LCD DISPLAY



MODULAR UPS




VFI
TYPE




1.0

POWER FACTOR



USB



SERVICE / TECH.
SUPPORT



MTW500 Modular UPS are online devices produced with 3-level and DSP technology that provide low THD with high input power factor designed for sensitive loads. Thanks to its hot-swappable modular structure, it has the flexibility to operate at powers between 50 and 600kVA with a single cabinet. It offers the most suitable power solutions for large data centers and sensitive electronic devices. Thanks to its parallelizable design, which takes up less space, it provides the opportunity to reach 1800kVA in an area of less than 4m². It stands out with its rack type design, high power density, user-friendly interface, independent LCD for each power module in addition to 7&10" inch graphical touchscreen, smart sleep function, self-agigng, and smart charge management.

GENERAL SPECIFICATIONS

COMPACT DESIGN

500kVA in one cabinet, footprint less than 1.5m², saving valuable room space

HIGH POWER DENSITY

50kVA power module in 4U height, easy for capacity expansion

HIGH EFFICIENCY

Advanced 3-level technology quarantees high efficiency operating in double conversion mode up to 96%



INTELLIGENT CHARGING MANAGEMENT

The system intelligently control the whole process of the charging and discharging, effectively improve the life time of the battery.

HIGH SCALABILITY

The system can be configured from 50kVA to 600kVA in one single cabinet, 3 units in parallel for a capacity up to 1800kVA

USER FRIENDLY HMI

7&10" touch color LCD with graphic display, IoT function

SMART SLEEP FUNCTION

System can intelligently shutdown some power modules to increase total load rate, achieving higher efficiency

TECHNICAL SPECIFICATIONS

MODEL	MTW200/50X1	MTW300/50X1	MTW500/50X1	MTW600/50X1
Capacity	200kVA	300kVA	400kVA	600kVA
Power module capacity	TPW50			
INPUT				
Phase	3P+N+PE			
Rate voltage	380/400/415VAC (L-L)			
Input power factor	> 0.99			
Current distortion	THDi < 2% @ 100% linear load			
Voltage range	304~478VAC(L-L) Full load; 304~228VAC (L-L) Power derate from 100% to 75%			
Frequency range	40Hz~70Hz			
BATTERY				
Rate voltage	32~44 batteries settable 30~32 batteries, UPS PF derate to 0.8 34 batteries, UPS PF derate to 0.9 36~50 batteries, UPS PF is 1.0 3 wires (standard) ± 240VDC / 2 wires (optional) 480VDC			
Charging capacity	20%*Pout			
Charge accuracy	± 1%			
BYPASS				
Rate voltage	380/400/415VAC (L-L)			
Voltage range	Range: -40% - +25%, Settable, default -20% ~ +15%			
Frequency range	Settable (±1Hz, ±3Hz, ±5Hz)			
Overload	125%, long time operation 125%< load<130%, 10 mins 130%<load<150%, 1 min >150%,300ms		110%, long time operation 110%<load<125%, 5 mins 125%<load<150%, 1 min >150%,1 second	
INVERTER				
Rate voltage	380/400/415VAC (L-L)			
Rate frequency	50Hz / 60Hz			
Output power factor	1			
Voltage accuracy	± 1.0%			
Load response	< 5% (20% - 80% -20% step load)			
Recovery time	< 20ms (0% - 100% -0% step load)			
Output THDv	< 1% (linear load), < 5% (non-linear load according to IEC 62040-3)			
Overload	110%, 1 hour; 125%, 10 mins; 150%, 1 min; >150%, 200ms			
Frequency accuracy	0.1%			
Synchronize window	Settable, ±0.5Hz ~ ±5%Hz, default ±3Hz			
Slew rate	Settable, ±0.5Hz/S ~ ±3%Hz/S, default ±0.5Hz/S			
Crest Factor	3:1			
Phase accuracy	120° ± 0.5°			
SYSTEM				
Efficiency - Normal Mode	up to 96%			
Efficiency - Battery Mode	up to 96%			
Display	LED + touch LCD			
Certification - Safety	IEC62040-1, IEC60950-1			
Certification - EMS	IEC62040-2, IEC60950-4-2 (ESD); IEC61000-4-3 (RS); IEC61000-4-4 (EFT); IEC61000-4-5 (Surge)			
IP degree	IP20			
Noise (dB) (1 meter)	68dB @ 100% load, 65dB @ 45% load			
Operation temperature	0-40°C			
Humidity	0-95% (non condensing)			
Altitude	< 1000m, 1000~2000m, power derates 1% every 100m			
Configuration	USB, RS232, RS485, Dry contact, Cold start, Air filter			
Option	SNMP card, AS400 card, Parallel kit, SPD, Top air outlet			
Cable connection	Top & Bottom entry, front access			Top & Bottom (option kit) entry, front access
Dimension (HxWxD) mm	Cabinet	1600x600x750	2000x600x750	2000 x1200x850
	Module	140x440x475		
Weight (kg)	Cabinet	170	220	450
	Module	23		

TECHNICAL SPECIFICATIONS

MODEL	MTW600/60X1	
Rated power	600kVA/600kW	
Power module capacity	TPW60	
INPUT		
Input	3P5W (3P+N+PE)	
Rate voltage	380/400/415VAC(L-L); 220/230/240VAC (L-N)	
Rate frequency	50-60Hz	
Input power factor	> 0.99	
Current distortion	THDi < 3% (100% Linear load)	
Voltage range	304 ~ 478VAC (L-L) full load; 304 ~ 228VAC (L-L) power derate from 100% to 75%	
Frequency range	40-70Hz	
BATTERY		
Rate voltage	32-44 batteries settable 30~32 batteries, UPS PF derate to 0.8 34 batteries, UPS PF derate to 0.9 36~50 batteries, UPS PF is 1.0 3 wires (standard) ± 240VDC / 2 wires (optional) 480VDC	
Charging capacity	20%*Pout	
Charge accuracy	± 1%	
BYPASS		
Rate voltage	380/400/415VAC (L-L), 220/230/240VAC (L-N)	
Voltage range	Range: -40%~ +25%, Settable, default -20% +15%	
Overload	110% long time operation, 110% <load<125% 5 mins, 125% <load<150%, 1 min, >150% 1 second	
INVERTER		
Rate voltage	380/400/415VAC (L-L), 220/230/240VAC (L-N)	
Rate frequency	50Hz / 60Hz	
Output power factor	1	
Voltage accuracy	± 1.0%	
Load response	< 5% (20% - 80% -20% step load)	
Recovery time	< 20ms (0% - 100% -0% step load)	
Output THDv	< 1% (linear load), < 5% (non-linear load according to IEC 62040-3)	
Overload	110%,1 hour; 125%,10 mins; 150%, 1 min; >150%, 200ms	
Frequency accuracy	0.1%	
Synchronize window	Settable, ± 0.5Hz ~ ± 5%Hz, default ± 3Hz	
Slew rate	Settable, ± 0.5Hz/S ~ ± 3%Hz/S, default ± 0.5Hz/S	
Crest factor	3:1	
Phase accuracy	120° ± 0.5°	
SYSTEM		
Efficiency - Normal mode	up to 96%	
Efficiency - Battery mode	up to 96%	
Display	LED + 10 inch touch LCD	
Certification - Safety	IEC62040-1, IEC60950-1	
Certification - EMS	IEC62040-2, IEC60950-4-2 (ESD); IEC61000-4-3 (RS); IEC61000-4-4 (EFT); IEC61000-4-5 (Surge)	
IP degree	IP20	
Configuration	USB, RS232, RS485, Dry contact, Cold start, Air filter	
Option	SNMP card, AS400 card, Parallel kit, LBS, Air filter, Bottom entry kit	
Environment	0-40°C (operation); -25°C ~ 70°C (storage); 0-95% (Humidity, non-condensing)	
Noise (dB) (1 meter)	72dB @ 100% load, 69dB @ 45% load	
Dimension (HxWxD) mm	Cabinet	2000x1200x1100
	Module	174x442x659
Weight (kg)	Cabinet	578
	Module	41