

# MTW300 MODULAR UPS

## 30-300kVA

DSP Control

Smart Sleep Function

Graphic LCD Display



MTW300 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 30 and 300kVA 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 900kVA in an area of less than 2 m<sup>2</sup>. It stands out with its rack type design, high power density, user-friendly interface, 10 inch graphical touchscreen, smart sleep function, self-aging and smart charge management.

## GENERAL SPECIFICATIONS

- Modular design with N+X redundancy
- Online hot swapping, by-pass and power module feature
- Dual input
- High power density with footprints of less than 2m<sup>2</sup> up to 900kVA in parallel, 30kVA power module with only 2U height
- High power density of 300kVA in one single cabinet, 30kVA power module with only 2U height
- Green and energy saving: AC/AC efficiency > 96%, input power factor > 0.99 while input THDi < 3%
- Full DSP control of high stability, reliability and safety
- Integrated IGBT module with improved performance and reduced size
- Smart Sleeping mode for energy saving and prolong the life time of the system
- IoT function
- Excellent input performances for complete compatibility with input PF of 99% and wide range of voltage
- Self-Aging mode for full load test with less than 10% of the total power capacity needed
- Optimized battery management, intelligently control the whole process of the charging and discharging, effectively improve the life time of the battery
- Battery cold start, UPS can be powered on from the battery without utility
- Automatically record the critical wave information when fault happens, easy for trouble shooting
- Optional 30A charging module (for long-term, backup applications)
- Programmable dry contacts, the function of each port can be defined by users
- Friendly human machine interface with colorful touch screen of 10 inches



POWER MODULE FRONT VIEW



POWER MODULE REAR VIEW

## TECHNICAL SPECIFICATIONS

MODEL		MTW3300/30
Capacity		300kVA/300kW
<b>INPUT</b>		
Phase		3P5W (3P+N+PE)
Rate voltage		380V/400V/415VAC (line to line); 220/230/240VAC (line to neutral)
Rate frequency		50Hz / 60Hz
Input power factor		> 0.99
THDI		THDi < 3% @ 100% linear load
Voltage Range		304~478Vac (Line-Line) full load; 304 ~ 228Vac (Line-Line) power derate from 100% to 75%
Frequency range		40Hz~70Hz
<b>BATTERY</b>		
Voltage		± 240 VDC
Charging capacity		20%*Pout
Charge accuracy		± 1%
<b>BYPASS</b>		
Rate voltage		380/400/415VAC (line to line) 220/230/240VAC (line to neutral)
Voltage range		Range: -40% - +25%, Settable, default -20% ~ +15%
Overload		110%, long time operation; 110% < 125%, 5 mins; 125% < load < 150%, 1 min; >150%, 1 second
<b>INVERTER</b>		
Rate voltage		380/400/415VAC (line to line); 220/230/240VAC (line to neutral)
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 THDu		< 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
Phase accuracy		120° ± 0.5°
<b>SYSTEM</b>		
Efficiency		Normal mode ≥ 96%; Battery mode ≥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, SPD, LBS
Environment		0-40°C (operation); -25°C ~ 70°C (storage); 0-95% (Humidity, non-condensing)
Noise (dB) (1 meter)		65dB @ 100% load, 62dB @ 45% load
Dimension	Cabinet (HxWxD) mm	2000x600x1000
	Module (HxWxD) mm	85x440x555 (2U)
Weight (kg)	Cabinet	260
	Module	23
Power module rated capacity		30kW