



• DATA CENTER • • TRANSPORT • • MALLS •


# MTW300 MODULAR UPS

## UNINTERRUPTIBLE POWER SUPPLIES


### 30-300kVA

### 3P/3P ONLINE DOUBLE CONVERSION


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




MODULAR UPS




VFI  
TYPE



1.0



USB



SERVICE / TECH.  
SUPPORT



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	MTW300/30X1	
Rated power	300kVA/300kW	
Power module capacity	TPW30	
<b>INPUT</b>		
Input	3P5W (3P+N+PE)	
Rate voltage	380/400/415VAC(L-L); 220/230/240VAC(L-N)	
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		
<b>BATTERY</b>		
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) $\pm 240\text{VDC}$ / 2 wires (optional) 480VDC	
Charging capacity	20%*Pout	
Charge accuracy	$\pm 1\%$	
<b>BYPASS</b>		
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	
<b>INVERTER</b>		
Rate voltage	380/400/415VAC (L-L), 220/230/240VAC (L-N)	
Rate frequency	50Hz / 60Hz	
Output power factor	1	
Voltage accuracy	$\pm 1.0\%$	
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, $\pm 0.5\text{Hz} \sim \pm 5\text{Hz}$ , default $\pm 3\text{Hz}$	
Slew rate	Settable, $\pm 0.5\text{Hz/S} \sim \pm 3\text{Hz/S}$ , default $\pm 0.5\text{Hz/S}$	
Phase accuracy	$120^\circ \pm 0.5^\circ$	
<b>SYSTEM</b>		
Efficiency - Normal mode	up to 95.5%	
Efficiency - Battery mode	up to 95.5%	
Display	LED + 7 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	
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)	65dB @ 100% load, 62dB @ 45% load	
Dimension (HxWxD) mm	Cabinet	2000x600x1000
	Module	85x440x678 (2U)
Weight (kg)	Cabinet	260
	Module	23