



• DATA CENTER • • TRANSPORT • • MALLS •

# MTW MODULAR UPS

## UNINTERRUPTIBLE POWER SUPPLIES

### 25-180kVA

3P/3P, 3P/1P, 1P/1P, ONLINE DOUBLE CONVERSION

➔ FLEXIBLE CONFIGURATION

➔ SMART SLEEP FUNCTION

➔ GRAPHIC LCD DISPLAY



MODULAR UPS



VFI  
TYPE

UPS ONLINE



1.0

POWER FACTOR



USB



SERVICE / TECH.  
SUPPORT



## GENERAL SPECIFICATIONS

### RACK MODULAR DESIGN

Modular design, compatible with 19" standard rack cabinet, convenient to be integrated with servers

### HIGH POWER DENSITY

25/30kVA (25/30kW) power module in 2U height, saving great amount of space, easy for capacity expansion

### INTEGRATED SOLUTION FOR DATA CENTER

UPS can be integrated with battery cabinet, PDU and external maintenance bypass, offering excellent choice for data center

### INTELLIGENT CHARGING MANAGEMENT

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

### FLEXIBLE CONFIGURATION

The system can be configured to 3/3, 3/1 and 1/1

### FRIENDLY INTERFACE

10" touch color LCD with graphic display, more information displayed and easier for customer to operate and IoT function

### SMART SLEEP FUNCTION

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

### SELF-AGING MODE

Energy internal circle technology, system can run with full load, saving more than 90% energy



# TECHNICAL SPECIFICATIONS

MODEL	MTW50/25X1	MTW100/25X1	MTW150/25X1	
Rated power	50kVA/50kW	100kVA/100kW	150kVA/150kW	
Power module capacity	TPW25			
<b>INPUT</b>				
Input	3P+N+PE, L+N+PE			
Rate voltage	3-Phase input: 380/400/415VAC (L-L); 1-Phase input: 220/230/240VAC (L-N)			
Input power factor	> 0.99			
Current distortion	THDi < 2% (100% Linear load)			
Voltage range	3-Phase input: 304 ~ 478VAC (L-L) full load 304 ~ 228VAC (L-L) power derate from 100% to 75% 1-Phase input: 176 ~ 276VAC (L-L) full load 176 ~ 132VAC (L-L) power derate from 100% to 75%			
Frequency range	40-70Hz			
<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) ± 240VDC / 2 wires (optional) 480VDC			
Charging capacity	Max 100%*Pout ( Limited by input current)			
Charge accuracy	± 1%			
<b>BYPASS</b>				
Rate voltage	3-Phase input: 380/400/415VAC (L-L); 1-Phase input: 220/230/240VAC (L-N)			
Voltage range	Range: -40%- +25%, Settable, default -20% +15%			
Frequency range	Settable (±1Hz, ±3Hz, ±5Hz)			
Overload	110% long time operation, 110% <load<125% 5 mins, 125% <load<150%, 1 min, >150% 1 second			
<b>INVERTER</b>				
Rate voltage	3-Phase output: 380/400/415VAC (L-L); 1-Phase output: 220/230/240(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°			
<b>SYSTEM</b>				
Efficiency - Normal mode	up to 96.5%			
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			
Noise (dB) (1 meter)	62dB @ 100% load, 58dB @ 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			
Option	SNMP card, AS400 card, Parallel kit, LBS, Air filter			
Dimension (HxWxD) mm	Cabinet	307x442x711	797x442x660	976x442x660
	Cabinet (Wheels not included)		705x442x660	883x442x660
	Module		86x400x495 (2U)	
Weight (kg)	Cabinet	39	64	88
	Module	12	14	16

# TECHNICAL SPECIFICATIONS

MODEL	MTW180/30X1	
Rated power	180kVA/180kW	
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	40-70Hz	
<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) $\pm 240$ 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, $\pm 0.5$ Hz ~ $\pm 5$ Hz, default $\pm 3$ Hz	
Slew rate	Settable, $\pm 0.5$ Hz/S ~ $\pm 3$ Hz/S, default $\pm 0.5$ 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	1018x482x816 (23U)
	Module	85x440x678 (2U)
Weight (kg)	Cabinet	132
	Module	23