

## UTT-series

## Three Phase True Online UPS

### Smart Protection

- Static bypass
- Manual maintenance bypass
- Zero time transfer
- EMI protection
- Surge, over charge, over discharge, overload, and short circuit protection

### Power Display and Management

- LED indicator and LCD display with control panel (10kVA- 30kVA model)
- LED indicator and large touchscreen LCD (40kVA - 120kVA model)
- Intelligent battery management
- Hot swappable battery
- Extended backup time (option)

### Communication

- RS-232, RS-485 port and dry contacts
- SNMP/HTTP monitor capability (option)

### Saving

- High efficiency > 98% in Eco mode
- Front opening door for easy access and maintenance

### Safety

- Emergency Power Off function (EPO)

### Reliable Power Quality

- Input voltage 380 Vac (L-L) with -40% to 25%
- Input frequency 50 Hz/60 Hz
- Output voltage 380 Vac (L-L)  $\pm$  1%
- Output frequency 50 Hz/60 Hz  $\pm$  3 Hz adjustable

### High Reliability

- True on-line double conversion technology
- Modular design with high MTBF and low MTTR
- Horizontal modularity parallel redundant configuration up to 6 units
- Full digital control with three DSPs including IGBT rectifier, inverter and charger
- Digital circulating current control technology
- Intelligent self-diagnose function

### Applications

- Internet service provider
- Computer data center
- Industrial automation
- Bank or security system
- Telecommunication system
- Transportation system
- Mission-critical equipments



MASCI  
ISO 9001 QMS 01088349  
ISO 14001 EMS 01007045



NSC-TIS-TIS 17021  
QMS 002 / EMS 005



TIS 1291 Part 1-2553 (2010)  
TIS 1291 Part 2-2553 (2010)  
TIS 1291 Part 3-2555 (2012)

## UTT-series Three Phase True On-Line Double Conversion Sine Wave UPS

### SPECIFICATIONS

MODEL		UTT-40	UTT-60	UTT-100
CAPACITY	VA	40 kVA	60 kVA	100 kVA
	Watt	36 kW	54 kW	90 kW
MAIN INPUT	Voltage	304 - 478 Vac (L-L) full load, 228 - 304 Vac (L-L) load decrease linearly according to the min phase voltage		
	Frequency	50 / 60 Hz		
	Frequency range	40 - 70 Hz		
	Terminal connection	3 phase + N + PE		
	Power factor	more than 0.99		
	Total harmonic distortion	THDi < 3% at full linear load		
BYPASS INPUT	Voltage	380 Vac (L-L) -20% to 15%		
	Frequency	50 / 60 Hz ± 5 Hz		
OUTPUT	Voltage	380 Vac (L-L) ± 1% (balance load), 1.5% (unbalance load)		
	Voltage transient	5% (0 - 100% load step)		
	Power factor	0.9		
	Frequency	50 Hz ± 3 Hz (adjustable)		
	Frequency precision	± 0.02% (free running)		
	Phase tolerance	120° ± 0.5° (balance and unbalance load)		
	Voltage unbalance degree	± 1%		
	Frequency tracking speed	0.5 Hz/s to 5 Hz/s (adjustable)		
	Total harmonic distortion	THDv < 1% at linear load, THDv < 5.5% at non-linear load		
	Overload capability	102% long time operation		
		110% transfer to bypass after 1 hour		
		125% transfer to bypass after 10 minutes		
		150% transfer to bypass after 1 minute		
> 150% transfer to bypass after 200 ms				
Bypass overload capability	125% long time operation			
	125% < load < 130%, last for more than 1 hour			
	130% < load < 150% last for more than 6 minutes			
	>1000% last for more than 100 ms			
Crest factor ratio	3 : 1			
EFFICIENCY	AC to AC	95%		
	Economy mode	> 99%		
	Battery mode	95%		
BATTERY	Type	sealed lead acid (maintenance free) rechargeable		
	Capacity	40 x 12 V (external battery)		
	Backup time	15 - 30 min (depending on connected load)		
	Extended backup time	option		
	Recharge time	80% capacity after 8 hours charging		
STANDARD	Safety	IEC/EN 62040-1		
	EMC	IEC/EN 62040-2		
	Enclosure protection	IP20		
INDICATOR	Front panel LED	UPS Status, Bypass, Rectifier, Inverter, Output, Battery		
	Front panel LCD's	Input (V, A, Hz, power factor), Bypass input (V, A, Hz, power factor), AC output (V, A, Hz, power factor), Load (kVA, kW, kVAR, %), Battery data (V, A, %, °C, environmental temperature, remaining backup time, equalize charging, float charging, disconnected), Current and History alarm and UPS system information		
AUDIBLE ALARM	Buzzer	yes		
CONNECTION		top or bottom cable connection		
COMMUNICATION INTERFACE	Standard interface	RS-232 port, RS-485 port and dry contacts		
	SNMP/HTTP capability	option		
SOFTWARE		UPS monitoring and management software		
ACOUSTIC NOISE		< 55 dBA at 1 metre		
ENVIRONMENT	Temperature	0 - 40°C		
	Humidity	0 - 90% (non-condensing)		
DIMENSIONS	W x H x D (approx. in cm.)	50 x 140 x 84	60 x 95 x 98	60 x 115 x 98
WEIGHT	Approximate in kg.	140	200	250

Continuous product development is our commitment. In that manner, the above specifications may be changed without prior notice.

Authorized Distributor

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