



Your reliable partner for
uninterruptible power



Tescom[®]
UNINTERRUPTIBLE POWER SUPPLIES

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FACTORY

Tescom formerly known as Tümel Elektronik located in Izmir-Turkey is an independently owned corporation, offering a wide range of power protection products and services to a wide spectrum of industries and sectors.

During the establishment years the company was manufacturing electronic control devices and inverters,

then in 1986 when the IT sector started developing rapidly, Tescom sensed the great need for clean, uninterruptible power and started designing and manufacturing Uninterruptible Power Supplies. As well as an extensive standard UPS range Tescom also offers a variety of other products such as static transfer switch (STS), frequency and voltage converters, inverters and rectifiers under it's registered

trademark "Tescom". Today all Tescom branded power protection products are manufactured by a group of almost 30 greatly experienced engineers and staff of over 250 people.



Tescom is a member of DMY Electronic Investments Group

(www.dmyelektronik.com)



One of the greatest advantages of Tescom has always been, flexibility. Which means we do not only offer standard products. Thank's to our high experienced R&D team we also design and manufacture products according to customers requirements. Tescom has always made widespread use of the latest developments and

technologies in manufacturing, which complies with all the necessary international standards and norms. All these past years of experience, has lead to over 250,000 manufactured power protection products which have been delivered to customers in more than 40 countries in 4 continents.





R&D

Tescom's R&D department is the most valuable asset to this company since the day it was founded. All engineers working here are the most experienced ones in the country in the field of power electronics. This team has the knowledge and skill to create and launch a new product into the market within a very short period of time. Besides, this R&D team has also ability to implement special request specifications to the standard manufactured products, faster and more efficiently than the competitors. Thanks to the large budget allowance given every year a considerable amount of investment is being made to this department and as a result today Tescom is in a very pretentious position both in domestic and international markets.



T.C. Ministry of Industry and Technology

As a result of ongoing investments in power electronics and energy, the "Ministry of Science, Industry & Technology" has certified Tescom to be Turkey's 455th R&D center.



Due to the close and strong relations with the international suppliers, Tescom has always been a company using and applying the latest technology materials and components in the products manufactured. Since day one the goal of the Tescom's R&D team has always been to follow up the latest technological developments in the market and detect the customer demands, then create and launch a product accordingly.



650 - 2200 VA

LEO+

UNINTERRUPTIBLE POWER SUPPLIES

LEO+ Line Interactive UPS is an uninterruptible power supply with microprocessor control and smart battery management system that can offer solutions especially for your home and office applications. It is available for your use with its small volume and stylish design, LED/LCD screen options, USB and RJ11 connection. It provides a safe usage opportunity thanks to high current, short circuit, overload, high battery and charge/discharge protections.

GENERAL SPECIFICATIONS

- LED display or LCD display selectable
- Microprocessor-based digital control
- Boost and buck AVR for voltage stabilization
- Auto sensing frequency
- Wide input voltage range
- Power-on self test
- Auto restart when mains power is restored
- Auto track mains phase to ensure that inverter output voltage has same phase with utility voltage, reducing transfer time and peak surge
- Cold start
- Automatic charging in OFF mode
- Intelligent battery management: battery temperature compensation to extend the battery life; three-stage charging to shorten recharge time
- Short circuit, battery overcharge / overdischarge, overload, surge protections
- Optional no-load shutdown
- Optional RS232 / USB communication port and RJ11 / RJ45 protection
- Unattended safety shutdown: system alarm and auto Power-On / Off by RS232 or USB interface communicating with PC



Line - interactive



650 - 2200 VA

TECHNICAL SPECIFICATIONS

MODEL	Leo+ 650VA	Leo+ 850VA	Leo+ 1200VA	Leo+ 1500VA	Leo+ 2200VA	
Capacity	650VA / 390W	850VA / 510W	1200VA / 720W	1500VA / 900W	2200VA / 1320W	
INPUT						
Voltage	100 / 110 / 120 V: 80 ~ 150 Vac; 220 / 230 / 240 V: 162 ~ 295 Vac (145 ~ 295 Vac optional)					
Frequency	50 / 60 Hz ± 10% (auto-sensing)					
OUTPUT						
Voltage	100 / 110 / 120 Vac ± 10% or 220 / 230 / 240 Vac ± 10%					
Frequency	50 / 60 Hz ± 1% (auto-sensing)					
Waveform	Mains mode: pure sine wave; Battery mode: simulated sine wave					
Protection	Typical 8 ms, 10 ms max.					
BATTERY						
DC voltage	12V		24V			
Configuration	12V/7.0Ah x 1	12V/9.0Ah x 1	12V/7.0Ah x 2	12V/9.0Ah x 2	12V/9.0Ah x 2	
Recharge time	6 ~ 8 h					
OTHERS						
Protections	Short circuit - battery overcharge – overdischarge – overload - surge					
Communication	USB / RJ45 Modem protect					
Humidity	20 ~ 90% RH @ 0 ~ 40°C (non-condensing)					
Noise level	≤ 45 dB (1 m)					
Plastic case	Net / Gross weight (kg)	4.3 / 4.6	5.2 / 5.5	8.6 / 9.0	10.1 / 10.5	/
	Dimensions (HxWxD) (mm)	140x100x290		170x140x345		/
	Packaged dimensions (HxWxD) (mm)*	210x139x335		210x139x335		/
	Quantity / 20 ft	2300 pcs		1000 pcs		/
Metal case	Net / Gross weight (kg)	/	/	/	/	12.9 / 13.3
	Dimensions (HxWxD) (mm)	/	/	/	/	225x125x380
	Packaged dimensions (HxWxD) (mm)	/	/	/	/	295x180x450



1 - 10 kVA

TEOS 100

UNINTERRUPTIBLE POWER SUPPLIES

TEOS 100 Online UPS is a microprocessor controlled uninterruptible power supply with true double conversion technology. It is efficient with output power factor 0.9 and input power factor correction. Thanks to its silent operation, it is especially preferred for use in home and office applications. It offers flexibility of use with its prominent features such as frequency converter mode, wide voltage/frequency range and multiple communication options.

GENERAL SPECIFICATIONS

- True double-conversion
- Microprocessor control optimizes reliability
- Input power factor correction
- Output power factor 0.9
- Wide input voltage
- ECO mode for energy saving
(Only available for 1-3kVA models)
- Converter mode available
- Generator compatible
- Adjustable battery numbers only available for 6/10kVA models
- Adjustable charging current via LCD or software
(1A~ 6A) only available for 6/10kVA models
- Emergency power off (EPO) function is only available for 6/10kVA models
- Comprehensive display allows easy monitoring and access to UPS status



1 phase in / 1 phase out



1 -10 kVA

TECHNICAL SPECIFICATIONS

MODEL		Teos 1000	Teos 2000	Teos 3000	Teos 106	Teos 110
Phase		Single phase with ground				
Capacity		1000 VA / 900 W	2000 VA / 1800 W	3000 VA / 2700 W	6000 VA / 5400 W	10000 VA / 9000 W
INPUT						
Nominal voltage		100/110/115/120/127VAC veya 200/208/220/230/240VAC			208/220/230/240VAC	
Input voltage range		60-150VAC or 120-300VAC (Based on load at 50%) 90-140VAC or 180-280VAC (Based on load at 100%)			110-300 AC (Based on load at 50%) 176-300VAC (Based on load at 100%)	
Frequency range		40Hz ~ 70 Hz			46~54 Hz or 56~64 Hz	
Power factor		≥ 0.99 @ Nominal Voltage (100% load)				
OUTPUT						
Voltage		100/110/115/120/127VAC or 200/208/220/230/240VAC			208/220/230/240VAC	
Voltage tolerance		± 1%				
Frequency range		47~ 53 Hz or 57 ~ 63 Hz (Synchronized Range)			46~54 Hz or 56~64 Hz (Synchronized Range)	
Frequency range		50 Hz or 60Hz ± 0.5% (Batt. Mode)			50 Hz or 60Hz ± 0.1 Hz (Batt. Mode)	
Crest factor		3:1 (max)				
Voltage THD		≤ %3 THD (linear load) ≤ %6 THD (non-linear load)			≤ %3 THD (linear load) ≤ %5 THD (non-linear load)	
Transfer time	AC mode → batt. mode	Zero				
	Inverter → bypass	4 ms (Typical)			Zero	
Waveform (Batt. mode)		Pure sinewave				
EFFICIENCY						
AC mode		88%	89%	90%	92%	93%
Battery mode		83%	85%	88%	90%	91%
BATTERY						
Standard model	Battery type	12V / 9AH			12V / 7AH	12V / 9AH
	Number	2	4	6	16	
	Typical recharge time	4 hours recover to 90% capacity			9 hours recover to 90% capacity	
	Charging current (max.)	1.0 A			1A/2A (Adjustable)	
	Charging voltage	27.4VDC ± 1%	54.7 VDC ± 1%	82.1 VDC ± 1%	218.4 VDC ± 1%	
Long-run model	Battery type	N/A			Depending on the capacity of external batteries	
	Number				16 ~ 20 (Adjustable)	
	Charging current (max.)				1A/2A/4A/6A (Adjustable, 6A is only available for 16pcs batts.)	
	Charging voltage				273 VDC ±1% (Based on 20pcs batteries)	
INDICATORS						
LCD		Load level, Battery level, AC mode, Battery mode, Bypass mode, and Fault indicators				
ALARM						
Battery mode		Sounding every 4 seconds				
Low battery		Sounding every second				
Overload		Sounding twice every second				
Fault		Continously sounding				
PHYSICAL						
Standard model	Dimension, HxWxD (mm)	220x145x282	220x145x397	318x190x421	688x190x369	688x190x442
	Net weight (kg)	9.8	17	27.6	61	66
Long-run model	Dimension, HxWxD (mm)	N/A			318x190x369	318x190x442
	Net weight (kg)	N/A			12	16
ENVIRONMENT						
Humidity		20%-90 RH @ 0- 40°C (non-condensing)			0%-95 RH @ 0-40°C (non-condensing)	
Acoustic noise		< 50dBA @ 1m			< 55dBA @ 1m	< 58dBA @ 1m
MANAGEMENT						
Smart RS-232/USB		Supports Windows 2000/2003/XP/Vista/2008/7/8, Linux, Unix, and MAC				
Optional SNMP		Power management from SNMP manager and web browser				



1 - 10 kVA

TEOS 100 XL

UNINTERRUPTIBLE POWER SUPPLIES

TEOS 100 XL Online UPS is a microprocessor controlled uninterruptible power supply with true double conversion technology. Thanks to its high charger capacity, it provides a solution for long-backup applications. Thanks to its silent operation, it is especially preferred for use in home and office applications. It offers flexibility of use with its prominent features such as frequency converter mode, wide voltage/frequency range and multiple communication options.

GENERAL SPECIFICATIONS

- True double-conversion
- Microprocessor control optimizes reliability
- Input power factor correction
- Wide input voltage
- Converter mode available
- ECO mode for energy saving
(Only available for 1-3kVA models)
- Generator compatible
- Adjustable battery numbers only available for 6/10kVA models
- Adjustable charging current via LCD or software
(1A~ 6A) only available for 6/10kVA models
- Emergency power off (EPO) function is only available for 6/10kVA models
- Comprehensive display allows easy monitoring and access to UPS status



1 phase in / 1 phase out



1 -10 kVA TECHNICAL SPECIFICATIONS

MODEL		Teos 1000 XL	Teos 2000 XL	Teos 3000 XL	Teos 106 XL	Teos 110 XL
Phase		Single phase with ground				
Power		1000VA / 800W	2000VA / 1600W	3000VA / 2400W	6000VA / 5400W	10000VA / 9000W
INPUT						
Nominal voltage		100/110/115/120/127VAC or 200/208/220/230/240VAC			208/220/230/240VAC	
Input voltage range		60-150 VAC or 120-300 VAC (Based on load at 50%) 90-140 VAC or 180-280 VAC (Based on load at 100%)			110-300 VAC (Based on load at 50%) 176-300 VAC (Based on load at 100%)	
Frequency range		40Hz ~ 70 Hz			46-54 Hz or 56-64 Hz	
Power factor		≥ 0.99 @ Nominal Voltage (100% load)				
OUTPUT						
Power factor		0.8			0.9	
Voltage		100/110/115/120/127VAC or 200/208/220/230/240VAC			208/220/230/240VAC	
Voltage regulation		± 1%				
Frequency range		47~ 53 Hz or 57 ~ 63 Hz (Synchronized Range)			46-54 Hz or 56-64 Hz (Synchronized Range)	
Frequency range		50 Hz or 60Hz ± 0.5% (Batt. Mode)			50 Hz or 60Hz ± 0.1 Hz (Batt. Mode)	
Crest factor		3:1 (max.)				
Voltage THD		≤ 3% THD (linear load) ≤ 6% THD (non-linear load)			≤ 3% THD (linear load) ≤ 5% THD (non-linear load)	
Transfer time	AC mod → Batt. mod	Zero				
	Inverter → bypass	4 ms (Typical)			Zero	
Waveform (batt. mode)		Pure Sinewave				
EFFICIENCY						
AC mode		88%	89%	90%	92%	93%
Battery mode		83%	85%	88%	90%	91%
BATTERY						
Battery type		Depending on the applications				
Numbers		2	4	6	16-20 (adjustable)	
Typical recharge time		4 hour recover to 90% capacity			9 hour recover to 90% capacity	
Charging current		1A/2A/4A/6A (adjustable)			1A/2A/4A/6A (adjustable, only for 6A 16 pcs batt. configuration)	
Charging voltage		27.4VDC ± 1%	41.9VDC ± 1%	54.7VDC ± 1%	82.1VDC ± 1%	109.4 VDC ± 1%
					82.1 VDC ± 1%	109.4 VDC ± 1%
		273 VDC ± 1% (according to 20 batt.-powered configuration)				
INDICATORS						
LCD		Load level, Battery level, AC mode, Battery mode, Bypass mode, and Fault indicators				
ALARM						
Battery mode		Sounding every 4 seconds				
Low battery		Sounding every second				
Overload		Sounding twice every second				
Fault		Continuously sounding				
PHYSICAL						
Dimension HxWxD (mm)		220x145x282	220x145x397	318x190x421	318x190x369	318x190x442
Net weight (kg)		4.1	6.8	7.4	12	16
ENVIRONMENT						
Humidity		20-90% RH @ 0- 40°C (non-condensing)			0-95% RH @ 0-40°C (non-condensing)	
Acoustic noise		< 50dBA @ 1 meter			< 55dBA @ 1 meter	< 58dBA @ 1 meter
MANAGEMENT						
Smart RS-232/USB		Supports Windows 2000/2003/XP/Vista/2008/7/8, Linux, Unix, and MAC				
Optional SNMP		Power management from SNMP manager and web browser				



1 - 10 kVA

TEOS 100 XL RT

UNINTERRUPTIBLE POWER SUPPLIES

1 phase in / 1 phase out

TEOS 100 XL RT Online UPS is a microprocessor controlled uninterruptible power supply with true double conversion technology. Thanks to its high charger capacity, it provides a solution for long-backup applications. Thanks to its silent operation, it is especially preferred for use in home-office applications. It offers flexibility of use with its prominent features such as frequency converter mode, wide voltage/frequency range and multiple communication options. It is designed to be used as a Rack/Tower.

GENERAL SPECIFICATIONS

- Rackmount design for Rack Cabinet applications
- True double-conversion
- Microprocessor control optimizes reliability
- Input power factor correction
- Wide input voltage
- ECO mode for energy saving
(Only available for 1-3kVA models)
- Converter mode available
- Generator compatible
- Manuel bypass is available for 6-10kVA
- Adjustable battery numbers only available for 6/10kVA models
- Adjustable charging current via LCD or software (1A~ 6A)
- Emergency power off (EPO) function is only available for 6/10kVA models
- Comprehensive display allows easy monitoring and access to UPS status





1 -10 kVA TECHNICAL SPECIFICATIONS

MODEL		Teos 1000 XL RT	Teos 2000 XL RT	Teos 3000 XL RT	Teos 106 XL RT	Teos 110 XL RT
Phase		Single phase with ground				
Power		1000VA / 800W	2000VA / 1600W	3000VA / 2400W	6000VA / 5400W	10000VA / 9000W
INPUT						
Nominal voltage		100/110/115/120/127VAC or 200/208/220/230/240VAC			208/220/230/240VAC	
Input voltage range		60-150 VAC or 120-300 VAC (Based on load at 50%) 90-140 VAC or 180-280 VAC (Based on load at 100%)			110-300 VAC (Based on load at 50%) 176-300 VAC (Based on load at 100%)	
Frequency range		40Hz ~ 70 Hz			46-54 Hz or 56-64 Hz	
Power factor		≥ 0.99 @ Nominal Voltage (100% load)				
OUTPUT						
Power factor		0.8			0.9	
Voltage		100/110/115/120/127VAC or 200/208/220/230/240VAC			208/220/230/240VAC	
Voltage regulation		± 1%				
Frequency range		47~ 53 Hz or 57 ~ 63 Hz (Synchronized Range)			46-54 Hz or 56-64 Hz (Synchronized Range)	
Frequency range		50 Hz or 60Hz ± 0.5% (Batt. Mode)			50 Hz or 60Hz ± 0.1 Hz (Batt. Mode)	
Crest factor		3:1 (max.)				
Voltage THD		≤ 3% THD (linear load) ≤ 6% THD (non-linear load)			≤ 3% THD (linear load) ≤ 5% THD (non-linear load)	
Transfer time	AC mod → Batt. mod	Zero				
	Inverter → bypass	4 ms (Typical)			Zero	
Waveform (batt. mode)		Pure Sinewave				
EFFICIENCY						
AC mode		88%	89%	90%	92%	93%
Battery mode		83%	85%	88%	90%	91%
BATTERY						
Battery type		Depending on the applications				
Numbers		2	4	6	16-20 (adjustable)	
Typical recharge time		4 hour recover to 90% capacity			9 hour recover to 90% capacity	
Charging current		1A/2A/4A/6A (adjustable)			1A/2A/4A/6A (adjustable, only for 6A 16 pcs batt. configuration)	
Charging voltage		27.4VDC ± 1%	41.9VDC ± 1%	54.7VDC ± 1%	82.1VDC ± 1%	109.4 VDC ± 1%
					82.1 VDC ± 1%	109.4 VDC ± 1%
					273 VDC ± 1% (according to 20 batt.-powered configuration)	
INDICATORS						
LCD		Load level, Battery level, AC mode, Battery mode, Bypass mode, and Fault indicators				
ALARM						
Battery mode		Sounding every 4 seconds				
Low battery		Sounding every second				
Overload		Sounding twice every second				
Fault		Continuously sounding				
PHYSICAL						
Dimension HxWxD (mm)		88(2U)x438x310	88(2U)x438x410		88(2U)x438x530	133(3U)x438x580
Net weight (kg)		9	12	14.2	15	18
ENVIRONMENT						
Humidity		20-90% RH @ 0- 40°C (non-condensing)			0-95% RH @ 0-40°C (non-condensing)	
Acoustic noise		< 50dBA @ 1 meter			< 55dBA @ 1 meter	< 58dBA @ 1 meter
MANAGEMENT						
Smart RS-232/USB		Supports Windows 2000/2003/XP/Vista/2008/7/8, Linux, Unix, and MAC				
Optional SNMP		Power management from SNMP manager and web browser				



1 - 10 kVA

TEOS RT

UNINTERRUPTIBLE POWER SUPPLIES

TEOS RT Online UPS is a microprocessor controlled uninterruptible power supply with true double conversion technology. It is efficient with output power factor 0.9 and input power factor correction. Thanks to its silent operation, it is especially preferred for use in home and office applications. It offers flexibility of use with its prominent features such as frequency converter mode, wide voltage/frequency range and multiple communication options. It is designed to be used as a Rack/Tower.

GENERAL SPECIFICATIONS

- True double-conversion
- Microprocessor control optimizes reliability
- Input power factor correction
- Output power factor 0.9
- Wide input voltage range
- Converter mode available
- Generator compatible
- ECO mode for energy saving (Only available for 1-3kVA models)
- Adjustable charging current via LCD or software (1A/2A)
- Emergency power off (EPO) function is only available for 6/10kVA models
- Comprehensive display allows easy monitoring and access of UPS status



1 phase in / 1 phase out



1 - 10 kVA TECHNICAL SPECIFICATIONS

MODEL		Teos 1RT	Teos 2RT	Teos 3RT	Teos 106RT	Teos 110RT	
Phase		Single phase with ground					
Capacity		1000 VA / 900 W	2000 VA / 1800 W	3000 VA / 2700 W	6000 VA / 5400 W	10000 VA / 9000 W	
INPUT							
Nominal voltage		110/115/120/127VAC or 208/220/230/240VAC			208/220/230/240VAC		
Input voltage range		60-145 VAC or 120-300 VAC at 50% load 90-145 VAC or 180-300 VAC at 100% load			110-300 VAC (Based on load at 50%) 176-300 VAC (Based on load at 100%)		
Frequency range		40Hz ~ 70 Hz			46Hz ~ 54 Hz or 56Hz ~ 64Hz		
Power factor		≥ 0.99 @ Nominal Voltage (100% load)					
OUTPUT							
Output voltage		110/115/120/127VAC or 208/220/230/240VAC			208/220/230/240VAC		
Voltage regulation		± 1%					
Frequency range		47~ 53Hz or 57 ~ 63Hz (synchronized range)			46Hz ~ 54Hz or 56Hz ~ 64Hz (synchronized range)		
Frequency range		50Hz ± 0.25Hz or 60Hz ± 0.3Hz (battery mode)			50Hz ± 0.1Hz or 60Hz ± 0.1Hz (battery mode)		
Current crest ratio		3:1					
Harmonic distortion		≤ 3 % THD (Linear Load), ≤ 6 % THD (Non-linear Load)			≤ 3 % THD (Linear Load), ≤ 5 % THD (Non-linear Load)		
Transfer time	AC Mode to batt. mode	Zero			0ms		
	Inverter to bypass	4 ms (Typical)			0ms		
Waveform (Batt. mode)		Pure Sinewave					
EFFICIENCY							
AC mode		88%	89%	90%	92%	93%	
Battery mode		83%	87%	88%	90%	91%	
BATTERY							
Battery type		12V/9AH			12V/7AH		12V/9AH
Numbers		2	4	6	16	20	16 20
Typical recharge time		4 hours recover to 90% capacity			9 hours recover to 90% capacity		
Charging current (max.)		1.0A			1A/2A (Adjustable)		
Charging voltage		27.4VDC ± 1%	54.7VDC ± 1%	82.1VDC ± 1%	218.4VDC ± 1%	273VDC ± 1%	218.4 VDC ± 1% 273VDC ± 1%
INDICATORS							
LCD panel		Load level, Battery level, AC mode, Battery mode, Bypass mode, and Fault indicators					
ALARM							
Battery mode		Sounding every 4 seconds					
Low battery		Sounding every second					
Overload		Sounding twice every second					
Fault		Continuously sounding					
PHYSICAL							
Dimension, HxWxD (mm)		88x438x310	88x438x410	88x438x630	UPS Unit: [2U]88x438x500 Battery Pack: [2U]88x438x668	UPS Unit: [2U]88x438x500 Battery Pack: [3U]133x438x580	UPS Unit: [3U]133x438x580 Battery Pack: [3U]133x438x580
Net Weight (kg)		12	19	29.3	UPS Unit: 15 Batt. Pack: 48	UPS Unit: 15 Batt. Pack: 61	UPS Unit: 18 Batt. Pack: 51 UPS Unit: 18 Batt. Pack: 61
ENVIRONMENT							
Humidity		20-90 % RH @ 0- 40°C (non-condensing)			0-95 % RH @ 0- 40°C (non-condensing)		
Noise level		Less than 50dBA @ 1m			Less than 55dBA @ 1m		Less than 58dBA @ 1m
MANAGEMENT							
Smart RS-232/USB		Supports Windows 2000/2003/XP/Vista/2008/7/8, Linux, Unix, and MAC					
Optional SNMP		Power management from SNMP manager and web browser					



1 - 3 kVA

TEOS+ 100

UNINTERRUPTIBLE POWER SUPPLIES

TEOS+ 100 Online UPS is an uninterruptible power supply designed with true double conversion technology and DSP (Digital Signal Processors) controlled processor. Thanks to its plug-and-play feature and silent operation, it is especially preferred for use in home and office applications. Efficiency with Active Power Factor Correction (APFC) feature, flexibility with wide voltage/frequency range is provided.

GENERAL SPECIFICATIONS

- High frequency on-line double conversion technology
- DSP (Digital signal processors) control technology
- Active power factor correction (APFC), input power factor up to 0.99
- Output power factor 0.9
- Wide input voltage range (110 V ~ 300 Vac) and frequency range (40 ~ 70 Hz)
- Auto sensing frequency
- 50/60Hz frequency conversion
- Cold start
- Rear ventilation design and variable speed fan
- Effective software and hardware protection
- Quick and stable charging, 90% capacity restored in 3h (standard model UPS)
- Linear derating in low voltage input reducing battery discharging times
- Settable delayed start when power is restored
- Advanced battery management (ABM)
- Multiple functions settable via LCD: output voltage, EOD, auto-start, bypass mode, ECO mode and frequency conversion mode
- Multi-platform communications: RS232



Available Options

- Optional USB, RS485 card, AS400 dry contacts, SNMP card, SMS alarms, EPO function, and 12 A charger (2/3 kVA only)

1 phase in / 1 phase out



1 -3 kVA

TECHNICAL SPECIFICATIONS

MODEL	Teos+ 101		Teos+ 102		Teos+ 103	
Capacity	1 kVA/900 W		2 kVA/1800 W		3 kVA/2700 W	
INPUT						
Rated voltage	208 / 220 / 230 / 240 Vac					
Voltage range	110 ~ 176 Vac (linear derating between 50% and 100% load); 176 ~ 280 Vac (no derating); 280 ~ 300 Vac (derating 50%)					
Frequency	40 ~ 70 Hz (auto-sensing)					
Power factor	≥ 0.99					
Bypass voltage range	- 25% ~ +15% (settable)					
Total harmonic distortion (THDi)	≤ 6%					
OUTPUT						
Voltage	208 / 220 / 230 / 240 Vac (settable via LCD)					
Voltage regulation	± 1%					
Frequency	45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range); 50 / 60 Hz ± 0.1 Hz (battery mode)					
Waveform	Sinusoidal					
Power factor	0.9					
Total harmonic distortion (THDv)	≤ 2% (linear load), ≤ 5% (non-linear load)					
Crest factor	3:1					
Overload	105% ~ 125% for 1 min, 125% ~ 150% for 30 s, > 150% for 300 ms					
BATTERIES						
DC voltage	24V (S)		48V (S)		72V (S) / 96V (S)	
Inbuilt battery	2x7Ah	2x9Ah	4x9Ah	6x9Ah	8x9Ah	
Charging current (max.)	1A					
Recharge time	Standard model: 90% capacity restored in 3 hours; Long time model: depend on the capacity of battery					
SYSTEM						
Efficiency	≥ 90% (Mains mode)		≥ 91% (Mains mode)		≥ 92% (Mains mode)	
	≥ 85% (Battery mode)		≥ 86% (Battery mode)		≥ 87% (Battery mode)	
	≥ 95% (ECO mode)		≥ 96% (ECO mode)		≥ 97% (ECO mode)	
Transfer time	Mains mode to battery mode: 0 ms Inverter mode to bypass mode: 4 ms (typical)					
Protections	Short-circuit, overload, overtemperature, battery discharge protection and fan testing protection					
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP (optional)					
Display	LCD + LED					
Standards	EN 62040-1, EN 62040-2, EN 61000-3-2, EN 61000-3-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-2-2, IEC 62040-2, IEC 62040-1, IEC 62040-3					
OTHERS						
Operating temperature	0°C ~ 40°C					
Storage temperature	- 25°C ~ 55°C (without batteries)					
Relative humidity	0 ~ 95% (non-condensing)					
Altitude	≤ 1000 m, derating 1% for each additional 100 m					
IP rating	IP 20					
Noise level at 1m	≤ 50 dB					
Dimensions (H×W×D) (mm)	214x144x414	214x144x414	335x191x418		335x191x418	335x191x464
Packaged dimensions (H×W×D) (mm)	320x230x417	320x230x417	471x318x533		471x318x533	472x320x573
Net weight (kg)	9	9.5	18	25.7	10.5	27.2 / 34
Gross weight (kg)	10	10.5	19.5	27.4	12	29 / 36



6 - 10 kVA

TEOS+ 100

UNINTERRUPTIBLE POWER SUPPLIES

1 phase in / 1 phase out

TEOS+ 100 Online UPS is an uninterruptible power supply designed with true double conversion technology and DSP (Digital signal processors) controlled processor. High efficiency is achieved with an output power factor of 1.0 and an input power factor of ≥ 0.99 . Thanks to its silent operation, it is especially preferred for use in home and office applications. It offers flexibility of use with its prominent features such as frequency converter mode, wide voltage/frequency range and multiple communication options.

GENERAL SPECIFICATIONS

- Advanced DSP and 3-level technology
- Output power factor 1.0
- Active power factor correction (APFC), input power factor up to 0.99
- High efficiency 95% (up to 98% in ECO mode)
- Advanced digital parallel technology
- Wide input voltage range (110 ~ 288 Vac) and frequency range (40 ~ 70 Hz)
- 50 / 60 Hz frequency auto sensing
- Flexible battery configuration (settable 16 - 20 pcs batteries)
- Digitally controlled charger
- High charging current available (Max. 12 A)
- Charging voltage and current configured by demands
- Linear derating in low voltage input reducing battery discharging times, extending the service life of battery
- Intelligent battery management, automatic floating/equalizing charge control, charger dormancy control, increasing battery life by 50%
- Ability to switch on the UPS with batteries
- Settable delayed start time when mains power is restored, reducing the impact on power grid or generator
- Fan speed varies intelligently with temperature, reducing noise and extending its service life
- Equipped with self-aging function
- Compact internal layout, miniaturized the complete unit for small footprint
- LCD+LED display, multi-functional keys operation, friendly human-machine interface
- Powerful background software for parameters configuration
- Advanced multi-platform communications: RS232, USB, RS485, SNMP and dry contacts communication interfaces
- Effective software and hardware protection function, robust self-diagnostic function, and abundant event log for check
- Two modes of frequency conversion: 50 Hz input / 60 Hz output or 60 Hz input / 50 Hz output
- Dual-input design, supporting independent bypass





6-10 kVA TECHNICAL SPECIFICATIONS

MODEL	Teos+ 106	Teos+ 110
Capacity	6 kVA / 6000 W	10 kVA / 10000 W
INPUT		
Input wiring	Single-phase three-wire (1Φ + N + PE)	
Rated voltage	208 / 220 / 230 / 240 Vac	
Voltage range	110 ~ 176 Vac (linear derating between 50% and 100% load); 176 ~ 288 Vac (no derating)	
Rated frequency	50 / 60 Hz (auto-sensing)	
Frequency range	40 ~ 70 Hz	
Power factor	≥ 0.99	
Bypass voltage range	- 40% ~ +15% (settable)	
Total harmonic distortion (THDi)	≤ 5%	
OUTPUT		
Output wiring	Single-phase three-wire (1Φ + N + PE)	
Rated voltage	208 (PF=0.9) / 220 / 230 / 240 Vac	
Voltage regulation	± 1%	
Frequency	Synchronized to bypass in mains mode; 50 / 60 Hz ± 0.1% Hz in battery mode	
Waveform	Sinusoidal	
Power factor	1.0	
Total harmonic distortion (THDv)	≤ 1% (linear load); ≤ 4% (non-linear load)*	
Crest factor	3:1	
Overload	105% ~ 110% for 10 min, 110% ~ 125% for 1 min, 126% ~ 150% for 30 s	
BATTERIES		
DC voltage	192 Vdc (192 ~ 240 Vdc settable)	
Number of battery	16 pcs (16 ~ 20 settable)	
Inbuilt batt. (standard model)	12V / 7Ah × 16	12V / 9Ah × 16
Charging current	Standard model: 1 A; Long time model: 5A (default), 1 ~ 5A settable; 12A (optional; PF 0.9)*	
Recharge time	Standard model: 90% capacity restored in 8 hours; Long time model: depend on the capacity of battery	
SYSTEM		
Efficiency	≥ 94% at 100% load, max. 95% at 60% load, ≥ 98% in ECO mode	
Transfer time	0 ms	
Protections	Short-circuit, overload, overtemperature, battery low voltage, overvoltage, undervoltage and fan failure	
Max. number of parallel connections	4	
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP / battery temperature compensation (optional)	
Display	LCD + LED	
OTHERS		
Operating temperature	0°C ~ 40°C	
Storage temperature	- 25°C ~ 55°C (without battery)	
Relative humidity	0 ~ 95% (non-condensing)	
Altitude	≤ 1000 m, derating 1% for each additional 100 m	
IP rating	IP 20	
Noise level at 1m	≤ 55 dB	≤ 58 dB
Dimensions (HxWxD) (mm)	711x191x465 (S), 350x191x465 (H)	711x191x495 (S), 350x191x495 (H)
Packaged dimensions (HxWxD) (mm)	941x310x654 (S), 475x 318x595 (H)	941x310x685 (S), 475x318x617 (H)
Net weight (kg)	53 (S), 14.5 (H)	62 (S), 16.5 (H)
Gross weight (kg)	61 (S), 16 (H)	70 (S), 18 (H)

* S means standard model; H means long time model.



6 - 10 kVA

TEOS+ 100RT

UNINTERRUPTIBLE POWER SUPPLIES

1 phase in / 1 phase out

TEOS+ 100RT Online UPS is an uninterruptible power supply designed with true double conversion technology and DSP (Digital signal processors) controlled processor. High efficiency is achieved with an output power factor of 1.0 and an input power factor of ≥ 0.99 . Thanks to its silent operation, it is especially preferred for use in home and office applications. It offers flexibility of use with its prominent features such as frequency converter mode, wide voltage/frequency range and multiple communication options. It is designed to be used as a Rack/Tower.

GENERAL SPECIFICATIONS

- Advanced DSP and 3-Level technology
- Output power factor 1.0
- Active power factor correction (APFC), input power factor up to 0.99
- High efficiency 95% (up to 98% in ECO mode)
- Advanced digital parallel technology
- Wide input voltage range (110 - 288 Vac) and frequency range (40 - 70Hz)
- 50 / 60 Hz frequency auto sensing
- Two modes of frequency conversion: 50Hz input / 60Hz output or 60Hz input / 50Hz output
- Hot-swappable battery
- Flexible battery configuration (settable 16 - 20 pcs batteries)
- Digitally controlled charger
- High charging current available (Max. 12 A)
- Intelligent battery management, automatic floating / equalizing charge control, charger dormancy control, increasing battery life by 50%
- Ability to switch on the UPS with batteries
- Settable delayed start time when mains power is restored, reducing the impact on power grid or generator
- Fan speed varies intelligently with temperature, reducing noise and extending its service life
- Equipped with self-aging function
- Compact internal layout, miniaturized the complete unit for small footprint
- LCD+LED display, multi-functional keys operation, friendly human-machine interface
- Powerful background software for parameters configuration
- Advanced multi-platform communications: RS232, USB, RS485, SNMP and dry contacts communication interfaces
- Effective software and hardware protection function, robust and self-diagnostic function, and abundant event log for check
- Available Options
- RS232 and smart card slot included
- Optional parallel function, battery temperature compensation, SNMP card, USB, RS485 card, dry contacts, EMD, and SMS alarms
- Charging voltage and current configured by demands
- Linear debating in low voltage input reducing battery discharging times, extending the service life of battery





6-10 kVA TECHNICAL SPECIFICATIONS

MODEL	Teos+ 106RT	Teos+ 110RT
Capacity	6 kVA / 6 kW	10 kVA / 10 kW
INPUT		
Input wiring	Single-phase three-wire (1Φ + N + PE)	
Rated voltage	208 / 220 / 230 / 240 Vac	
Voltage range	110 ~ 176 Vac (linear derating between 50% and 100% load); 176 ~ 288 Vac (no derating)	
Rated frequency	50 / 60 Hz (auto-sensing)	
Frequency range	40 ~ 70 Hz	
Power factor	0.99	
Bypass voltage range	- 40% ~ +15% (settable)	
Total harmonic distortion (THDi)	≤ 5%	
OUTPUT		
Output wiring	Single-phase (L- N)	
Rated voltage	208 (PF=0.9) / 220 / 230 / 240 Vac	
Voltage regulation	± 1%	
Frequency	Synchronized to bypass in mains mode; 50 / 60 Hz ± 0.1% Hz in battery mode	
Waveform	Sinusoidal	
Power factor	1.0	
Total harmonic distortion (THDv)	≤ 1% (linear load); ≤ 4% (non-linear load)*	
Crest factor	3:1	
Overload	105% ~ 110% for 10 min, 110% ~ 125% for 1 min, 126% ~ 150% for 30 s	
BATTERIES		
DC voltage	192 Vdc (192 ~ 240 Vdc settable)	
Number of battery	16 pcs (16 ~ 20 settable)	
Inbuilt battery (standard model)	12V / 7Ah × 16	12V / 9Ah × 16
Charging current	Standard model: 1 A; Long time model: 5A (default), 1 ~ 5A settable; 12A (optional; PF 0.9)*	
Recharge time	Standard model: 90% capacity restored in 8 hours; Long time model: depend on the capacity of battery	
SYSTEM		
Efficiency	≥ 94% at 100% load, max. 94.5% at 60% load, ≥ 98% in ECO mode	
Transfer time	0 ms	
Protections	Short-circuit, overload, overtemperature, battery low voltage, overvoltage, undervoltage and fan failure	
Max. number of parallel connections	4	
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP / battery temperature compensation (optional)	
Display	LCD + LED	
OTHERS		
Operating temperature	0°C ~ 40°C	
Storage temperature	- 25°C ~ 55°C (without battery)	
Relative humidity	0 ~ 95% (non-condensing)	
Altitude	≤ 1000 m, derating 1% for each additional 100 m	
IP rating	IP 20	
Noise level at 1m	≤ 55 dB	≤ 58 dB
Dimensions (HxWxD) (mm)	440 x 580 x 88 (H) / 440 x 660 x 176 (S)	
Packaged dimensions (HxWxD) (mm)	514 x 696 x 168 (H) / 554 x 792 x 418 (S)	
Net weight (kg)	12 (H), 58 (S)	14 (H), 63 (S)
Gross weight (kg)	14 (H), 68 (S)	16 (H), 73 (S)

* S means standard model; H means long time model.



10 - 20 kVA

TEOS 200

UNINTERRUPTIBLE POWER SUPPLIES

TEOS 200 Online UPS is a microprocessor controlled uninterruptible power supply with true double conversion technology. It offers flexibility of use with its prominent features such as frequency converter mode, wide voltage/frequency range and multiple communication options.

GENERAL SPECIFICATIONS

- True double-conversion
- Output power factor 0.8
- Wide input voltage range
- 50Hz frequency converter mode
- Emergency power off function (EPO)
- Microprocessor control
- Long time backup option
- Generator compatible
- SNMP+USB+RS-232 multiple communications
- 3-stage extendable charging design for optimized battery performance
- Optional maintenance bypass switch



3 phase in / 1 phase out



10 - 20 kVA

TECHNICAL SPECIFICATIONS

MODEL		Teos 210		Teos 215		Teos 220	
Phase		3 phase in / 1 phase out					
Capacity		10000VA / 8000W		15000VA / 12000W		20000VA / 16000 W	
INPUT							
Nominal voltage		3x400VAC (3Ph+N)					
Input voltage range		190-520VAC (3-Phase) @ 50% load 305-520VAC (3-Phase) @ 100% load					
Frequency range		46Hz - 54Hz					
OUTPUT							
Output voltage		208/220/230/240VAC					
AC Voltage regulation		± 1% (batt. mode)					
Frequency range		46 ~ 54Hz (synchronized range)					
Frequency range		50Hz ± 0.1Hz (batt. mode)					
Current crest ratio		3:1 (max)					
Harmonic distortion		≤ 3 % THD (Linear Load) ≤ 5 % THD (Non-linear Load)					
Transfer Time	AC Mode to batt. mode	Zero					
	Inverter to bypass	Zero					
Waveform (Batt. mode)		Pure Sinewave					
EFFICIENCY							
AC mode		91%					
Battery mode		91%					
BATTERY							
Standard Model	Battery type	12V / 9AH					
	Numbers	16 pcs	20 pcs	16 pcs	20 pcs	16 pcs x 2 strings	20 pcs x 2 strings
	Typical recharge time	9 hours recover to 90% capacity					
	Charging current (max.)	1A ± 10%				1A/2A/4A ± 10% (2A default)	
	Charging voltage	218.4 VDC ± 1%	273 VDC ±1%	218.4 VDC ±1%	273 VDC ±1%	218.4 ±1%	273 ±1%
Long-run Model	Battery type	Depending on the capacity of external batteries					
	Numbers	16 pcs	20 pcs	16 pcs	20 pcs	16 pcs	20 pcs
	Charging current (max.)	4A Default, 1A/2A/4A (Adjustable)					
	Charging voltage	218.4 VDC ± 1%	273 VDC ±1%	218.4 VDC ±1%	273 VDC ±1%	218.4 ±1%	273 ±1%
INDICATORS							
LCD panel		UPS status, Load level, Battery level, Input/Output voltage, Discharge timer, and Fault conditions					
ALARM							
Battery mode		Sounding every 4 seconds					
Low battery		Sounding every second					
Overload		Sounding twice every second					
Fault		Continuously sounding					
PHYSICAL							
Standard Model	Dimension HxWxD (mm)	688x190x422				826x250x815	
	Net Weight (kg)	66	76	67	78	125	145
Long-run Model	Dimension HxWxD (mm)	318x190x442				318x190x575	
	Net Weight (kg)	15		16		18.95	
ENVIRONMENT							
Operating humidity		0-95% RH @ 0-50°C (non-condensing)					
Acoustic noise		< 60dBA @ 1 Meter					
MANAGEMENT							
Smart RS-232/USB		Supports Windows® 2000/2003/XP/Vista/2008, 7/8, Linux and MAC					
Optional SNMP		Power management from SNMP manager and web browser					



10 - 80 kVA

TEOS 300

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

TEOS 300 Online UPS is an uninterruptible power supply that guarantees high performance with its true double conversion technology and DSP controlled processor (Digital Signal Processor). Thanks to its silent operation, it is especially preferred for use in home-office applications. It offers flexibility of use with its prominent features such as frequency converter mode, wide voltage/frequency range and multiple communication options. Long backup time with powerful charger option, touchscreen graphic panel application, splitted dual input, audible and speaking notifications are the features that differentiate the product.

GENERAL SPECIFICATIONS

- DSP technology guarantees high performance
- Output power factor 1.0
- Active power factor correction in all phases
- Dual Inputs
- 50Hz/60Hz frequency converter mode
- ECO mode operation for energy saving
- Emergency power off function (EPO)
- Adjustable charging current
- Very powerful charger
- Optional parallel operation with common battery
- High overload capability
- Adjustable battery design
- Optional 4.3" colorful touch panel (30-80kVA)





10 - 80 kVA

TECHNICAL SPECIFICATIONS

MODEL		Teos 310	Teos 320	Teos 330	Teos 340	Teos 360	Teos 380
Phase		3 phase in / 3 phase out					
Capacity		10kVA / 10kW	20kVA / 20kW	30kVA / 30kW	40kVA / 40kW	60kVA / 60kW	80kVA / 80kW
Parallel capability		up to 4 units in parallel					
INPUT							
Nominal voltage		3 x 400VAC (3Ph+N)					
Input voltage range		190-520VAC (3-Phase) @ 50% load 305-478VAC (3-Phase) @ 100% load					
Frequency range		46-54 Hz or 56-64Hz					
Power factor		≥ 0.99 @ 100% load					
OUTPUT							
Output voltage		3 x 360*/380/400/415 VAC (3Ph+N)					
AC Voltage regulation		± 1% (batt. mode)					
Frequency range		46-54Hz or 56-64Hz (synchronized range)					
Frequency range		50Hz ± 0.1Hz or 60Hz ± 0.1Hz (batt. mode)					
Current crest ratio		3:1 (max)					
Harmonic distortion		≤ 2 % THD (Linear Load) ≤ 5 % THD (Non-linear Load)					
Transfer Time	AC Mode to batt. mode	Zero					
	Inverter to bypass	Zero					
Waveform (Batt. mode)		Pure Sinewave					
Overload	AC mode	100-110% for 60 min, 110-125% for 10 min, >150% immediately					
	Battery mode	100-110% for 60 min, 110-125% for 10 min, >150% immediately					
EFFICIENCY							
AC mode		95.5%					
Eco mode		98.5%					
Battery mode		94.5%					
BATTERY							
Battery type		Depending on the applications					
Numbers		20 pcs	32 pcs (can be extended with external cabinet)	32~40 pcs (Adjustable)			
Charging current (max.)		12A				24A	
Charging voltage		± 136.5 VDC ± 10%		± 13.65V x N (N=16~20)			
INDICATORS							
Display		LCD panel			Colorful touch panel		
		UPS status, Load level, Battery level, Input/Output voltage, Discharge timer, and Fault conditions					
PHYSICAL							
Dimension HxWxD (mm)		750x250x626		1000x300x815		1010x360x790	
Net Weight (kg)		28	43	60	61	108	113
ENVIRONMENT							
Operating temperature		0-40°C					
Operating humidity		< 95% and non-condensing					
Acoustic noise		< 55dB @ 1 Meter	< 58dB @ 1 Meter	< 65dB @ 1 Meter	< 70dB @ 1 Meter	< 75dB @ 1 Meter	
MANAGEMENT							
Smart RS-232/USB		Supports Windows® 2000/2003/XP/Vista/2008, 7/8, Linux and MAC					
Optional SNMP		Power management from SNMP manager and web browser					

*If output voltage is set as 3 x 360VAC, the output power of the unit will be de-rated to 90%.



10 - 20 kVA

DS POWER 200SH

UNINTERRUPTIBLE POWER SUPPLIES

IGBT RECTIFIER DSP CONTROL

DS Power 200SH UPS appears as a cost effective and small footprint design. Using the 3-Level topology and control system, this series UPS have the latest DSP technology to be programmed to suit a wide variety of electrical environments without impeding its performance. Efficiency, reliability and functionality are enhanced to levels unattainable with the old analogue technology. This technology does not only create significant increase in MTBF, but the capability of DSP to accurately manipulate signals at very high speed permits all the UPS subsystems to be controlled with greatly increased precision.

GENERAL SPECIFICATIONS

- Smaller footprint
- 3-Level topology
- Transformerless UPS topology
- Low input current total harmonic distortion (THD)
- High input power factor
- High efficiency up to 94%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External EPO switch input
- 192 events memory (192 events 14,400 alarms)
- Clock and calendar (battery supported)
- Automatic battery test ,remaining battery time indicator
- Temperature compensated charge system (optional)
- 1 RS232 serial port and 3 dry contact outputs (+2 optional)
- 3 DSP controlled modular structure
- Optional SNMP and MODBUS adaptors
- Full digital structure
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency range
- Output DC leakage protection
- Separate DSP for PFC 3 level battery protection
- Charge / discharge current indicator
- Advanced remote control features
- Manufactured under CE,ISO9001,ISO14001,TSE and GOST international standards
- 2 years warranty



3 phase in / 1 phase out



10 - 20 kVA

TECHNICAL SPECIFICATIONS

MODEL	DS210SH	DS215SH	DS220SH
Power (kVA)	10	15	20
INPUT			
Voltage	380/400 VAC 3P + N + G \pm 20% (415VAC +15%, -25% optional)		
Frequency	50Hz / 60Hz, \pm 10%		
Power factor	\geq 0.98		
THDI (at 100% load)	\leq 7% (depends on mains input conditions)		
By-pass voltage	220/230 VAC 1P+ N \pm 10%		
Voltage distortion	\leq 10%		
Protection	Fuses, Voltage & Frequency Tolerance		
OUTPUT			
Power (kW)	9	13.5	18
Power factor	0.9		
Voltage	220/230 VAC 1P+ N \pm 1%		
Frequency	50Hz / 60Hz		
Frequency tolerance	Line synchronized: \pm 2% / Free running: \pm 0.1%		
Efficiency	up to 94%		
Crest factor	3:1		
Overload protection	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass		
Protection	Fuses, Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting		
Voltage THD	\leq 2% (at 100% linear load)		
BATTERIES			
Type	VRLA AGM / GEL / NiCd		
Number of batteries	2x30 (\pm 30) batteries		
Float charging voltage	\pm 405 VDC (adjustable)		
End of discharge voltage	\pm 300 VDC (adjustable)		
Battery cabinet	External (attached cabinet at the bottom of UPS)		
Battery ambient temperature	25°C		
Battery protection	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)		
Automatic battery test	Standard: every 72 hours (adjustable)		
GENERAL			
Standards	EN62040-1, EN62040-2, EN62040-3		
User interface	4 lines LCD panel, Mimic leds, 5 vector buttons, buzzer		
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time		
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter		
Communication	RS232 serial port, 4 standard DRY contact alarm relays		
Inputs	EPO input		
Genset kit	Standard (programmable)		
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)		
Alarm logging	Standard: with time & date 512 events		
Protection	Power module over temperature, Over current, Temperature high alarms		
Operating temperature	0°C - 40°C		
Protection degree	IP20		
Relative humidity	90% max. (non-condensing)		
Altitude	< 1000m. above sea level		
Acoustic noise	< 55 dBA	< 57 dBA	
Weight (kg)	47.5	49.5	51
Dimensions (mm) HxWxD	700x300x770 (without batt.) / 1000x300x800 (with 5ah batt.) / 1170x300x800 (with 7-9ah batt.)		
OPTIONS			
Different input / output voltage	Please ask		
Adaptors	SNMP, MODBUS, RS485, Remote panel		
Software	T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 50-100-200 clients		



10 - 20 kVA

DS POWER SH

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

IGBT RECTIFIER DSP CONTROL

DS Power SH UPS appears as a cost effective and small footprint design. Using the 3-Level topology and control system, this series UPS have the latest DSP technology to be programmed to suit a wide variety of electrical environments without impeding its performance. Efficiency, reliability and functionality are enhanced to levels unattainable with the old analogue technology. This technology does not only create significant increase in MTBF, but the capability of DSP to accurately manipulate signals at very high speed permits all the UPS subsystems to be controlled with greatly increased precision.

GENERAL SPECIFICATIONS

- Smaller footprint
- 3-Level topology
- Transformerless UPS topology
- Low input current total harmonic distortion (THD)
- High input power factor
- High efficiency up to 94%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input
- 192 events memory (192 events 14.400 alarms)
- Clock and calendar (battery supported)
- Automatic battery test ,remaining battery time indicator
- Temperature compensated charge system (optional)
- 1 RS232 serial port and 3 dry contact outputs (+2 optional)
- 3 DSP controlled modular structure
- Optional SNMP and MODBUS adaptors
- Full digital structure
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency range
- Output DC leakage protection
- Separate DSP for PFC 3 level battery protection
- Charge / discharge current indicator
- Advanced remote control features
- Manufactured under CE,ISO9001,ISO14001,TSE and GOST international standards
- 2 years warranty





10 - 20 kVA

TECHNICAL SPECIFICATIONS

MODEL	DS310SH	DS315SH	DS320SH
Power (kVA)	10	15	20
INPUT			
Voltage	380/400 VAC 3P + N + G ± 20% (415VAC +15%, -25% optional)		
Frequency	50Hz / 60Hz, ± 10%		
Power factor (at 100% load)	≥ 0.99		
THDI (at 100% load)	≤ 4% (depends on mains input conditions)		
By-pass voltage	380/400 VAC 3P + N, 4 Wires, ± 10%		
Voltage distortion	≤ 10%		
Protection	Fuses, Voltage & Frequency Tolerance		
OUTPUT			
Power (kW)	9	13.5	18
Power factor	0.9 (1 optional)	0.9 (0.8 and 1 optional)	
Voltage	380/400 VAC 3P + N, ± 1% (415 VAC optional)		
Frequency	50Hz / 60Hz		
Frequency tolerance	Line synchronized: ± 2% / Free running: ± 0.1%		
Efficiency (at 100% load)	94%		
Crest factor	3:1		
Overload protection	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass		
Protection	Fuses, Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting		
Voltage THD	≤ 2% (at 100% linear load)		
BATTERIES			
Type	VRLA AGM / GEL / NiCd		
Number of batteries	60 (± 30) batteries		
Float charging voltage	± 405 VDC (adjustable)		
End of discharge voltage	± 300 VDC (adjustable)		
Battery cabinet	External (attached cabinet at the bottom of UPS)		
Battery ambient temperature	25°C		
Battery protection	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)		
Automatic battery test	Standard: every 72 hours (adjustable)		
GENERAL			
Standards	EN62040-1, EN62040-2, EN62040-3		
User interface	4 lines LCD panel, Mimic leds, 5 vector buttons, buzzer		
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time		
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter		
Communication	RS232 serial port, 4 standard DRY contact alarm relays		
Inputs	EPO input		
Genset kit	Standard (programmable)		
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)		
Alarm logging	Standard: with time & date 512 events		
Protection	Power module over temperature, Over current, Temperature high alarms		
Operating temperature	0°C - 40°C		
Protection degree	IP20		
Relative humidity	90% max. (non-condensing)		
Altitude	< 1000m. above sea level		
Acoustic noise	< 55 dBA	< 57 dBA	
Weight (kg)	47.5	49.5	51
Dimensions (mm) HxWxD	700x300x770 (without batt.) / 1000x300x800 (with 5ah batt.) / 1170x300x800 (with 7-9ah batt.)		
OPTIONS			
Different input / output voltage	Please ask		
Adaptors	SNMP, MODBUS, RS485, Remote panel		
Software	T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 50-100-200 clients		



10 - 100 kVA

DS POWER H

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

3 LEVEL TECHNOLOGY IGBT RECTIFIER DSP CONTROL

DS Power H Online UPS uses the latest DSP technology to be programmed to suit a wide variety of electrical environments without impeding its performance. With the 3-Level topology, efficiency, reliability and functionality have been raised to levels unattainable with legacy analog technology. This technology not only creates a significant increase in MTBF, but the DSP's ability to accurately process signals at very high speed allows all UPS subsystems to be controlled with greatly increased precision.

GENERAL SPECIFICATIONS

- Transformerless UPS topology
- 3-Level topology
- High input power factor
- High efficiency up to 95%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input
- 512 events memory (512 events 45000 alarms)
- Clock and calendar (battery supported)
- Automatic battery test, remaining battery time indicator
- Temperature compensated charge system (optional)
- 2 RS232 serial ports and 12 dry contact outputs
- 3 DSP controlled modular structure
- Optional SNMP and MODBUS adaptors
- Optional graphical panel
- Optional usb flash memory
- Full digital structure
- Small footprint
- Ecomode operation (optional)
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency/range
- Split by-pass input (second input)
- Output DC leakage protection
- Separate DSP for inverter control
- Separate DSP for the PFC
- 3 level battery protection
- High charge current capacity
- Charge/discharge current indicator
- Advanced remote control
- Manufactured according to EC Directive; EN62040
- 2 years warranty





10 - 100 kVA

TECHNICAL SPECIFICATIONS

MODEL	DS310H	DS315H	DS320H	DS330H	DS340H	DS360H	DS380H	DS3100H
Power (kVA)	10	15	20	30	40	60	80	100
INPUT								
Voltage	380/400 VAC 3P + N + G ± 20% (at 100% load) / - 40% (at 70% load)							
Frequency	50Hz / 60Hz, ± 10%							
Power factor	≥ 0.99 (at 100% load)							
(THDI) (*)	≤ 3%							
By-pass voltage	380/400 VAC 3 Phase + N, ± 10%							
Voltage distortion	≤ 10%							
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequence indicator							
OUTPUT								
Power (kW)	9	13.5	18	27	36	54	72	90
Power factor	0.9 (0.8 and 1.0 optional)							
Voltage	380/400 VAC 3P + N, ± 1% (415 VAC optional)							
Frequency	50Hz / 60Hz							
Frequency tolerance	Line synchronized: ± 2% (adjustable) / Free running: ± 0.1%							
Efficiency	up to 95%							
Crest factor	3:1							
Overload protection	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass							
Other protections	Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting							
Voltage THD	≤ 2% (at 100% linear load)							
BATTERIES								
Type	VRLA AGM / GEL / NiCd							
Number of batteries	2x30 (±30): 60 pieces							
Charge voltage	2x405 VDC							
End of discharge voltage	2x300 VDC							
Battery cabinet	Internal						External	
Battery ambient temperature	25°C							
Protections	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)							
Automatic testing	Standard every 72 hours (adjustable)							
GENERAL								
Standards	EN62040-1, EN62040-2, EN62040-3							
User interface	4 lines LCD panel, Mimic leds, 5 vector buttons, Buzzer, Optional TFT panel							
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time							
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter							
Communication	2xRS232 serial ports, 4 standard and 8 optional DRY contact alarm relays							
Inputs	EPO input, Interactive battery panel input, Genset input							
Genset kit	Standard (programmable)							
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)							
Alarm logging	Standard:with time & date 512 events							
Protections	Power module over-temperature, Overcurrent, Temperature high alarm							
Temperature range	0°C - 40°C							
Protection degree	IP20							
Relative humidity	90% max. (non-condensing)							
Altitude	< 1000m above sea level							
Acoustic noise	< 57dBA				< 62dBA			< 65dBA
Weight without batteries (kg)	87	87	91	100	173	197	209	220
Dimensions (mm) HxWxD	1040x400x815				1440x515x855			
OPTIONS								
Different input / output voltage	Please ask							
Transformer	Galvanic isolation transformer at the input & output (internal)							
Software	T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 50-100-200 clients							
Adaptors	SNMP, RS485, Remote monitoring panel, MODBUS (RS485 or TCP/IP), TCP/IP, GSM/GPRS Modem, Comport multiplexer							
Parallel operation	Up to 8 units							

* Depending on power and input/output conditions



300 - 400 kVA

DS POWER H

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

3 LEVEL TECHNOLOGY IGBT RECTIFIER DSP CONTROL

DS Power H Online UPS uses the latest DSP technology to be programmed to suit a wide variety of electrical environments without impeding its performance. With the 3-Level topology, efficiency, reliability and functionality have been raised to levels unattainable with legacy analog technology. This technology not only creates a significant increase in MTBF, but the DSP's ability to accurately process signals at very high speed allows all UPS subsystems to be controlled with greatly increased precision.

GENERAL SPECIFICATIONS

- Transformerless UPS topology
- 3-Level topology
- High input power factor
- High efficiency up to 95%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input
- 512 events memory (512 events 45000 alarms)
- Clock and calendar (battery supported)
- Automatic battery test, remaining battery time indicator
- Temperature compensated charge system (optional)
- 2 RS232 serial ports and 12 dry contact outputs
- 3 DSP controlled modular structure
- Optional SNMP and MODBUS adaptors
- Optional graphical panel
- Optional usb flash memory
- Full digital structure
- Small footprint
- Ecomode operation (optional)
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency/range
- Split by-pass input (second input)
- Output DC leakage protection
- Separate DSP for inverter control
- Separate DSP for the PFC
- 3 level battery protection
- High charge current capacity
- Charge/discharge current indicator
- Advanced remote control
- Manufactured according to EC Directive; EN62040
- 2 years warranty





300 - 400 kVA

TECHNICAL SPECIFICATIONS

MODEL	DS3300H	DS3400H
Power (kVA)	300	400
INPUT		
Voltage	380/400 VAC 3P + N + G \pm 20% (at 100% load) / - 40% (at 70% load)	
Frequency	50Hz / 60Hz, \pm 10%	
Power factor	\geq 0.99 (at 100% load)	
(THDI) (*)	\leq 3%	
By-pass voltage	380/400 VAC 3 Phase + N, \pm 10%	
Voltage distortion	\leq 10%	
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequence indicator	
OUTPUT		
Power (kW)	270	360
Power factor	0.9 (0.8 and 1 optional)	
Voltage	380/400 VAC 3P + N, \pm 1% (415 VAC optional)	
Frequency	50Hz / 60Hz	
Frequency tolerance	Line synchronized: \pm 2% (adjustable) / Free running: \pm 0.1%	
Efficiency	up to 95%	
Crest factor	3:1	
Overload protection	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass	
Other protections	Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting	
Voltage THD	\leq 2% (at 100% linear load)	
BATTERIES		
Type	VRLA AGM / GEL / NiCd	
Number of batteries	2x30 (\pm 30): 60 pieces	
Charge voltage	2x405 VDC	
End of discharge voltage	2x300 VDC	
Battery cabinet	External	
Battery ambient temperature	25°C	
Protections	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)	
Automatic testing	Standard every 72 hours (adjustable)	
GENERAL		
Standards	EN62040-1, EN62040-2, EN62040-3	
User interface	5 vector buttons, Buzzer, Optional TFT panel	
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time	
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter	
Communication	2xRS232 serial ports, 4 standard and 8 optional DRY contact alarm relays	
Inputs	EPO input, Interactive battery panel input, Genset input	
Genset kit	Standard (programmable)	
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)	
Alarm logging	Standard:with time & date 512 events	
Protections	Power module over-temperature, Overcurrent, Temperature high alarm	
Temperature range	0°C - 40°C	
Protection degree	IP20	
Relative humidity	90% max. (non-condensing)	
Altitude	< 1000m above sea level	
Acoustic noise	< 68dBA	
Weight without batteries (kg)	635	680
Dimensions (mm) HxWxD	1900x1250x775	
OPTIONS		
Different input / output voltage	Please ask	
Transformer	Galvanic isolation transformer at the input & output (internal)	
Software	T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 50-100-200 clients	
Adaptors	SNMP, RS485, Remote monitoring panel, MODBUS (RS485 or TCP/IP), TCP/IP, GSM/GPRS Modem, Comport multiplexer	
Parallel operation	Up to 8 units	

* Depending on power and input/output conditions



100 - 400 kVA

DS POWER X

UNINTERRUPTIBLE POWER SUPPLIES

3 LEVEL TECHNOLOGY IGBT RECTIFIER DSP CONTROL

The new DS Power X Online UPS, uses the latest DSP technology, which can be programmed to suit a wide variety of electrical environments without impeding its performance. Efficiency, reliability and functionality have been maximized with the DS Power X Series, which is designed as a latest technology product with three levels of input and output. It comes to the fore with its ergonomic design brought by its technology, taking up less space with greater power and being quieter.

GENERAL SPECIFICATIONS

- Transformerless UPS topology
- 3-Level rectifier and inverter
- High input power factor
- High efficiency up to 96.0%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input
- 512 events memory (512 events 45000 alarms)
- Clock and calendar (battery supported)
- Automatic battery test, remaining battery time indicator
- Temperature compensated charge system (optional)
- 2 RS232 serial ports and 12 dry contact outputs
- 3 DSP controlled modular structure
- Optional SNMP and MODBUS adaptors
- Optional graphical panel
- Optional usb flash memory
- Full digital structure
- Small footprint
- Ecomode operation (optional)
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency/range
- Split by-pass input (second input)
- Output DC leakage protection
- Separate DSP for inverter control
- Separate DSP for the PFC
- 3 level battery protection
- High charge current capacity
- Charge/discharge current indicator
- Advanced remote control features
- Manufactured according to EC Directive; EN62040
- 2 years warranty



3 phase in / 3 phase out



100 - 400 kVA

TECHNICAL SPECIFICATIONS

MODEL	DX3100	DX3120	DX3160	DX3200	DX3250	DX3300	DX3400	
Power (kVA)	100	120	160	200	250	300	400	
INPUT							Ask for availability	
Voltage	380/400 VAC 3P + N + G ± 20% (at 100% load) / - 40% (at 70% load)							
Frequency	50Hz / 60Hz, ± 10%							
Power factor (at 100% load)	≥ 0.99							
THDI (*)	≤ 3%							
By-pass voltage	380/400 VAC 3 Phase + N, ± 10 (adjustable)							
Input voltage THD	≤ 10%							
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequency indicator							
OUTPUT								
Power (kW)	100	120	160	200	250	300	400	
Power factor	1.0							
Voltage	380/400 VAC 3P + N, ± 1% (415 VAC optional)							
Frequency	50Hz / 60Hz							
Frequency tolerance	Line synchronized: ± 2% (adjustable) / Free running: ± 0.1%							
Efficiency	up to 95.5%		up to 96%					
Crest factor	3:1							
Overload protection	at 100% - 125% load : 10 min. - at 125% - 150% load :1 min. - > at 150% load : by-pass							
Other protections	Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting							
Voltage THD	≤ 2% (at 100% linear load)							
BATTERY								
Type	VRLA AGM / GEL / NiCd							
Nominal voltage	± 360 VDC							
Float / End of discharge voltage	± 405 VDC / ± 300 VDC							
Battery cabinet	External							
Battery ambient temperature	25°C							
Protections	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)							
Battery test	Standard every 72 hours (adjustable)							
GENERAL								
Standards	EN62040-1, EN62040-2, EN62040-3							
User interface	5 vector buttons, Buzzer, TFT panel							
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time							
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter							
Communication	2xRS232 serial ports, 4 standard and 8 optional DRY contact alarm relays							
Inputs	EPO input, Interactive battery panel input, Genset input							
Genset kit	Standard (programmable)							
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)							
Alarm logging	Standard:with time & date 512 events							
Protections	Power module over-temperature, Overcurrent, Temperature high alarm							
Operating temperature range	0°C - 40°C							
Protection degree	IP20							
Relative humidity	90% max. (non-condensing)							
Altitude	< 1000m above sea level							
Acoustic noise	< 62 dBA		< 65 dBA			< 67 dBA		
Weight without batteries (kg)	210	220	262	270	440	575	655	
Dimensions (mm) HxWxD	1440x475x890				1900x880x775		1900x1250x775	
OPTIONS								
Different input / output voltage	Please ask							
Transformer	Galvanic isolation transformer at the input & output (external)							
Software	T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 10-50-100-200 clients							
Adaptors	SNMP, RS485, Remote monitoring panel, MODBUS (RS485 or TCP/IP), TCP/IP, GSM/GPRS Modem, Comport multiplexer							
Parallel operation	up to 8 units							

* Depending on power and input/output conditions



120 - 250 kVA

DS POWER XL

UNINTERRUPTIBLE POWER SUPPLIES

3 LEVEL TECHNOLOGY IGBT RECTIFIER DSP CONTROL

The new DS Power XL Online UPS, uses the latest DSP technology, which can be programmed to suit a wide variety of electrical environments without impeding its performance. Efficiency, reliability and functionality have been maximized with the DS Power XL Series, which is designed as a latest technology product with three levels of input and output. It comes to the fore with its ergonomic design brought by its technology, taking up less space with greater power and being quieter.

GENERAL SPECIFICATIONS

- Transformerless UPS topology
- 3-Level rectifier and inverter
- High input power factor
- High efficiency up to 96.0%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input
- 512 events memory (512 events 45000 alarms)
- Clock and calendar (battery supported)
- Automatic battery test, remaining battery time indicator
- Temperature compensated charge system (optional)
- 2 RS232 serial ports and 12 dry contact outputs
- 3 DSP controlled modular structure
- Optional SNMP and MODBUS adaptors
- Optional graphical panel
- Optional usb flash memory
- Full digital structure
- Small footprint
- Ecomode operation (optional)
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency/range
- Split by-pass input (second input)
- Output DC leakage protection
- Separate DSP for inverter control
- Separate DSP for the PFC
- 3 level battery protection
- High charge current capacity
- Charge/discharge current indicator
- Advanced remote control features
- Manufactured according to EC Directive; EN62040
- 2 years warranty



3 phase in / 3 phase out



120 - 250 kVA

TECHNICAL SPECIFICATIONS

MODEL	DXL3120	DXL3160	DXL3200	DXL3250
Power (kVA)	120	160	200	250
INPUT				
Voltage	380/400 VAC 3P + N + G ± 20% (at 100% load) / - 40% (at 70% load)			
Frequency	50Hz / 60Hz, ± 10%			
Power factor (at 100% load)	≥ 0.99			
THDI (*)	≤ 3%			
By-pass voltage	380/400 VAC 3 Phase + N, ± 10 (adjustable)			
Input voltage THD	≤ 10%			
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequence indicator			
OUTPUT				
Power (kW)	108	144	180	225
Power factor	0.9			
Voltage	380/400 VAC 3P + N, ± 1% (415 VAC optional)			
Frequency	50Hz / 60Hz			
Frequency tolerance	Line synchronized: ± 2% (adjustable) / Free running: ± 0.1%			
Efficiency	up to 95.5%		up to 96%	
Crest factor	3:1			
Overload protection	at 100% - 125% load : 10 min. - at 125% - 150% load : 1 min. - > at 150% load : by-pass			
Other protections	Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting			
Voltage THD	≤ 2% (at 100% linear load)			
BATTERY				
Type	VRLA AGM / GEL / NiCd			
Nominal voltage	± 360 VDC			
Float / End of discharge voltage	± 405 VDC / ± 300 VDC			
Battery cabinet	External			
Battery ambient temperature	25°C			
Protections	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)			
Battery test	Standard every 72 hours (adjustable)			
GENERAL				
Standards	EN62040-1, EN62040-2, EN62040-3			
User interface	5 vector buttons, Buzzer, TFT panel			
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time			
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter			
Communication	2xRS232 serial ports, 4 standard and 8 optional DRY contact alarm relays			
Inputs	EPO input, Interactive battery panel input, Genset input			
Genset kit	Standard (programmable)			
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)			
Alarm logging	Standard: with time & date 512 events			
Protections	Power module over-temperature, Overcurrent, Temperature high alarm			
Operating temperature range	0°C - 40°C			
Protection degree	IP20			
Relative humidity	90% max. (non-condensing)			
Altitude	< 1000m above sea level			
Acoustic noise	< 62 dBA		< 65 dBA	
Weight without batteries (kg)	210	220	262	295
Dimensions (mm) HxWxD	1440x475x890			1440x475x970
OPTIONS				
Different input / output voltage	Please ask			
Transformer	Galvanic isolation transformer at the input & output (external)			
Software	T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 10-50-100-200 clients			
Adaptors	SNMP, RS485, Remote monitoring panel, MODBUS (RS485 or TCP/IP), TCP/IP, GSM/GPRS Modem, Comport multiplexer			
Parallel operation	up to 8 units			

* Depending on power and input/output conditions



500 - 600 kVA

DS POWER

UNINTERRUPTIBLE POWER SUPPLIES

IGBT RECTIFIER DSP CONTROL

DS Power Online UPS uses the latest DSP technology to be programmed to suit a wide variety of electrical environments without impeding its performance. With DSP process control, efficiency, reliability and functionality have been raised to levels unattainable with legacy analog technology. This technology not only creates a significant increase in MTBF, but the DSP's ability to accurately process signals at very high speed allows all UPS subsystems to be controlled with greatly increased precision.

GENERAL SPECIFICATIONS

- Transformerless UPS topology
- Low input current total harmonic distortion (THD)
- High input power factor
- High efficiency up to 94.5%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input
- 512 events memory (512 events 45000 alarms)
- Clock and calendar (battery supported)
- Automatic battery test, remaining battery time indicator
- Temperature compensated charge system (optional)
- 2 RS232 serial ports and 12 dry contact outputs
- 3 DSP controlled modular structure
- Optional SNMP and MODBUS adaptors
- Optional graphical panel
- Optional usb flash memory



- Full digital structure
- Small footprint
- Ecomode operation (optional)
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency/range
- Split by-pass input (second input)
- Output DC leakage protection
- Separate DSP for inverter control
- Separate DSP for the PFC
- 3 level battery protection
- High charge current capacity
- Charge/discharge current indicator
- Advanced remote control features
- Manufactured according to EC Directive; EN62040
- 2 years warranty

3 phase in / 3 phase out



500 - 600 kVA

TECHNICAL SPECIFICATIONS

MODEL	DS3500	DS3600
Power (kVA)	500	600
INPUT		
Voltage	380/400 VAC 3P + N + G ± 20% (415 VAC +15%, - 25% optional)	
Frequency	50Hz / 60Hz, ± 10%	
Power factor (at 100% load)	≥ 0.99	
(THDI) (*)	≤ 3%	
By-pass voltage	380/400 VAC 3P + N , 4 Wires, ± 10%	
Voltage distortion	≤ 10%	
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequency indicator	
OUTPUT		
Power (kW)	500	600
Power factor	1.0	
Voltage	380/400 VAC 3 Phase + N , ± 1% (415 optional)	
Frequency	50Hz / 60Hz	
Frequency tolerance	Line synchronized: ± 2% / Free running: ± 0,1%	
Efficiency	up to 94.5%	
Crest factor	3:1	
Overload protection	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass	
Other protections	Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting	
Voltage THD	≤ 2% (at 100% linear load)	
BATTERIES		
Type	VRLA AGM / GEL / NiCd	
Nominal voltage	± 360 VDC (2x30 batteries)	
Float / End of discharge voltage	± 405 VDC / ± 300 VDC	
Battery cabinet	External	
Battery ambient temp.	25°C	
Protections	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)	
Automatic testing	Standard every 72 hours (adjustable)	
GENERAL		
Standards	EN62040-1, EN62040-2, EN62040-3	
User interface	TFT panel, 5 vector buttons, Buzzer	
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time	
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter	
Communication	2xRS232 serial ports, 4 standard and 8 optional DRY contact alarm relays	
Inputs	EPO input, Interactive battery panel input, Genset input	
Genset kit	Standard (programmable)	
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)	
Alarm logging	Standard: with time & date 512 events	
Protections	Power module over-temperature, Over current, Temperature high alarm	
Temperature range	0°C - 40°C	
Protection degree	IP20	
Relative humidity	90% max. (non-condensing)	
Altitude	< 1000m. above sea level	
Acoustic noise	< 72 dBA	
Weight without batteries (kg)	1452	
Dimensions (mm) HxWxD	1940x1610x1050	
OPTIONS		
Different input / output voltage	Please ask	
Transformer	Galvanic isolation transformer at the input & output	
Software	T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 50-100-200 clients	
Adaptors	SNMP, RS485, Remote monitoring panel, MODBUS (RS485 or TCP/IP), TCP/IP ,GSM/GPRS Modem, Comport multiplexer	
Parallel operation	Up to 8 units	

* Depending on power and input/output conditions



10 - 500 kVA

DS POWER 300HT

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

IGBT RECTIFIER DSP CONTROL

DS Power 300HT Online UPS uses the latest DSP technology, which can be programmed to suit a wide variety of electrical environments without impeding its performance. With the 3-Level topology, efficiency, reliability and functionality have been raised to levels unattainable with old analog technology. This technology not only creates a significant increase in MTBF, but the DSP's ability to accurately process signals at very high speed allows all UPS subsystems to be controlled with greatly increased precision. Thanks to its built-in inverter isolation transformer, it guarantees safe operation and provides uninterrupted energy for local networks, communication systems, sensitive medical devices, smart engineering measurement devices and industrial automation systems.

GENERAL SPECIFICATIONS

- Galvanic isolation at output
- Low input current total harmonic distortion (THD)
- High input power factor
- High efficiency up to 94%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input
- 512 events memory (512 events 45000 alarms)
- Clock and calendar (battery supported)
- Automatic battery test, remaining battery time indicator
- Temperature compensated charge system (optional)
- 2 RS232 serial ports and 12 dry contact outputs
- 3 DSP controlled modular structure
- Optional SNMP and MODBUS adaptors
- Optional graphical panel
- Optional usb flash memory
- Full digital structure
- Small footprint
- Ecomode operation (optional)
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency/range
- Split by-pass input (second input)
- Output DC leakage protection
- Separate DSP for inverter control
- Separate DSP for the PFC
- 3 level battery protection
- High charge current capacity
- Charge/discharge current indicator
- Advanced remote control
- Manufactured according to EC Directive; EN62040
- 2 years warranty





10 - 500 kVA

TECHNICAL SPECIFICATIONS

MODEL	DS310HT	DS315HT	DS320HT	DS330HT	DS340HT	DS360HT	DS380HT	DS3100HT	DS3120HT	DS3160HT	DS3200HT	DS3250HT	DS3300HT	DS3400HT	DS3500HT		
Power (kVA)	10	15	20	30	40	60	80	100	120	160	200	250	300	400	500		
INPUT																	
Voltage	380/400 VAC 3P + N + G ± 20% (415 VAC +15%, - 25% optional)																
Frequency	50Hz / 60Hz, ± 10%																
Power factor	≥ 0.99																
(THDI) (*)	≤ 3%																
By-pass voltage	380/400 VAC 3 Phase + N, 4 Wires, ± 10%																
Voltage distortion	≤ 10%																
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequency indicator																
OUTPUT																	
Power (kW)	9	13.5	18	27	36	54	72	90	108	144	180	225	270	360	400		
Power factor	0.9														0.8		
Voltage	380/400 VAC 3 P + N , ± 1% (415 VAC optional)																
Frequency	50Hz / 60Hz																
Frequency tolerance	Line synchronized: ± 2% / Free running: ± 0.1%																
Efficiency	up to 94%																
Crest factor	3:1																
Overload protection	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass																
Other protections	Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting																
Voltage THD	≤ 2% (at 100% linear load)																
BATTERIES																	
Type	VRLA AGM / GEL / NiCd																
Nominal voltage	± 336 VDC																
Number of batteries	2x28 batteries																
Float / End of discharge voltage	± 378 VDC / ± 280 VDC																
Battery cabinet	External																
Battery ambient temperature	25°C																
Protections	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)																
Automatic testing	Standard every 72 hours (adjustable)																
GENERAL																	
Standards	EN62040-1, EN62040-2, EN62040-3																
User interface	4 lines LCD panel, Mimic leds, 5 vector buttons, Buzzer, Optional TFT panel										TFT panel, Buzzer, 5 vector buttons						
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time																
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter																
Communication	2xRS232 serial ports, 4 standard and 8 optional DRY contact alarm relays																
Inputs	EPO input, Interactive battery panel input, Genset input																
Genset kit	Standard (programmable)																
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)																
Alarm logging	Standard:with time & date 512 events																
Protections	Power module over-temperature, Over current, Temperature high alarm																
Temperature range	0°C - 40°C																
Protection degree	IP20																
Relative humidity	90% max. (non-condensing)																
Altitude	< 1000m above sea level																
Acoustic noise	< 57 dBA			< 62 dBA			< 64 dBA			< 68 dBA			< 72 dBA				
Weight (kg)	187	198.5	244	270	393	457	536	539	595	647	910,5	1150	1283	1497	2402		
Dimensions (mm) HxWxD	1040x400x815				1440x515x855				1770x825x855				1900x1250x1055				2020x2250x770
OPTIONS																	
Different input / output voltage	Please ask																
Software	T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 50-100-200 clients																
Adaptors	SNMP, RS485, Remote monitoring panel, MODBUS (RS485 or TCP/IP), TCP/IP ,GSM/GPRS Modem, Comport multiplexer																
Parallel operation	up to 8 units																

* Depending on power and input/output conditions



10 - 90 kVA

MTR MODULAR UPS

UNINTERRUPTIBLE POWER SUPPLIES

MTR 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 10 and 90kVA with a single cabinet. With its rack type design, flexible phase configuration option, high power density, user-friendly interface, smart sleep function, self-aging and smart charge management, it offers a perfect solution especially for data centers.

GENERAL SPECIFICATIONS

Rack modular design

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

High power density

10/15kVA (10/15kW) 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 without derating

Friendly interface

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

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



1-1, 3-1, 3-3 Phase Input-Output



10 - 90 kVA

TECHNICAL SPECIFICATIONS

MODEL	MTR-020/10X	*MTR-030/10X	MTR-040/10X	MTR-060/10X	MTR-030/15X	*MTR-045/15X	MTR-090/15X	
Capacity	TPM10X (10kVA/10kW)				TPM15X (15kVA/15kW)			
INPUT								
Phase	(1/1P - 3/1P - 3/3P) 3P+N+G (380/400/415V) ~ 1P+N+G (220/230/240V)				3P+N+G (380/400/415V)			
Voltage range	304-478Vac (line-line), 100% load; 228-304Vac load derated from 100% - 75% linearly							
Frequency range	40Hz-70Hz							
Power factor	>0.99							
THDi	** THDi < 4% @ 100% linear load							
OUTPUT								
Voltage	(1/1P - 3/1P - 3/3P) 3P+ N + G (380/400/415V) ~ 1P + N + G (220/230/240V)				3P+ N +G (380/400/415V)			
Voltage regulation	1.5%							
Power factor	1							
THDu	THD < 1% (linear load), THD < 5.5% (non-linear load)							
Crest factor	3:1							
Overload capacity	110% for 1 hour; 125% for 10 min; 150% for 1 min ; 150% for 200 ms							
BATTERY								
Voltage	± 240 VDC for 40 batteries (selectable battery number 36-44)							
Charge power	20%* System power							
Charge voltage precision	±1%							
SYSTEM								
System efficiency	Normal mode: 95%; ECO mode: 98%; Battery mode: 94.5%							
Display	7.0" Color touch screen LCD + LED + Keyboard							
IP class	IP20							
Interface	Standart: RS232, RS485, dry contacts Optional: SNMP, Expansion dry contact card							
Operation / storage temp.	0-40°C/-25-70°C							
Relative humidity	0-95% (non-condensing)							
Acoustic noise	56dBA (1 meter away)				58dBA (1 meter away)			
Options	Parallel operation, Battery compensated battery charging, Movable cabinet with castors							
PHYSICAL								
Weight (kg)	Cabinet	42	55	51	85	42	55	85
	Power module	15.3				15.5		
Dimension (HxWxD) mm	Cabinet	398x485x697	575x485x751	575x485x697	1033x485x751	398x485x697	575x485x751	1033x485x751
	Height	7U	11U	11U	21U	7U	11U	21U
	Power module	(2U) 85x436x590						

* Parallel operation

** Only for 3/3 phase



10 - 400 kVA

MTI200 MODULAR UPS

UNINTERRUPTIBLE POWER SUPPLIES

MTI200 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 20 and 200kVA with a single cabinet. Cold start, self-aging mode using only 10% of its capacity, independent battery charging and smart battery management and advanced graphic touch screen are its outstanding features.

GENERAL SPECIFICATIONS

- Modular design with N+X redundancy and online hot swapping ,easy to expand the capacity
- Full DSP control of high stability, reliability and safety
- Integrated IGBT module with improved performance and reduced size
- 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
- Smart charging management system, intelligently control the whole process of the charging and discharging effectively improve the life time of the battery
- Independent charger for batteries, intelligent battery management system
- Battery cold start, UPS can be powered on from the battery without utility.
- Totally front access, top and bottom cable connection
- User friendly machine interface with touch screen





10 - 400 kVA

TECHNICAL SPECIFICATIONS

MODEL		MTI2060/20 - MTI2030/10	MTI2120/20 - MTI2060/10	MTI2200/20 - MTI2100/10
Capacity		10 - 400kVA		
Power module type		TPM20/TPM15/TPM10		
INPUT				
Phase		3P + N + G		
Voltage		380V/400V/415V (line to line)		
Frequency		50Hz / 60Hz		
Power factor		> 0.99		
THDI		THDI < 3% @100% linear load		
Voltage range		-20% ~ + 25%		
Frequency range		40Hz ~ 70Hz		
OUTPUT				
Voltage		380V/400V/415V		
Voltage regulation		±1% (Balance load); ± 1.5% (unbalance load)		
Voltage THD		THD < 1.5% (linear load), THD < 6% (none linear load)		
Power factor		0.9		
Crest ratio		3:1		
Overload capability		110% for 1 hour; 125% for 10 minutes ;150% for 1 minute; >150% for 200ms		
BATTERY				
Voltage		± 240 VDC		
Charge power		20%*System Power		
Charge power precision		±1%		
SYSTEM				
Parallel (cabinet)		6	3	2
System efficiency		Normal mode: 95%; ECO mode: 98%; Battery mode: 95%		
Display		LCD + LED, touch screen + keyboard		
IP class		IP20		
Interface (communication port)		Standard: RS232,RS485, Dry contacts, EPO / Optional: SNMP card		
Operation / storage temp.		0~40°C /-40~70°C		
Relative humidity		0~95% (non-condensing)		
Noise		55dB (1 meter away)		
PHYSICAL				
Weight (kg)	Cabinet	3-Slot cabinet:120; 6- Slot cabinet:151;10-Slot cabinet:182		
	Power module	TPM10:20kg, TPM15:21kg, TPM20:22kg		
Dimension (HxWxD) mm	Cabinet	3-Slot cabinet:1100x600x900; 6-Slot cabinet: 1600x600x900;10-Slot cabinet: 2000x600x900		
	Power module	TPM10/TPM15/TPM20: 134x440x590		

* Single cabinet with internal batteries



30 - 900 kVA

MTI300 MODULAR UPS

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

MTI300 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 20 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 900kVA in an area of less than 2 m². It stands out with its rack type design, high power density, user-friendly interface, independent LCD for each power module in addition to 10.4 inch graphical touchscreen, smart sleep function, self-aging, and smart charge management.

GENERAL SPECIFICATIONS

- 3-Level topology
- Modular design with N+X redundancy
- Online hot swapping, by-pass and power module feature
- Optional dual input
- High power density with footprints of less than 2m² up to 900kVA in parallel, 30kVA power module with only 3U height
- High power density of 600kVA in one single cabinet, 30kVA power module with only 3U height
- Green and energy saving: AC/AC efficiency > 95%, 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
- 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
- Smart Sleeping mode for energy saving and prolong the life time of the system
- 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
- Independent LCD display for each power module with self-starting function
- Programmable dry contacts, the function of each port can be defined by users
- User friendly machine interface with colorful touch screen of 10.4 inches





30 - 900 kVA

TECHNICAL SPECIFICATIONS

MODEL		MTI3180/30	MTI3300/30	MTI3600/30
Capacity		30 - 900kVA	30 - 600kVA	
Power module type		TPM30 (30kVA/27kW)		
INPUT				
Phase		3 Phases + Neutral + Ground		
Voltage		380V/400V/415V (line to line)		
Frequency		50Hz / 60Hz		
Power factor		> 0.99		
THDI		THDi < 3% @ 100% linear load		
Voltage Range		304~478Vac (Line-Line) full load, 228V~304Vac (Line-Line) load decrease linearly according to the min phase voltage		
Frequency range		40Hz~70Hz		
OUTPUT				
Voltage		380V/400V/415V		
Voltage regulation		1.5%		
THDu		THD < 1% (linear load), THD < 6% (none linear load)		
Power factor		0.9		
Crest factor		3:1		
Overload capability		1 hour for 110% load; 10 minutes for 125% load; 1 minutes for 150% load; 200ms for > 150% load		
BATTERY				
Voltage		± 240 VDC for 40 batteries (selectable battery number 36-44)		
Charge power		20%*System Power		
Charge voltage precision		± 1%		
SYSTEM				
Parallel (cabinet)		5	3	-
System efficiency		Normal mode: 95% ; ECO mode: 99% ; Battery mode: 95%		
Display		10.4" LCD + LED, Color touch screen + Keyboard		
IP Class		IP20		
Interface		Standard: RS232, RS485, Dry contacts, USB; Optional: SNMP		
Operation / storage temp.		0 ~ 40°C / -40 ~ 70°C		
Relative humidity		0 ~ 95% (non-condensing)		
Acoustic noise		65dB @100% load, 62dB @ 45% load (1m away)		72dB @100% load, 68dB @ 45% load (1m away)
PHYSICAL				
Weight (kg)	Cabinet	6-Slot Cabinet: 165	10-Slot Cabinet: 220	660
	Power module	TPM30kVA: 34		
Dimension (HxWxD) mm	Cabinet	6-Slot Cabinet: 1600x600x1100	10-Slot Cabinet: 2000x600x1100	20-Slot cabinet: 2000x2000x1050
	Power module	TPM30kVA: (3U) 134x460x790		



50 - 500 kVA

MTI500 MODULAR UPS

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

MTI500 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 500kVA 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 1500kVA in an area of less than 4 m². It stands out with its rack type design, high power density, user-friendly interface, Independent LCD for each power module in addition to 10.4 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 40kVA to 500kVA in one single cabinet, 3 units in parallel for a capacity up to 1500kVA

Friendly HMI

10.4" touch color LCD with graphic display, independent LCD for each power module

Smart sleep function

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





50 - 500 kVA

TECHNICAL SPECIFICATIONS

MODEL	MTI-5100/50	MTI-5200/50	MTI-5300/50	MTI-5500/50
Capacity	100kVA	200kVA	300kVA	500kVA
Power module type	TPM50 (50kVA/45kW)			
INPUT				
Dual input	Standard		Optional	Standard
Phase	3 Phases + Neutral + Ground, 380V/400V/415V (line-line)			
Voltage range	304~478VAC (line-line), full load; 228V~304VAC (line-line), load decreases linearly according to the min. phase voltage			
Rate frequency	50Hz/60Hz			
Frequency range	40Hz/70Hz			
Power factor	> 0.99			
THDi	< 3% @ 100% linear load			
BYPASS				
Rate voltage	380/400/415VAC (Line-Line)			
Rated frequency	50Hz/60Hz			
Input voltage range	Settable, -40% ~ +25%			
By-pass frequency range	Selectable, ±1Hz, ±3Hz, ±5Hz			
Bypass overload	125%, long time operation < 130% for 10 minutes < 150% for 1 minutes >150% for 300ms		110% long term operation < 130% for 10 minutes < 150% for 1 minutes >150% for 1ms	
OUTPUT				
Rate voltage	380/400/415VAC (line-line)			
Voltage regulation	1% for balance load; 1.5% for unbalance load			
Rated frequency	50Hz/60Hz			
Frequency precision	0.1%			
Output power factor	1.0			
Output THDu	< 1%, Linear load; <5.5% Non-linear load			
Crest factor	3:1			
Inverter overload	110% for 1 hour; 125% for 10 mins; 150% for 1 min; >150% for 200 ms			
BATTERY				
Voltage	±240VDC			
Battery number	40pcs (Settable: even number from 32 to 44)			
Voltage precision	±1%			
Charge power	up to 20% Output active power			
Battery cold start	Optional			Standard
SYSTEM				
System efficiency	AC Mode: 95.0% ECO Mode: 99.0% Battery Mode: 95.0%			
Display	10.4" touch screen LCD+LED+keyboard			
IP class	IP20			
Interface	RS232, RS485, Programmable Dry Contact, USB			
Option	SNMP Card, Parallel kit, SPD, LBS, Dust filter			
Temperature	Operation: 0~40°C Storage: -40~70°C			
Relative humidity	0~95% (non-condensing)			
Altitude	< 1000. Within 1000m to 2000m, power derate 1% for every 100m rise			
Acoustic noise	72dB @ 100% load, 69dB @ 45% load			
Application standards	Safety: IEC/EN 62040-1, EMC: IEC/EN 62040-2, Performance: IEC/EN 62040-3			
PHYSICAL				
Cabinet	120	170	220	450
Power module	45			
Cabinet	1150x600x980	1600x650x960	2000x650x1095	2000x1300x1100
Power module	178x510x700			



3 - 15 kVA

XT100

UNINTERRUPTIBLE POWER SUPPLIES

1 phase in / 1 phase out

XT100 Online UPS are microprocessor controlled, full sine output uninterruptible power supplies produced with PWM (Pulse width modulation) and IGBT technologies. It provides uninterrupted energy for local networks, communication systems, sensitive medical devices, smart engineering measuring devices and industrial automation systems by guaranteeing safe operation thanks to its built-in inverter isolation transformer.

GENERAL SPECIFICATIONS

- Output isolation transformer
- Up to 91% efficiency
- Static by-pass
- LCD front panel
- 64 events memory
- RS232 and relay contacts
- Custom input and output voltage ranges
- SNMP compatible communication
- T-MON remote monitoring software
- Parallel operation
- Manufactured according to EC Directive; EN62040
- 2 years warranty





3 - 15 kVA

TECHNICAL SPECIFICATIONS

MODEL	XT103	XT105	XT107	XT110	XT115
Power (kVA)	3	5	7	10	15
INPUT					
Voltage	220/230 VAC P + N + G ± 15%				
By-pass voltage	220/230 VAC P + N ± 10%				
Frequency	50Hz / 60Hz ± 10%				
OUTPUT					
Power (kW)	2.1	3.25	4.55	7	10.5
Power factor	0.7	0.65		0.7	
Voltage	220/230 VAC P+N ± 1%				
Frequency	50Hz (60Hz on request)				
Frequency tolerance	Line synchronized: ± 2% , free running: ± 0.1 %				
Efficiency (at 100% load)	up to 90%			up to 91%	
Crest factor	3:1				
Overload protection	100%-125% load: 10 min., 125%-150% load: 1 min., > 150% load: by pass				
Short circuit protection	Electronic short circuit protection				
Voltage THD	< 2%				
BATTERIES					
Type	Sealed Lead Acid - Maintenance Free				
Number of batteries	14	16	18	20	
Float charging voltage	189	216 VDC	243 VDC	270 VDC	
End of discharge voltage	140 VDC	160 VDC	180 VDC	200 VDC	
Battery cabinet	Internal (standard time)			External	
Battery ambient temp.	25°C				
Battery protection	Automatic circuit breaker				
Battery test	Optional				
GENERAL					
Standards	EN 62040-1, EN 62040-2				
Serial communication	Dry contacts & RS232				
Software	T-Mon UPS Management Software (3 clients, +1 server management std.)				
Temperature range	0°C - 40°C				
Ventilation	Forced air cooling				
Relative humidity	< 90% (non-condensing)				
Protection degree	IP20				
Altitude	< 2000m				
Acoustic noise	< 45 dBA				
Weight without batteries (kg)	55	60	75	82	107
Dimensions (mm) HxWxD	585x265x505	595x265x600	645x265x670	720x265x740	775x300x800
OPTIONS					
Different input / output voltage	Please ask				
Input transformer	Galvanic isolation transformer at the input (in external cabinet)				
External maintenance bypass switch	Optional				
Parallel operation	N+1 (up to 4 units) (optional-please ask)				
Communication	SNMP, MODBUS, Remote Mon. Panel, RS485				
Batt. temp. compensation	Optional				

3 phase in / 1 phase out



6 - 40 kVA

XT200

UNINTERRUPTIBLE POWER SUPPLIES

XT200 Online UPS are microprocessor controlled, full sine output uninterruptible power supplies produced with PWM (Pulse width modulation) and IGBT technologies. It provides uninterrupted energy for local networks, communication systems, sensitive medical devices, smart engineering measuring devices and industrial automation systems by guaranteeing safe operation thanks to its built-in inverter isolation transformer.

GENERAL SPECIFICATIONS

- Output isolation transformer
- Up to 90% efficiency
- Static by-pass
- LCD front panel
- 64 events memory
- RS232 and relay contacts
- Custom input and output voltage ranges
- SNMP compatible communication
- T-MON remote monitoring software
- Parallel operation up to 4 devices
- Manufactured according to EC Directive; EN62040
- 2 years warranty





6 - 40 kVA

TECHNICAL SPECIFICATIONS

MODEL	XT206	XT207	XT210	XT215	XT220	XT230	XT240
Power (kVA)	6	7,5	10	15	20	30	40
INPUT							
Voltage	220/380 VAC (230/400VAC) 3P + N + G ± 15%						
By-pass voltage	220/230 VAC P + N ± 10%						
Frequency	50Hz / 60Hz ±10%						
OUTPUT							
Power(kW)	4.2	5.25	7	10.5	14	21	28
Power factor	0.7						
Voltage	220/230 VAC P + N ± %1						
Frequency	50Hz (60Hz on request)						
Frequency tolerance	Line synchronized: ± 2% , free running: ± 0.1%						
Efficiency (at 100% load)	Up to 90%						
Crest factor	3:1						
Overload protection	100%-125% load: 10 min., 125%-150% load: 1 min., > 150% load: by pass						
Short circuit protection	Electronic short circuit protection						
VoltageTHD	Linear load: < 2% Non linear load: < 5%						
BATTERIES							
Type	Sealed Lead Acid - Maintenance Free						
Number of batteries	20			30			
Float charging voltage	270 VDC			405 VDC			
End of discharge voltage	200 VDC			300 VDC			
Battery cabinet	Internal for standard time						
Battery ambient temp.	25°C						
Battery protection	Automatic circuit breaker						
Battery test	Optional			Standard			
GENERAL							
Standards	EN 62040-1, EN 62040-2						
Maintenance bypass switch	Optional			Standard			
Serial communication	Dry contacts ® RS232						
Software	T-Mon UPS Management Software (3 clients, +1 server management std.)						
Temperature range	0°C - 40°C						
Ventilation	Forced air cooling						
Relative humidity	< 90% (non-condensing)						
Protection degree	IP20						
Altitude	< 2000m						
Acoustic noise	< 50 dBA< 55 dBA						
Weight without batteries (kg)	106	110	125	130	195	217	335
Dimensions (mm) HxWxD	950x265x740			1240x500x650			1390x575x820
OPTIONS							
Different input / output voltage	Please ask						
Input transformer	Galvanic isolation transformer at the input (in external cabinet)						
Input power factor	Input power factor corrector (> 0.97)						
Adaptors	SNMP, MODBUS, Remote Mon. Panel, RS485						
Parallel operation	N+1 (up to 4 units) (optional-please ask)						

3 phase in / 3 phase out



10 - 80 kVA

XT300

UNINTERRUPTIBLE POWER SUPPLIES

XT 300 Online UPS are microprocessor controlled, full sine output uninterruptible power supplies produced with PWM (Pulse width modulation) and IGBT technologies. It provides uninterrupted energy for local networks, communication systems, sensitive medical devices, smart engineering measuring devices and industrial automation systems by guaranteeing safe operation thanks to its built-in inverter isolation transformer.

GENERAL SPECIFICATIONS

- Output isolation transformer
- Up to 92% efficiency
- Static by-pass
- LCD front panel
- 128 events alarm memory (4000 alarms)
- RS232 and relay contacts
- Custom input and output voltage ranges
- SNMP compatible communication
- T-MON remote monitoring software
- Parallel operation up to 4 devices
- High performance at nonlinear loads
- Custom input voltage and frequency ranges
- Manufactured according to EC Directive; EN62040
- 2 years warranty





10 - 80 kVA

TECHNICAL SPECIFICATIONS

MODEL	XT310	XT315	XT320	XT330	XT340	XT360	XT380
Power (kVA)	1015	20	30	40	60	80	
INPUT							
Voltage	220/380 VAC (230/400 VAC) 3P + N + G ± 15%						
By-pass voltage	220/380 VAC (230/400 VAC) 3P + N ± 10%						
Input frequency	50Hz / 60Hz ± 10%						
OUTPUT							
Power (kW)	8	12	16	24	32	48	64
Power factor	0,8						
Voltage	380/400 VAC 3P + N						
Voltage stability	Balanced load: ± 1%, Unbalanced load: ± 2%, Step load: ± 5%						
Voltage recovery time	After step load: max. 25ms						
Frequency	50Hz (60Hz on request)						
Frequency tolerance	Line synchronized: ± 2% , free running: ± 0,2%						
Efficiency (at 100% load)	89-91%			90-92%			
Crest factor	3:1						
Overload protection	100%-125% load: 10 min., 125%-150% load: 1 min., >150% load: by pass						
Short circuit protection	Electronic short circuit protection						
Voltage THD	Linear load: < 2% Non linear load: < 5%						
BATTERIES							
Type	Sealed Lead Acid - Maintenance Free						
Number of batteries	30						
Float charging voltage	405 VDC						
End of discharge voltage	300 VDC						
Battery ambient temp.	25°C						
Battery protection	Automatic circuit breaker						
Battery test	Automatic every 72 hours						
GENERAL							
Standards	EN 62040-1, EN 62040-2						
Serial communication	Dry contacts & RS232						
Software	T-Mon UPS Management Software (3 clients, +1 server management std.)						
Temperature range	0°C - 40°C						
Ventilation	Forced air cooling						
Relative humidity	< 90% (non-condensing)						
Protection degree	IP20						
Altitude	< 2000m above sea level						
Acoustic noise	< 56 dBA				< 60 dBA		
Weight without batteries (kg)	220	260	284	305	404	496	580
Dimensions (mm) HxWxD	1150x505x655			1390x575x820		1450x720x820	
OPTIONAL							
Different input / output voltage	Please ask						
Input transformer	Galvanic isolation transformer at the input (in external cabinet)						
Input THD	10% (with 12 pulse or 18 pulse rectifier, according to UPS range), %5 (with 18 pulse rectifier, + filter) (optional)						
Input power factor	0.95 - 0.98 (with 18 pulse rectifier)						
Communication	SNMP, MODBUS, Remote Mon. Panel, RS485						
Parallel operation	N+1 (up to 4 units) In 18Pulse applications, the standard chassis dimensions may change (optional-please ask)						
Batt. temp. compensation	Optional						



100 - 300 kVA

XT300

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

XT300 Online UPS are microprocessor controlled, full sine output uninterruptible power supplies produced with PWM (Pulse width modulation) and IGBT technologies. It provides uninterrupted energy for local networks, communication systems, sensitive medical devices, smart engineering measuring devices and industrial automation systems by guaranteeing safe operation thanks to its built-in inverter isolation transformer.

GENERAL SPECIFICATIONS

- Output isolation transformer
- Up to 92% efficiency
- Static by-pass
- LCD front panel
- 128 elements alarm memory (4000 alarms)
- RS232 and relay contacts
- Custom input and output voltage ranges
- SNMP compatible communication
- T-MON remote monitoring software
- Parallel operation up to 4 devices
- High performance at nonlinear loads
- Custom input voltage and frequency ranges
- Manufactured according to EC Directive; EN62040
- 2 years warranty



100 - 300 kVA

TECHNICAL SPECIFICATIONS

MODEL	XT3100	XT3120	XT3160	XT3200	XT3250	XT3300
Power (kVA)	100	120	160	200	250	300
INPUT						
Voltage	380/400 VAC 3P + N + G ± 15%					
By-pass voltage	380/400 VAC 3P + N ± 1%					
Input frequency	50Hz (60Hz on request) ± 10%					
OUTPUT						
Power (kW)	80	96	128	160	200	240
Power factor	0.8					
Voltage	380/400 VAC 3P + N					
Voltage stability	Balanced load: ± 1%, Unbalanced load: ± 2%, Step load: ± 5%					
Voltage recovery time	After step load: max. 25ms					
Frequency	50Hz (60Hz on request)					
Frequency tolerance	Line synchronized: ± 2% , free running: ± 0.1%					
Efficiency (at 100% load)	90-92%					
Crest factor	3:1					
Overload protection	100%-125% load: 10 min., 125%-150% load: 1 min., >150% load: by pass					
Short circuit protection	Electronic short circuit protection					
VoltageTHD	Linear load: < 2% Non linear load: < 5%					
BATTERIES						
Type	Sealed Lead Acid - Maintenance Free					
Number of batteries	30			32		
Float charging voltage	405 VDC			432 VDC		
End of discharge voltage	300 VDC			320 VDC		
Battery ambient temp.	25°C					
Battery protection	Automatic circuit breaker					
Battery test	Automatic every 72 hours					
GENERAL						
Standards	EN 62040-1, EN62040-2					
Serial communication	Dry contacts & RS232					
Software	T-Mon UPS Management Software (3 clients, +1 server management std.)					
Temperature range	0°C - 40°C					
Ventilation	Forced air cooling					
Relative humidity	< %90 (non-condensing)					
Protection degree	IP20					
Altitude	< 2000m above sea level					
Acoustic noise	65 dBA			70 dBA		
Weight without batteries (kg)	750	765	802	970	1328	1370
Dimensions (mm) HxWxD	1650x1110x810		1730x1195x870		1880x1565x925	
OPTIONAL						
Different input / output voltage	Please ask					
Input transformer	Galvanic isolation transformer at the input (in external cabinet)					
Input THDI	10% (with 12 pulse or 18 pulse rectifier, according to UPS range) 5% (with 18 pulse rectifier, + filter), up to 100kVA					
Input power factor	0.95 - 0.98 (with 18 pulse rectifier)					
Adaptors	SNMP, MODBUS, Remote Mon. Panel, RS485					
Parallel operation	N+1 (up to 4 units) (optional-please ask)					
Batt. temp. compensation	Optional					



STS 2000

STATIC TRANSFER SWITCHES

STS 2000 1 phase, 2 pole static transfer switch transfers uninterruptedly critical loads to either of two independent AC power lines. The system monitors two AC inputs. If any of them goes out of the specified tolerance, it transfers the critical load to the other. By increasing the energy quality of the systems used with STS 2000, while reducing the effects of interference and short interruptions, a backup power system is gained.

GENERAL SPECIFICATIONS

- Increased power quality
- Increase noise reduction
- Power blackout protection
- Power redundancy
- Automatic static switching
- Remote monitoring input power sources
- Easy static and mechanical transfer to input sources
- Remote management the power events
- Power event logging
- Output current capability up to 1000% for short time
- 19" Rack cabinet
- Hot swap option
- Manufactured according to EC Directive: EN62310
- 2 years warranty





STS 2000

TECHNICAL SPECIFICATIONS

MODEL	STS2032	STS2063	STS2120
Nominal current	32 A	63 A	120 A
ELECTRICAL DATA			
Input voltage	220/230/240 VAC 1P + N + G		
Input voltage range	180-264 VAC (Ph-N)		
Input frequency	50Hz / 60Hz		
Input frequency range (operation range adjustable)	46-54Hz (for 50Hz) 56-64Hz (for 60Hz)		
Transfer type	"Break before make"		
Transfer methods available	Automatic / Manual / Remote		
Transfer control	Synchron With adjustable delay (non synchron) Zero current (non synchron)		
Transfer time	≤ 4 msec for synchronous sources ≤ 10 msec for non-synchronous sources		
Switching type	1 phase + Neutral switching (2-Poles)		
Output current crest factor	3:1		
Admissible overload	0-100% continuous 101-150% 1 minute 151-200% 10 seconds > 200% 250 msec		
Protections	Output overload and short circuit protection, Overtemperature protection, Backfeed protection		
LCD panel and mimic	Standard		
Communication	RS232 standard , RS485 optional		
TCP/IP connection	Optional		
Dry contacts	3 programmable relay outputs		
Breaking current capacity (SW1,SW2)	10 kA		
ENVIRONMENTAL DATA			
Cooling	Forced cooling (redundant fans)		
Cooling air direction	From front to rear		
Operating temperature	0°C - 40°C		
Storage temperature	-10°C up to +50°C		
Relative humidity	90% max. (non-condensing)		
Protection degree	IP20		
Standards	EN 62310-1, EN 62310-2		
Max. operation height	1000m. at nominal current rating		
Acoustic noise	< 50		< 52 dBA
MECHANICAL DATA			
Weight (kg)	12	13	20
Dimensions	2U (19"rack),depth = 530mm (hot-swappable = 630mm)		3U (19"rack),depth = 590mm (hot-swappable = 630mm)
Power cables connection	Clip-on terminals (on the rear panel)		



STS 3000 - 4000

STATIC TRANSFER SWITCHES

STS 3000-4000 3 phase, 3-4 pole static transfer switch transfers uninterruptedly critical loads to either of two independent AC power lines. The system monitors two AC inputs. If any of them goes out of the specified tolerance, it transfers the critical load to the other. By increasing the energy quality of the systems used with STS 3000-4000, while reducing the effects of interference and short interruptions, a backup power system is gained.

GENERAL SPECIFICATIONS

- Increased power quality
- Increased noise reduction
- Power blackout protection
- Power redundancy
- Automatic static switching
- Remote monitoring input power sources
- Easy static and mechanical transfer to input sources
- Remote management the power events
- Power event logging
- Output current capability up to 100% for short time
- Manufactured according to EC Directive; EN62310
- 2 years warranty





STS 3000 - 4000

TECHNICAL SPECIFICATIONS

MODEL	STS3050	STS3100	STS3150	STS3200	STS3250	STS3300	STS3400	STS3600	STS3800	
	STS4050	STS4100	STS4150	STS4200	STS4250	STS4300	STS4400	STS4600	STS4800	
Nominal current	50 A	100 A	150 A	200 A	250 A	300 A	400 A	600 A	800 A	
ELECTRICAL DATA										
Input voltage (Ph-Ph)	380/400/415 VAC 3P + N + G									
Input voltage tolerance	180-264 VAC (PH-N)									
Input frequency	50Hz / 60Hz									
Input frequency range	48-65Hz (upper and lower limits adjustable)									
Efficiency (at 100% load)	> 99%									
Input voltage THD	< 10%									
Transfer type	"Break before make"									
Transfer methods available	Automatic / Manual / Remote									
Transfer control	Synchron With adjustable delay (non synchron) Zero current (non synchron)									
Transfer time	< 4 msn for synchronous sources < 10 msn for non-synchronous sources									
Switching type	3-Poles: 3 phase switching / 4-Poles: 3 phase + Neutral switching									
Output current crest factor	3:1									
Admissible overload	0-100% continuous 101% - 150% 1 min. 151% - 200% 10 second > 200% 250 msec									
Protections	Output overload and short circuit protection, Overtemperature protection, Backfeed protection, SCR fault protection									
LCD panel and mimic	Standard									
Communication	RS232 standard, RS485 optional									
TCP/IP connection	Optional									
Dry contacts	4 programmable relay outputs									
Two serial ports	Optional									
Temperature sensor	Standard for internal cabinet temperature									
ENVIRONMENTAL DATA										
Cooling	Forced cooling (redundant fans)									
Operating temperature	0°C - 40°C									
Storage temperature	-10°C up to +50°C									
Relative humidity	90% max. (non-condensing)									
Protection degree	IP20									
Standards	EN 62310-1, EN 62310-2									
Acoustic noise	< 52 dBA			< 55 dBA				< 60 dBA		
MECHANICAL DATA										
Weight (kg) (STS3000 Series)	139	145	165	195	205	230	240	340	520	
Weight (kg) (STS4000 Series)	160	175	190	205	235	240	255	375	560	
Dimensions (mm) HxWxD	1500x680x540			1775x680x585				1905x915x725	1900x1250x850	

SPECIAL PRODUCTS

FREQUENCY CONVERTERS

FC 300 3 Phase Frequency Converters are manufactured using PWM and IGBT technology. These products are completely microprocessor controlled and provide quality energy to critical loads. They can convert 50Hz, 60Hz or 400Hz mains line to 50Hz, 60Hz or 400Hz frequency to run your critical mission equipment.

GENERAL FEATURES

- Detailed monitoring by alphanumeric LCD panel
- Microprocessor control
- 128 detailed event recording with RTC
- Separate battery supported clock and calendar
- RS232 or DRY contact relays
- Customized input voltage and frequency ranges
- Three phase or single phase options
- Advance communication
- SNMP compatible
- 2 years warranty

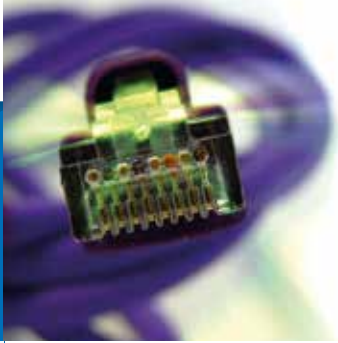


INPUT

Voltage	220/230V single phase - 380/400V 3 phase \pm 15% (other voltages; ask)
Frequency	50Hz./60Hz./400Hz. (\pm 5%)

OUTPUT

Power (kW)	5kVA to 300kVA 50Hz /60Hz /400Hz
Voltage	120/208V 60/400Hz - 230/400V 50/60Hz. (other voltage ranges available)
Voltage regulation	+ 1% (balanced load) + 2% (unbalanced load)
Frequency	50/60/400Hz.
Frequency stability	+ 0.2 Hz (free running)
Efficiency	85% - 90%
Protections	Short circuit protection, overload protection, output voltage out of tolerance protection
Voltage protection	AC voltage low and high protection
Output waveform	Sinusoidal (THD < 3% for linear load)
Output power factor	0.7 (single phase) - 0.8 (three phase)



SPECIAL PRODUCTS

INVERTERS

Tescom DC/AC Inverters are devices with low distortion sine waveform output, high performance and providing superior protection. Tescom pure sine wave inverters (192VDC to 400VDC) provide premium power.

GENERAL FEATURES

- Detailed monitoring by alphanumeric LCD panel
- Microprocessor control
- 128 detailed event recording with RTC
- Separate battery supported clock and calendar
- RS232 or DRY contact relays
- Customized input voltage and frequency ranges
- Three phase or single phase options
- Advance communication
- SNMP compatible
- 2 years warranty



INPUT

Voltage 48 VDC - 400 VDC

OUTPUT

Power (kW) 10kVA - 300kVA

Voltage 120/208 V, 60/400 Hz - 230/400V, 50Hz / 60Hz (other voltage ranges available)

Voltage regulation + 1% (balanced load) + 2% (unbalanced load)

Frequency 50Hz / 60Hz / 400Hz

Frequency stability + 0.2Hz (free running)

Efficiency 85% - 90%

Overcurrent protection Electronic protection

Voltage protection AC voltage low and high protection

Output waveform Sinusoidal (THD < 3% for linear load)

Load power factor 0.8

GENERAL

Power module IGBT or IPM module

Front panel Alphanumeric LCD 2x16 characters

Control buttons 3 or 5 buttons

Bypass Available as option

Bypass isolation Available as option

Parallel operation Available as option (up to 4 devices)

Alarm buzzer Available

Remote REPO input Available

RS232 interface Available

Dry contact outputs Available

DC input protection 3 level alarms



T-MON SOFTWARES

Power failures and abnormal supply conditions can occur at any time, including when your network system is running unattended. When there is a power interruption, the UPS Software broadcasts a warning message to all Workstation users on the network urging them to finish their current tasks. In the event of a lengthy power failure, the software automatically saves files and gracefully shuts down the operating system after a user-configured time period or when the UPS batteries are low on energy. The intelligent software can even notify an off-site systems administrator of the shutdown by paging them through a modem.

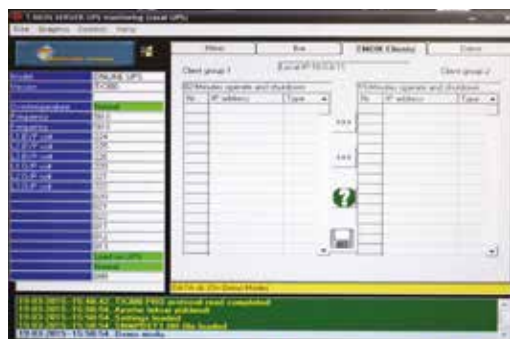
T-MON UPS Software provides other useful management functions too, such as scheduling automatic system boot up and shutdown, monitoring UPS battery condition and logging and analysing abnormal utility power conditions.

T-MON SERVER

Supports all Windows operated systems plus Linux. T-MON Server connects a computer to the UPS and collects data when it communicates to the network.

T-MON SERCON

SerCon receives data from T-MON Server and manages the shutdown event on the network clients computers. In addition to the normal "SerCon" automatic shutdown program T-MON also provides source codes so that a programmer can compile their own requirements.



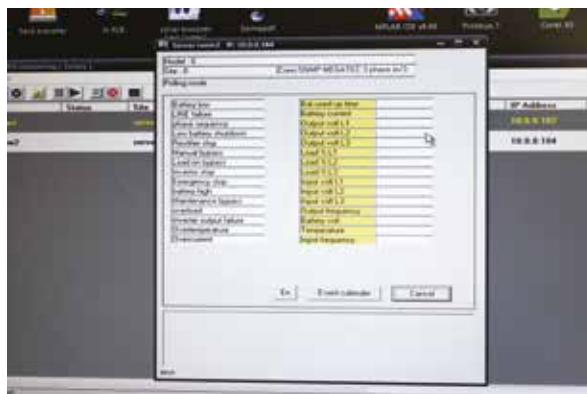
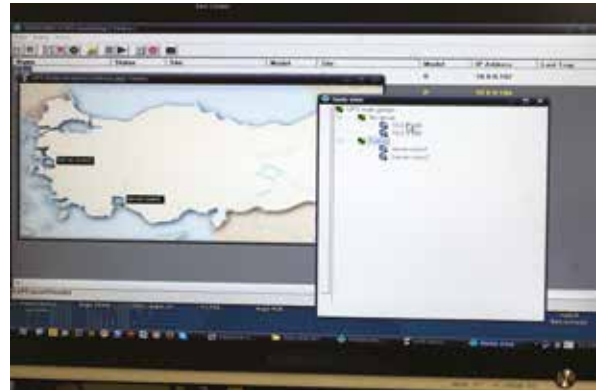


T-MON SOFTWARES

T-MON ADMIN

T-MON Admin is developed to provide UPS management and monitoring in a WAN system. It supports TCP/IP and SNMP protocols. T-MON Admin allows you to manage monitor and collect all the data logs from hundreds of UPS's which are connected to WAN system.

T-MON Admin supports multi SNMP agents such as Megatec SNMP, Netagent II and USHA. It's possible to implant OEM SNMP agents MIB's as a customer request.





ACCESSORIES

i-com Series UPS Accessories

i-com Series UPS Accessories

Model: RMP-X1



UPS remote monitoring panel

- Touchscreen TFT display
- RS485 input port (for long distance)
- RS232 input port
- RS232 output port + dry contact port
- Emergency stop input
- Functional desktop and wall-mount design

Model: US-4 & US-8



US4/US8 UPS multiserver shutdown unit (Dry contact multiplexer)

Model: ML100



ML100 is internal serial port multiplexer for UPS and STS. It has 1 RS232 input and 2 RS232 outputs.

Model: ML200



It has 1 RS232 input, 1 RS232 output and 1 RJ45(TCP/IP) output.



ACCESSORIES

i-com Series UPS Accessories

Model: SNMP



TESCOM SNMP Module is external SNMP module for UPS and STS.

Model: RSX24



The RSX24 RS232-RS485 Converter Adapter is external protocol converter. In addition, in long distance applications (25m<), the distance can be extended by using a double converter because of the RS232 is not efficient.

Model: RS-NET



RS-NET RS232-TCP/IP Ethernet Converter Adapter is an external protocol converter used for UPS and STS.

ACCESSORIES

i-com Series UPS Accessories

Model: MDX2



The MDX2 RS232-MODBUS Adapter is an external MODBUS module used for UPS and STS. It converts RS232 protocol to MODBUS RTU protocol for SCADA and BMS systems used RS485 Network.

Model: MDX-NET



The MDX-NET RS232-MODBUS Adapter is an external MODBUS module used for UPS and STS. It converts RS232 protocol to MODBUS protocol for SCADA and BMS systems using TCP/IP Network.

Model: GM-1



GM-1 GSM Modem, by connecting to the RS232 port of your UPS externally, provides an informative short message to be sent to the GSM numbers you specify, if alarm and operating status information is selected according to your wishes. Suitable for devices with SNMP module installed. If you do not have an SNMP module or your infrastructure does not support it, you can choose GM-2/GM-3 GSM modems in the accessories product group.

ACCESSORIES

i-com Series UPS Accessories

Model: GM-2



GM-2 GSM Modem, by connecting to the RS232 port of your UPS externally, provides an informative short message to be sent to the GSM numbers you specify, if alarm and operating status information is selected according to your wishes. It can be configured without the need for an SNMP interface.

Model: GM-3



GM-3 GSM Modem, by connecting to the RS232 port of your UPS externally, provides an informative short message to be sent to the GSM numbers you specify, if alarm and operating status information is selected according to your wishes. In addition to the GM-2 GSM Modem features, it can send the UPS shut down alarm message thanks to the internal battery on it.

Model: GMB1



GMB1 External Battery Module It is an external battery unit for GM - 2 Modem.



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UNINTERRUPTIBLE POWER SUPPLIES

HEADQUARTERS

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