Tescom


STATUS
MEASUREMENT
ALARM LOGS
13:57
Tescom®

INDEX

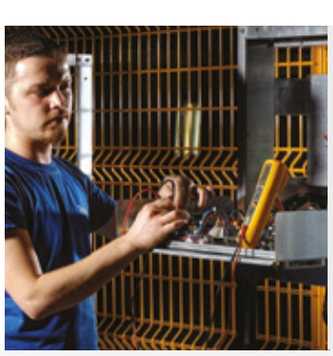
FACTORY

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.

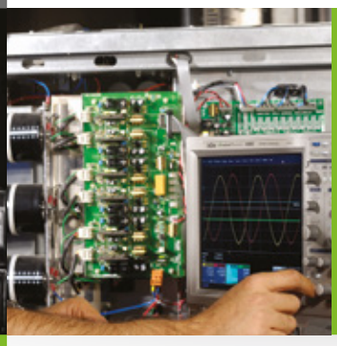
During the establishment years the company was manufacturing electronic control devices and inverters, then in 1986 when the IT sector started developing rapidly, Tescom sensed the great need for clean, uninterruptible power and started designing and manufacturing Uninterruptible Power Supplies.

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.

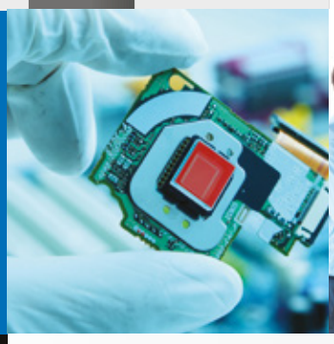

R&D

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 po wer 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.

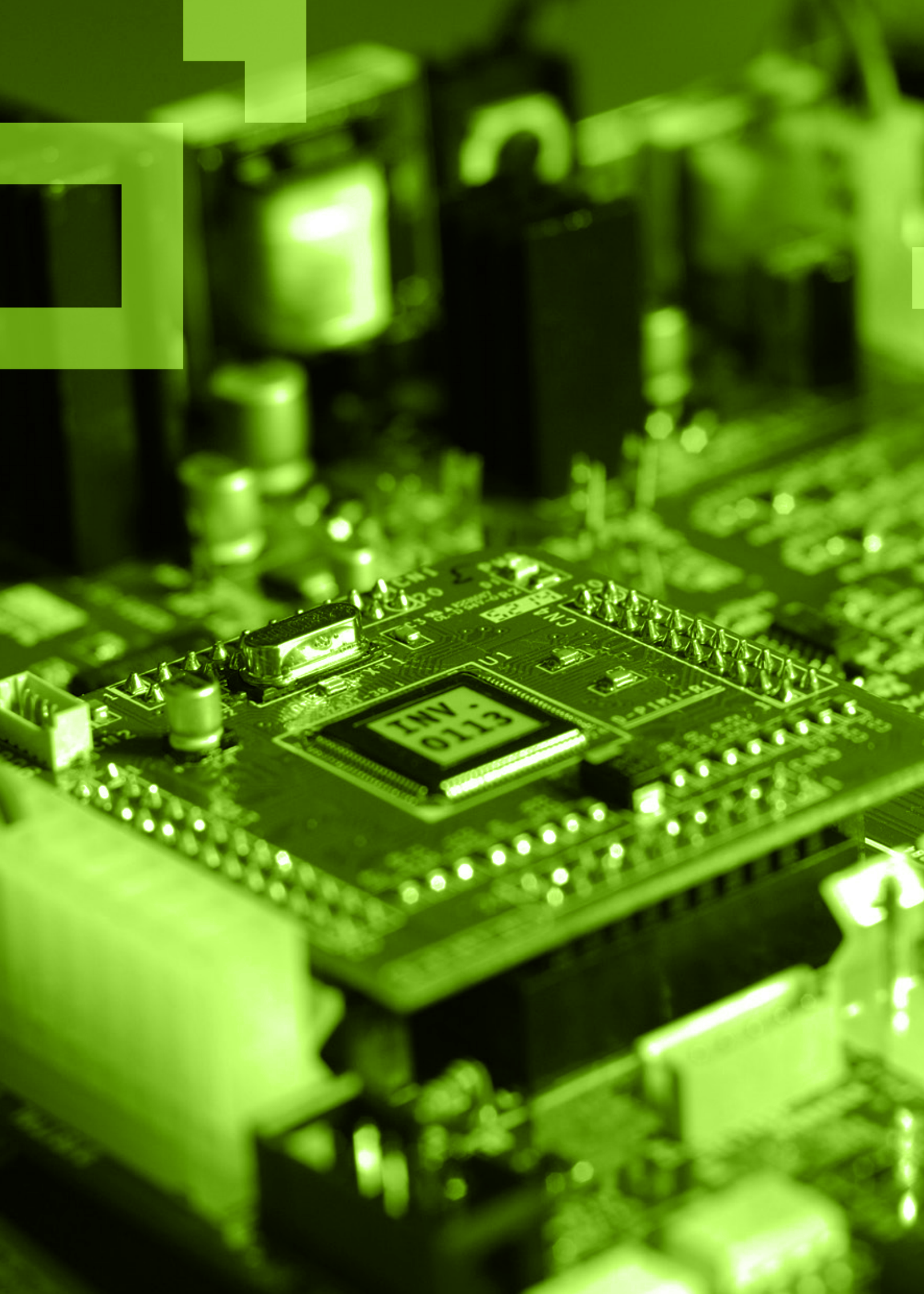
Thanks to the large budget allowance given every year a considerable amount of investment is being made to this department and as a result today Tescom is in a very pretentious position both in domestic and international markets.

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.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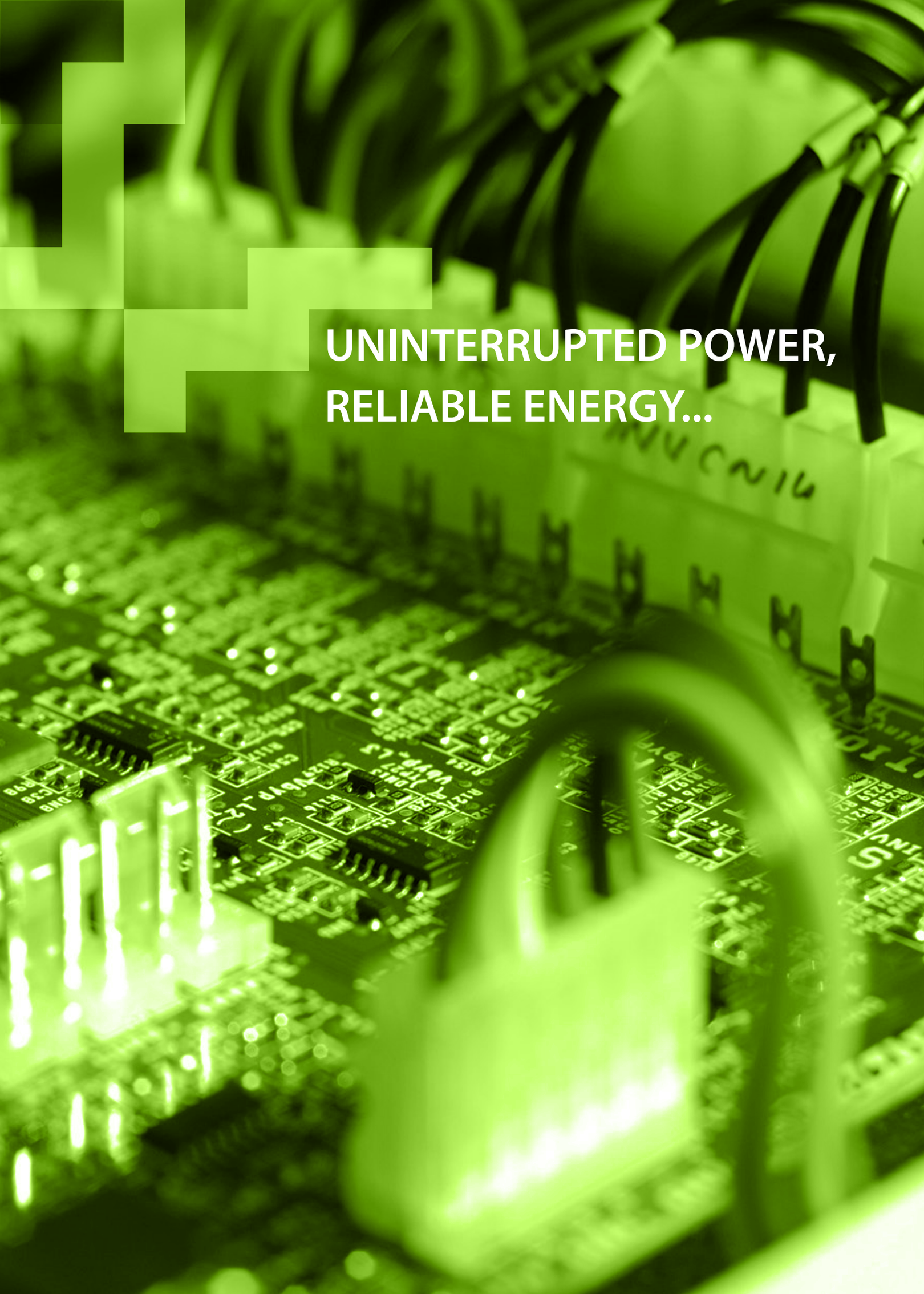

UNINTERRUPTED POWER,
RELIABLE ENERGY...

Line - interactive

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 charge/discharge protections.

GENERAL SPECIFICATIONS

- Microprocessor-based digital control
- Boost and buck AVR for voltage stabilization
- Power-on self test
- Cold start
- Auto track mains phase to ensure that inverter output voltage has same phase with utility voltage, reducing transfer time and peak surge
- Short circuit, battery overcharge / overdischarge, overload, surge protections
- Auto restart when mains power is restored
- Intelligent battery management: battery temperature compensation to extend the battery life; three-stage charging to shorten recharge time
- Automatic charging in OFF mode
- 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

Tescom

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.				
BATTERIES						
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				
GENERAL						
Protections		Short circuit - battery overcharge - overdischarge - overload - surge				
Communication		USB / RJ45 Modem protect				
Humidity		20 ~ 90% RH @ 0 ~ 40°C (non-condensing)				
Acoustic noise		≤ 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		/
Metal case	Net / Gross weight (kg)	/	/	/	/	12.9 / 13.3
	Dimensions (HxWxD) (mm)	/		/		225x125x380
	Packaged dimensions (HxWxD) (mm)	/		/		295x180x450

1500 VA

LEO+ LIFT

UNINTERRUPTIBLE POWER SUPPLIES

Line - interactive

GENERAL SPECIFICATIONS

- LED Display
- Optional LCD Display (pls. ask)
- Microprocessor-based digital control
- Boost and buck AVR for voltage stabilization
- Auto sensing frequency
- Wide input voltage range
- Power-on self testing
- Cold start
- 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
- 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
- Automatic charging in OFF mode
- Optional no-load shutdown
- Optional RS232 / USB communication port and RJ11 / RJ45 protection (pls. ask)
- Unattended safety shutdown: system alarm and auto Power-On / Off by RS232 or USB interface communicating with PC (optional / pls. ask)

REAR PANEL

1- Output outlets (optional / pls. ask)
2- TEL/Modem/Fax surge protection (optional / pls.ask)
3- USB (optional / pls. ask)
4- AC input
5- Fuse
6- AC Breaker
7- Fan

Plastic Case

Metal Case

Optional outlets

Tescom

1500 VA

TECHNICAL SPECIFICATIONS

MODEL		LEO+ 1500L / 1500LM
Power		1500 VA 900W
INPUT		
Voltage		100/110/120 V : 80 ~150VAC; 220/230/240 V: 162 ~295 VAC (145 ~ 295 VAC optional)
Frequency		50Hz / 60Hz ± 10% (auto sensing)
OUTPUT		
Voltage		100/110/120 VAC ± 10% or 220/230/240 VAC ± 10%
Frequency		50Hz / 60Hz ± 1% (auto sensing)
Waveform		Mains mode: pure sinewave; Battery mode: simulated sine wave
Tranfer time		Typical 8 ms, 10 ms max.
BATTERIES		
DC Voltage		24V
Configuration		12V 9.0Ah x 2
Recharge time		6 ~ 8h
GENERAL		
Protections		Short circuit, battery overcharge, overdischarge, overload, surge
Communications		USB/RS232 (optional / pls. ask)
Humidity		20 ~ 90% RH @ 0 ~ 40°C (non condensing)
Acoustic noise		≤45dBA (1m)
Plastic case (LEO+ 1500L)	Net/Gross weight (kg)	10.1 / 10.5
	Dimensions (HxWxD) (mm)	170 x 140 x 345
	Packaged dimensions (HxWxD) (mm)	245 x 198 x 406
	Quantity / 20ft	1000 pcs
Metal case (LEO+ 1500LM)	Net/Gross weight (kg)	11.3 / 11.7
	Dimensions (HxWxD) (mm)	225 x 125 x 320
	Packaged dimensions (HxWxD) (mm)	295 x 180 x 390
	Quantity / 20ft	1000 pcs

1 - 3 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. 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
- 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)
- 50/60Hz frequency conversion
- Cold start
- Rear ventilation design and variable speed fan
- Effective software and hardware protection
- Settable delayed start when power is restored
- Quick and stable charging, 90% capacity restored in 3 h (standard model UPS)
- Linear derating in low voltage input reducing battery discharging times
- Multiple functions settable via LCD: output voltage, EOD, auto-start bypass mode, ECO mode and frequency conversion mode
- Multi-platform communications: RS232 (standard), USB / RS485 SNMP / dry contacts (optional)
- EPO function, and 12 A charger (2/3 kVA only) (optional)

Tescom

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		
GİRİŞ							
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)						
THDi	≤ 6%						
ÇIKIŞ							
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						
Voltage THD	≤ 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						
AKÜLER							
DC voltage	24V (S)		36V (XL)	48V (S)	72V (XL)	72V (S)	96V (XL)
Inbuilt battery	2x7Ah	2x9Ah	/	4x9Ah	/	6x9Ah	/
Charging current (max.)	1A		6A	1A	6A	1A	6A
Recharge time	Standard model: 90% capacity restored in 3 hours; Long time model: depend on the capacity of battery						
SİSTEM ÖZELLİKLERİ							
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						
DİĞER ÖZELLİKLER							
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 (HxWxD) (mm)	216x144x312		216x144x336	216x144x417	335x191x418	335x191×419	335x191x418
Packaged dimensions (HxWxD) (mm)	315x230x402		318x232x417	315x230x506	471x318x533	435x277x500	435x277x500
Net weight (kg)	10.4	11	6	16.4	10.5	24.3	11
Gross weight (kg)	10.7	11.3	7	17.8	12	25.9	12.5

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

- 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
- Two modes of frequency conversion: 50 Hz input / 60 Hz output or 60 Hz input / 50 Hz output
- Dual-input design, supporting independent bypass
- Flexible battery configuration (settable 16 - 20 pcs batteries)
- Digitally controlled charger
- Charging voltage and current configured by demands
- Intelligent battery management, automatic floating / equalizing charge control, charger dormancy control, increasing battery life by 50%
- 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
- 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

Tescom

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)	
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	
Voltage THD	≤ 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 30s	
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: 5 A (default),1 ~ 5 A settable; 12 A (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	
GENERAL		
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.

1 - 3 kVA

TEOS+ 100RT

UNINTERRUPTIBLE POWER SUPPLIES

1 phase in / 1 phase out

TEOS+ 100RT Online UPS is a DSP controlled uninterruptible power supply designed with true double conversion technology. It is efficient with output power factor (PF:0.9) and input power factor correction. It is especially suitable for use in home-office applications and data centers. It offers flexibility of use with its prominent features such as frequency converter mode, wide voltage/frequency range, rack and tower usage option and multiple communication options.

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
- Hot-swappable battery
- Advanced battery management (ABM)
- Multiple functions settable via LCD: output voltage, EOD, autostar bypass mode, ECO mode and frequency conversion mode
- Multi-platform communications: RS232 (standard), USB / RS485 SNMP / dry contacts (optional)

AVAILABLE OPTIONS

- Optional USB, RS485 card, AS400 dry contacts, SNMP card, SMS alarms, EPO function, MBS (External maintenance bypass switch)

Tescom

1 - 3 kVA

TECHNICAL SPECIFICATIONS

MODEL	Teos+ 101RT	Teos+ 102RT	Teos+ 103RT
Power	1 kVA / 900 W	2 kVA / 1800 W	3 kVA / 2700 W
INPUT			
Rated voltage	208 / 220 / 230 / 240 Vac (settable via LCD)		
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)		
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		
Voltage THD	≤ 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	48V	72V
Inbuilt battery	2x12V/9Ah	4x12V/9Ah	6x12V/9Ah
Charging current (max.)	1A		
Recharge time	90% capacity restored in 3 hours		
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		
GENERAL			
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	≤ 50 dB		
Dimensions (HxWxD) (mm)	88x440x338	88x440x728	
Packaged dimensions (HxWxD) (mm)	201x545x485	201x545x852	
Net weight (kg)	12.3	27.2	30.6
Gross weight (kg)	14.3	31.3	34.0

6 - 10 kVA

TEOS+ 100RT

UNINTERRUPTIBLE POWER SUPPLIES

1 phase in / 1 phase out

TEOS+ 100RT Online UPS is a DSP controlled uninterruptible power supply designed as 3-level with true double conversion technology. It stands out with its high output power factor (PF:1) and input power factor correction, high charging current power and maximum efficiency design. It is especially suitable for use in home-office applications and data centers. It offers flexibility of use with its prominent features such as frequency converter mode, wide voltage/ frequency range, rack and tower usage option 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 - 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 (Maximum 5A for long run model)
- Charging voltage and current configured by demands
- Linear debating in low voltage input reducing battery dischargin times, extending the service life of battery
- Intelligent battery management, automatic floating / equalizin 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

Tescom

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 (16 + 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	50/60Hz (auto-sensing)	
Frequency range	40 - 70 Hz	
Power factor	0.99	
Bypas s voltage range	- 40% ~ +15% (settable)	
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 bypas s in mains mode; 50/60 Hz + 0.1% Hz in battery mode	
Waveform	Sinusoidal	
Power factor	1.0	
Voltage THD	≤ 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)	12 V/7Ahx16	12 V/9Ahx16
Charging current	Standard model: 1 A; Long time model: 5 A (default), 1 - 5 A settable, 12 A (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, a 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	
GENERAL		
Operating temperature	0°C ~ 40°C	
Storage temperature	-25°C ~ 55°C (without battery)	
Relative humidity	0 - 95% (non-condensing)	
Altitude	≤ 1000 m, debating 1% for each additional 100 m	
IP rating	IP 20	
Noise level at 1 m	≤ 55 dB	≤ 58 dB
Dimensions (HxWxD) (mm) (*)	88x440x580 (H) 176x440x660 (S)	
Packaged dimensions (HxWxD) (mm) (*)	168x514x696 (H) 418x554x792 (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	

1 phase in / 1 phase out

1 kVA

CL101

UNINTERRUPTIBLE POWER SUPPLIES

CL101 (1kVA) Online UPS is an uninterruptible power supply designed with true double conversion technology and DSP (Digital signal processors) controlled processor. Thanks to True Double Conversion technology, UPS works independent from mains voltage and frequency. By converting the energy AC to DC energy, keeps your batteries constant charge. After converting it back to AC energy and applies filtration process before supply your loads. Efficiency with Active Power Factor Correction (APFC) feature and flexibility with wide voltage/ frequency range is avaliable. It provides high-level protection for your data center, control systems and other critical loads.

GENERAL SPECIFICATIONS

- High frequency on-line double conversion technology
- DSP (Digital signal processors)
- Active power factor correction
- Ouput PF: 0.9
- Wide voltage and frequency range
- Active Harmonic Correction <3%
- Automatic frequency detection
- 50/60Hz frequency range
- Cold start
- Rear panel ventilated design and variable fan speed
- Effective software and hardware protection
- Fast and durable battery charge, 90% in 4 hours
- Adjustable delay start when mains power is restored
- The ability to charge the battery even when it is in the off position.
- Uninterruptible transfer
- Load sensitive intelligent fan control
- Easy fault diagnosis with smart alarm warning system and diagnostic coding
- Advanced battery management
- Configuring settings via LCD screen
- Multi communication: RS232, (standard), USB, RS485/SNMP/Dry contact (optional)

Tescom

1 kVA

TECHNICAL SPECIFICATIONS

MODEL	CL101
Capacity	1 kVA/900 W
INPUT	
Voltage	208 / 220 / 230 / 240 VAC
Voltage range	110 ~ 300 VAC (@ 50% load); 160 ~ 300 VAC (@ 100% load); ±5VAC
Frequency	40 ~ 70 Hz (automatic)
Power factor	≥ 0.99
Bypass voltage range	– 25% ~ + 15% (adjustable)
THDi	≤ 3%
ECO Mode range	208 / 220 / 230 / 240VAC (±10%)
Genset	Compatible
OUTPUT	
Voltage	208 / 220 / 230 / 240 VAC (Selectable)
Voltage regulation	± 1%
Frequency	45 ~ 55 Hz or 55 ~ 65Hz (synchronized range); 50/60 Hz ± 0.2 Hz (battery mode)
Waveform	Pure sinewave
Power factor	0.9
Voltage THD	≤ %2 (linear load), ≤ %5 (non-linear load)
Crest factor	3:1
Overload	at 105% ~ 125% load 1min, at 125% ~ 150% load 30 sec, at > 150% load 300 ms
BATTERY	
DC voltage	36 VDC
Internal battery pack	3x9Ah (12V)
Charge current (max.)	1A (6A long time model)
Battry charge time	Standard model: 90% capacity in 4 hours; XL model: connected to battery pack
SYSTEM FEATURES	
Efficiency	≥ %90 (Mains mode)
	≥ %92 (Battery mode)
	≥ %94 (ECO mode)
Transfer time	Mains mode to battery mode: 0 ms, Inverter mode to bypass mode: 4 ms
Protection	Short circuit, Overload, Battery charge/discharge protection
Display	LCD, LED
Communication	RS232 (standard), USB/SNMP (optional)
Emergency shutdown	Optional
Software	Supports Windows 98/200/2003/XP/Vista/2008/Windows 7/8
Smart alarm system	Standard
Safety	CE LVD
EMC	CE EMC
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
OTHER FEATURES	
Operation temperature	0°C ~ 40°C
Storage temperature	– 25°C ~ 55°C (without battery)
Humidity	0 ~ 90% (non-condensing)
Altitude	≤ 1000 m, derating 1% for each additional 100m
Protection degree	IP 20
Acoustic noise	≤ 45 dB
Dimensions (HxWxD) (mm)	245x144x356
Packaged dimensions (HxWxD) (mm)	316x231x492
Net weight (kg)	13,0
Gross weight (kg)	14,5

6-10 kVA / 10-20 kVA

DS100RT / DS200RT

UNINTERRUPTIBLE POWER SUPPLIES

Online Rack and Tower (1:1 / 3:1)

DS Power 200 RT Online UPS has DSP technology that can operate in a wide variety of electrical environments. Its compact design allows Rack and Tower operation with a reversible display for flexibility. With DSP control, efficiency, reliability and functionality have been increased to levels that could not be reached with the old analog technology. It offers solutions for your long-term applications with high charging current and parallel battery connection outputs. It is offered with 10-15-20KVA options.

GENERAL SPECIFICATIONS

- DSP control technology and fully digital structure
- IGBT technology and high efficiency
- Design that allows the use of Racks and Towers
- Suitable for parallel operation
- High input power factor
- ±340VDC battery voltage
- High output efficiency up to 93%
- Selectable input/output voltage/frequency range
- Maintenance bypass switch
- High charging current capacity
- LCD Panel and mimic led diagram
- Reversible display
- Conforms to IEC EN62040
- Conforms to CE, TSE and GOST standards
- ISO9001, ISO14001 compliant production
- Advanced control at the input
- 3 level battery protection
- Heat compensated charging
- Output current limitation
- Output DC leakage protection
- Output short circuit and overload protection
- External REPO input
- 128 events memory (5.000 alarm)
- Clock and calendar (battery supported)
- Automatic battery test, remaining battery time indicator
- 1 RS232 serial port and standard dry contact outputs
- Optional SNMP, MODBUS and Remote Monitoring Panel
- Viewing device operating parameters
- Advanced remote control features
- User and central service password-protected security
- 2 years warranty

Tescom

6-10 kVA / 10-20 kVA

TECHNICAL SPECIFICATIONS

MODEL	DS106RT	DS110RT	DS210RT	DS215RT	DS220RT
Power (kVA)	6	10	10	15	20
INPUT					
Voltage	220/230 VAC 1P + N + G ± 15% (@ 100% load)		380/400 VAC 3P + N + G ± 15% (@ 100% load)		
Frequency	50Hz / 60Hz, ± 10%				
Power factor (%100 load)	≥ 0.96				
THDI (*)	≤ 25%				
By-pass voltage	220/230 VAC 1 Phase + N, ± 10				
Bypass Frequency	50Hz ± 5%				
Protection	Fuses, High Voltage (Surge Arrester) Protection, Voltage and Frequency tolerance, Input power limitation, Phase reverse protection				
OUTPUT					
Power (kW)	5.4	9.0	9	13.5	18
Power factor	0.9				
Voltage	220/2300 VAC 1P + N, ± 1%				
Frequency	50Hz / 60Hz				
Frequency tolerance	Synchronized to the network: ±2% / Free operation: ±0.1%				
Efficiency (%100 load)	up to 93%				
Crest factor	3:1				
Overload protection (**)	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass				
Other protections	Intelligent short circuit protection, Voltage tolerance protection, DC balance, Regenerative load, Current limiting protections				
Voltage THD	≤ %2 (%100 linear load)				
BATTERIES					
Type	Maintenance-free dry type				
Number of batteries	20 piece (20-28 adjustable)				
Charge voltage	± 270 VDC				
End of discharge voltage	± 210 VDC				
Charging Current (Independent of output load)	2A DC	3A DC	3A DC	4A DC	5A DC
Battery cabinet	External				
External Battery Inputs	Standard (Up to 4 pcs-Socket Type)				
Battery ambient temperature	25ºC				
Protections	3-level alarm, Battery fuses, Charging current limitation (standard) Heat compensated battery charging system (optional)				
Battery testing	Standard (Automatic or Manual)				
GENERAL					
Standards	EN62040-1, EN62040-2, EN62040-3				
User interface	User Interface 2x16 lines LCD panel, Mimic led panel, 5 vector buttons, Buzer				
Indicators	Phase-N voltage, Phase-Phase voltage, Current, Power, Crest Factor, Frequency, PF,				
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232,operating hour meter				
Communication	RS232 serial port, 4 standard NO/NC dry contacts				
Inputs	EPO (emergency shutdown) input				
Software	Standard T-Mon UPS Management software (3 users + 1 server management)				
Alarm recording	Standard: time & date 128 events (5000 Alarms)				
Protector	Power module over-heat protection, Over-current, Heat high alarm				
Temperature range	0ºC - 40ºC				
Protection degree	IP20				
Power Connections	Klemens				
Insurance and Breakers	Inlet, Outlet, Battery and Maintenance Bypass Insurance (Standard)				
Relative humidity	90% max. (non-condensing)				
Altitude	<2000m. above sea level (at nominal power)				
Acoustic level	< 55 dBA				
Weight (kg)	34	36	36	48	56
Dimensions (mm) HxWxD	585x215x775		133x430x685		
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 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	2 Pcs (please ask)				

(*) Depends on Input/Output voltage conditions and power.

(**) The waiting times for excessive loads vary depending on the ambient temperature.

10 - 20 kVA

TEOS+ 200

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 1 phase out

TEOS+ 200 Online UPS is a DSP controlled uninterruptible power supply designed as 3-level with true double conversion technology. It stands out with its high output power factor (PF:1) and input power factor correction, high charging current power and maximum efficiency design. It is especially suitable for use in home-office applications and data centers. 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
- 3:1 to 1:1 model settable
- Wide input voltage range (190 - 499 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
- Dual-input design, supporting independent bypass
- Flexible battery configuration (settable 16 - 20 pcs batteries)
- Digitally controlled charger
- High charging current available (Max. 10 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 an 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

Tescom

10 - 20 kVA

TECHNICAL SPECIFICATIONS

MODEL	Teos+ 210	Teos+ 215	Teos+ 220
Capacity	10 kVA / 10 kW	15 kVA / 15 kW	20 kVA / 20 kW
INPUT			
Input wiring	Three-phase five-wire (3Φ + N + PE)		
Rated voltage	380 / 400 / 415 Vac		
Voltage range	190 - 305 Vac (linear derating between 50% and 100% load); 305 - 499 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)		
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		
Voltage THD	≤ 1% (linear load); ≤ 3% (non-linear load)		
Crest factor	3:1		
Overload	105% - 110% for 10 min, 110% - 125% for 1 min, 126% - 150% for 30s		
BATTERIES			
DC voltage	192 Vdc (192 - 240 Vdc settable)		
Number of battery	16 pcs (16 - 20 settable)		
Inbuilt batt. (standard model)	12 V / 9Ah x 16	/	
Charging current	Standard model: 1A; Long time model: 5A (default), 1 - 5A settable; 10A (optional)		
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		
GENERAL			
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	≤ 58 dB		
Dimensions (HxWxD) (mm) (*)	711x191x495 (S) 350x191x495 (H)	515x191x495 (H)	
Packaged dimensions (HxWxD) (mm) (*)	941X310X685 (S) 475x318x617 (H)	618x285x593 (H)	
Net weight (kg) (*)	18.5 (H), 64 (S)	26.5 (H)	
Gross weight (kg) (*)	20 (H), 72 (S)	28 (H)	
	(*) S means standard model; H means long time model		

10 - 20 kVA

TEOS+ 200RT

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 1 phase out

TEOS+ 200RT Online UPS is a DSP controlled uninterruptible power supply designed as 3-level with true double conversion technology. It stands out with its high output power factor (PF:1) and input power factor correction, high charging current power and maximum efficiency design. It is especially suitable for use in home-office applications and data centers. It offers flexibility of use with its prominent features such as frequency converter mode, wide voltage / frequency range, rack and tower usage option 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
- 3:1 to 1:1 model settable
- Wide input voltage range (190 - 478 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
- Dual-input design, supporting independent bypass
- Hot-swappable battery (10kVA)
- Flexible battery configuration (settable 16 - 20 pcs batteries)
- Digitally controlled charger
- High charging current available (Max. 10 A)
- Charging voltage and current configured by demands
- Linear debating 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 and self-diagnostic function, and abundant event log for check

AVAILABLE OPTIONS

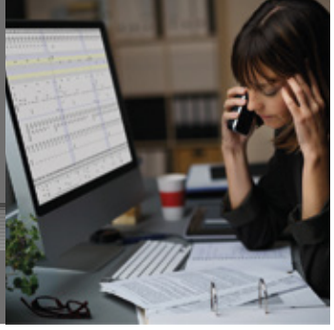
- RS232 and smart card slot included
- Optional parallel function, battery temperature compensation, SNMP card, USB, RS485 card, dry contacts, EMD, and SMS alarms

Tescom

10 - 20 kVA

TECHNICAL SPECIFICATIONS

MODEL	Teos+ 210RT	Teos+ 215RT	Teos+ 220RT
Capacity	10 kVA / 10 kW	15 kVA / 15 kW	20 kVA / 20 kW
INPUT			
Input wiring	Three-phase five-wire (3Φ + N + PE)		
Rated voltage	380 / 400 / 415 Vac		
Voltage range	190 - 304 Vac (linear derating between 50% and 100% load); 304 - 478 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)		
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		
Voltage THD	≤ 1% (linear load); ≤ 3% (non-linear load)		
Crest factor	3:1		
Overload	105% - 110% for 10 min, 110% - 125% for 1 min, 126% - 150% for 30s		
BATTERIES			
DC voltage	192 Vdc (192 - 240 Vdc settable)		
Number of battery	16 pcs (16 - 20 settable)		
Inbuilt batt. (standard model)	12 V / 9Ah x 16	/	/
Charging current	Standard model: 1A; Long time model: 5A (default), 1 - 5A settable; 10A (optional)		
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		
GENERAL			
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	≤ 58 dB		
Dimensions (HxWxD) (mm) (*)	88x440x650 (H) 176x440x660 (S)	132x440x780	
Packaged dimensions (HxWxD) (mm) (*)	168x514x696 (H) 418x554x792 (S)	400x554x792	
Net weight (kg) (*)	17 (H), 67 (S)	25.5	
Gross weight (kg) (*)	19 (H), 77 (S)	28	
	(*) S means standard model; H means long time model.		



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, split dual input, voice 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"touch LCD

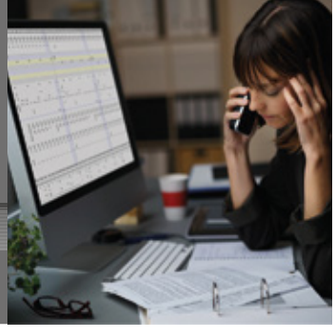
Tescom

10 - 80 kVA

TECHNICAL SPECIFICATIONS

MODEL	Teos 310	Teos 320	Teos 330XL	Teos 340XL	Teos 360XL	Teos 380XL
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	3x400VAC (3P+N)					
Input voltage range	190-520VAC (3-Phase) @ 50% load 305-478 VAC (3-phase) @ 100% load					
Frequency range	46~54Hz or 56~64Hz					
Power factor	≥ 0.99 @ 100% load					
OUTPUT						
Voltage	3x360/380/400/415 VAC (3P+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)					
Crest factor	3:1					
Voltage THD	≤ 2 % THD (Linear Load) ≤ 5 % THD (Non-linear load)					
Transfer time – AC mode - batt. mode	Zero					
Transfer time – Inverter to bypass	Zero					
Waveform (batt. mode)	Pure sinewave					
Overload – AC mode	100-110% for 60 min, 110-125% for 10 min, >150% for immediately					
Overload – Battery mode	100-110% for 60 min, 110-125% for 10 min, >150% for immediately					
EFFICIENCY						
AC mode	95.5%					
Eco mode	98.5%					
Battery mode	94.5%					
BATTERIES						
Battery type	Depends on the application					
Number of batteries	20 pcs internal	32 pcs (can be extended with external cabinet)	32-40 pcs (adjustable)			
Charge current (max.)	1-12A (adjustable)				2-24A (adjustable)	
Charging voltage	± 136.5 VDC ±%10	± 218 VDC ± %10	±13.65VxN (N = 16~20)			
INDICATORS						
LCD panel	UPS status, Load level, Battery level, Input/Output voltage, Discharge timer, and Fault conditions					
PHYSICAL						
Dimension HxWxD (mm)	630x250x826		1000x300x815		1010x360x790	
Net weight (kg)	124 (with internal batt.)	139 (with internal batt.)	60	61	108	113
ENVIRONMENT						
Operating temperature	0ºC - 40ºC					
Operating humidity	< 95% (non-condensing)					
Acoustic noise	< 60dBA @ 1 Meter	< 63dBA @ 1 Meter	< 65dBA @ 1 Meter	< 70dBA @ 1 Meter		< 75dBA @ 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 the output voltage is set to 3x360 VAC, the output power of the unit will be reduced to 90%



10 - 60 kVA

TEOS 300RT

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

The Teos 300RT online UPS features a superior output power factor of 1.0 and provides high performance and efficiency through DSP (Digital Signal Processing) technology. With an adjustable current charge current (up to a maximum of 18A), it enhances the flexibility of your power distribution.

GENERAL SPECIFICATIONS

- True double-conversion
- LCD screen auto-rotation with Rack position (only for 10K-40K models)
- DSP technology guarantees high performance
- Output power factor 1.0
- Active power factor correction in all phases
- 50Hz/60Hz frequency converter mode
- ECO mode operation for energy saving (ECO)
- Emergency power off function (EPO)
- Generator compatible
- Supports dual AC inputs
- Adjustable battery numbers
- Parallel operation with common battery
- Optional isolation transformer offers full isolation and complete common mode noise rejection

Tescom

10 - 60 kVA

TECHNICAL SPECIFICATIONS

MODEL		Teos 310RT	Teos 315RT	Teos 320RT	Teos 330RT	Teos 340RT	Teos 360RT
Phase		3-phase in / 3-phase out					
Capacity		10 kVA / 10 kW	15 kVA / 15 kW	20 kVA / 20 kW	30 kVA / 30 kW	40 kVA / 40kW	60 kVA / 60kW
Parallel capability		4					
INPUT							
Nominal voltage		3 x 400 VAC (3Ph+N) or 208*/220/230/240 VAC (Ph-N)					
Voltage range		190-520 VAC (3-phase) @ 50% load ; 305-478 VAC (3-phase) @ 100% load					
Frequency		46~54 Hz or 56~64Hz					
Power factor		≥ 0.99 @ 100% load					
OUTPUT							
Output voltage		3 x 360*/380/400/415 VAC (3Ph+N) or 208*/220/230/240 VAC (Ph-N)				3 x 360*/380/400/415 VAC (3Ph+N)	
AC voltage regulation (Batt. mode)		± 1%					
Frequency range (Synchronized range)		46~54Hz or 56~64Hz					
Frequency range (Batt. mode)		50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz					
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, 125%~150% for 1 min; >150% immediately					
	Battery mode	100-110% for 60 min, 110-125% for 10 min, 125%~150% for 1 min; >150% immediately					
EFFICIENCY							
AC mode		%95.5					
ECO mode		%98.5					
Battery mode		%94.5					
BATTERY							
Battery type		Depending on the applications					
Battery numbers		20 pcs	32~40 pcs (Adjustable)				
Charging current (max.)		1A~12A(Adjustable)				1A~16A (Adjustable)	1A~18A (Adjustable)
Charging voltage		± 13.65 VDC x N (N=10)	± 13.65 VDC x N (N=16~20)				
PHYSICAL							
Dimension, HxWxD (mm)		[3U] 133x438x680					[4U] 176x438x797
Net weight (kg)		27	30	30	32	34	45
ENVIRONMENT							
Operating temperature		0-40°C					
Operating humidity		< 95 % and non-condensing					
Noise level		< 62dBA @ 1 Meter	< 65dB @ 1 Meter	< 65dB @ 1 Meter	< 65dB @ 1 Meter	< 70dB @ 1 Meter	
MANAGEMENT							
Smart RS-232/USB		Supports Windows® family, Linux and MAC					
Optional SNMP		Power management from SNMP manager and web browser					

10 - 30 kVA

TEOS+ 300

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

TEOS+ 300 Online UPS is a DSP controlled uninterruptible power supply designed as 3-level with true double conversion technology. It stands out with its high output power factor (PF:1) and input power factor correction, high charging current power and maximum efficiency design. It is especially preferred for use in home-office applications and data centers. It offers flexibility of use with its prominent features such as color and touch screen, frequency converter mode, wide voltage/frequency range, high charging current capacity and multiple communication options.

GENERAL SPECIFICATIONS

- Advanced dual-core DSP control technology and 3-level technology
- Active power factor correction (APFC), input power factor up to 0.99
- System efficiency is improved to 95%, energy saving rate is doubled
- Output power factor 1.0
- Dual input design, supporting independent bypass
- Advanced digital and parallel technology, providing higher reliability than single system
- Wide input voltage range
- 50 / 60 Hz auto-sensing frequency
- 50 / 60 Hz frequency conversion mode
- Work efficiency up to 98% in ECO mode
- Fan speed varies intelligently with load, reducing noise and extending its service life
- Conformal coating technology to make UPS operate in harsh environment for a long time
- Digitally controlled charger (Max.10 A & 20% output power)
- Flexible battery configuration setting, selectable battery numbers: 32~ 40 pcs
- Ability to switch on the UPS by battery in the absence of mains power (Cold start)
- Compact internal layout, small footprint
- Zero switching time for UPS power supply mode when the mains power is unstable, ensuring the output is uninterrupted
- 5 inches LCD colorful touch screen, friendly human & machine interface
- Advanced multi-platform communication for UPS monitoring: RS232,USB,RS485, dry contacts, SNMP card,Wi-Fi card and GPRS card
- Linear derating in low voltage input, reducing battery discharging times, extending the service life of battery
- Intelligent battery management, automatic equalized and float charging control, charger dormancy control, improving the reliability of charger and extending the battery life
- Effective hardware and software protection, robust self-diagnosis function, abundant event log for future check
- Standard RS232,USB,RS485,EPO,Dry contacts,Parallel port
- Optional SNMP card,WI-FI card,GPRS card, SMS alarms
- Powerful background software for parameters configuration and online upgrade

Tescom

10 - 30 kVA

TECHNICAL SPECIFICATIONS

MODEL	Teos+ 310	Teos+ 315	Teos+ 320	Teos+ 330
Capacity	10kVA / 10kW	15kVA / 15kW	20kVA / 20kW	30kVA / 30kW
INPUT				
Rated voltage	380/400/415 VAC (L-L)			
Input voltage range	304~478Vac (L-L),full load 228V~304Vac (L-L), load decrease linearly according to the minimum phase voltage			
Rated frequency	50~60Hz (auto-sensing)			
Frequency range	40~70Hz			
Power factor	≥ 0.99			
Bypass voltage range	Selectable, default -20%~+15% Up limited: +10%, +15%, +20%, +25%; Down limited: -10%, -15%, -20%, -30%, -40%			
Bypass frequency range	Selectable, ±1Hz, ±3Hz, ±5Hz			
THDi	<3% (full Linear Load)			
Bypass overload	125%: Long term operation; 125%~130%: 10min; 130%~150%: 1min; 150%~400%: 1s; >400%, less than 200ms			
OUTPUT				
Rated voltage	380/400/415 VAC (L-L)			
Voltage regulation	± 1% (full Linear Load)			
Frequency	Synchronized with utility in mains mode, 50/60 Hz ±0.1% in battery mode			
Waveform	Sinusoidal			
Power factor	1.0			
Voltage THD	< 1% (full Linear Load) < 3% (full non-linear load according to IEC/EN62040-3)			
Crest factor	3:1			
Overload	< 110%, 60min; 110%~125%,10min; 125%~150%,1min; >150%, 200ms			
BATTERIES				
DC voltage	±240 VDC (Selectable, 32 - 40pcs)			
Inbuilt batt. (standard model)	(10+10) x 9AH	(20+20) x 7AH	(20+20) x 9AH	(15+15) x 9AH x 2 strings
Charging current	10 A max.			
Charger voltage precision	1%			
Recharge time	Standard model: 90% capacity restored in 8 hours; Long time model: depend on the capacity of battery			
SYSTEM				
Efficiency	95% max.			
Transfer time	0ms			
Max. number of parallel connections	4			
Protections	Short-circuit, overload, overtemperature, battery low voltage, overvoltage, undervoltage and fan failure			
Communications	RS232, USB, RS485, EPO, Dry contacts, Parallel port (Standard), SNMP card, WI-FI card, GPRS card, SMS alarms (Optional)			
Display	LED + 5 inches LCD touch screen			
GENERAL				
Operating temperature	0ºC - 40ºC			
Storage temperature	40ºC - 70ºC			
Relative humidity	0-95% max. (non-condensing)			
Altitude	<1000m, Load derated 1% per 100m from 1000 ~ 2000m			
IP rating	IP20			
Noise level @ 1m	55dB @ 100% load, 52dB @ 50% load		58dB @ 100% load, 55dB @ 50% load	
Dimensions (HxWxD) (mm)	560x250x720 (S) 560x250x720 (H)	700x250x800 (S) 560x250x720 (H)		930x250x840 (S) 650x250x840 (H)
Packaged dimensions (HxWxD) (mm)	722x350x800 (S) 718x350x800 (H)	862x350x800 (S) 718x350x800 (H)		1102x350x950 (S) 810x350x980 (H)
Net weight (kg)	82 (S) 31 (H)	131 (S) 33 (H)	145 (S) 33 (H)	215 (S) 42 (H)
Gross weight (kg)	93 (S) 40 (H)	142 (S) 42 (H)	156 (S) 42 (H)	227 (S) 52 (H)
	S means standard model, H means long time model			

10 - 30 kVA

TEOS+ 300RT

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

GENERAL SPECIFICATIONS

- Advanced dual-core DSP control technology and 3-level technology
- Active power factor correction (APFC), input power factorup to 0.99
- System efficiency is improved to 95%, energy saving rate is doubled
- Output power factor 1.0
- Dual input design, supporting independent bypass
- Advanced digital and parallel technology, providing higher reliability than single system
- Wide input voltage range
- 50 / 60 Hz auto-sensing frequency 50 / 60 Hz frequency conversion mode
- Work efficiency up to 98% in ECO mode
- Fan speed varies intelligently with load, reducing noise and extending its service life
- Conformal coating technology to make UPS operate in harsh environment for a long time
- Flexible battery configuration setting, selectable battery numbers: 32~ 40 pcs
- Digitally controlled charger (Max.10 A)
- Ability to switch on the UPS by battery in the absence of mains power (Cold start)
- Zero switching time for UPS power supply mode when the mains power is unstable, mensuring the output is uninterrupted
- Compact internal layout, small footprint
- 5 inches LCD colorful touch screen, friendly human & machine interface
- Powerful background software for parameters configuration and online upgrade
- Advanced multi-platform communication for UPS monitoring: RS232,USB,RS485, dry contacts, SNMP card,Wi-Fi card and GPRS card
- Linear derating in low voltage input, reducing battery discharging times, extending the service life of battery
- Intelligent battery management, automatic equalized and float charging control, charger dormancy control, improving the reliability of charger and extending the battery life
- Effective hardware and software protection, robust self-diagnosis function, abundant event log for future check
- Standard RS232, USB, RS485, EPO, Dry contacts, Parallel port
- Optional SNMP card,WI-FI card,GPRS card, SMS alarms

Tescom

10 - 30 kVA

TECHNICAL SPECIFICATIONS

MODEL	Teos+ 310RT	Teos+ 315RT	Teos+ 320RT	Teos+ 330RT
Capacity	10 kVA / 10 kW	15 kVA / 15 kW	20 kVA / 20 kW	30 kVA / 30 kW
INPUT				
Rated voltage	380 / 400 / 415 Vac (L-L)			
Voltage range	304~478 Vac (L-L),full load 228V~304 Vac (L-L), load decrease linearly according to the min phase voltage			
Rated frequency	50/60Hz (auto-sensing)			
Frequency range	40 - 70 Hz			
Power factor	> 0.99			
Bypas s voltage range	Selectable default ~ 20% + 15% Up limited: + 10%, + 15%, + 20%, + 25%; Down limited: - 10%, - 15%, - 20%, - 25%			
Bypass frequency range	Selectable, ±1Hz, ±3Hz, ±5Hz			
THDi	<3% (full Linear Load)			
Bypass overload	125%: Long term operation; 125%~130%: 10min; 130%~150%: 1min; 150%~400%: 1s; >400%, less than 200ms			
OUTPUT				
Rated voltage	380 / 400 / 415 Vac (L-L)			
Voltage regulation	± 1% (full Linear Load)			
Frequency	Synchronized with utility in mains mode, 50/60 Hz ±0.1% in battery mode			
Waveform	Sinusoidal			
Power factor	1.0			
Voltage THD	<1% (full Linear Load), <3% (full non-linear load according to IEC / EN62040-3)			
Crest factor	3:1			
Overload	<110%, 60min; 110%~125%,10min; 125%~150%,1min; >150%, 200ms			
BATTERIES				
DC voltage	±240VDC (Selectable, 32 - 40pcs)			
Charging current	10A max			
Charger voltage precision	1%			
Recharge time	Long time model: depend on the capacity of battery			
SYSTEM				
Efficiency	95% Max			
Transfer time	0 ms			
Max. number of parallel connections	4			
Protections	Short-circuit, overload, overtemperature, battery low voltage, overvoltage, undervoltage and fan failure			
Communications	RS232, USB / RS485 / EPO / Dry contacts / Parallel port (standard) / SNMP Card / WI-FI Card / GPRS Card / SMS Alarms (optional)			
Display	LED + 5 inches LCD touch screen			
OTHERS				
Operating temperature	0°C ~ 40°C			
Storage temperature	-40°C ~ 70°C			
Relative humidity	0 - 95% (non-condensing)			
Altitude	<1000m, Load derated 1% per 100m from 1000 ~ 2000m			
IP rating	IP 20			
Noise level at 1 m	55dB @ 100% load, 52dB @ 50% load		58dB @ 100% load, 55dB @ 50% load	
Dimensions (HxWxD) (mm)	130 x 440 x 660			130 x 440 x 750
Packaged dimensions (HxWxD) (mm)	204 x 532 x 800			204 x 532 x 890
Net weight (kg)	22	24		29
Gross weight (kg)	24	26		31

10 - 20 kVA

DS POWER SH

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

IGBT RECTIFIER
DSP CONTROL

DS Power SH Online UPS has emerged as an affordable alternative to the DS Power H model with its compact and small-footprint design. It stands out with its ergonomic design that occupies less space with the same power as the battery cabinet that can be positioned one above the other with the UPS. It features the latest DSP technology, which is programmed to suit a wide variety of electrical environments without impending performance. With the 3-Level topology, efficiency, reliability and functionality are elevated to levels unattainable with legacy analog technology. This technology does not only create significant increase in MTBF, but the capability of DSP to accurately process signals at very high speed permits all the UPS subsystems to be controlled with greatly increased precision.

GENERAL SPECIFICATIONS

- Small footprint
- Transformerless UPS topology
- 3 DSP controlled modular structure
- Separate main control board advantage for rectifier and inverter
- 3-Level technology and fully digital structure
- Less electronic components and SMD technology
- Low input current total harmonic distortion (THDi)
- High input power factor

- High efficiency up to 94%
- Selectable input/output voltage/frequency range
- Static and maintenance by-pass switch
- Optional 0.8 and 1.0 output power factor (PF) option
- Cold start function
- Compliant with IEC EN62040 directive
- Conforms to CE, TSE and GOST standards
- ISO9001, ISO14001 compliant production
- Advanced control at the input
- 3 level battery protection
- Temperature compensated charge system
- Output current limitation
- Output DC leakage protection
- Output short circuit and overload protection
- External REPO switch input
- 512 events memory (46.000 alarm)
- Clock and calender (battery supported)
- Automatic battery test, remaining battery time indicator
- 1 RS232 serial port and 3 dry contact outputs
- Optional SNMP, MODBUS and Remote Monitoring Panel
- Viewing device operating parameters
- Advanced remote control features
- User and central service passwords protected security
- 2 years warranty

Tescom

10 - 20 kVA

TECHNICAL SPECIFICATIONS

MODEL	DS310SH	DS315SH	DS320SH
Power (kVA)	10	15	20
INPUT			
Voltage	380/400 VAC 3P + N + G ± 20%		
Frequency	50Hz / 60Hz, ± 10%		
Power factor (@ 100% load)	≥ 0.99		
THDI (@ 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		
Voltage	380/400 VAC 3P + N, ± 1%		
Frequency	50Hz / 60Hz		
Frequency tolerance	Line synchronized: ± 2% / Free running: ± 0.1%		
Efficiency (@ 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 temp.	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, 3 programmable dry contact outputs		
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.) / 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		
	(*) Ask for 0.8 and 1.0 power factor		

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 impending 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 DSP controlled modular structure
- Separate main control board advantage for rectifier and inverter
- 3-Level technology and fully digital structure
- Less electronic components and SMD technology
- Low input current total harmonic distortion (THDi)
- High input power factor
- High efficiency up to 95%
- Selectable input/output voltage/frequency range

- Static and maintenance by-pass switch
- High charge current capacity
- Eco Mode operation (optional)
- Split by-pass input (dual input)
- Advanced TFT front panel (40-100kVA)
- Optional 0.8 and 1.0 output power factor (PF)
- Cold start function
- Compliant with IEC EN62040 directive
- Conforms to CE, TSE and GOST standards
- ISO9001, ISO14001 compliant production
- Advanced control at the input
- 3 level battery protection
- Output current limitation
- Output DC leakage protection
- External REPO input
- 512 events memory (46.000 alarm)
- Clock and calender (battery supported)
- Automatic battery test, remaining battery time indicator
- 2 RS232 serial ports and 4 programmable dry contact outputs
- Optional 12 dry contact outputs
- Optional SNMP, MODBUS and Remote Monitoring Panel
- Viewing device operating parameters
- Advanced remote control features
- User and central service password-protected security
- 2 years warranty

Tescom

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%							
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequency indicator							
OUTPUT								
Power (kW)	9	13.5	18	27	36	54	72	90
Power factor (**)	0.9							
Voltage	380/400 VAC 3F + N, ± %1							
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 / End of discharge voltage	2x405 VDC / 2x300 VDC							
Battery cabinet	Internal						External	
Battery ambient temp.	25ºC							
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				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, Overcurrent, Temperature high alarm							
Temperature range	0ºC - 40ºC							
Protection degree	IP20							
Relative humidity	90% max. (non-condensing)							
Altitude	< 1000m above sea level							
Acoustic noise	< 57dBA				< 62dBA			< 65dBA
Weight (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 / (**) Please ask for PF 0.8 and 1.0 / (***) The waiting times for excessive loads vary depending on the ambient temp.

300 - 500 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 impending 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 DSP controlled modular structure
- Separate main control board advantage for rectifier and inverter
- 3-Level technology and fully digital structure
- Less electronic components and SMD technology
- Low input current total harmonic distortion (THDi)
- High input power factor
- High efficiency up to 95%

- Selectable input/output voltage/frequency range
- Static and maintenance by-pass switch
- High charge current capacity
- Eco Mode operation (optional)
- Split by-pass input (dual input)
- Advanced TFT front panel
- Optional 0.8 and 1.0 output power factor (PF)
- Cold start function
- Compliant with IEC EN62040 directive
- Conforms to CE, TSE and GOST standards
- ISO9001, ISO14001 compliant production
- Advanced control at the input
- 3 level battery protection
- Output current limitation
- Output DC leakage protection
- External REPO input
- 512 events memory (46.000 alarm)
- Clock and calender (battery supported)
- Automatic battery test, remaining battery time indicator
- 2 RS232 serial ports and 4 programmable dry contact outputs
- Optional 12 dry contact outputs
- Optional SNMP, MODBUS and Remote Monitoring Panel
- Viewing device operating parameters
- Advanced remote control features
- User and central service password-protected security
- 2 years warranty

Tescom

300 - 500 kVA

TECHNICAL SPECIFICATIONS

MODEL	DS3300H	DS3400H	DS3500H
Power (kVA)	300	400	500
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%		
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequency indicator		
OUTPUT			
Power (kW)	270	360	450
Power factor (**)	0.9		
Voltage	380/400 VAC 3F + N, ± %1		
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 / End of discharge voltage	2x405 VDC / 2x300 VDC		
Battery cabinet	External		
Battery ambient temperature	25ºC		
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, Overcurrent, Temperature high alarm		
Temperature range	0ºC - 40ºC		
Protection degree	IP20		
Relative humidity	90% max. (non-condensing)		
Altitude	< 1000m above sea level		
Acoustic noise	< 68dBA		
Weight (kg)	635	680	890
Dimensions (mm) HxWxD	1975x880x848	2000x1243x874	
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 / (**) Please ask for PF 0.8 and 1.0 / (***) The waiting times for excessive loads vary depending on the ambient temp.

100 - 250 kVA

DS POWER X

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

3-LEVEL TECHNOLOGY
IGBT RECTIFIER
DSP CONTROL

DS Power X Online UPS uses the latest DSP technology, which can be programmed to suit a wide variety of electrical environments without impending its performance. It stands out with its stylish design, high power density (250kVA in less than 0.5m² area) and less noisy operation than its counterparts.As a state-of-the-art product, the input and output side have been designed as 3-Level to maximize efficiency, reliability and functionality. 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

- kVA = kW (Output PF = 1.0)
- Transformerless ups technology
- 3 DSP controlled modular structure
- High power density
- Separate main control board program for rectifier and inverter
- 3-Level rectifier, inverter technology and fully digital structure
- Less electronic components and SMD technology
- Low input current total harmonic distortion (THDi)
- High input power factor

- High efficiency up to 96.0%
- Selectable input/output voltage/frequency/range
- Static and maintenance by-pass switch
- High charge current capacity
- Ecomode operation (optional)
- Split by-pass input (dual input)
- Advanced TFT front panel
- Optional 0.8 and 0.9 output power factor (PF) option
- Cold start function
- ISO9001, ISO14001 compliant production
- Advanced diagnostics for the input
- 3 level battery protection
- Temperature compensated charge system
- Output current limitation
- Output DC leakage protection
- Output short circuit and overload protection
- External REPO input
- 512 events memory (46.000 alarm)
- Clock and calender (battery supported)
- Automatic battery test, remaining battery time indicator
- Static and maintenance by-pass switch
- 2 RS232 serial ports and 4 programmable dry contact outputs
- Optional 12 dry contact outputs
- Optional SNMP, MODBUS and Remote Monitoring Panel
- View device operating parameters
- Advanced remote control features
- 2 years warranty

Tescom

100 - 250 kVA

TECHNICAL SPECIFICATIONS

MODEL	DX3100	DX3120	DX3160	DX3200	DX3250
Power (kVA)	100	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	≥ 0.99				
THDI (*)	≤ 3%				
By-pass voltage	380/400 VAC 3 Phase + N, ± 10 (adjustable)				
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequency indicator				
OUTPUT					
Power (kW)	100	120	160	200	200
Power factor (**)	1.0				0.8
Voltage	380/400 VAC 3F + N, ± %1				
Frequency	50Hz / 60Hz				
Frequency tolerance	Line synchronized: ± 2% (adjustable) / Free running: ± 0.1%				
Efficiency	up to 95.5%		up to 96.0%		
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				
Float / End of discharge voltage	± 405 VDC / ± 300 VDC				
Battery cabinet	External				
Battery ambient temp.	25ºC				
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 touch 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, Overcurrent, Temperature high alarm				
Temperature range	0ºC - 40ºC				
Protection degree	IP20				
Relative humidity	90% max. (non-condensing)				
Altitude	< 1000m above sea level				
Acoustic noise	< 62dBA		< 65 dBA		
Weight (kg)	210	220	262	270	295
Dimensions (mm) HxWxD	1440x475x890				
OPSİYONLAR					
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 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				
	(*) Depending on power and input/output conditions (**) Please ask for PF 0.8 and 0.9				

500 - 800 kVA

DS POWER

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

IGBT RECTIFIER
DSP CONTROL

DS Power range UPS uses the latest DSP technology to be programmed to suit a wide variety of electrical environments without impending its performance. With the DS Power range, 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

- Low input current total harmonic distortion (THD)
- Output power factor 1.0 for 500-600kVA
- Transformerless UPS 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 46000 alarms)
- Clock and calender (battery supported)
- Automatic battery test,remaining battery time indicator
- Temperature compansated 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
- 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
- Seperate DSP for inverter control
- Seperate 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

Tescom

500 - 800 kVA

TECHNICAL SPECIFICATIONS

MODEL	DS3500	DS3600	DS3800
Power (kVA)	500	600	800
INPUT			
Voltage	380/400 VAC 3P + N + G ± 20% (415 VAC +15%, - 25% optional)		
Frequency	50Hz / 60Hz, ± 10%		
Power factor (@100% load)	≥ 0.99		
THDI (*)	≤ 3%		
By-pass voltage	380/400 VAC 3P + N, ± 10%		
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequency indicator		
OUTPUT			
Power (kW)	500	600	720
Power factor (**)	1.0		0.9
Voltage	380/400 VAC 3 Phase + N, ± 1% (415 VAC optional)		
Frequency	50Hz / 60Hz		
Frequency tolerance	Line synchronized: ± 2% / Free running: ± 0.1%		
Efficiency (@100% load)	up to 95%		
Crest factor	3:1		
Overload capacity	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	2x30 (±30): 60 pieces		
Float / End of discharge voltage	± 405 VDC / ± 300 VDC		
Battery cabinet	External		
Battery ambient temperature	25ºC		
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	0ºC - 40ºC		
Protection class	IP20		
Relative humidity	90% max. (non-condensing)		
Altitude	< 1000m. above sea level		
Acoustic noise	< 72 dBA		
Net weight (kg)	1452		1630
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 (**) Please ask for different output power factors

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 impending 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

- Inverter isolation transformer
- 3 DSP controlled modular structure
- Separate main control board advantage for rectifier and inverter
- 3-Level technology and fully digital structure
- Less electronic components and SMD technology
- Low input current total harmonic distortion (THD)
- High input power factor
- High efficiency up to 94%
- Selectable input/output voltage/frequency range
- Static and maintenance by-pass switch

- High charge current capacity
- Eco Mode operation (optional)
- Split by-pass input (dual input)
- Advanced TFT front panel (40-500kVA)
- Cold start function
- Compliant with IEC EN62040 directive
- Conforms to CE, TSE and GOST standards
- ISO9001, ISO14001 compliant production
- Advanced control at the input
- 3 level battery protection
- Temperature compensated charge system
- Output current limitation
- Output DC leakage protection
- Output short circuit and overload protection
- External REPO input
- 512 events memory (46.000 alarm)
- Clock and calender (battery supported)
- Automatic battery test, remaining battery time indicator
- 2 RS232 serial ports and 4 programmable dry contact outputs
- Optional 12 dry contact outputs
- Optional SNMP, MODBUS and Remote Monitoring Panel
- Viewing device operating parameters
- Advanced remote control features
- User and central service password-protected security
- 2 years warranty

Tescom

10 - 500 kVA

TECHNICAL SPECIFICATIONS

MODEL	DS 310HT	DS 315HT	DS 320HT	DS 330HT	DS 340HT	DS 360HT	DS 380HT	DS 3100HT	DS 3120HT	DS 3160HT	DS 3200HT	DS 3250HT	DS 3300HT	DS 3400HT	DS 3500HT
Power (kVA)	10	15	20	30	40	60	80	100	120	160	200	250	300	400	500
INPUT															
Voltage	380/400 VAC 3F + N + Toprak, ± %20														
Frequency	50Hz / 60Hz, ± 10%														
Power factor	≥ 0.99														
(THDI) (*)	≤ 3%														
By-pass voltage	380/400 VAC 3 Phase + N, 4 Wires, ± 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 3F + N, ± %1														
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 / Number of batteries	VRLA AGM / GEL / NiCd / ± 336 VDC (2x28 batteries)														
Charge / End of discharge voltage	± 378 VDC / ± 280 VDC														
Battery cabinet	External														
Battery ambient temp.	25ºC														
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					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	0ºC - 40ºC														
Protection degree	IP20														
Relative humidity	90% max. (non-condensing)														
Altitude	< 1000m above sea level														
Acoustic noise	< 57dBA		< 62 dBA			< 64 dBA		< 68 dBA				72 dBA			
Net 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														
Transformer	Galvanic isolation transformer at input (optional)														
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														

3 - 15 kVA

XT100

UNINTERRUPTIBLE POWER SUPPLIES

1 phase in / 1 phase out

XT 100 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

Tescom

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				
Voltage tolerance	± 1%				
Frequency	50Hz/60Hz				
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 VDC	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,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.				
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 by-pass switch	Optional				
Parallel operation	N+1 (up to 4 units) - optional please ask				
Communication	SNMP, MODBUS, Remote Mon. Panel, RS485				
Battery temperature compensation	Optional				

6 - 40 kVA

XT200

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 1 phase out

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 warrantly

Tescom

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 (230/400 VAC) 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						
Voltage tolerance	±1%						
Frequency	50Hz (60Hz on request)						
Frequency tolerance	Line synchronized: ± 2%, free running: ± 0.1%						
Efficiency (at 100% load)	up to 90%						
Voltage THD	Linear load: < 2%, Non linear load: < 5%						
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						
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 ambient temperature	25°C						
Battery protection	Automatic circuit breaker						
Battery test	Optional			Standard			
GENERAL							
Standards	EN 62040-1,EN62040-2						
Maintenance bypass switch	Standard						
Serial communication	Dry contacts & RS232						
Software	T-Mon UPS Management Software						
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			1220x500x650			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)						
Communication	SNMP, MODBUS, Remote Mon. Panel, RS485						
Parallel operation	N+1 (up to 4 units) - optional -please ask						
Battery temperature compensation	Optional						

10 - 80 kVA

XT300

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

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
- 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 warrantly

Tescom

10 - 80 kVA

TECHNICAL SPECIFICATIONS

MODEL	XT310	XT315	XT320	XT330	XT340	XT360	XT380
Power	10	15	20	30	40	60	80
INPUT							
Voltage	220/380 (230/400 VAC) 3P + N + G ± 15%						
By-pass voltage	220/380 (230/400 VAC) 3P + N ± 10%						
Input frequency	50Hz (60Hz on request) ± 10%						
OUTPUT							
Power (kW)	8	12	16	24	32	48	64
Power factor	0,8						
Voltage	380/400 VAC 3P + N						
Voltage tolerance	Static: ± 1%, Dynamic: ± 5%						
Voltage recovery time	Max. 25ms						
Frequency	50Hz/60Hz						
Frequency tolerance	Line synchronized: ± 2%, free running: ± 0.1%						
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.	25ºC						
Battery protection	Automatic circuit breaker						
Battery test	Automatic/Manuel						
GENERAL							
Standards	EN 62040-1,EN62040-2						
Serial communication	Dry contacts & RS232						
Software	T-Mon UPS Management Software						
Temperature range	0°C - 40°C						
Ventilation	Forced air cooling						
Relative humidity	< 90% (non-condensing)						
Protection degree	IP20						
Altitude	< 2000m						
Acoustic noise	< 56 dBA					< 60 dBA	
Weight without batteries (kg)	220	260	284	305	404	496	580
Dimensions (mm) HxWxD	1150x505x655				1390x575x820		1450x720x820
OPTIONS							
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), up to 100kVA						
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.						
Battery temperature compensation	Optional						

100 - 300 kVA

XT300

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

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 elevents 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

Tescom

100 - 300 kVA

TECHNICAL SPECIFICATIONS

MODEL	XT3100	XT3120	XT3160	XT3200	XT3250	XT3300
Power	100	120	160	200	250	300
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)	80	96	128	160	200	240
Power factor	0.8					
Voltage	380/400 VAC 3P + N					
Voltage stability	Static: ± 1%, Dynamic: ± 5%					
Voltage recovery time	Max. 25ms					
Frequency	50Hz/60Hz					
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					
Voltage THD	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 temperature	25ºC					
Battery protection	Automatic circuit breaker					
Battery test	Automatic/Manuel					
GENERAL						
Standards	EN 62040-1,EN62040-2					
Serial communication	Dry contacts & RS232					
Software	T-Mon UPS Management Software					
Over temperature protection	Electronic					
Temperature range	0ºC - 40ºC					
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	
OPTIONS						
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), up to 100kVA					
Input power factor	0.95 - 0.98 (with 18 Pulse rectifier), up to 100kVA					
Communication	SNMP, MODBUS, Remote Mon. Panel, RS485					
Parallel operation	N + 1 (up to 4 units)					
Battery temperature compensation	Optional					

10 - 90 kVA

MTR MODULAR UPS

UNINTERRUPTIBLE POWER SUPPLIES

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

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-agigng 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

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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
Power (kVA)	20kVA/20kW	*30kVA/30kW	40kVA/40kW	60kVA/60kW	30kVA/30kW	*45kVA/45kW	90kVA/90kW
Power module type	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						
BATTERIES							
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: Expansion dry contact card						
Operation / Storage temp.	0-40°C/-25-70°C						
Relative humidity	0-95% (non-condensing)						
Noise level	56dB (1 meter away)				58dBA (1 meter away)		
Options	Parallel operation, Battery compansated battery charging, Movable cabinet with castors						
PHYSICAL							
Weight (kg) – Cabinet	42	55	51	85	42	55	85
Weight (kg) – Power module	15.3				15.5		
Dimension (HxWxD) – Cabinet	398x485x697	575x485x751	575x485x697	1033x485x751	398x485x697	575x485x751	1033x485x751
Dimension (HxWxD) – Height	7U	11U	11U	21U	7U	11U	21U
Dimension (HxWxD) – Power module	(2U) 85x436x590						
(*) Parallel operation (**) Only for 3/3 phase							

20 - 200 kVA

MTI200 MODULAR UPS

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

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

Up to 20 power modules in parallel online hot-swappable N+X redundancy

Independent charger

Independent charger for each module and intelligently control the whole charging process, prolong the life time of the battery

Easy connection access

Top and bottom cable entry connection are supported, more convenient for site installation

Modular design with transformer

Modular UPS up to 60kVA with in-built isolation transformer, meeting different requirement for customers

Battery cold start

UPS can be powered on from the battery without utility

High power density

200kVA with footprints of about 0.5m^2, saving valuable data center space

Integrated IGBT design

Integrated IGBT in one module, less failure points with higher performance and reliability

Friendly interface

Touch LCD display with abundant information

Independent air channel

Cooling air runs in isolated channel, keeping PCB free of dust

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20 - 200 kVA

TECHNICAL SPECIFICATIONS

MODEL		MTI-2060/20	MTI-2120/20	MTI-2200/20	*MTI-2060/20B
Capacity		60kVA	120kVA	200kVA	60kVA
Power module type		TPM20 (20kVA/18kW)			
INPUT					
Dual input		Optional			
Phase		3P + N + G, 380V/400V/415V (line-line)			
Voltage range		304~478 Vac (line-line), full load; 228V~304Vac (line-line), load decreases linearly according to the min phase voltage			
Frequency		50Hz / 60Hz			
Frequency range		40Hz~70Hz			
Power factor		> 0.99			
THDI		< 3% @100% linear load			
BYPASS					
Voltage		380/400/415Vac (line-line)			
Frequency		50Hz / 60Hz			
Voltage range		Settable, -40%~+25%			
Frequency range		Settable, ±1Hz, ±3Hz, ±5Hz			
Overload		125% long term operation; 130% for 1 hour ;150% for 6 mins; 1000% for 100ms			
OUTPUT					
Voltage		380V/400V/415V (line-line)			
Voltage regulation		±1% (Balance load); ± 1.5% (unbalance load)			
Frequency		50Hz / 60Hz			
Frequency precision		0.1%			
Power factor		0.9			
Voltage THD		< 1.0% (linear load), < 5.5% (none linear load)			
Crest factor		3:1			
Inverter overload		110% for 1 hour; 125% for 10 mins ;150% for 1 min; >150% for 200 ms			
BATTERIES					
Voltage		± 240 VDC			
Battery number		40pcs (Settable: even number from 32 to 44)			
Voltage precision		±1%			
Charge power		up to 20% * Output active power			
Battery cold start		Standard			
SYSTEM					
System efficiency	AC mode	95%			
	ECO mode	99%			
	Battery mode	95%			
Display		5.7" touch screen LCD + LED + keyboard			
IP class		IP20			
Interface		RS232,RS485, Programmable Dry Contact			
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		<1000m. Within 1000m to 2000m, 1% power derating for every 100m rise			
Acoustic noise		55dB @ 50% load			
Applicable standards		Safety: IEC/EN 62040-1 EMC: IEC/EN 62040-2 Performance: IEC/EN 62040-3			
PHYSICAL					
Weight (kg)	Cabinet	105	150	180	205
	Power module	TPM20: 22			
	Battery pack	–			10 (without battery)
Dimension (HxWxD)	Cabinet	1100x600x900	1600x600x900	2000x600x900	2000x600x1020
	Power module	TPM20:134x440x590			
	Battery pack	–			177x120x824

(*) Single cabinet with internal batteries

25 - 200 kVA

MTI250 MODULAR UPS

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

The MTI250 Modular Ups Series Rack Mounted Modular UPS is scalable, hot-swappable, online double conversion. The power capacity is from 25 to 200kVA/kW, it's the ideal choice for modern data center. With the latest IGBT three-level and full DSP control technology, the new MTI250 series delivers the best combination of reliability and flexibility.

GENERAL SPECIFICATIONS

High Power Density

25kVA power module in 2U height, saving great amount of space, easy for capacity expansion

Rack Modular Design

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

Battery Cold Start

UPS can be powered on from the battery without utility

Friendly Interface

Touch LCD display with abundant information

APPLICATION

IDC (Internet Data Center), network servers and workstation, control system, communication system, office, PC etc

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25 - 200 kVA

TECHNICAL SPECIFICATIONS

MODEL		MTI150/25C	MTI200/25C
Capacity		150kVA/150kW	200kVA/200kW
Power module capacity		TPM25C (25kVA/25kW)	
INPUT			
Dual input		Optional	Standard
Phase		3 Phase+Neutral+Ground, 380V/400V/415V(line-line)	
Input voltage range		304~478Vac (line-line),full load; 228V~304Vac (line-line),load decreases linearly according to the min phase voltage	
Frequency		50Hz / 60Hz	
Frequency range		40Hz~70Hz	
Power factor		> 0.99	
THDI		< 3% @100% linear load	
BYPASS			
Voltage		380/400/415Vac (line-line)	
Frequency		50Hz / 60Hz	
Voltage range		Settable, -40%~+25%	
Frequency range		Settable, ±1Hz, ±3Hz, ±5Hz	
Overload		110% long term operation; 125% for 5 mins ;150% for 1 min; >150% for 1s	
OUTPUT			
Voltage		380V/400V/415V (line-line)	
Voltage regulation		±1(0~100% linear load)	
Frequency		50Hz / 60Hz	
Frequency precision		0.1%	
Power factor		1.0	
Voltage THD		< 1.0% (linear load), < 5.5% (none 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		± 240 VDC	
Battery number		40pcs (Settable: even number from 32 to 44)	
Voltage precision		±1%	
Charge power		up to 20% * Output active power	
Battery cold start		Standard	
Efficiency	AC mode	96%	
	ECO mode	98%	
	Battery mode	95.5%	
SYSTEM			
Display		7.0" color touch screen LCD + LED + keyboard	
IP Class		IP20	
Interface		RS232, RS485, Programmable Dry Contact	
Option		PDU for RM150/25C,SNMP Card, Parallel kit,SPD, LBS	
Temperature		Operation: 0~40°C Storge: -40~70°C	
Relative humidity		0~95% Non-condensing	
Altitude		<1000m. Within 1000m to 2000m, power derate 1% for every 100m rise	
Acoustic noise		65dB @ 100% load, 62dB @ 45% load	
Applicable standards		Safety: IEC/EN 62040-1-1 EMC: IEC/EN 62040-2 Performance: IEC/EN 62040-3	
PHYSICAL			
Weight (kg)	Cabinet	140	160
	Power module	18	
Dimension (HxWxD)	Cabinet	931x482x916	1550x482x916
	Power module	85x436x677	

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-agigng, and smart charge management.

GENERAL SPECIFICATIONS

- 3 Level topology
- Modular design with N+X redundancy
- Online hot swapping, by-pass and power module feature

- Excellent input performances for complete compatibility with input PF of 99% and wide range of voltage
- Self-Aging mode for full load test with less than 10% of the total power capacity needed
- Optimized battery management, intelligently control the whole process of the charging and discharging, effectively improve the life time of the battery
- Battery cold start, UPS can be powered on from the battery without utility
- Automatically record the critical wave information when fault happens, easy for trouble shooting
- Independent LCD display for each power module with self - starting function
- Programmable dry contacts, the function of each port can be defined by users
- Friendly human machine interface with colorful touch screen of 10.4 inches
- Optional dual input
- High power density with footprints of less than $2m^2$ up to 900kVA in parallel, 30kVA power module with only 3U height

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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		
BATTERIES				
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 (communication port)		Standard: RS232,RS485, Dry contacts, EPO / Optional: SNMP card		
Operation / storage temperature		0~40°C /-40~70°C		
Relative humidity		0~95% (non-condensing)		
Noise		65dB @100% load, 62dB @ 45% load (1 meter away)		72dB @100% load, 68dB @ 45% load (1 meter away)
PHYSICAL				
Net weight (kg)	Cabinet	6-Slot Cabinet: 165	10-Slot Cabinet: 220	10-Slot Cabinet: 660
	Power module	TPM30kVA: 34		
Dimension (mm) HxWxD	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 40 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 1.5m^2, 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 50kVA 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

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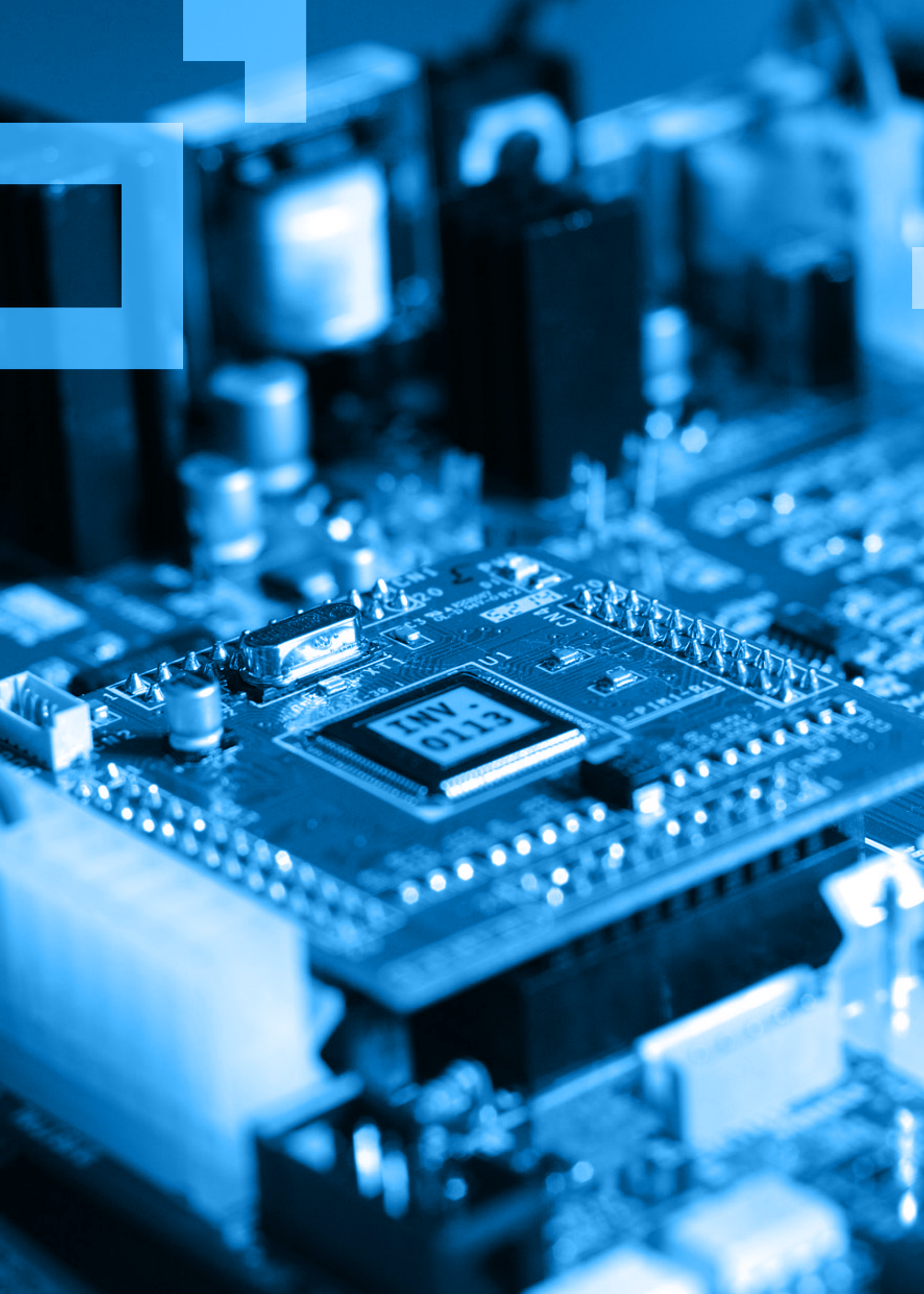
50 - 500 kVA

TECHNICAL SPECIFICATIONS

MODEL		MTI-5100/50	MTI-5200/50	MTI-5300/50	MTI-5500/50
System capacity		100kVA	200kVA	300kVA	500kVA
Power module capacity		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, uzun süreli çalışma, < %130 10dk. için, < %150 1dk. için, > %150 300ms için		%110 uzun süreli çalışma, < %130 10dk. için, < %150 1dk. için, > %150 1ms için	
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: 0~40ºC Storage: -40~70ºC			
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					
Net weight (kg)	Cabinet	120	170	220	450
	Power module	45			
Dimension (HxWxD)	Cabinet	1150x600x980	1600x650x960	2000x650x1095	2000x1300x1100
	Power module	178x510x700			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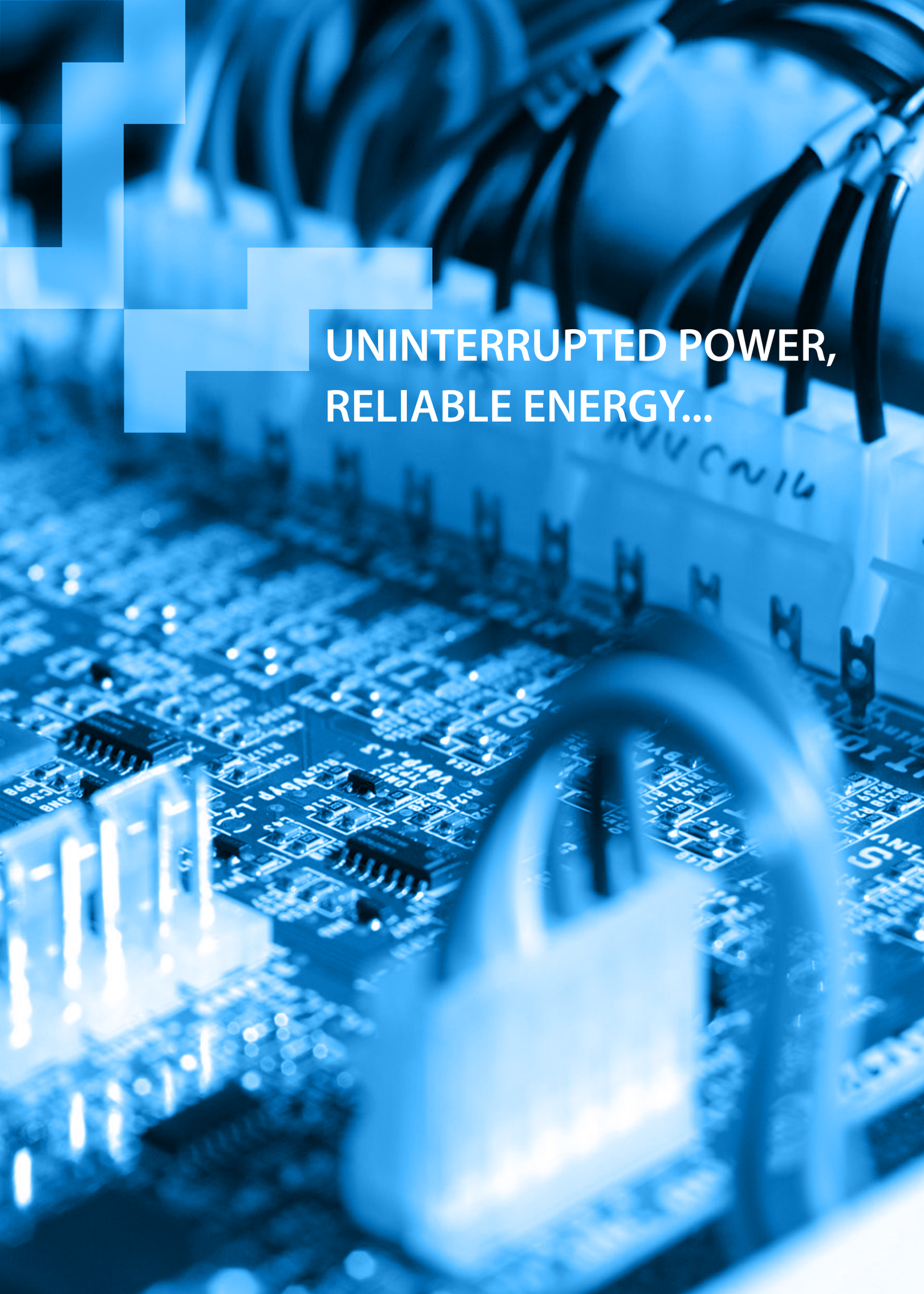
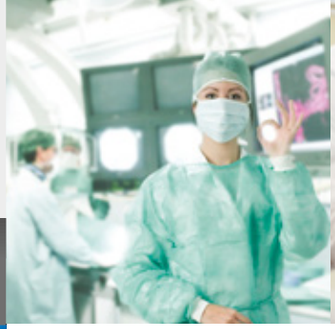
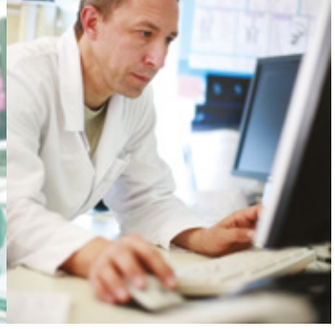

UNINTERRUPTED POWER,
RELIABLE ENERGY...





STS2000

STATIC TRANSFER SWITCH

1 phase out, 2 poles static transfer switch

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

- Full digital control with microprocessor controlled structure
- 2 AC inputs with 1 phase and neutral switching
- Easy installation and maintanance
- Compact and rack type design
- Wide input voltage range
- "Break Before Make" type transfer
- Very fast uninterrupted transfer even in case of any failure (≤4ms- for sencronised sources)
- Selectable preffered source
- Fuse-free construction with a robust, high reliability SCR
- Digitally controlled system set points
- Programmable synchronized and unsynchronized transfers
- Isolation protection between sources with switched neutral
- Convenient and multifunctional front panel and diagnostic codes
- Transfer inhibit system over a certain current value
- Overload, over temperature and short circuit protections
- Convenience during maintenance and repair with Isolated Maintenance Bypass
- Remote monitoring of energy resources
- TCP / IP, SNMP, MODBUS and RS232 infrastructure for communication
- Dry-contact interface
- Internal cooling fans
- Hot-swap feature (Optional)
- Optional external AC power supply socket outlet
- Optional SNMP adaptor

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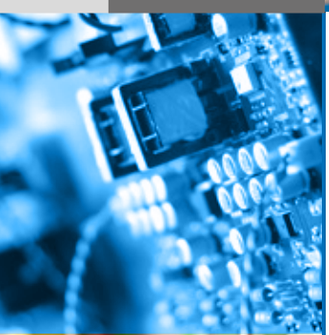
TECHNICAL SPECIFICATIONS

MODEL	STS2032	STS2063	STS2120
Nominal current	32A	63A	120A
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, SNMP optional		
TCP/IP connection	Optional		
Dry contacts	3 programmable relay outputs		
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	EN62310-1, EN62310-2		
Max. operation height	1000m. at nominal current rating		
Acoustic noise	< 50 dBA		< 52 dBA
PHYSICAL DATA			
Weight (kg)	12	13	20
Dimensions	2U (19"rack),depth= 600mm		3U (19"rack),depth = 590mm
	(hot-swappable=610mm)		(hot-swappable = 685mm)
Power cables connection	Clip-on terminals (on the rear panel)		



STS3000-4000

STATIC TRANSFER SWITCH

3 phase out, 3&4 poles static transfer switch

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, while reducing the effects of interference and short interruptions, a backup power system is gained.

GENERAL SPECIFICATIONS

- Full digital control with microprocessor controlled structure
- 2 AC inputs with 3 phase switching
- Easy installation and maintanance
- Compact design
- Wide input voltage range
- "Break Before Make" type transfer

- Very fast uninterrupted transfer even in case of any failure (≤4ms- for sencronised sources)
- Selectable preffered source
- Fuse-free construction with a robust, high reliability SCR
- Digitally controlled system set points
- Programmable synchronized and unsynchronized transfers
- Convenient and multifunctional front panel and diagnostic codes
- Transfer inhibit system over a certain current value
- Overload, over temperature and short circuit protections
- Convenience during maintenance and repair with Isolated Maintenance Bypass
- Remote monitoring of energy resources
- TCP / IP, SNMP, MODBUS and RS232 infrastructure for communication
- Dry-contact interface
- Internal cooling fans
- Optional external AC power supply socket outlet
- Optional SNMP adaptor

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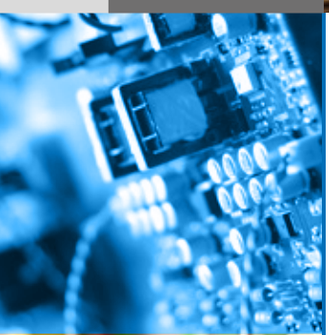
TECHNICAL SPECIFICATIONS

MODEL	STS3050 / STS4050	STS3100 / STS4100	STS3150 / STS4150	STS3200 / STS4200	STS3250 / STS4250	STS3300 / STS4300	STS3400 / STS4400	STS3600 / STS4600	STS3800 / 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	45-65Hz. (upper and lower limits adjustable)								
Efficiency (@100% load)	> 99%								
Input voltage THD	< 10%								
Transfer type	"Break before make"								
Transfer	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								
Crest factor	3:1								
Admissible overload	0-100% continuous								
	100%-150% 1 min.								
	151%-200% 10 sec.								
	> 200% 250 msec.								
Protections	Output overload and short circuit protection, Overtemperature protection, Backfeed protection, SCR fault protection								
LCD panel / mimic diyagram	Standard								
Communication	RS232 standard, SNMP optional, 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)								
Operation temperature	0°C - 40°C								
Storage temperature	-10°C - +50°C								
Humidity	< 90% (non-condensing)								
Protection class	IP20								
Standards	EN 62310-1, EN 62310-2								
Acoustic noise	< 52 dBA			< 55 dBA				< 60 dBA	
PHYSICAL DATA									
Net weight (STS3000)	139	145	165	195	205	230	240	340	520
Net weight (STS4000)	160	175	190	205	235	240	255	375	560
Dimensions (mm) HxWxD	1500x680x540			1775x680x585				1905x915x725	19001250x850



For Railway Applications

DS200TD (1-3 phase in / 1 phase out) 10 - 250 kVA

DS300TD (1-3 phase in / 3 phase out) 10 - 120 kVA

SPECIAL MANUFACTURING UNINTERRUPTED POWER SUPPLY

3-LEVEL IGBT RECTIFIER
DSP CONTROL

Tescom DS200TD and DS300TD Series are devices developed especially for railway applications, use the latest DSP technology to be programmed to suit a wide variety of electrical environments without impending its performance. With the DS Power range, 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.

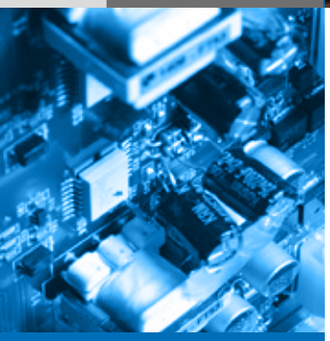
GENERAL SPECIFICATIONS

- Output isolation transformer (integrated in inverter)
- Ability to work with 3 phase mains or 1 phase catenary voltage
- High charging current capacity
- Low current harmonic distortion at the input
- High input power factor
- High efficiency up to 94%
- Cold start
- 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 calender
- Automatic battery test,remaining battery time indicator
- Heat compensated charging system
- 2 RS232 serial ports and 12 dry contact outputs
- 3 DSP controlled modular structure
- Optional SNMP and MODBUS adaptors
- Optional graphical panel
- Optional usb memory
- Manufactured according to EC Directive; EN62040
- Full digital structure
- Small footprint
- Eco mode 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
- Seperate DSP for inverter control
- Seperate DSP for the PFC
- High charge current capacity
- Charge/discharge current indicator
- Advanced remote control features
- 2 years warranty

You can visit our WEBSITE for detailed information about the products.

Tescom



10 - 20 kVA

DS300SD

SPECIAL MANUFACTURING UNINTERRUPTED POWER SUPPLY

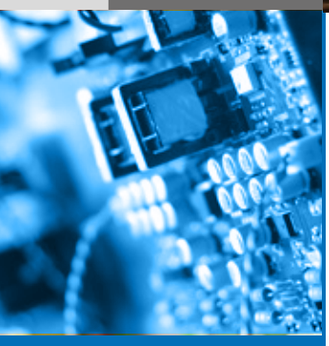
IGBT INVERTER
DSP CONTROL

Tescom DS300SD series inverters are 3-phase AC devices using 3-phase AC voltage (catenary) or DC voltage from batteries. The main target area of application in railway applications is to drive 3-phase shear motors. These inverters are manufactured with the latest IGBT and DSP control technology, ensuring safe, efficient and trouble-free operation under difficult operating conditions.

GENERAL SPECIFICATIONS

- Operation with AC or DC input voltage
- 1 phase or 3 phase AC input
- 3-phase bypass input independent of AC input
- Low input current total harmonic distortion (THD)
- High input power factor
- High efficiency (AC/AC up to 94..5%, DC/AC 96.5 %)
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- Output current limiting
- 3 level topology
- 512 events memory (512 events 45.000 alarms)
- Clock and calender
- 1 RS232 serial port and 3 dry contact outputs
- 3 DSP controlled modular structure
- Optional SNMP and MODBUS adaptors
- Smaller footprint
- Fulldigital structure
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency range
- Output DC leakage protection
- 2 years warranty

You can visit our WEBSITE for detailed information about the products.



1 phase in / 1 phase out

1-3 phase in / 1 phase out

SPECIAL PRODUCTS

CUSTOMIZED POWER SOLUTIONS

DS POWER 110L (10 kVA)

MONOPHASE UPS WITH EXTENDED BACKUP TIME

- *Tower Tasarım*
- *IGBT Rectifier*
- *DSP Control*

The Online UPS 10kVA is equipped with DSP (Digital Signal Processing) technology, allowing it to operate in a wide range of electrical environments. Efficiency, reliability, and functionality are enhanced to levels that were unattainable with older analog technology. With features like high charge current and parallel battery connection outputs, it provides solutions for long-duration applications.

DS POWER 200FD (10 -120 kVA)

SOLUTIONS SUITABLE FOR RAILWAY APPLICATIONS

- *3-Level Technology*
- *IGBT Rectifier*
- *DSP Control*

Tescom DS200FD Series has been specially developed for railway applications. The new DS Power range UPS uses the latest DSP technology to be programmed to suit a wide variety of electrical environments without impending its performance. With the DS200FD Series, 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.

You can visit our WEBSITE for detailed information about the products.

Tescom

3 phase in / 3 phase out

SPECIAL PRODUCTS

CUSTOMIZED POWER SOLUTIONS

ES300D (10-160 kVA)

EMERGENCY LIGHTING INVERTER

- *Uninterruptible Lighting*
- *EN50171 Standart*
- *High Reliability*

TESCOM ES300D Series are static inverter systems used for emergency lighting such as open area, escape route and high risk task area. It provides flexibility in your applications with its product range up to 160kVA and multiple control mode applications allow lighting to be controlled in various ways. With over 40 years of experience and expertise in the field, TESCOM ES300D Emergency Lighting Systems offers all kinds of lighting applications as a reliable and all-inclusive system.

DS POWER U1 (15 - 250 kVA)

SOLUTIONS SUITABLE FOR THE AMERICAN CONTINENT

- *3-Level Technology*
- *IGBT Rectifier*
- *DSP Control*

DS Power U1 On-Line UPS is designed for 110VAC - 60Hz systems. It uses the latest DSP technology to be programmed to suit a wide variety of electrical environments without impending its performance. With the 3-Level topology, efficiency, reliability and functionality have been raised to levels unattainable with legacy. This technology does not only create significant increase in MTBF, but the DSP's ability to accurately procces signals at very to accurately manipulate signals at very high speed allows all the UPS subsystems to be controlled with greatly increased precision.

You can visit our WEBSITE for detailed information about the products.

3 phase in / 3 phase out

3 phase in / 3 phase out

SPECIAL PRODUCTS

CUSTOMIZED POWER SOLUTIONS

DS 300T-IS1 (30 - 100 kVA)

INDUSTRIAL UPS

- *Working with less and flexible battery number*
- *Internal regenerative load module (Optional)*
- *7" Color TFT touch screen*
- *Inverter isolation transformer*
- *Bi-directional rectifier*

Specially rainforced and designed as a complete system for industrial applications. With DSP technology, efficiency, reliability and functionality have been reaised 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.

It provides safe operation for critical loads, especially for industrial applications, with its internal inverter isolation transformer and Bi-directional rectifier offered as standard. With the less number of batteries and flexible configuration provide significant savings in your system ownership costs, the safety of your devices and loads is at the highest level with smart battery management.

DS POWER T-HF1 (10 - 80 kVA)

SOLUTIONS WITH 40 BATTERIES SUITABLE FOR METRO APPLICATIONS

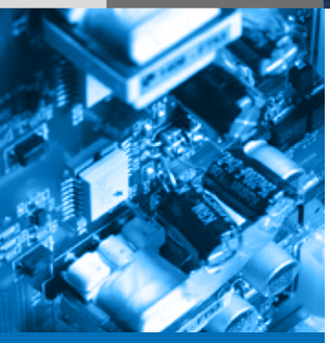
- *IGBT Rectifier and DSP Control*
- *Inverter Isolation Transformer*
- *40 Pcs. Battery*

DS Power T-HF1 Online UPS is designed for harsh working conditions. With the latest DSP technology, which can be programmed to suit a wide variety of electrical environments, 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. It provides additional protection for your loads with the galvanic inverter isolation transformer. Thanks to its low battery working structure (40 pcs.), it ensures that your total costs of ownership costs such as storage, commissioning, laboring and maintenance are minimized.

You can visit our WEBSITE for detailed information about the products.

3 phase in / 3 phase out

Tescom



3 phase in / 3 phase out

DSVR 1:1 / SVS 3:1

SPECIAL PRODUCTS

CUSTOMIZED POWER SOLUTIONS

DS POWER M (300 kVA)

ONLINE UPS COMPLIANT WITH MILITARY STANDARDS

- *MIL-STD 461G*
- *IGBT Rectifier*
- *DSP Control*

Tescom DS Power M Online UPS, manufactured in accordance with military standards (MIL-STD 461G), can work in harsh terrain and site conditions. It is designed to work the desired conditions in terms of appropriate and Electromagnetic Compatibility (EMC) at the maximum level. It has the latest DSP technology that can be programmed to suit a wide variety of electrical environments withput impending its performance.

Tescom continues to offer reliable solutions to the needs of our country, especially the defense industry, with its examplary projects.

DSVR - SVS 100/200 (DSVR 10 - 20 kVA / SVS 25 kVA)

ULTRA WIDEBAND STATIC VOLTAGE-FREQUENCY REGULATORS

- *Wide Input Voltage and Frequency Range*
- *DSP and IGBT Technology*
- *High Reliability*

TESCOM DSVR/SVS Series Wide Range Voltage-Frequency Regulators are high efficiency voltage-frequency protection and management devices with DSP control and IGBT technology. It is user-friendly with its compact and small footprinted design, advanced communication options and modular structure. With its wide input voltage and frequency tolerance, especially in areas where the mains or supply voltage is very bad, it offers a definite solution to the protection of your systems by providing the high quality and reliable energy needed by your critical loads.

In 3:1 phase systems, even if any of the input phases are interrupted, the continuity of your loads is ensured by working safely. In addition to electronic protections such as overload and short circuit, it guarantees high reliability operation with mechanical protections such as fuses and surge arresters.

You can visit our WEBSITE for detailed information about the products.

3 phase in / 3 phase out

10 - 250 kVA

DS300C

SPECIAL PRODUCTION FREQUENCY CONVERTERS

TESCOM DS300C Frequency Converters are produced to provide the energy for your devices, which are powered by AC voltage and requires different frequency ranges. Our converters, which have many usage areas, mainly in maritime, aviation, industrial equipments and military applications, are designed for continuous operation with PWM and IGBT technology and convert 50Hz or 60Hz mains energy to 50Hz, 60Hz or 400Hz energy to supply your critical loads.

GENERAL SPECIFICATIONS

- DSP control
- 3-Level technology and fully digital structure (*)
- Less electronic components and SMD technology
- Low input current hormonic distortion (THDI)
- High input power factor
- High efficiency up to %95

- Selectable input/output frequency range within 50-60Hz (For only DS300HC-60 models)
- High output power factor (PF:1.0)
- Advanced control and protection at input
- Current limititation at output, DC leakage, short circuit and overload protection
- Advanced TFT front panel (For 40kVA and above) (*)
- Advanced diognostic, easy monitoring and service intervention
- 512 event logs (46.000 alarm) (*)
- Clock and calendar (battery supported)
- Advanced communication
- 2 RS232 serial ports and programmable 4 dry contact outputs (12 contacts optional) (*)
- External REPO input
- Optional SNMP, MODBUS and Remote Monitoring Panel
- Advanced remote control features
- Security with user and centralized service password (OTP)
- Compliant with IEC EN62040 directive
- Conforms to CE, TSE and GOST standards
- ISO9001, ISO14001 compilant production
- 2 years warranty

Tescom

10 - 250 kVA

TECHNICAL SPECIFICATION COMPARISION TABLE

	DS300HC-60		DS300HTC-60		DS300TC-400	
	60Hz 380-400VAC		60Hz 208VAC		400Hz 208VAC	
	10-30kVA	40-200kVA	10-30kVA	40-200kVA	10-30kVA	40-200kVA
2 Line LCD Display					✓	✓
4 Line LCD Display	✓		✓			
4.3" TFT Display		✓		✓		
Mimic LED Diagram	✓		✓		✓	✓
Alarm Logging (512)	✓	✓	✓	✓		
Alarm Logging (128)					✓	✓
RS232 Serial Port					✓	✓
2xRS232 Serial Port	✓	✓	✓	✓		
3 x Dry Contacts					✓	✓
4 x Dry Contacts	✓	✓	✓	✓		
Galvanic Isolation (Inverter Transformer)			✓	✓	✓	✓
Optional SNMP MODBUS, GSM	✓	✓	✓	✓	✓	✓
Optional + 8 Dry Contacts	✓	✓	✓	✓		
Optional External Input Isolation Transformer	✓	✓	✓	✓	✓	✓
Optional External Output Isolation Transformer	✓	✓				

3 - 300 kVA

DC/AC INVERTERS

SPECIAL PRODUCTION INVERTERS

TESCOM DC/AC Inverters are devices with low distortion, sine wave output, high performance and superior protection. Today, they are used in many different fields, from computers, uninterruptible power supplies and large systems that power electrical distribution systems. Special production device with special input/output values can be made upon your request.

Tescom DC/AC Inverters with IGBT and IPM technology provide quality energy for your critical loads by converting the voltage in the wide input voltage range (192-400V DC) to the desired voltage and frequency values.

GENERAL SPECIFICATIONS

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

Tescom

30 - 300 kVA

TECHNICAL SPECIFICATIONS

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 lineer 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
SNMP arabirimi	Uygun (opsiyonel)

1 phase in / 1 phase out

3 - 50 kVA

TVR 11

FULL AUTOMATIC VOLTAGE REGULATOR

Tescom TVR 11 Series Servo Voltage Regulators provide safe energy for your loads in sites where your mains is irregular or where the power supply voltage is unstable, such as a generator. By keeping the voltage within certain tolerances, it offers full protection against the risk of damage caused by excessive fluctuations in voltage.

With microprocessor control, the necessary signals for the desired regulation are transmitted to the DC motor. The DC motor provides movement in the direction of adding or subtracting voltage for regulation on the variac to which it is mechanically connected. This supplied voltage is transferred to the differential auxiliary transformer (booster transformer). As a result, electronically controlled stable voltage is provided in the output voltage against voltage changes.

TVR 11 series with high correction speed, fully mechanical and electronic protection are offered in the power range of 3-50kVA with 1 phase input and 1 phase output.

GENERAL SPECIFICATIONS

- 1 phase input 1 phase output
- Wide power and voltage interval
- High reliability thanks to Microprocessor and Smart Driver
- Fast Regulation
- High efficiency
- Load transfer to Bypass via pole charge switch
- Digitally displayed status, input & output measurements
- Safe and economic usage
- Overcurrent and overload protection
- Optional 0.8 output power factor (PF) option

Tescom

3 - 50 kVA

TECHNICAL SPECIFICATIONS

MODEL	TVR 1103	TVR 1105	TVR 1107	TVR 1110	TVR 1115	TVR 1120	TVR 1125	TVR 1130	TVR 1140	TVR 1150
Power (kVA)	3	5	7,5	10	15	20	25	30	40	50
INPUT										
In. vol. correct. interval	160 - 260 / 90 - 285 VAC (Optional)									
In. vol. operating. interval	155 - 265 VAC									
Operation frequency	47...65 Hz									
Line input protection	Overcurrent, Low and High voltage protection									
Current at input	18	30	46	61	91	121	152	182	242	303
OUTPUT										
Output voltage	220 / 230 / 240 VAC RMS ± 1%									
Overloading	10 Sec. 200% Load									
Correction speed	~ 90 Volt / Sec.									
Upturn period	~ 90 Volt / Sec. (160 VAC - 260 VAC)									
Output protection	Protects load by opening the circuit when overburden, short circuit occurs (optional)									
Current at output	14	23	34	46	68	91	114	136	182	227
GENERAL										
Working principle	Servo Motor, Microprocessor Controlled, Full Automatic									
Cooling	Smart fan system									
Measured value monitor.	TESCOM TRUE RMS Panel Voltmeter (74x74mm) output voltage and line voltage monitorization									
Total efficiency	> 96%									
Mechanic By-pass	Available									
Protection level (*)	IP 20									
ENVIRONMENTAL										
Operating temperature	-10°C / 50°C									
Storage temperature	-25°C / 60°C									
Relative humidity	< 90%, DIN (40040)									
Altitude	< 2000 m.									
Acoustic level	< 50 dB (1m^2)									
Standards	CE / ISO 9001									
DIMENSIONS										
WxDxH (cm)	56x39x32					52x65x68			50x62x85	
Weight (kg)	28	30	34	47	55	95	110	130	155	180

(*) Optional different protection class option

3 phase in / 3 phase out

10,5 - 3000 kVA

TVR 33

FULL AUTOMATIC VOLTAGE REGULATOR

Tescom TVR 33 Series Servo Voltage Regulators provide safe energy for your loads in sites where your mains is irregular or where the power supply voltage is unstable, such as a generator. By keeping the voltage within certain tolerances, it offers full protection against the risk of damage caused by excessive fluctuations in voltage.

With separate microprocessor control for each phase, the necessary signals for the desired regulation are transmitted to the dc motor. The DC motor provides movement in the direction of adding or subtracting voltage for regulation on the variac to which it is mechanically connected. This supplied voltage is transferred to the differential auxiliary transformer (booster transformer). As a result, electronically controlled stable voltage is provided in the output voltage against voltage changes.

TVR 33 series with high correction speed, fully mechanical and electronic protection are offered in the power range of 10.5-250KVA with 3 phase input and 3 phase output.

GENERAL SPECIFICATIONS

- 3 phase input 3 phase output
- Wide power and voltage interval
- High reliability thanks to Microprocessor and Smart Driver
- Fast Regulation
- High efficiency
- Load transfer to Bypass via pole charge switch
- Digitally displayed status, input & output measurements
- Safe and economic usage
- Overcurrent and overload protection
- Optional 0.8 output power factor (PF) option

Tescom

10,5 - 3000 kVA

TECHNICAL SPECIFICATIONS

MODEL	TVR 33010	TVR 33015	TVR 33022	TVR 33030	TVR 33045	TVR 33060	TVR 33075	TVR 33100	TVR33120	TVR 33150
Power (kVA)	10,5	15	22,5	30	45	60	75	100	120	150
INPUT										
In. vol. correct. interval	275 - 460 VAC (Optional: 200-460 VAC)									
Operation frequency	47...65 Hz									
Line input protection	Overcurrent, Low and High voltage protection									
Current at input	21	30	45	61	91	121	152	202	242	303
OUTPUT										
Output voltage	380 VAC RMS ± 1%									
Overloading	10 Sec. 200% Yük									
Correction speed	~ 90 Volt / Sec.									
Upturn period	~ 90 Volt / Sec. (275 - 460VAC)									
Output protection	Protects load by opening the circuit when overburden, short circuit occurs. (optional)									
Current at output	16	23	34	45	68	91	114	152	182	227
GENERAL										
Working principle	Servo Motor, Microprocessor Controlled, Full Automatic									
Cooling	Smart Fan System									
Measured Value Monitor.	TESCOM TRUE RMS Panel Voltmeter (74x74mm) output voltage and line voltage monitorization									
Total efficiency	> 97 %									
Mechanic By-pass	Available									
Protection level (*)	IP 20									
ENVIRONMENTAL										
Operating temperature	-10°C / 50°C									
Storage temperature	-25°C / 60°C									
Relative humidity	< %90, DIN (40040)									
Altitude	< 2000 m.									
Acoustic level	< 50 dB (1m^2)									
Standards	CE / ISO 9001									
DIMENSIONS										
WxDxH (cm)	38x60x66		51x68x129			60x99x159			60x93x171	
Weight (kg)	110	135	160	170	200	222	280	310	400	425

Optional 0.8 output power factor (PF) option

(*) Optional different protection class option

You can visit the WEBSITE for 200-3000kVA technical specifications.

1 - 3200 kVA

TSVR

STATIC VOLTAGE REGULATOR

1 - 2 - 3 phase

GENERAL SPECIFICATIONS

- Automatic AC Voltage stabilizer
- Maintenance-free thyristor technology
- 1kVA – 3.200kVA Power range
- Production at single phase, two phase, three phase
- Production at all industrial voltages
- Low voltage correction up to 60%
- High voltage correction up to 45%
- Response time: 20 msec
- Correction time: 100 msec - 200 msec
- 100% unbalanced voltage and load capacity
- Continuous protection against voltage fluctations
- Independent voltage management on each phase
- Efficiency >97%
- Standard operator panel with 4x20 lcd display
- Electronic overload, over temperature protection
- Low voltage / high voltage protection
- Suitable design for industrial environment
- TS EN ISO 9001: 2015 Quality certified

OPTIONAL FEATURES

- 7″ touchscreen operator panel
- Ethernet web server and Mod-bus RTU
- Galvanic ısolation transformer
- Surge arrester
- Automatic by-pass unit
- Maintenance by-pass switch

Tescom

1 - 3200 kVA

TECHNICAL SPECIFICATIONS

GENERAL FEATURES		
Power (kVA)	In the power range of 1kVA - 3.200kVA	
Technology	Thyristor Technology, High-speed Voltage Regulation, Maintenance-free Design	
Thyristor configuration	6 Thyristor / 8 Thyristor / 10 Thyristor	
INPUT		
Rated input voltage	3 Phase Model: 400 VAC 3Phase+Neutral+Ground (Different voltages are optional)	1 Phase Model: 230VAC 1Phase+Neutral+Ground (Different voltages are optional)
Voltage tolerance	S model -%25, + %15 Opsiyonel: - 15%, +15% / -35%, +15% / -50%, +15%	
Frequency	50 Hz. ± %5 (60 Hz. optional)	
OUTPUT		
Rated output voltage	3 Phase Model: 400 VAC 3Phase+Neutral+Ground (Different voltages are optional)	1 Phase Model: 230VAC 1Phase+Neutral+Ground (Different voltages are optional)
Voltage tolerance	Between ± 1% and ± 5% (otional)	
Frequency	50 Hz. ± 5%	
Overload capacity	125% 1 minute, 150% 10 seconds, 151% and above 0.2 seconds	
Response time	20 msec	
Correction time	100 ms - 200 ms	
Efficiency	>97% typical	
MANAGEMENT MONITORING AND COMMUNICATION INTERFACES		
Operator panel with LCD Display	4x20 LCD display and mimic diagram Input voltage, Output voltage, Load percentage, Frequency, Status and Fault information, Parameter settings	
Touchscreen operator panel (optional)	7" Color Touchscreen Input voltage, Output voltage, Load percentage, Frequency, Status and Fault information, Parameter settings	
Remote management interface (optional)	Browser-based remote management with Ethernet connection MOD-BUS RTU with RS485 connection	
PROTECTION FUNCTIONS		
Voltage protection	Electronic protection for low voltage and high voltage	
Current protection	Input circuit breaker (output circuit breaker optional)	
Overload protection	1 minute at 125% overload, 10 seconds at 150% overload, at >151% overload the power to the load is cut off after 0.2 seconds	
Over temperature protection	Fan cooling works at 50°C. At 80°C, the power to the load is cut off	
Surge arrester	Class-I or Class-II (optional)	
ENVIRONMENTAL CONDITIONS		
Operating temperature	-10 °C ~ + 40 °C	
Altitude Operating Height	1.500m	
Humidity	90% none condensed	
Acoustic noise	< 55dB (at 1m distance and doors closed)	
CABINET SPECIFICATIONS		
Type – protection class	Free Standing Modular Cabinet, IP21 Indoor type (IP54 and higher protection class, Outdoor Type Cabinets are optional)	
Paint - color	Epoxy-Polyester Powder Paint - RAL 7035	
Cooling	Air cooling with thermostat controlled fan	

1 PHASE

TRD SERIES

RECTIFIER

GENERAL SPECIFICATIONS

- Internal isolation transformer at input
- Full controlled conventional rectifier
- Smart control and high reliability with DSP
- Float charge, equalizing charge and boost charge modes
- Automatic and manual charge modes
- Low output voltage ripple and high reliability
- 2x16 character LCD display, showing measurements, status and alarm messages
- Soft start
- Led displays for easy observation of rectifier status
- Audible alarm
- Programmable current limitation
- Operation as voltage source or current source
- Calibration of measurements from front panel
- Language selection from front panel (English / German / Turkish / Dutch / Portuguese)
- DC Low / High, Line Failure, Over Temperature, Short Circuit protections
- Ability to program all operation parameters (Password protected)
- Programmable alarm relay contact outputs (4 standart, up to 16 relays as option)
- Possibility of monitor and control over RS232-RS485
- Modbus communication
- Log records with date and time stamp up to 200 events.
- 24V / 48V / 110V / 125V / 220V output options

OPTIONS

- Battery temperature compensation
- Ability to monitor batteries and battery low alarm, even when the AC input fails
- Active parallel (current sharing) operation up to 4 devices
- Easy observation via analog gauges
- Battery test with adjustable voltage and duration
- Transducers for input / output voltage(s) / current(s) (4-20mA and 0-10V)
- 12 pulse option to limit input current distortion
- Earth leakage monitoring
- Input Power / kVA / kW measurement
- Internal cabinet light / anticondensation heater
- Touch screen

Tescom

1 PHASE

TECHNICAL SPECIFICATIONS

MODEL	1 PHASE INPUT
INPUT	
Nominal voltage	110VAC / 127VAC / 208VAC / 220VAC / 230VAC / 240VAC
Input voltage tolerance	± 15%
Nominal frequency	50Hz / 60Hz
Transformer	Galvanically isolated
ITHD	< 45-50% Standard
Input protection	Thermic Magnetic Overcurrent protection MCB, Overvoltage protection
OUTPUT	
Output voltage	24 VDC / 48 VDC / 110 VDC / 220 VDC
Output voltage adjustment	100% - 120% of Nominal Output Voltage
Output current adjustment	10% - 100% of Nominal Output Current
Batt. charging current adjustment	10% - 100 % of Nominal Output Current
Boost charger voltage	100% - 120% of Floating Output Current
Boost voltage (V/C)	2,4 Lead Acid Battery 1,60 NiCd Battery
Float voltage(V/C)	2,23 Lead Acid Battery 1,40 NiCd Battery
Nominal output current	10A - 10000A
Max. output current	100 % of Nominal Output Current
Filtering	L-C Filtre
GENERAL PROPERTIES	
Boost timer	0-600 hours adjustable
Cooling	Fan forced cooling (Standard), Natural cooling (Optional)
Isolation voltage	1500 or 3000VAC input/chassis and output/chassis
Efficiency at full load	> 80%
Protection class	IP20 (Standard); IP21 - IP54 (Optional), (Consult for IP54 to IP65)
Cable entry	Front bottom (Top entry, optional)
Access to batteries	Batteries and rectifier in the same cabinet with front access (Optional)
Circuit breakers	Thermic-magnetic circuit breakers for input, output and battery
Reset button	Auto start
Measurements	Load output voltage and current / Batt.. output voltage and current / Utility voltage / Line voltage / Frequency / Power factor (Optional) / Batt. ambient temperature (Optional)
ENVIRONMENT	
Acoustic noise	45 - 55 dB (according to power rating)
Storage temperature	(-20°C) - (+70°C)
Operating temperature	(-5°C) - (+50°C)
Humidity	0 - 95% Non-condensing
Altitude	1000m (-1% Power for every 100m after 1000m) Max. 4000m
Color	RAL7035, RAL7032 (Standard), others (Optional)
COMMUNICATION & PARALLELING	
Communication	RS232 (Standard), Dry Contacts (Standard), RS485 (Optional), Modbus TCP (Optional), SNMP (Optional), GSM (Optional)
Paralleling	Parallel Redundant (No need for extra kit for paralleling)
STANDARDS	
Standards	IEC60146, IEC62040 1-2, ISO9001, ISO14001

3 PHASE

TRD SERIES

RECTIFIER

GENERAL SPECIFICATIONS

- Internal isolation transformer at input
- Full controlled conventional rectifier
- Smart control and high reliability with DSP
- Float charge, equalizing charge and boost charge modes
- Automatic and manual charge modes
- Low output voltage ripple and high reliability
- 2x16 character LCD display, showing measurements, status and alarm messages
- Soft start
- Led displays for easy observation of rectifier status.
- Audible alarm
- Programmable current limitation
- Operation as voltage source or current source
- Calibration of measurements from front panel
- Language selection from front panel. (English / German / Turkish / Dutch / Portuguese)
- DC Low / High, Line failure, Over temperature, Short circuit protections
- Ability to program all operation parameters (Password protected)
- Programable alarm relay contact outputs (4 standart, up to 16 relays as option)
- Possibility of monitor and control over RS232-RS485
- Modbus communication
- Earth leakage monitoring (DC leakage)
- Log records with date and time stamp up the 200 events
- 12V / 24V / 48V / 110V / 220V output options

OPTIONS

- Active parallel (current sharing) operation up to 4 devices
- Ability to monitor batteries and battery low alarm, even when the AC input fails.
- Battery temperature compensation
- Easy observation via analog gauges
- Battery test with adjustable voltage and duration
- Transducers for input / output voltage(s) / current(s) (4-20mA and 0-10V)
- 12 pulse option to limit input current distortion
- Input Power / kVA / kW measurement
- Internal cabinet light / cabinet anticondensation heater
- Touch screen

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3 PHASE

TECHNICAL SPECIFICATIONS

MODEL	3 PHASE INPUT
INPUT	
Nominal voltage	190VAC / 200VAC / 380VAC / 400VAC / 415VAC (Phase-Phase)
Input voltage tolerance	± 15%
Nominal frequency	50Hz / 60Hz
Transformer	Galvanically isolated
ITHD	< 30-35% standard, <10% on 12pulse (Optional)
Input protection	Thermic Magnetic Overcurrent protection MCB, Overvoltage protection)
OUTPUT	
Output voltage	12VDC / 24VDC / 48VDC / 110VDC / 220VDC
Output voltage adjustment	120% of Nominal Output Voltage
Output current adjustment	10% - 100% of Nominal Output Current
Batt. charging current adjustment	10% - 100% of Nominal Output Current
Boost charger voltage	100% - 120% of Floating Output Current
Boost voltage (VAC)	2,4 Lead Acid Battery 1,50 NiCd Battery
Float Voltage (VAC)	2,23 Lead Acid Battery 1,40 NiCd Battery
Nominal output current	0 - 10000A (According to request)
Maximum output current	%100 of Nominal Output Current
Filtering	L-C Filter
GENERAL PROPERTIES	
Boost timer	0-600 hours adjustable
Cooling	Fan forced cooling (Standard), Natural cooling (Optional)
Isolation voltage	1500 or 3000VAC input/chassis and output/chassis
Efficiency at full load	85% to 93%
Protection level	IP20 (Standard); IP21 - IP54 (Optional), (Consult for IP54 to IP64)
Cable entry	Front bottom (Top entry, optional)
Access to battery	Batteries and rectifier in the same cabinet with front access (optional)
Circuit breakers	Thermic-magnetic circuit breakers for input, output and battery
Reset button	Auto start
Measurements	Load output voltage and current / Batt.. output voltage and current / Utility voltage / Line voltage / Frequency / Power factor (Optional) / Batt. ambient temperature (Optional)
ENVIRONMENT	
Acoustic noise	55 - 65 dB (According to power rating)
Storage temperature	(-20°C) - (+70°C)
Operation temperature	(-5°C) - (+50°C)
Humidity	0-%95 (Non-condensing)
Altitude	1000m (-1% Power for every 100m after 1000m) Max. 4000m
Color	RAL7035, RAL7032 (Standard), others (Optional)
COMMUNICATION & PARALLELING	
Communication	RS232 (Standard), Dry Contacts (Standard), RS485 (Optional), Modbus TCP (Optional), SNMP (Optional), GSM (Optional)
Paralleling	Parallel redundant (No need for extra kit for paralleling)
STANDARDS	
Standards	IEC60146, IEC62040 1-2, ISO9001, ISO14001

11 - 1250 kVA

TDJ SERIES

DIESEL GENERATORS

TESCOM TDJ Series Diesel generator set is a fully integrated power generation system, providing optimum performance, reliability, and versatility for stationary standby, prime power and continuous duty applications.

ENGINE FEATURES

- Heavy duty generator engine
- 4-stroke, water cooling, natural suction system
- Mechanical governor system
- 12/24 volt starter motor and charge alternator
- Replaceable; with air, fuel and oil filters
- With flexible fuel hose
- Oil drain valve and extension hose/oil drain pump
- Industrial capacity muffler and exhaust spiral or compensator
- Maintenance-free type starter battery
- Engine block water heater (avaliable for automatic models)
- Diesel generator maintenance and operation manual and electrical diagrams

ALTERNATOR FEATURES

- Brushless, single bearing, flexible disc 4-pole synchronous alternator
- H Insulation class
- IP21-23 protection class
- Shunt excitation
- Electronic voltage regulator
- Stator winding 2/3 step against harmonic distortions
- Alternator windings are protected with isolation varnish against oil and acid

QUALITY

Our generators are produced in accordance with integrated management systems such as ISO900, ISO14001, ISO 27001 and CE and TSE standards within the framework of Quality Assurance requirements, and we have full qualification certificates for our after-sales services.

CANOPY STANDART SPECIFICATIONS

- Compact design connection with non-welded nuts and bolts.
- Integrated canopy,generator set,exhaust system fuel tank.
- Body made from steel components treated with polyester powder coating
- Easy access to all service points
- Exhaust system inside canopy
- Large doors on each side
- Control panel viewing window in a lockable access door
- Emergency stop push button mounted on cabin exterior
- Fuel fill and battery can only be reached via lockable access doors.
- Customer options available to meet your applications needs.
- TESCOM makes its generating sets noise level tests in accordance with directive 2000/14/EC validation of the noise level test has been aproved by the notified body Szutest (CE conformity assessment body).

Tescom

CE TSE TSE-HYB ISO ISO ISO ISO

CONTROL PANEL FEATURES

- The cable group we use in our generators is fireproof cable class. Cable sheaths form the defense line of cables against various chemicals and flame.

- The use of Halogen-free materials in the outer sheath of the cables prevents the spread of toxic gases during a fire. At the same time, fireproof cable sheaths have low smoke density and flame retardant properties. This feature of fireproof cable sheaths prevents the spread of fire and minimizes possible damages.

- Schneider Electric breaker group is used in generator control panels. As a standard, all our products have a 4-pole MCCB (Molded Case Circuit Breaker)

ATS (AUTOMATIC TRASFER SWITCH) FEATURES

- The SQ5 Dual Power Automatic Transfer Switch Series is a kind of automatic transfer switch that combines the switch and the logic controller, enabling the mechanical and electrical to become an inseparable whole.
- Superior electromagnetic compatibility, high resistance to interference.
- It has zero-time transfer technology with high reliability.
- It cuts the dual circuit power simultaneously.
- In addition to PLC remote control, it has a multi - circuit input / output interface that can automate the system.

TDJ SERIES

DIESEL GENERATORS

CONTROL SYSTEM

The new TESCOM TCM01 genset controllers are a cost effective modular genset controller ready for internet monitoring through plug-in modules. Its main advantages are multifunctionality, support for multiple topologies, harmonic analysis and detailed power measurements.

Different brand controller can be offered upon request.
(DEIF AGC 150, DEIF SGC 120/12, DEIF SGC 420/421, Datacom D500,
DEEPSEA 6120, DEEPSEA 7320, ComAp AMF25)

Software features are complete with easy firmware upgrade through USB port. The Windows based PC software allows monitoring and programming through USB, RS-485, RS-232, Ethernet and GPRS. The Rainbow Scada web service allows monitoring and control of an unlimited number of gensets from a single central location.

TESCOM TCM01

DEIF AGC 150

DEIF SGC 120

DEIF SGC 420

DATAKOM D500

DEEPSEA 6120

DEEPSEA 7320

ComAp AMF25

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MAJOR FEATURES

- Diesel and gas genset support
- 400Hz operation support
- 400 event logs, full snapshot
- All parameters front panel editable
- 3 level configuration password
- 128x64 graphical LCD display
- Downloadable languages
- Waveform display of V & I
- Harmonic analysis of V & I
- 16Amp MCB & GCB outputs
- 8 configurable digital inputs
- 6 configurable digital outputs
- 3 configurable analog inputs
- Both CANBUS-J1939 & MPU
- 3 configurable service alarms
- Multiple automatic exerciser
- Weekly operation schedule
- Dual mutual standby with equal aging of gensets
- Manual "speed fine adjust" on selected ECUs
- Automatic fuel pump control
- Disable protections feature
- Excess power protection
- Reverse power protection
- Overload IDMT protection
- Load shedding, dummy load
- Multiple load management
- Current unbalance protection
- Voltage unbalance protection
- Fuel filling & fuel theft alarm
- Battery back-up real time clock
- Idle speed control
- Battery charge run enabled
- Combat mode support
- Multiple nominal conditions
- Contactor & MCB drive
- 4 quadrant genset power counters
- Mains power counters
- Fuel filling counter
- Fuel consumption counter
- Modem diagnostics display
- Configurable through USB, RS-485, Ethernet and GPRS
- Free configuration program
- Allows SMS controls
- Ready for central monitoring
- Mobile genset support
- Automatic GSM geo-location
- Easy USB firmware upgrade
- -40°C operation with optional display heater
- IP65 rating with optional gasket

COMMUNICATION

- USB Device
- J1939-CANBUS
- Geo-locating through GSM
- Internet Central Monitoring
- SMS message sending
- E-mail sending
- Free PC software: Rainbow Plus
- Modbus RTU (2400-57600baud)
- Modbus TCP/IP

PLUG-IN MODULES

- GSM Modem (2G-3G-4G)
- Ethernet 100Mbps
- Wi-Fi (802.11 b/g/n)
- RS-485 (2400-57600baud)
- RS-232 (2400-57600baud)

MEASUREMENTS

- Mains & genset PN/PP voltages
- Mains & genset frequency
- Mains & genset phase currents
- Mains & genset neutral currents
- Mains & genset, phase & total, kW, kVA, kVAr, pf
- Engine speed
- Battery voltage

TOPOLOGIES

- 3 ph 4 w, star & delta
- 3 ph 3 w, 2 CTs
- 2 ph 3 w
- 1 phase 2 wires

FUNCTIONALITIES

- AMF unit
- ATS unit
- Remote start controller
- Manual start controller
- Engine controller

i-com Series UPS Accessories

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

UPS multiserver shutdown unit
(Dry contact multiplexer)

- RS232 input port
- RS232 output
- 4 or 8 multiplexed dry contact output

Model: ML100

Serial port multiplexer for UPS and STS

- RS232 input port
- 2 x DB9 type socket RS232 outputs
- External or internal

Model: ML200

Internal Serial port multiplexer for UPS and STS

- RS232 input port
- DB9 type socket RS232 output
- RJ45 Ethernet output (TCP/IP)

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ACCESSORIES

i-com Series UPS Accessories

Model: SNMP

External SNMP adaptor for UPS

- WEB based monitoring & management
- SNMP management
- Multi server shutdown
- Multi UPS monitoring

Model: RSX24

External RS232 to RS485 converter for UPS and STS

- For long distance communication
- Bi-directional operation
- 4 wire RS485 output (Half & full duplex)

Model: RS-NET

External RS232 to TCP/IP converter for UPS and STS

- Monitoring & management over TCP/IP

ACCESSORIES

i-com Series UPS Accessories

Model: MDX2

External MODBUS over RS485 adaptor for UPS and STS

- For SCADA and BMS connection
- MODBUS RTU protocol
- 2 wire RS485 output
- 8 bit hardware addressable

Model: MDX-NET

External MODBUS over TCP/IP adaptor for UPS and STS

- For SCADA and BMS connection
- MODBUS TCP protocol
- RJ45 Ethernet output
- 8 bit hardware addressable

Model: GM-1

External GSM modem for UPS

- For SMS option
- SNMP compability
- Control via AT commands
- Configuration by the SNMP web interface
- Push-push SIM card installation

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ACCESSORIES

i-com Series UPS Accessories

Model: GM-2

External GSM / GPRS modem for UPS

- SMS option
- Monitoring & management via GPRS and SMS
- Directly UPS connection
- Smart modem
- Push-push SIM card installation
- Easy configuration by the Utility PC software

Model: GM-3

External GSM / GPRS modem for UPS
with Internal battery unit

- SMS option
- Monitoring & management via GPRS and SMS
- Directly UPS connection
- Smart modem
- Push-push SIM card installation
- Easy configuration by the Utility PC software
- Uninterruptible communication with internal battery

Model: GMB1

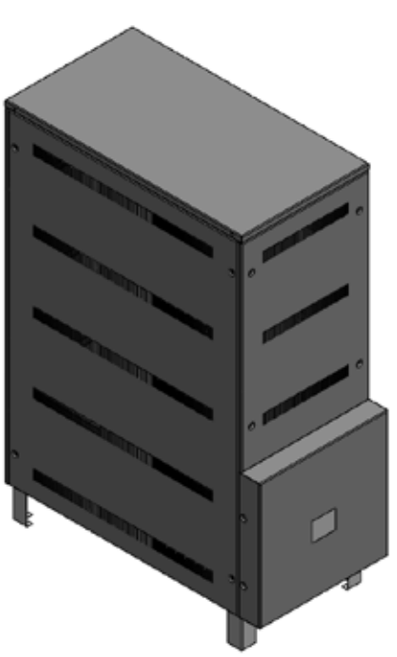
External Battery Unit for GM-2 Modem

- This unit is the external battery bank for GM-2 modem

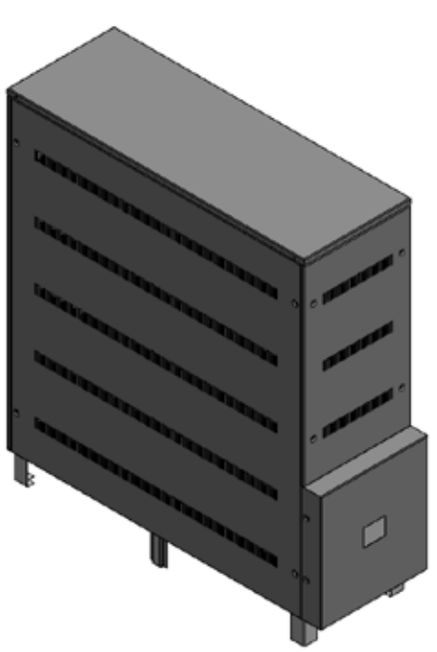
TBC SERIES BATTERY CABINETS

GENERAL SPECIFICATIONS

- TESCOM new design 6 different size battery cabinets offers solutions for all types of batteries suitable for its configuration table.
- Battery cabinets are compatible with all our UPS series and all types of batteries.
- The cabinets are made of suitable resistant sheet metal on the weight of the maximum battery group to be used in them.
- Appropriate shelf spacing for easy mounting of all types of battery terminal type is designed.
- Cabinets can be easily disassembled and reassembled.
- The cabinet is suitable for all types of breakers, different usage preferences and possible flexibility in revisions.
- Cabinets are painted in RAL7016 color that resistant to environmental conditions.
- The maximum battery capacities of the cabinets are in the table presented below.



TBC_6012N



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You can visit our WEBSITE for detailed information about the products.

TBC SERIES BATTERY CABINETS

TESCOM BATTERY CABINETS

BATTERY CABINETS		DIMENSIONS (WxDxH)		COMPATIBLE BATTERY TYPES											
EXPLANATION	STOCK CODE	BATTERY CABINET	BCB INCLUDED*	4,5-5Ah	7-9Ah	12Ah	17-20Ah	24-28Ah	38-45Ah	56-65Ah	70-80Ah	90-105Ah	120Ah	150Ah
BATTERY CABINET TBC_2009N	851318492	251x550x400	251x650x400	40	20									
BATTERY CABINET TBC_3209	851318402	286x550x500	286x610x500	-	32	20	14	-	-	-	-	-	-	-
BATTERY CABINET TBC_6009N	851318487	337x685x1171	337x790x1171		64	44	36							
BATTERY CABINET TBC_6012N	851318489	406x755x1151	406x900x1151		96	64	32	32						
BATTERY CABINET TBC_6020N	851318486	370x1026x1171	370x1131x1171		96	72	64	32						
BATTERY CABINET TBC_6020	851318399	415x955x1361	415x1100x1361	-	120	96	60	40	32	16	16	16	-	-
BATTERY CABINET TBC_3245N	851318491	406x945x1361	406x1050x1361		144	96	80	40	32	20	16	16		
BATTERY CABINET TBC_4845N	851318485	402x1482x1171	402x1632x1171				128	64	48					
BATTERY CABINET TBC_6045N	851318490	370x2029x1171	370x2179x1171		224	144	160	64						
BATTERY CABINET TBC_6045	851318401	415x1906x1361	415x2051x1361	-	-	-	-	80	64	32	32	32	-	-
BATTERY CABINET TBC_6445N	851318493	406x1900x1361	406x2050x1361		288	186	160	80	64	40	32	32		
BATTERY CABINET TBC_44105	851318404	637x1927x1230	637x1991x1230					90	60	44	44	44		
BATTERY CABINET TBC_60105	851318394	642x1931x1500	642x2076x1500	-	-	-	-	120	80	60	60	60	-	-
BATTERY CABINET TBC_60120	851318403	637x2203x1701	637x2345x1701	-	-	-	-	-	-	-	-	-	60	48

(*) BCB (Battery Circuit Breaker)

You can visit our WEBSITE for detailed information about the products.

MEDICAL ISOLATED POWER SYSTEMS

The electrical power supply of medical environments is selected according to the electrical safety of the environment. TSE, IEC and IEE standards divide medical environments into 3 groups in terms of patient safety: Group 0, Group 1 and Group 2.

The most critical of these groups in terms of continuity and insulation of electrical energy is Group 2, which includes operating rooms, cardiac areas and intensive care units. Electrical devices in environments that fall into the second group are devices that will functionally keep the patient alive or save his life. Devices in these environments should operate continuously in the event of any malfunction and people in the environment should not be damaged. For this reason, IT isolated power systems are used in Group 2 settlements.

Isolated Power Systems, consist of isolated power panels and auxiliary devices and test combinations such as isolation transformers, isolation monitoring devices, alarm indicator panels.

BENEFITS OF ISOLATED POWER SOLUTIONS;

- Increases personnel safety.
- Reduces the risk of fire or explosion.
- Increases process uptime.
- Makes maintenance easier.

USAGE AREAS OF ISOLATED POWER SOLUTIONS;

- Operating rooms
- Dental operating rooms
- Caesarean section rooms
- Intensive care rooms
- Anesthesia rooms
- Premature baby rooms
- Surgery preparation rooms
- Cardiac catheterization rooms
- Angiographic examination rooms

STANDARDS;

- IEC 60364-7-710
- IEC 61558-2-15

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You can visit our WEBSITE for detailed information about the products.

MEDICAL ISOLATED POWER SYSTEMS

PRODUCTS

IMAGE	CATEGORY	SERIES	DESCRIPTION
	Medical Isolated Power Panels	IGP IGT IGH	Isolated power panels, which have a fault location detection system, have the feature of detecting in which line the insulation fault occurred. Thanks to this feature, the time to detect the location of the insulation fault is reduced. Its advantages include its compact design and the option of up to 24 lines.
	Operating Room Control Panel	OCP 21G OCP 24G	OCP Series Operation Room Control Panel is a high technology and reliable device, designed for maintaining the most comfortable environment possible both for patient and the surgery team and most suitable working conditions required in the surgery room. All electrical controls required in the operating room can be manually performed by the OCP series panel having 21.5" and 23.8" protective capacitive touch screen with IP65 protection standard.
	Insulation Monitoring System	EDS 30 IMD 30 CTS 30 LAP 70 RAI 70	Insulation Monitoring Devices are designed to monitor the insulation resistance levels of IT systems in AC/DC networks. With the AMP Plus measurement principle, insulation errors of rectifiers, converters, thyristor-controlled DC drives and DC component power supplies are detected, as well as standard loads. In addition to its measurement features, it integrates with all automatic control systems with serial communication options and protocol converters (Profibus, ModBus, Ethernet).
	Medical Isolation Transformers	IT 3.15 IT 4 IT 5 IT 6.3 IT 8 IT 10	Isolation transformers are designed to reduce the effect of electrical faults. Thanks to the electrostatic protection, isolation transformers are used for the power supply of operating rooms, laboratory instruments, intensive care units and similar sensitive devices. IT series medical isolation transformers designed at 6 different power value between 3.15…10 kVA have high excessive load capacities.

You can visit our WEBSITE for detailed information about the products.

CNC MODULE

DC BRAKE UNIT FOR RE-GENERATIVE LOAD

They are braking resistor modules that aim to ensure maximum protection of your critical loads by increasing the operating performance of the device in re-generative loads such as CNC Machines, Electric motor loads, and to reduce your cost of ownership by extending the working life of durable materials such as batteries and capacitors. TESCOM offers solutions for all types of UPS with different braking modules according to the appropriate UPS power.

WHAT IS RE-GENERATIVE LOAD?

An example of such loads is electric motors. Electric motors draw current from the network while rotating, but in case of a sudden force (braking effect) they start to produce electricity themselves, this energy is sent back to the source they are fed.

If the electric motor is supllied by the UPS, in the braking mode, the UPS applies extra energy to the DC Bus through the reverse diodes of the output power transistors, which causes the DC Bus voltage to rise.

WORKING PRINCIPLE

By connecting to the DC Bus of the UPS, when the allowable limit value in DC rises is exceeded, it activates the resistor loads with the help of contactors driven by a transistor on it, providing the necessary voltage drop and converting the excess energy into heat energy.

In regenerative load applications (CNC Machines, Electric Motor Loads), it is recommended to use a DC Brake Unit in order to absorb the DC voltage that is pressed back into the mains (UPS) during braking.

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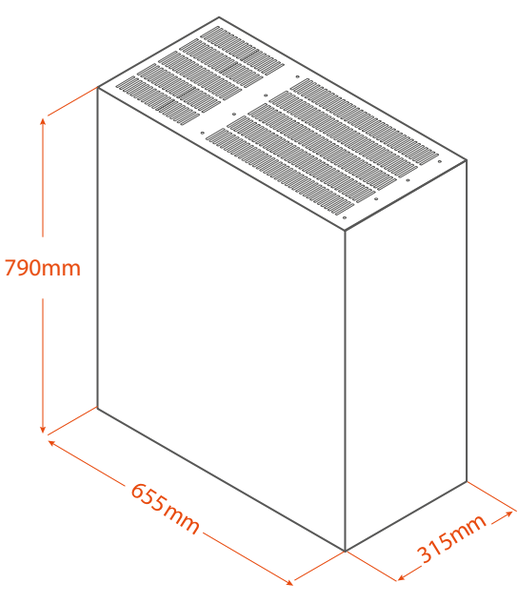
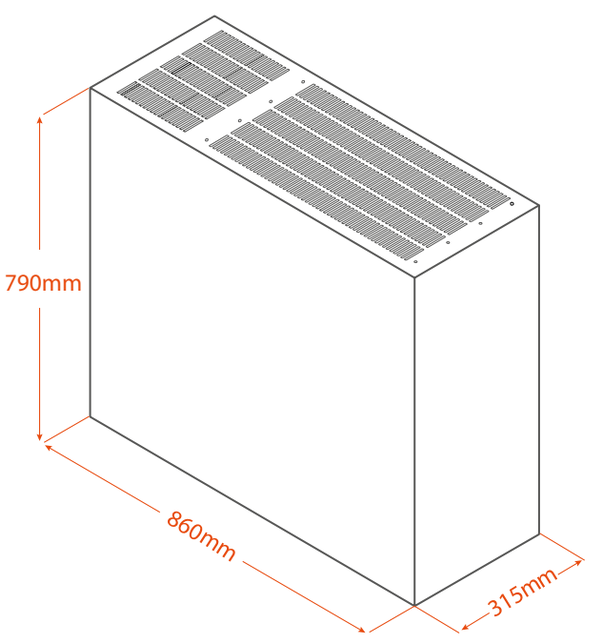
CNC MODULE

DC BRAKE UNIT FOR RE-GENERATIVE LOAD





* Height measurements are including wheels.

UPS POWER	XT SERIES STOCK CODE	CHASIS	DS-DX SERIES STOCK CODE	CHASIS
15kVA	pls. ask	BU-1	852010491	BU-1
30kVA	852010424	BU-1	852010424	BU-1
40kVA	852010299	BU-1	852010422	BU-1
60kVA	852010283	BU-1	852010429	BU-1
80kVA	852010282	BU-1	852010456	BU-1
100kVA	852010308	BU-1	852010416	BU-1
120kVA	852010281	BU-1	852010432	BU-1
160kVA	852010309	BU-1	852010454	BU-1
200kVA	852010316	BU-1	852010418	BU-1
250kVA	852010455	BU-2	852010457	BU-2
300kVA	pls. ask		852010433	BU-2
400kVA	pls. ask		852010414	BU-2
500kVA	pls. ask		2 X 852010457	BU-2
600kVA	pls. ask		2 X 852010433	BU-2

GALVANIC ISOLATION TRANSFORMER

MONOPHASE (2-40kVA) / THREE-PHASE(10-600kVA)

Galvanic isolation transformers ensure that the network and the load are isolated from each other. It is used to prevent electric shock within the framework of occupational safety and to minimize the impact of network problems on devices. Our monophase & three-phase isolation transformers, using high quality materials, solutions are offered to suit the needs

It has a wide capacity range as open type without enclosure (without cabinet) and as protected type with IP23 enclosure (with cabinet).

GENERAL SPECIFICATIONS

- Galvanic isolation transformers are used for healthier operation of devices used for industrial purposes. It prevents the reflection of magnetic noises in thenetwork to sensitive industrial devices, as well as it also prevents he reflection of electrical pollution caused by non-linear devices to the network.

- Galvanic isolated transformers reduce electric shocks and minimize damage to machinery in the industrial area. It prevents the load from being damaged, especially incase of a card failure that may occur on the UPS output floor.

USAGE AREAS

- UPS Systems
- Medical Devices
- CNC Machines
- Ships and Boats
- Shipyards
- Metal Processing Facilities
- Rectifier and Battery Chargers
- Industrial Machinery Electrical Supply Devices

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GALVANIC ISOLATION TRANSFORMER

MONOPHASE (2-40kVA) / THREE-PHASE(10-600kVA)

THREE-PHASE ISOLATION TRANSFORMER WITHOUT CABINET

POWER (kVA)	Cabin Type Dimension (WxDxH) mm	Cabin Type Weight (kg)	Cabin Type Protection Class	Open Type Dimension (WxDxH) mm	Open Type Weight (kg)	Open Type Protection Class	Connection	Winding wire
10	350x400x500	90	IP23	160x420x390	70	IP00	Yy0	Aluminum (optionally copper)
20	390x490x500	150		200x520x470	110			
30	400x570x550	190		210x520x510	140			
40	400x630x550	230		240x500x550	200			
50	450x630x600	280		280x520x550	220			
60	450x650x600	340		280x520x550	240			
70	500x700x650	370		310x540x570	275			
80	570x770x650	400		320x550x570	300			
90	600x800x750	420		350x560x570	330			
100	600x850x700	450		400x600x580	360			
120	800x950x800	470		450x650x600	375			
135	800x950x800	490		450x700x600	400			
150	800x950x800	510		460x700x600	420			
200	800x1100x900	650		450x800x610	580			
250	800x1100x1000	740		480x800x720	660			
300	800x1100x900	840		500x800x730	740			
400	800x1100x1000	950		500x820x780	850			
500	800x1200x1200	1100		600x900x850	1000			
600	800x1200x1200	1300		690x1000x900	1200			

MONO-PHASE ISOLATION TRANSFORMER

POWER	Cabin Type Dimension (WxDxH) mm	Cabin Type Weight (kg)	Cabin Type Protection Class	Open Type Dimension (WxDxH) mm	Open Type Weight (kg)	Open Type Protection Class	Connection	Winding wire
2	290x220x220	40	IP23	170x200x190	25	IP00	1 Phase	Aluminum (opsiyonel olarak Bakır)
3	320x320x320	50		200x250x250	35			
5	320x350x400	70		230x250x270	60			
6	320x350x400	80		230x280x270	70			
10	350x400x450	90		260x300x280	80			
12	350x400x450	95		290x300x290	85			
15	350x400x470	105		290x330x300	95			
20	400x450x500	120		300x340x430	110			
25	410x520x550	130		300x350x450	120			
30	450x600x600	160		310x380x500	140			
40	500x600x650	180		320x400x550	160			

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NOTES

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