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FACTORY

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

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.

FAI

















R&D

Tescom's R&D department is
the most valuable asset to
this company since the day it
was founded. All engineers
working here are the most
experienced ones in the
country in the field of power
electronics. This team has the
knowledge and skill to create
and launch a new product

into the market within a very
short period of time. Besides,
this R&D team has also ability
to implement special request
specifications to the standard
manufactured products, faster
and more efficiently than the
competitors.
Thanks to the large budget
allowance given every year a
considerable amount of

investment is being made to
this department and as a
result today Tescom is in a
very pretentious position both
in domestic and international
markets.





T.C. Ministry of Industry and Technology

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







Due to the close and strong
relations with the international
suppliers, Tescom has always
been a company using and
applying the latest technology
materials and components in
the products manufactured.
Since day one the goal of the
Tescom's R&D team has

always been to follow up the

latest technological

developments in the market and

detect the customer demands,

then create and launch a

product accordingly.



650 - 2200 VA

LEO+

UNINTERRUPTIBLE POWER SUPPLIES

- LED display or LCD display selectable
- Microprocessor-based digital control
- Boost and buck AVR for voltage stabilization
- Auto sensing frequency
- Wide input voltage range
- Power-on self test
- 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
- Automatic charging in OFF mode

- Intelligent battery management: battery temperature compensation to extend the battery life; three-stage charging to shorten recharge time
- Short circuit, battery overcharge / overdischarge, overload, surge protections
- Optional no-load shutdown
- Optional RS232 / USB communication port and RJ11 / RJ45 protection
- Unattended safety shutdown: system alarm and auto
 Power-On / Off by RS232 or USB interface communicating
 with PC









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	0 Vac; 220 / 230 / 240 V: 162 ~	295 Vac (145 ~ 295 Vac optio	onal)			
	Frequency			50 / 60 Hz ± 10% (auto-sen	sing)				
	OUTPUT								
	Voltage	100 / 110 / 120 Vac \pm 10% or 220 / 230 / 240 Vac \pm 10%							
	Frequency			50 / 60 Hz ± 1% (auto-sens	sing)				
	Waveform		Mains mode: p	oure sine wave; Battery mode	simulated sine wave				
	Protection			Typical 8 ms, 10 ms ma	x.				
	BATTERY								
	DC voltage	1	2V	24V					
Configuration		12V/7.0Ah x 1	12V/9.0Ah x 1	12V/7.0Ah x 2	12V/9.0Ah x 2	12V/9.0Ah x 2			
	Recharge time			6 ~ 8 h					
	OTHERS								
	Protections		Short circuit - batte	ery overcharge – overdischarg	e – overload - surge				
	Communication			USB / RJ45 Modem protect					
	Humidity		20 ~ 9	0% RH @ 0 ~ 40°C (non-conde	ensing)				
	Noise level			≤ 45 dB (1 m)					
	Net / Gross weight (kg)	4.3 / 4.6	5.2 / 5.5	8.6 / 9.0	10.1 / 10.5	1			
Plastic	Dimensions (H×W×D) (mm)	140x1	00x290	170x14	/				
case	Packaged dimensions (H×W×D) (mm)"	210x1	39x335	210x139x335		/			
	Quantity / 20 ft	230	00 pcs	1000) pcs	1			
	Net / Gross weight (kg)	/	/	/	/	12.9 / 13.3			
Metal case	Dimensions (H×W×D) (mm)	/	/	/	1	225x125x380			
	Packaged dimensions (H×W×D) (mm)	1	1	1	1	295x180x450			
						·			

 $^{^{\}star}$ 110/120VAC system is only available for 650/850VA and production will be upon order.





TEOS 100

UNINTERRUPTIBLE POWER SUPPLIES

- True double-conversion
- Microprocessor control optimizes reliability
- Input power factor correction
- Output power factor 0.9
- Wide input voltage
- Converter mode available
- ECO mode for energy saving
 (Only available for 1-3kVA models)
- Generator compatible

- Adjustable battery numbers only available for 6/10kVA models
- Adjustable charging current via LCD or software $(1A\sim6A)$ only available for 6/10kVA models
- Emergency power off (EPO) function is only available for 6/10kVA models
- Comprehensive display allows easy monitoring and access to UPS status









1-10 kVA TECHNICAL SPECIFICATIONS

	MODEL	Teos 1000	Teos 2000	Teos 3000	Teos 106	Teos 110			
	Phase			Single phase with ground					
	Capacity	1000 VA / 900 W	2000 VA / 1800 W	3000 VA / 2700 W	6000 VA / 5400 W	10000 VA / 9000 W			
	INPUT			'					
	Nominal voltage	100/110/115/	120/127VAC veya 200/208/22	0/230/240VAC	208/220/230/240VAC				
	Input voltage range	60-150VA0	or 120-300VAC (Based on lo	110-300 AC (Based on load at 50%)					
		90-140VAC	or 180-280VAC (Based on loa	ad at 100%)	176-300VAC (Base	d on load at 100%)			
	Frequency range		40Hz ~ 70 Hz	46~54 Hz c	or 56~64 Hz				
	Power factor		≥ 0.	99 @ Nominal Voltage (100%	load)				
	OUTPUT								
	Voltage	100/110/115	/120/127VAC or 200/208/220	/230/240VAC	208/220/2	30/240VAC			
	Voltage tolerance			± 1%					
	Frequency range	47~ 53 H	Iz or 57 ~ 63 Hz (Synchronize	d Range)	46~54 Hz or 56~64 Hz	(Synchronized Range)			
	Frequency range	50	Hz or 60Hz ± 0.5% (Batt. Mo	de)	50 Hz or 60Hz ± 0	.1 Hz (Batt. Mode)			
	Crest factor			3:1 (max)					
	Voltage THD		≤ %3 THD (linear load) ≤ %6 THD (non-linear load)			linear load) n-linear load)			
			5 700 Trib (non-tinear toau)		≥ 703 TTID (TIC				
Transfer	AC mode → batt. mode		/ / -	Zero					
time	Inverter → bypass		4 ms (Typical)		Ze	ero			
	Waveform (Batt. mode)			Pure sinewave					
	EFFICIENCY	000/	000/	000/	020/	020/			
AC mode		88% 83%	89% 85%	90%	92%	93%			
	Battery mode	63%	0370	00%	30%	3170			
	BATTERY Battery type		12V / 9AH		12V / 7AH	12V / 9AH			
	Number	2	4	6	1247 7411				
Standard	Typical recharge time				9 hours recover				
model	Charging current (max.)	-	4 hours recover to 90% capacity 1.0 A			ljustable)			
	Charging voltage	27.4VDC ± 1%	54.7 VDC ± 1%	82.1 VDC ± 1%	218.4 VDC ± 1%				
	Battery type		·		Depending on the capac	Depending on the capacity of external batteries			
Long-run	Number				16 ~ 20 (Adjustable)				
model	Charging current (max.)		N/A	1A/2A/4A/6A (Adjustable, 6A is only available for 16pcs batts.					
	Charging voltage				273 VDC ±1% (Based on 20pcs batteries)				
	INDICATORS								
	LCD		Load level, Battery level, A	C mode, Battery mode, Bypas	s mode, and Fault indicators				
	ALARM								
	Battery mode			Sounding every 4 seconds					
	Low battery			Sounding every second					
	Overload			Sounding twice every second	<u> </u>				
	Fault			Continously sounding					
	PHYSICAL			ı	1				
Standard	Dimension, HxWxD (mm)	220x145x282	220x145x397	318x190x421	688x190x369	688x190x442			
model	Net weight (kg)	9.8	17	27.6	61	66			
Long-run	Dimension, HxWxD (mm)		N/A		318x190x369	318x190x442			
model	Net weight (kg)				12	16			
	ENVIRONMENT	2001	00.01.0.0.40004	i\	00/ 05 01/ 0 0 / 00	C (
	Humidity	20%-	90 RH @ 0- 40°C (non-conder	nsing)	0%-95 RH @ 0-40°				
	Acoustic noise		< 50dBA @ 1m		< 55dBA @ 1m	< 58dBA @ 1m			
	MANAGEMENT Smart RS-232/USB		00/2003/XP/Vista/2008/7/8, L	inux Unix and MAC					
	Optional SNMP		• • • • • • • • • • • • • • • • • • • •	nent from SNMP manager and					
	орионат эммР		rower manager	nent from Sixime manager and	i Men ni om261				





1 - 10 kVA

TEOS 100 XL

UNINTERRUPTIBLE POWER SUPPLIES

- True double-conversion
- Microprocessor control optimizes reliability
- Input power factor correction
- Wide input voltage
- Converter mode available
- ECO mode for energy saving
 (Only available for 1-3kVA models)
- Generator compatible

- Adjustable battery numbers only available for 6/10kVA models
- Adjustable charging current via LCD or software $(1A\sim6A)$ only available for 6/10kVA models
- Emergency power off (EPO) function is only available for 6/10kVA models
- Comprehensive display allows easy monitoring and access to UPS status









1 - 10 kVA TECHNICAL SPECIFICATIONS

						ı	ı	
	MODEL	Teos 1000 XL	Teos 2000 XL	Teos	3000 XL	Teos 106 XL	Teos 110 XL	
	Phase				e with ground	I	I	
	Power	1000VA / 800W	2000VA / 1600W	3000VA	x / 2400W	6000VA / 5400W	10000VA / 9000W	
	INPUT			l				
	Nominal voltage		15/120/127VAC or 200/208/220/				30/240VAC	
	Input voltage range		AC or 120-300 VAC (Based on lo AC or 180-280 VAC (Based on loa				ed on load at 50%) ed on load at 100%)	
	Frequency range		40Hz ~ 70 Hz			46~54 Hz (or 56~64 Hz	
	Power factor		≥ 0.9	99 @ Nominal	Voltage (100%	load)		
	OUTPUT							
	Power factor		0.8			0	1.9	
	Voltage	100/110/1	15/120/127VAC or 200/208/220/	/230/240VAC		208/220/2	30/240VAC	
	Voltage regulation			±	1%			
	Frequency range	47~ 5	B Hz or 57 ~ 63 Hz (Synchronized	d Range)		46~54 Hz or 56~64 Hz	(Synchronized Range)	
	Frequency range		50 Hz or 60Hz ± 0.5% (Batt. Mod	de)		50 Hz or 60Hz ± 0	I.1 Hz (Batt. Mode)	
	Crest factor			3:1	(max.)			
	Voltage THD						.inear load) on-linear load)	
Transfer	AC mod → Batt. mod			1				
time	Inverter → bypass		4 ms (Typical)		Ze	ero		
	Waveform (batt. mode)			Pure S	inewave			
	EFFICIENCY							
	AC mode	88%	89%	9	0%	92%	93%	
	Battery mode	83%	85%	8	8%	90%	91%	
	BATTERY							
	Battery type			Depending on	the application	S		
	Numbers	2	4		6		djustable)	
	Typical recgahrge time		4 hour recover to 90% capacit	У		9 hour recover to 90% capacity		
	Charging current		1A/2A/4A/6A (adjustable)			1A/2A/4A/6A (adjustable, only f		
	Charging voltage	27.4VDC ± 1% 41.9VDC ± 1	% 547 VDC ± 1% 82.1 VDC ± 1% 109.4 VDC ± 1%	82.1 VDC±1%	109.4 VDC ± 1%	273 VDC ± 1% (according to 20	0 battpowered configuration	
	INDICATORS							
	LCD		Load level, Battery level, A	C mode, Batte	ry mode, Bypas	s mode, and Fault indicators		
	ALARM							
	Battery mode				ery 4 seconds			
	Low battery				every second			
	Overload				ce every second			
	Fault PHYSICAL			Continuus	ly sounding			
		220x145x282	220x145x397	210-1	90x421	318x190x369	318x190x442	
L	Net weight (kg)	4.1	6.8		7.4	12	16	
		4.1	0.0	<u> </u>	.4	12	10	
	ENVIRONMENT Humidity	20	-90% RH @ 0- 40°C (non-conden	neina)		0-95% RH @ 0-40°	C (non-condensing)	
	Acoustic noise	20	< 50dBA @ 1 meter	1311 IY <i>)</i>		< 55dBA @ 1 meter	< 58dBA @ 1 meter	
	MANAGEMENT							
	Smart RS-232/USB		Supports Windows 200	00/2003/XP/Vi	sta/2008/7/8. I	inux, Unix, and MAC		
	Optional SNMP		Power managem					
	optional ortifi		. oci managen		ariagei ario			





TEOS 100 XL RT

UNINTERRUPTIBLE POWER SUPPLIES

- Rackmount design for Rack Cabinet applications
- True double-conversion
- Microprocessor control optimizes reliability
- Input power factor correction
- Wide input voltage
- Converter mode available
- ECO mode for energy saving (Only available for 1-3kVA models)
- Generator compatible

- Manuel bypass is available for 6-10kVA
- Adjustable battery numbers only available for 6/10kVA models
- Adjustable charging current via LCD or software $(1A\sim6A)$
- Emergency power off (EPO) function is only available for 6/10kVA models
- Comprehensive display allows easy monitoring and access to UPS status







1 - 10 kVA TECHNICAL SPECIFICATIONS

	MODEL	Teos 100	00 XL RT	Teos 2000 XL RT	Teos 30	00 XL RT	Teos 106 XL RT	Teos 110 XL RT		
	Phase				Single phase	with ground				
	Power	1000VA	/ 800W	2000VA / 1600W	3000VA	/ 2400W	6000VA / 5400W	10000VA / 9000W		
	INPUT									
	Nominal voltage			5/120/127VAC or 200/208/220/				208/220/230/240VAC		
	Input voltage range			C or 120-300 VAC (Based on lo or 180-280 VAC (Based on loa			110-300 VAC (Based on load at 50%) 176-300 VAC (Based on load at 100%)			
	Frequency range	40Hz ~ 70 Hz 46~54 Hz or 56~64 Hz					or 56~64 Hz			
	Power factor			≥ 0.9	99 @ Nominal V	oltage (100%)	load)			
	ОИТРИТ									
	Power factor			0.8			(0.9		
	Voltage		100/110/115	5/120/127VAC or 200/208/220/	230/240VAC		208/220/2	230/240VAC		
	Voltage regulation				± 1	1%				
	Frequency range		47~ 53	Hz or 57 ~ 63 Hz (Synchronized	l Range)		46~54 Hz or 56~64 H	z (Synchronized Range)		
	Frequency range		50	Hz or 60Hz ± 0.5% (Batt. Mod	le)		50 Hz or 60Hz ± 0	0.1 Hz (Batt. Mode)		
	Crest factor				3:1 (1	max.)				
	Voltage THD	S 3% THD (linear load) ≤ 6% THD (non-linear load)				linear load) on-linear load)				
Transfer	AC mod → Batt. mod				Ze	ro	1			
time	Inverter → bypass		4 ms (Typical)				Zero			
	Waveform (batt. mode)				Pure Si	newave				
	EFFICIENCY									
	AC mode	88	%	89%	90	1%	92%	93%		
	Battery mode		%	85%	88	1%	90%	91%		
	BATTERY									
	Battery type				Depending on t	he applicatior	ns			
	Numbers	2	2	4	6		16-20 (a	djustable)		
	Typical recgahrge time			4 hour recover to 90% capacity			9 hour recover to 90% capacity			
	Charging current			1A/2A/4A/6A (adjustable)			1A/2A/4A/6A (adjustable, only for 6A 16 pcs batt. configuration			
	Charging voltage	27.4VDC ± 1%	41.9VDC ± 1%	54.7 VDC ± 1% 82.1 VDC ± 1% 109.4 VDC ± 1%	82.1 VDC±1%	109.4 VDC ± 1%	273 VDC ± 1% (according to 2	0 battpowered configuration		
	INDICATORS									
	LCD			Load level, Battery level, AG	C mode, Batter	y mode, Bypa	ss mode, and Fault indicators			
	ALARM									
	Battery mode				Sounding eve					
	Low battery				Sounding e					
	Overload				Sounding twice	e every secon	d 			
	Fault				Continousl	y sounding				
	PHYSICAL			T				1		
	Dimension HxWxD (mm)	88(2U)x4		88(2U)x4			88(2U)x438x530	133(3U)x438x580		
	Net weight (kg)	9)	12	14	2	15	18		
	ENVIRONMENT									
	Humidity		20-9	0% RH @ 0- 40°C (non-conden	sing)			°C (non-condensing)		
	Acoustic noise			< 50dBA @ 1 meter			< 55dBA @ 1 meter	< 58dBA @ 1 meter		
	MANAGEMENT									
	Smart RS-232/USB			Supports Windows 200		•				
	Optional SNMP			Power managem	nent from SNMI	P manager an	d web browser			





TEOS RT

UNINTERRUPTIBLE POWER SUPPLIES

- True double-conversion
- Microprocessor control optimizes reliability
- Input power factor correction
- Output power factor 0.9
- Wide input voltage range
- Converter mode available
- Generator compatible

- ECO mode for energy saving (Only available for 1-3kVA models)
- Adjustable charging current via LCD or software (1A/2A)
- Emergency power off (EPO) function is only available for 6/10kVA models
- Comprehensive display allows easy monitoring and access of UPS status













1 - 10 kVA TECHNICAL SPECIFICATIONS

	MODEL	Teos 1RT	Teos 2RT	Teos 3RT	Teos 1	IO6RT	Teos 1	10RT		
	Phase			Single phase with ground						
	Capacity	1000 VA / 900 W	2000 VA / 1800 W	3000 VA / 2700 W	6000 VA	/ 5400 W	10000 VA	/ 9000 W		
	INPUT									
	Nominal voltage		/120/127VAC or 208/220/230	144	208/220/230/240VAC					
	Input voltage range		5 VAC or 120-300 VAC at 509				sed on load at 5			
		90-14	5 VAC or 180-300 VAC at 100	% load	176	·	ed on load at 10			
	Frequency range		40Hz ~ 70 Hz	20.01. 1.11.1. (4000)		46HZ ~ 54 HZ	or 56Hz ~ 64Hz			
	Power factor		≥ 0.9	99 @ Nominal Voltage (100%	load)					
	OUTPUT	440/445	/4.00 /4.05 /4.0	(2.4.2).4.6		200/200/	200/2/201/4			
	Output voltage	110/115	/120/127VAC or 208/220/230	± 1%	208/220/230/240VAC					
	Voltage regulation	// F2I		<u> </u>	/CII- F/		· / - /			
	Frequency range		Hz or 57 ~ 63Hz (synchronized				4Hz (synchroni			
	Frequency range Current crest ratio	5UHZ ± U	.25Hz or 60Hz ± 0.3Hz (batte		5UHZ ±	U.THZ or bUHZ	± 0.1Hz (batte	ry mode)		
		2.0/ TUD /	Line and a color of TUD (No.	3:1	2.0/ TUD	/I : I I	F 0/ TUD /N	Para and a salv		
	Harmonic distortion AC Mode to batt. mode	≤ 3 % 1HD (Linear Load), ≤ 6 % THD (Non Zero	-linear Load)	≤3 % IHD		≤ 5 % THD (Non- ms	·unear Load)		
Transfer time	Inverter to bypass		4 ms (Typical)				ms			
CITIC	Waveform (Batt. mode)		4 ms (Typicat)	Pure Sinewave		U	IIIS			
	EFFICIENCY			rule Sillewave						
		88%	89%	90%	92% 93%		0/6			
AC mode Battery mode		83%	87%	88%	90%		91%			
	BATTERY	0370	0770	0070	30	570	31	70		
	Battery type		12V/9AH		12V/	′7ΔH	12V/	'9ΔΗ		
	Numbers	2	4	6	16	20	16	20		
	Typical recharge time		hours recover to 90% capacit				to 90% capaci			
	Charging current (max.)		1.0A	- y	`		djustable)	-y		
	Charging voltage	27.4VDC ± 1%	54.7VDC ± 1%	82.1VDC ± 1%	218.4VDC ± 1% 273VDC ± 1% 218.4 VDC ± 19			273VDC + 1%		
	INDICATORS	27111352173	0 117 12 0 2 1 7 0	3211123 2 170	2.0202.170	2,01202 1,0	210111202170	2701302170		
	LCD panel		Load level Battery level Δ	C mode, Battery mode, Bypas	s mode, and Fa	ult indicators				
	ALARM		Load tevet, Battery tevet, 7t	e mode, buccery mode, bypas	o mode, and ra	att maleators				
	Battery mode			Sounding every 4 seconds						
	Low battery			Sounding every second						
	Overload		Sounding twice every second Sounding twice every second							
	Fault			Continously sounding						
	PHYSICAL			John Garage						
	Dimension, HxWxD (mm)									
					UPS Unit:	UPS Unit:	UPS Unit:	UPS Unit:		
		88x438x310	88x438x410	88x438x630	[2U]88x438x500 Battery Pack:	[2U]88x438x500	[3U]133x438x580	[3U]133x438x580 Battery Pack:		
					[2U]88x438x668	Battery Pack: [3U]133x438x580	Battery Pack: [3U]133x438x580	[3U]133x438x580		
	Net Weight (kg)	42	40	20.0	UPS Unit: 15	UPS Unit: 15	UPS Unit: 18	UPS Unit: 18		
	3 . 3	12	19	29.3	Batt. Pack: 48	Batt. Pack: 61	Batt. Pack: 51	Batt. Pack: 61		
	ENVIRONMENT		I .	I		I				
	Humidity	20-90	% RH @ 0- 40°C (non-conde	nsing)	0-95	5 % RH @ 0- 40)°C (non-conder	nsing)		
	Noise level		Less than 50dBA @ 1m			5dBA @ 1m	Less than 5			
	MANAGEMENT				1		1			
	Smart RS-232/USB		Supports Windows 20	00/2003/XP/Vista/2008/7/8, L	inux, Unix, and	MAC				
	Optional SNMP		Power managen	nent from SNMP manager and	l web browser					
				5						





TEOS+ 100

UNINTERRUPTIBLE POWER SUPPLIES

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 3 h (standard model UPS)
- Linear derating in low voltage input reducing battery discharging times
- Settable delayed start when power is restored
- Advanced battery management (ABM)
- Multiple functions settable via LCD: output voltage, EOD, auto-start, bypass mode, ECO mode and frequency conversion mode
- Multi-platform communications: RS232

Available Options

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







1 -3 kVA TECHNICAL SPECIFICATIONS

MODEL	Teos -	+101		Teos +102		Teos	+103	
Capacity	1 kVA/9	900 W		2 kVA/1800 W		3 kVA	2700 W	
INPUT								
Rated voltage		208 / 220 / 230 / 240 Vac						
Voltage range	110 ~ 176 Va	ac (linear derating betw	een 50% and 10	0% load); 176 ~ 7	280 Vac (no dera	ting); 280 ~ 300 Vac (der	ating 50%)	
Frequency			40 ~	70 Hz (auto-sens	sing)			
Power factor				≥ 0.99				
Bypass voltage range			- 25	% ~ +15% (setta	ble)			
Total harmonic distortion (THDi)				≤ 6%				
OUTPUT								
Voltage			208 / 220 / 23	0 / 240 Vac (sett	able via LCD)			
Voltage regulation				± 1%				
Frequency		45 ~ 55 Hz or 55	~ 65 Hz (synchr	onized range); 50) / 60 Hz ± 0.1 Hz	(battery mode)		
Waveform				Sinusoidal				
Power factor				0.9				
Total harmonic distortion (THDv)			≤ 2% (linear	load), ≤ 5% (non	-linear load)			
Crest factor				3:1				
Overload		105% ~ 1	125% for 1 min,	125% ~ 150% for	30 s, > 150% for	300 ms		
BATTERIES								
DC voltage	24V	(S)	48V (S)		72V (S)	96V (S)		
Inbuilt battery	2x7Ah	2x9Ah		4x9Ah		6x9Ah	8x9Ah	
Charging current (max.)				1A				
Recharge time	Star	ndard model: 90% capa	city restored in 3	B hours; Long tim	e model: depend	on the capacity of batte	ery	
SYSTEM								
Efficiency	≥ 90% (Ma	ains mode)	≥ 9	91% (Mains mode	e)	,	ains mode)	
		ttery mode)		6% (Battery mod			tery mode)	
	≥ 95% (E	CO mode)	≥	96% (ECO mode))	≥ 97% (E	CO mode)	
Transfer time			Mains mo	ode to battery mo	ode: 0 ms			
			Inverter mode	to bypass mode:	4 ms (typical)			
Protections	S	Short-circuit, overload,	overtemperature	e, battery dischar	ge protection an	d fan testing protection		
Communications		RS232 (standard), USB	/ RS485 / dry con	tacts / SNMP (or	otional)		
Display				LCD + LED				
Standards	EN 62040-1	, EN 62040-2, EN 61000	0-3-2, EN 61000	-3-3, IEC 61000-	4-2, IEC 61000-4	-3, IEC 61000-4-4, IEC 6	1000-4-5,	
	IEC	61000-4-6, IEC 61000-	4-8, IEC 61000-4	-11, IEC 61000-2	2-2, IEC 62040-2,	IEC 62040-1, IEC 62040	-3	
OTHERS								
Operating temperature				0°C ~ 40°C				
Storage temperature			– 25°C ~	55°C (without ba	atteries)			
Relative humidity			0 ~ 9	5% (non-conden	sing)			
Altitude			≤ 1000 m, derat	ing 1% for each a	additional 100 m			
IP rating				IP 20				
Noise level at 1m				≤ 50 dB				
Dimensions (H×W×D) (mm)	214x144x414	214x144x414		335x191x418		335x191×418	335x191×464	
Packaged dimensions (H×W×D) (mm)	320x230x417	320x230x417		471x318×533		471x318x533	472x320×573	
Net weight (kg)	9	9.5	18	25.7	10.5	27.2	34	
Gross weight (kg)	10	10.5	19.5	27.4	12	29	36	
		1	1	1	1		1	





TEOS+ 100

UNINTERRUPTIBLE POWER SUPPLIES

- 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 \sim 288 Vac) and frequency range (40 \sim 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
- High charging current available (Max. 12 A)
- Charging voltage and current configured by demands
- Linear derating in low voltage input reducing battery discharging times, extending the service life of battery
- Intelligent battery management, automatic floating / equalizing charge control, charger dormancy control, increasing battery life by 50%
- Ability to switch on the UPS with batteries
- Settable delayed start time when mains power is restored, reducing the impact on power grid or generator

- Fan speed varies intelligently with temperature, reducing noise and extending its service life
- Equipped with self-aging function
- Compact internal layout, miniaturized the complete unit for small footprint
- LCD+LED display, multi-functional keys operation, friendly human-machine interface
- Powerful background software for parameters configuration
- Advanced multi-platform communications: RS232, USB, RS485, SNMP and dry contacts communication interfaces
- Effective software and hardware protection function, robust self-diagnostic function, and abundant event log for check







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 / 23	80 / 240 Vac					
Voltage range	110 ~ 176 Vac (linear derating between 50% a	and 100% load); 176 ~ 288 Vac (no derating)					
Rated frequency	50 / 60 Hz (au	uto-sensing)					
Frequency range	40 ~ 7	0 Hz					
Power factor	≥ 0.1	99					
Bypass voltage range	- 40% ~ +15%	6 (settable)					
Total harmonic distortion (THDi)	≤ 5°	%					
OUTPUT							
Output wiring	Single-phase three-	wire (1Φ + N + PE)					
Rated voltage	208 (PF=0.9) / 220	0 / 230 / 240 Vac					
Voltage regulation	± 19	%					
Frequency	Synchronized to bypass in mains mode;	50 / 60 Hz ± 0.1% Hz in battery mode					
Waveform	Sinusc	pidal					
Power factor	1.0						
Total harmonic distortion (THDv)	≤ 1% (linear load); ≤ 4	4% (non-linear load)"					
Crest factor	3:1	1					
Overload	105% ~ 110% for 10 min, 110% ~ 12!	105% ~ 110% for 10 min, 110% ~ 125% for 1 min,126% ~ 150% for 30 s					
BATTERIES							
DC voltage	192 Vdc (192 ~ 24	40 Vdc settable)					
Number of battery	16 pcs (16 ~ 2	20 settable)					
Inbuilt battery (standard model)	12V / 7Ah × 16	12V / 9Ah × 16					
Charging current	Standard m	nodel: 1 A;					
	Long time model: 5A (default),1 ~ 5,	A settable; 12A (optional; PF 0.9)"					
Recharge time	Standard model: 90% capa	acity restored in 8 hours;					
	Long time model: depend o	on the capacity of battery					
SYSTEM							
Efficiency	≥ 94% at 100% load, max. 95% at	: 60% load, ≥ 98% in ECO mode					
Transfer time	0 m	S					
Protections	Short-circuit, overload, overtemperature, batter	ry 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 + I	LED					
OTHERS							
Operating temperature	0°C ~ 4	40°C					
Storage temperature	– 25°C ~ 55°C (w	ithout battery)					
Relative humidity	0 ~ 95% (non-	condensing)					
Altitude	≤ 1000 m, derating 1% fo	r each additional 100 m					
IP rating	IP 2	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)					

 $^{^{\}star}\,\mathrm{S}$ means standard model; H means long time model.





TEOS+ 100RT

UNINTERRUPTIBLE POWER SUPPLIES

- Advanced DSP and 3-Level technology
- Output power factor 1.0
- Active power factor correction (APFC), input power factor up to 0.99
- High efficiency 95% (up to 98% in ECO mode)
- Advanced digital parallel technology
- Wide input voltage range (110 288 Vac) and frequency range (40 - 70Hz)
- 50 / 60 Hz frequency auto sensing
- Two modes of frequency conversion: 50Hz input / 60Hz output or 60Hz input / 50Hz output
- Hot-swappable battery
- Flexible battery configuration (settable 16 20 pcs batteries)
- Digitally controlled charger
- High charging current available (Max. 12 A)
- 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







6-10 kVA TECHNICAL SPECIFICATIONS

		T .						
MODEL	Teos+ 106RT	Teos+ 110RT						
Capacity	6 kVA / 6 kW	10 kVA / 10 kW						
INPUT								
Input wiring	Single-phase three-	-wire (1Φ + N + PE)						
Rated voltage	208 / 220 / 23	30 / 240 Vac						
Voltage range	110 ~ 176 Vac (linear derating between 50%	110 ~ 176 Vac (linear derating between 50% and 100% load); 176 ~ 288 Vac (no derating)						
Rated frequency	50 / 60 Hz (au	uto-sensing)						
Frequency range	40 ~ 7	70 Hz						
Power factor	0.0	99						
Bypass voltage range	- 40% ~ +159	% (settable)						
Total harmonic distortion (THDi)	≤ 5	5%						
OUTPUT								
Output wiring	Single-pha	ase (L- N)						
Rated voltage	208 (PF=0.9) / 22I							
Voltage regulation	±1							
Frequency	Synchronized to bypass in mains mode:	- 50 / 60 Hz + 0 1% Hz in hattery mode						
Waveform	Sinus	·						
Power factor	1.1							
Total harmonic distortion (THDv)	≤ 1% (linear load); ≤ 4							
Crest factor								
	3:1 105% ~ 110% for 10 min, 110% ~ 125% for 1 min,126% ~ 150% for 30 s							
Overload	105% ~ 110% for 10 min, 110% ~ 12	.5% for 1 min, 126% ~ 150% for 30 s						
BATTERIES	403.VI. (4033	(OVI)IIA						
DC voltage	192 Vdc (192 ~ 24	<u> </u>						
Number of battery	16 pcs (16 ~)							
Inbuilt battery (standard model)	12V / 7Ah × 16	12V / 9Ah × 16						
Charging current	Standard n							
	Long time model: 5A (default),1 ~ 5							
Recharge time	Standard model: 90% cap	·						
	Long time model: depend (on the capacity of battery						
SYSTEM								
Efficiency	≥ 94% at 100% load, max. 94.5% a							
Transfer time	0 n							
Protections	·	ry low voltage, overvoltage, undervoltage and fan failure						
Max. number of parallel connections	4							
Communications	·	SNMP / battery temperature compensation (optional)						
Display	LCD +	LED						
OTHERS								
Operating temperature	0°C ~	40°C						
Storage temperature	– 25°C ~ 55°C (w	· · · · · · · · · · · · · · · · · · ·						
Relative humidity	0 ~ 95% (non-	-condensing)						
Altitude	≤ 1000 m, derating 1% fo	or each additional 100 m						
IP rating	IP 2	20						
Noise level at 1m	≤ 55 dB	≤ 58 dB						
Dimensions (HxWxD) (mm)	440 x 580 x 88 (H) /	440 x 660 x 176 (S)						
Packaged dimensions (HxWxD) (mm)) 514 x 696 x 168 (H)/	554 x 792 x 418 (S)						
Net weight (kg)	12 (H), 58 (S)	14 (H), 63 (S)						
Gross weight (kg)	14 (H), 68 (S)	16 (H), 73 (S)						
		<u> </u>						

 $^{^{\}star}\,\mathrm{S}$ means standard model; H means long time model.





TEOS 200

UNINTERRUPTIBLE POWER SUPPLIES

- True double-conversion
- Output power factor 0.8
- Wide input voltage range
- 50Hz frequency converter mode
- Emergency power off function (EPO)

- Generator compatible
- SNMP+USB+RS-232 multiple communications
- 3-stage extendable charging design for optimized battery performance
- Optional maintenance bypass switch







10 - 20 kVA TECHNICAL SPECIFICATIONS

	MODEL	Teos	210	Teos		Teos	Teos 220			
	Phase			3 phase in /	-					
	Capacity	10000VA /	8000W	15000VA	/ 12000W	20000VA /	16000 W			
	INPUT Nominal voltage		3x400VAC (3Ph+N)							
			190-520VAC (3-Phase) @ 50% load							
	Input voltage range			305-520VAC (3-Ph						
	Fraguena, rango			•	·					
	Frequency range OUTPUT		46Hz ~ 54Hz							
	Output voltage		208/220/230/240VAC							
	AC Voltage regulation			± 1% (bat	-,					
· · · · · · · · · · · · · · · · · · ·	Frequency range			46 ~ 54Hz (syncl	•					
	Frequency range			50Hz ± 0.1Hz						
	Current crest ratio			3:1 (r	*					
	Harmonic distortion			3 % THD (Linear Load) ≤	•	d)				
Transfer	1.2			Zei		u,				
Time				Zei						
V	Waveform (Batt. mode)			Pure Sir						
	EFFICIENCY									
	AC mode			91'	<u> </u>					
	Battery mode		91%							
	BATTERY				•					
	Battery type			12V /	′ 9AH					
	Numbers	16 pcs	20 pcs	16 pcs	20 pcs	16 pcs x 2 strings	20 pcs x 2 strings			
Standard	Typical recharge time			9 hours recover t	to 90% capacity					
Model	Charging current (max.)		1A ±	± 10%		1A/2A/4A ± 109	6 (2A default))			
	Charging voltage	218.4 VDC ± 1%	273 VDC ±1%	218.4 VDC ±1%	273 VDC ±1%	218.4 ±1%	273 ±1%			
	Battery type			Depending on the capaci	ty of external batteries	1				
Long-run	Numbers	16 pcs	20 pcs	16 pcs	20 pcs	16 pcs	20 pcs			
Model	Charging current (max.)			4A Default, 1A/2A	A/4A (Adjustable)	1				
	Charging voltage	218.4 VDC ± 1%	273 VDC ±1%	218.4 VDC ±1%	273 VDC ±1%	218.4 ±1%	273 ±1%			
	INDICATORS									
	LCD panel		UPS status, Load level,	Battery level, Input/Outp	ut voltage, Discharge tin	ner, and Fault conditions				
	ALARM									
	Battery mode			Sounding eve	ery 4 seconds					
	Low battery			Sounding ev	very second					
	Overload			Sounding twice	e every second					
	Fault			Continous	y sounding					
	PHYSICAL									
Standard	Dimension HxWxD (mm)		688x1	90x422		826x25	0x815			
Model	Net Weight (kg)	66	76	67	78	125	145			
Long-run	Dimension HxWxD (mm)		318x1	90x442		318x19	0x575			
Model	Net Weight (kg)	1	5	1	6	18.9	95			
	ENVIRONMENT									
	Operating humidity			0-95% RH @ 0-50°	·					
	Acoustic noise			< 60dBA (@ 1 Meter					
	MANAGEMENT									
	Smart RS-232/USB			Windows® 2000/2003/XP						
	Optional SNMP		Power	r management from SNMF	P manager and web brow	ser				





TEOS 300

UNINTERRUPTIBLE POWER SUPPLIES

- 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













10 - 80 kVA TECHNICAL SPECIFICATIONS

	MODEL	Teos 310	Teos 320	Teos 330	Teos 340	Teos 360	Teos 380		
	Phase			3 phase in /	3 phase out				
	Capacity	10kVA / 10kW	20kVA / 20kW	30kVA / 30kW	40kVA / 40kW	60kVA / 60kW	80kVA / 80kW		
	Parallel capability			up to 3 units	s in parallel				
	INPUT								
	Nominal voltage	Nominal voltage 3 x 400VAC (3Ph+N)							
	Input voltage range			190-520VAC (3-Ph	nase) @ 50% load				
		305-478VAC (3-Phase) @ 100% load							
	Frequency range		46~54 Hz or 56~64Hz						
	Power factor			≥ 0.99 @ 1	00% load				
	OUTPUT								
	Output voltage			3 x 360*/380/400/4	415 VAC (3Ph+N)				
	AC Voltage regulation			± 1% (bat	<u> </u>				
	Frequency range			46~54Hz or 56~64Hz					
	Frequency range			50Hz ± 0.1Hz or 60Hz					
	Current crest ratio			3:1 (r	<u> </u>				
	Harmonic distortion		≤ 2	2 % THD (Linear Load) ≤	5 % THD (Non-linear Loa	d)			
Transfer		Zero							
Time	liverter to bypass			Zei					
W	Vaveform (Batt. mode)			Pure Sir	newave				
Overload	AC mode		100-110	0% for 60 min, 110-125%	for 10 min, >150% imme	diately			
	Battery mode		100-110	0% for 60 min, 110-125%	for 10 min, >150% imme	diately			
	EFFICIENCY								
	AC mode			95.5					
	Eco mode		98.5%						
	Battery mode		94.5%						
	BATTERY								
	Battery type		Depending on the applications						
Long-run	Numbers	20 pcs			32~40 pcs (Adjustable)				
Model	Charging current (max.)		17	2A		2	4A		
	Charging voltage	± 136.5 VDC ± 10%			± 13.65V x N (N=16~20)				
	INDICATORS								
	LCD panel		UPS status, Load level,	Battery level, Input/Outp	ut voltage, Discharge tin	ner, and Fault conditions	S		
	PHYSICAL								
			50x626	1000x3			360x790		
Model	Net Weight (kg)	28	43	60	61	108	113		
	ENVIRONMENT			0.7	.0°C				
	Operating temperature								
	Operating humidity	. FEJD @ 4 M.	. FOJD @ 4 Mar.		on-condersing	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	47E-ID @ 4 N4 +		
	Acoustic noise	< 55dB @ 1 Meter	< 58dB @ 1 Meter	< 65dB @ 1 Meter	< 70dB @	ı Meter	< 75dB @ 1 Meter		
	MANAGEMENT		C	Supports Windows® 2000/2003/XP/Vista/2008, 7/8, Linux and MAC					
	Smart RS-232/USB								
	Optional SNMP		Power	r management from SNMI	r manager and web brow	ser			

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





DS POWER 200SH

UNINTERRUPTIBLE POWER SUPPLIES

IGBT RECTIFIER DSP CONTROL

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

- Smaller footprint
- 3 level topology
- Transformerless UPS topology
- Low input current total harmonic distortion (THD)
- High input power factor
- High efficiency up to 94%
- Cold start function
- Static and maintenance by-pass switch

- Output short circuit and overload protection
- External EPO switch input
- 192 events memory (192 events 14.400 alarms)
- Clock and calender (battery supported)
- Automatic battery test ,remaining battery time indicator
- Temperature compensated charge system (optional)
- 1 RS232 serial port and 3 dry contact outputs (+2 optional)
- 3 DSP controlled modular structure
- Optional SNMP and MODBUS adaptors
- Fulldigital structure
- Fewer electronic components
- Output current limiting
- · Advanced diagnostics for the input
- Selectable input/output voltage/frequency range
- Output DC leakage protection
- Seperate DSP for PFC 3 level battery protection
- Charge / discharge current indicator
- Advanced remote control features
- Manufactured under CE,ISO9001,ISO14001,TSE and GOST international standards
- 2 years warranty

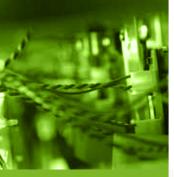




TECHNICAL SPECIFICATIONS

MODEL	DS210SH	DS215SH	DS220SH			
Power (kVA)	10	15	20			
INPUT						
Voltage	380/4	380/400 VAC 3P + N + G ± 20% (415VAC +15%, -25% optional)				
Frequency		50Hz / 60Hz, ± 10%				
Power factor		≥ 0.98				
THDI (at 100% load)		≤ 7% (depends on mains input conditions)				
By-pass voltage		220/230 VAC 1P+ N ± 10%				
Voltage distortion		≤ 10%				
Protection		Fuses, Voltage & Frequency Tolerance				
OUTPUT						
Power (kW)	9	13.5	18			
Power factor		0.9				
Voltage		220/230 VAC 1P+ 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%	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass				
Protection	Fuses,Advanced short	Fuses, Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting				
Voltage THD		≤ 2% (at 100% linear load)				
BATTERIES						
Туре	VRLA AGM / GEL / NiCd					
Number of batteries		2x30 (± 30) batteries				
Float charging voltage		± 405 VDC (adjustable)				
End of discharge voltage		± 300 VDC (adjustable)				
Battery cabinet		External (attached cabinet at the bottom of UPS)				
Battery ambient temperature		25°C				
Battery protection	3 level alarms, Batte	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)				
Automatic battery test		Standard: every 72 hours (adjustable)				
GENERAL						
Standards	EN62040-1, EN62040-2, EN62040-3					
User interface	4 lines LCD panel, Mimic leds, 5 vector buttons, buzzer					
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time					
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter					
Communication	RS232 serial port, 4 standard DRY contact alarm relays					
Inputs	EPO input					
Genset kit	Standard (programmable)					
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)					
Alarm logging	Standard: with time & date 512 events					
Protection	Power module over temperature, Over current, Temperature high alarms					
Operating temperature	0°C - 40°C					
Protection degree	IP20					
Relative humidity		90% max. (non-condensing) < 1000m. above sea level				
Acquetic poice	< 55 dBA	< 1000m. above sea tevet < 57	dDA			
Acoustic noise	< 55 dbA 47.5	49.5	51			
Weight (kg) Dimensions (mm) HxWxD		49.5 batt.) / 1000x300x800 (with 5ah batt.) /1170x300.				
	/oux3uux//u (without	. bacc., / TOOOXSOOXSOO (WILH SAN DATE.) / 11/UX300.	xooo (With 7-3an Bâll.)			
Different input / output voltage		Please ask				
Different input / output voltage Adaptors	SNMP, MODBUS, RS485, Remote panel					
Software	T Man Admin Multi I	T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 50-100-200 clients				
Suitware	1-Mon Admin Mater of 3 monitoring 10-30-100-200 chemis, 1-Mon Server 30-100-200 chemis					





DS POWER SH

UNINTERRUPTIBLE POWER SUPPLIES

IGBT RECTIFIER DSP CONTROL

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

- Smaller footprint
- 3 Level topology
- Transformerless UPS topology
- Low input current total harmonic distortion (THD)
- High input power factor
- High efficiency up to 94%
- Cold start function
- Static and maintenance by-pass switch

- Output short circuit and overload protection
- External REPO switch input
- 192 events memory (192 events 14.400 alarms)
- Clock and calender (battery supported)
- Automatic battery test ,remaining battery time indicator
- Temperature compensated charge system (optional)
- 1 RS232 serial port and 3 dry contact outputs (+2 optional)
- 3 DSP controlled modular structure
- Optional SNMP and MODBUS adaptors
- Fulldigital structure
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency range
- Output DC leakage protection
- Separate DSP for PFC 3 level battery protection
- Charge / discharge current indicator
- Advanced remote control features
- Manufactured under CE,ISO9001,ISO14001,TSE and GOST international standards
- 2 years warranty

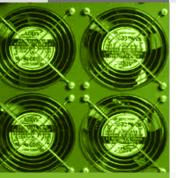




TECHNICAL SPECIFICATIONS

MODEL	DS310SH	DS315SH	DS320SH		
Power (kVA)	10	15	20		
INPUT					
Voltage	380/4	380/400 VAC 3P + N + G ± 20% (415VAC +15%, -25% optional)			
Frequency		50Hz / 60Hz, ± 10%			
Power factor (at 100% load)		≥ 0.99			
THDI (at 100% load)		≤ 4% (depends on mains input conditions)			
By-pass voltage		380/400 VAC 3P + N, 4 Wires, ± 10%			
Voltage distortion		≤ 10%			
Protection		Fuses, Voltage & Frequency Tolerance			
OUTPUT					
Power (kW)	9	13.5	18		
Power factor	0.9 (1 optional)	0.9 (0.8 and	1 optional)		
Voltage	·	380/400 VAC 3P + N , ± 1% (415 VAC optional)	·		
Frequency		500/400 VAC 31 + N , ± 170 (413 VAC optional)			
Frequency tolerance		Line synchronized: ± 2% / Free running: ± 0.1%			
Efficiency (at 100% load)		94%			
Crest factor		3:1			
Overload protection	100% - 125%	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					
Туре	VRLA AGM / GEL / NiCd				
Number of batteries	60 (± 30) batteries				
Float charging voltage	± 405 VDC (adjustable)				
End of discharge voltage	± 300 VDC (adjustable)				
Battery cabinet	External (attached cabinet at the bottom of UPS)				
Battery ambient temperature	25°C				
Battery protection	3 level alarms, Batto	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)			
Automatic battery test		Standard: every 72 hours (adjustable)			
GENERAL					
Standards		EN62040-1, EN62040-2, EN62040-3			
User interface	4 lines LCD panel, Mimic leds, 5 vector buttons, buzzer				
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time				
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter				
Communication	RS232 serial port, 4 standard DRY contact alarm relays				
Inputs	EPO input				
Genset kit	Standard (programmable)				
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)				
Alarm logging	Standard: with time & date 512 events				
Protection	Power module over temperature, Over current, Temperature high alarms				
Operating temperature	0°C - 40°C				
Protection degree	IP20				
Relative humidity	90% max. (non-condensing)				
Acoustic poice	< 55 dBA	< 1000m. above sea level	dD \		
Acoustic noise Weight (kg)	< 55 dbA 47.5	49.5	ива 51		
Dimensions (mm) HxWxD		49.5 : batt.) / 1000x300x800 (with 5ah batt.) /1170x300			
OPTIONS	/ooxsoox//o (without	. batt., / 1000x300x000 (With Sall Datt.) / 11/0X3002	(WILLI / - Jail patt.)		
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				
JoitWale	1-Mon Admin Mata of 5 monitoring 10-50-100-200 therits, 1-Mon 3erver 50-100-200 therits				





10 - 100 kVA

DS POWER H

UNINTERRUPTIBLE POWER SUPPLIES

3 LEVEL TECHNOLOGY IGBT RECTIFIER DSP CONTROL

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 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.

- Transformerless UPS topology
- 3 Level topology
- High input power factor
- High efficiency up to 95%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input
- 512 events memory (512 events 45000 alarms)
- Clock and 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
- Optional usb flash memory
- Full digital structure
- Small footprint
- Ecomode operation (optional)
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency/range
- Split by-pass input (second input)
- Output DC leakage protection
- Separate DSP for inverter control
- Separate DSP for the PFC
- 3 level battery protection
- · High charge current capacity
- Charge/discharge current indicator
- Advanced remote control
- Manufactured according to EC Directive; EN62040
- 2 years warranty





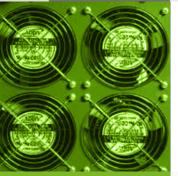


10 - 100 kVA

TECHNICAL SPECIFICATIONS

MODEL	DS310H	DS315H	DS320H	DS330H	DS340H	DS360H	DS380H	DS3100H
Power (kVA)	10	15	20	30	40	60	80	100
INPUT		•		•				
Voltage			380/400 VAC 3P	+ N + G ± 20% (a	t 100% load) / - 40	% (at 70% load)		
Frequency				50Hz / 60	Hz, ± 10%			
Power factor				≥ 0.99 (at	100% load)			
(THDI) (*)				≤ 3	3%			
By-pass voltage				380/400 VAC 3 F	Phase + N, ± 10%			
Voltage distortion				≤ 1	0%			
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 (0.8	and 1.0 optional)			
Voltage			380/	400 VAC 3P + N, ±	1% (415 VAC option	nal)		
Frequency				50Hz /	60Hz			
Frequency tolerance			Line synch	onized: ± 2% (adju	stable) / Free runn	ing: ± 0.1%		
Efficiency				up to	95%			
Crest factor				3	:1			
Overload protection		1	00% - 125% load:	10 min, 125% - 150	0% load: 1 min, - >	150% load: by pa	iss	
Other protections		Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting						
Voltage THD		≤ 2% (at 100% linear load)						
BATTERIES								
Туре		VRLA AGM / GEL / NiCd						
Number of batteries	2x30 (±30): 60 pieces							
Charge voltage	2x405 VDC							
End of discharge voltage		2x300 VDC						
Battery cabinet		Internal External			ternal			
Battery ambient temperature	25∘C							
Protections	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)							
Automatic testing		Standard every 72 hours (adjustable)						
GENERAL								
Standards	EN62040-1, EN62040-2, EN62040-3							
User interface	4 lines LCD panel, Mimic leds, 5 vector buttons, Buzzer, Optional TFT panel P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time							
Indicators Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter							
Communication	2xRS232 serial ports, 4 standard and 8 optional DRY contact alarm relays							
Inputs		EPO input, Interactive battery panel input, Genset input						
Genset kit	Standard (programmable)							
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)							
Alarm logging	Standard: with time & date 512 events							
Protections	Power module over-temperature, Overcurrent, Temperature high alarm							
Temperature range		0°C - 40°C						
Protection degree	IP20							
Relative humidity	90% max. (non-condensing)							
Altitude	< 1000m above sea level							
Acoustic noise	< 57dBA < 62dBA < 65dBA			< 65dBA				
Weight without batteries (kg)	87	87	91	100	173	197	209	220
Dimensions (mm) HxWxD		1040x4	00x815	1		1440x	(515x855	
OPTIONS								
Different input / output voltage				Pleas	se 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	SNMP, RS485, Remote monitoring panel, MODBUS (RS485 or TCP/IP), USB Alarm Logger, TCP/IP, GSM/GPRS Modem, Comport multiplexer						
Parallel operation		Up to 8 units						
	Cp to 0 and							





300 - 400 kVA

DS POWER H

UNINTERRUPTIBLE POWER SUPPLIES

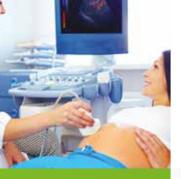
3 LEVEL TECHNOLOGY IGBT RECTIFIER DSP CONTROL

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 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.

- Transformerless UPS topology
- 3 Level topology
- High input power factor
- High efficiency up to 95%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input
- 512 events memory (512 events 45000 alarms)
- Clock and 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
- Optional usb flash memory
- Full digital structure
- Small footprint
- Ecomode operation (optional)
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency/range
- Split by-pass input (second input)
- Output DC leakage protection
- Separate DSP for inverter control
- Separate DSP for the PFC
- 3 level battery protection
- · High charge current capacity
- Charge/discharge current indicator
- Advanced remote control
- Manufactured according to EC Directive; EN62040
- 2 years warranty







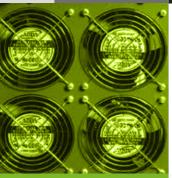
300 - 400 kVA

TECHNICAL SPECIFICATIONS

MODEL	DS3300H	DS3400H		
Power (kVA)	300	400		
INPUT				
Voltage	380/400 VAC 3P + N + G ± 20% (at	t 100% load) / - 40% (at 70% load)		
Frequency	50Hz / 60H	Hz, ± 10%		
Power factor	≥ 0.99 (at 1	00% load)		
(THDI) (*)	≤3			
By-pass voltage	380/400 VAC 3 PI	hase + N, ± 10%		
Voltage distortion	≤ 10	0%		
Protection	Fuses, Voltage & Frequency tolerance, Inp	out power limit, Phase sequency indicator		
OUTPUT				
Power (kW)	270	360		
Power factor		8 and 1 optional)		
Voltage	380/400 VAC 3P + N, ± 1	•		
Frequency	50Hz /	•		
Frequency tolerance	Line synchronized: ± 2% (adjus			
Efficiency	up to			
Crest factor	3:			
Overload protection				
Other protections	Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting			
Voltage THD	≤ 2% (at 100% linear load)			
BATTERIES	2 E/V (at 10070 tilledi toda)			
Туре	VRLA AGM / GEL / NiCd			
Number of batteries	2x30 (±30): 60 pieces			
Charge voltage	2x30 (±30): 60 pieces 2x405 VDC			
End of discharge voltage	2x300 VDC			
Battery cabinet	External			
Battery ambient temperature	25°C			
Protections	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)			
Automatic testing	Standard every 72 hours (adjustable)			
GENERAL				
Standards	EN62040-1, EN62040-2, EN62040-3			
User interface	4 lines LCD panel, Mimic leds, 5 vector buttons, Buzzer, Optional TFT panel			
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time			
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter			
Communication	2xRS232 serial ports, 4 standard and 8 optional DRY contact alarm relays			
Inputs	EPO input, Interactive battery panel input, Genset input			
Genset kit	Standard (programmable)			
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)			
Alarm logging	Standard:with time & date 512 events			
Protections	Power module over-temperature, Overcurrent, Temperature high alarm			
Temperature range	0°C - 40°C			
Protection degree	IP20			
Relative humidity	90% max. (non-condensing)			
Altitude	< 1000m above sea level			
Acoustic noise	< 68dBA			
Weight without batteries (kg)	635	680		
Dimensions (mm) HxWxD	1900x1250x775			
OPTIONS				
Different input / output voltage		Please ask		
Transformer	Galvanic isolation transformer at the input & output (internal)			
Software	T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 50-100-200 clients			
Adaptors	SNMP, RS485, Remote monitoring panel, MODBUS (RS485 or TCP/IP), USB Alarm Logger, TCP/IP, GSM/GPRS Modem, Comport multiplexer			
Parallel operation	Up to 8 units			

(*) Depending on power and input/output conditions





100 - 400 kVA

DS POWER X

UNINTERRUPTIBLE POWER SUPPLIES

3 LEVEL TECHNOLOGY IGBT RECTIFIER DSP CONTROL

The new DX 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.

- Transformerless UPS topology
- 3 Level rectifier and inverter
- High input power factor
- High efficiency up to 96.0%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input

- 512 events memory (512 events 45000 alarms)
- Clock and 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
- \bullet Optional SNMP and MODBUS adaptors
- Optional graphical panel
- Optional usb flash memory
- Full digital structure
- Small footprint
- Ecomode operation (optional)
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency/range
- Split by-pass input (second input)
- Output DC leakage protection
- Separate DSP for inverter control
- Separate DSP for the PFC
- 3 level battery protection
- High charge current capacity
- Charge/discharge current indicator
- Advanced remote control features
- Manufactured according to EC Directive; EN62040
- 2 years warranty





100 - 400 kVA TECHNICAL SPECIFICATIONS

MODEL	DX3100	DX3120	DX3160	DX3200	DX3250	DX3300	DX3400		
Power (kVA)	100	120	160	200	250	300	400		
INPUT						Ask for availability			
Voltage		3	80/400 VAC 3P + N + 0	5 ± 20% (at 100% loa	d) / - 40% (at 70% lo	ad)			
Frequency				50Hz / 60Hz, ± 10%					
Power factor (at 100% load)				≥ 0.99					
THDI (*)				≤ 3%					
By-pass voltage			380/400 V	AC 3 Phase + N, ± 10 (adjustable)				
Input voltage THD				≤ 10%					
Protection		Fuses, V	oltage & Frequency to	olerance, Input power	limit, Phase sequenc	y indicator			
OUTPUT									
Power (kW)	100	120	160	200	250	300	400		
Power factor				1.0					
Voltage			380/400 VA	C 3P + N, ± 1% (415 V	AC optional)				
Frequency				50Hz / 60Hz					
Frequency tolerance			Line synchronized:	± 2% (adjustable) / F	ree running: ± 0.1%				
Efficiency	up to 9	95.5%			up to 96%				
Crest factor				3:1					
Overload protection		at 100% -	125% load : 10 min a	at 125% - 150% load	1 min > at 150% lo	oad : by-pass			
Other protections		Advanced s	hort circuit, Voltage to	lerance, DC balance, I	Regenerative load, Co	urrent limiting			
Voltage THD			≤ i	2% (at 100% linear lo	ad)				
BATTERY									
Туре			\	/RLA AGM / GEL / NiC	d				
Nominal voltage				± 360 VDC					
Float / End of discharge voltage				± 405 VDC / ± 300 VD	2				
Battery cabinet		External							
Battery ambient temperature		25℃							
Protections		3 level alarr	ns, Battery fuses, Cha		· · · · · · · · · · · · · · · · · · ·	tion (optional)			
Battery test			Standa	rd every 72 hours (adj	ustable)				
GENERAL									
Standards				40-1, EN62040-2, EN6					
User interface				or buttons, Buzzer, TF	<u> </u>				
Indicators			tage, P-P voltage, Curr	· · · · · · · · · · · · · · · · · · ·	, , ,				
Advanced			ics, 3 maintenance tim						
Communication		2xR	RS232 serial ports, 4 st	· · · · · · · · · · · · · · · · · · ·		relays			
Inputs			•	active battery panel in					
Genset kit				tandard (programmab					
Software		Stand	ard T-Mon UPS Manag			gement)			
Alarm logging				d:with time & date 51					
Protections		Po	ower module over-tem		, Temperature high a	larm			
Operating temperature range				0°C - 40°C					
Protection degree				IP20					
Relative humidity				% max. (non-condens					
Altitude		ID 4	<	1000m above sea lev	el	6.0	ID 4		
Acoustic noise	< 62			< 65 dBA			dBA		
Weight without batteries (kg)	210	220	262	270	440	575	655		
Dimensions (mm) HxWxD		1440x	475x890		1900x880x775	1900x1	250x775		
OPTIONS				DI '					
Different input / output voltage			California	Please ask	* O*				
Transformer		T \$4 A 1		ransformer at the inpu	•				
Software	Chill D D2/27 =		Multi UPS monitoring 1						
Adaptors	SNMP, RS485, R	emote monitoring p	oanel, MODBUS (RS485		m Logger, TCP/IP, GS	M/GPRS Modem, Con	port multiplexer		
Parallel operation				up to 8 units					





120 - 250 kVA

DS POWER XL

UNINTERRUPTIBLE POWER SUPPLIES

3 LEVEL TECHNOLOGY IGBT RECTIFIER DSP CONTROL

The new DS Power XL 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 XL 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.

- Transformerless UPS topology
- 3 Level rectifier and inverter
- High input power factor
- High efficiency up to 96.0%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input

- 512 events memory (512 events 45000 alarms)
- Clock and 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
- \bullet Optional SNMP and MODBUS adaptors
- Optional graphical panel
- Optional usb flash memory
- Full digital structure
- Small footprint
- Ecomode operation (optional)
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency/range
- Split by-pass input (second input)
- Output DC leakage protection
- Separate DSP for inverter control
- Separate DSP for the PFC
- 3 level battery protection
- High charge current capacity
- Charge/discharge current indicator
- Advanced remote control features
- Manufactured according to EC Directive; EN62040
- 2 years warranty

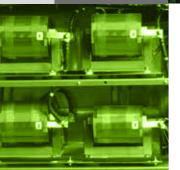




120 - 250 kVA TECHNICAL SPECIFICATIONS

MODEL	DXL3120	DXL3160	DXL3200	DXL3250						
Power (kVA)	120	160	200	250						
INPUT										
Voltage		$380/400 \text{ VAC } 3P + N + G \pm 20\% $ (at	100% load) / - 40% (at 70% load)							
Frequency		50Hz / 60H	Hz, ± 10%							
Power factor (at 100% load)		≥ 0.	99							
THDI (*)		≤ 3	%							
By-pass voltage		380/400 VAC 3 Phase								
Input voltage THD		≤ 10								
Protection	Fuse	s, Voltage & Frequency tolerance, Inp	out power limit, Phase sequency inc	licator						
OUTPUT										
Power (kW)	108	144	180	225						
Power factor		0.9	9							
Voltage		380/400 VAC 3P + N, ± 1	1% (415 VAC optional)							
Frequency		50Hz /								
Frequency tolerance		Line synchronized: ± 2% (adjus	stable) / Free running: ± 0.1%							
Efficiency	up to 9	5.5%	up t	to 96%						
Crest factor		3:								
Overload protection	at 1009	6 - 125% load : 10 min at 125% - 15	50% load :1 min > at 150% load :	by-pass						
Other protections	Advance	d short circuit, Voltage tolerance, DC		it limiting						
Voltage THD		≤ 2% (at 100%	% linear load)							
BATTERY										
Туре		VRLA AGM / GEL / NiCd								
Nominal voltage		± 360								
Float / End of discharge voltage		± 405 VDC / ± 300 VDC								
Battery cabinet		External Ext								
Battery ambient temperature		25∘C								
Protections	3 level al	arms, Battery fuses, Charging curren	<u> </u>	(optional)						
Battery test		Standard every 72	hours (adjustable)							
GENERAL		ENG20/0 1 ENG20	2/0.2 ENC20/0.2							
Standards		EN62040-1, EN620	·							
User interface	D.N.	5 vector buttons, E	<u> </u>							
Indicators		voltage, P-P voltage, Current, Power,								
Advanced		ostics, 3 maintenance time indicators 2xRS232 serial ports, 4 standard and								
Communication Inputs		EPO input, Interactive batter	·	5						
Genset kit		Standard (pro								
Software	C+-	andard T-Mon UPS Management Softv		ont)						
Alarm logging	516	Standard:with time		cite/						
Protections		Power module over-temperature, Ov								
Operating temperature range		0°C -								
Protection degree		IP2								
Relative humidity		90% max. (nor								
Altitude		< 1000m abo								
Acoustic noise	< 62			55 dBA						
Weight without batteries (kg)	210									
Dimensions (mm) HxWxD	L10	1440x475x890 1440x475x970								
OPTIONS										
Different input / output voltage		Pleas	e ask							
Transformer		Galvanic isolation transformer a								
Software	T-Mon Adm									
Adaptors		T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 10-50-100-200 clients 5NMP, RS485, Remote monitoring panel, MODBUS (RS485 or TCP/IP), USB Alarm Logger, TCP/IP, GSM/GPRS Modem, Comport multiplexer								
Parallel operation	5,5-65, Remote monitorii	up to 8		/ Sompore matciplexer						
rarattet operation		up to 8	o unito							





500 - 600 kVA

DS POWER

UNINTERRUPTIBLE POWER SUPPLIES

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.

- Transformerless UPS topology
- Low input current total harmonic distortion (THD)
- High input power factor
- High efficiency up to 94.5%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input

- 512 events memory (512 events 45000 alarms)
- Clock and calender (battery supported)
- \bullet 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
- Optional usb flash memory
- Full digital structure
- Small footprint
- Ecomode operation (optional)
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output coltage/frequency/range
- Split by-pass input (second input)
- Output DC leakage protection
- Separate DSP for inverter control
- Separate DSP for the PFC
- 3 level battery protection
- High charge current capacity
- Charge/discharge current indicator
- Advanced remote control features
- \bullet Manufactured according to EC Directive; EN62040
- 2 years warranty





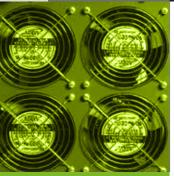




500 - 600 kVA

MODEL	DS3500	DS3600					
Power (kVA)	500	600					
INPUT							
Voltage	380/400 VAC 3P + N + G ± 20%	(415 VAC +15%, - 25% optional)					
Frequency	50Hz / 60	Hz, ± 10%					
Power factor (at 100% load)	≥0						
(THDI) (*)	≤3	3%					
By-pass voltage	380/400 VAC 3P +						
Voltage distortion	≤1						
Protection	Fuses, Voltage & Frequency tolerance, In	<u> </u>					
OUTPUT	ruses, voltage & rrequency toterance, in	put power timit, mase sequency malcator					
		000					
Power (kW)	500	600					
Power factor		.0					
Voltage		N , ± 1% (415 optional)					
Frequency		/ 60Hz					
Frequency tolerance	Line synchronized: ± 29	-					
Efficiency	·	94.5%					
Crest factor		:1					
Overload protection		0% load: 1 min, - > 150% load: by pass					
Other protections	-	C balance, Regenerative load, Current limiting					
Voltage THD	≤ 2% (at 1009	% linear load)					
BATTERIES							
Туре	VRLA AGM	/ GEL / NiCd					
Nominal voltage	± 360 VDC (2x30 batteries)						
Float / End of discharge voltage	± 405 VDC / ± 300 VDC						
Battery cabinet	External						
Battery ambient temp.	25°C						
Protections	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)						
Automatic testing	Standard every 72	hours (adjustable)					
GENERAL							
Standards	EN62040-1, EN62	040-2, EN62040-3					
User interface	TFT panel, 5 vect	or buttons, Buzzer					
Indicators	P-N voltage, P-P voltage, Current, Power,	, Crest Factor, Frequency, PF, Service Time					
Advanced	Self diagnostics, 3 maintenance time indicator	s, Calibration over RS232,operating hour meter					
Communication	2xRS232 serial ports, 4 standard and	8 optional DRY contact alarm relays					
Inputs	EPO input, Interactive batte	ery panel input, Genset input					
Genset kit	Standard (pr	ogrammable)					
Software	Standard T-Mon UPS Management Soft	ware (3 clients + 1 server management)					
Alarm logging	-	e & date 512 events					
Protections	Power module over-temperature. O	ver current, Temperature high alarm					
Temperature range	<u>'</u>	40°C					
Protection degree	IP	20					
Relative humidity		n-condensing)					
Altitude		ove sea level					
Acoustic noise		dBA					
Weight without batteries (kg)		.52					
Dimensions (mm) HxWxD		i10x1050					
OPTIONS	1940X10						
Different input / output voltage	Disas	se ask					
Transformer		rmer at the input & output					
Software		0-200 clients, T-Mon Server 50-100-200 clients					
Adaptors		, USB Alarm Logger, TCP/IP ,GSM/GPRS Modem, Comport multiplexer					
Parallel operation	Up to	8 units					





10 - 500 kVA

DS POWER 300HT

UNINTERRUPTIBLE POWER SUPPLIES

IGBT RECTIFIER DSP CONTROL

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 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.

- Galvanic isolation at output
- Low input current total harmonic distortion (THD)
- High input power factor
- High efficiency up to 94%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input
- 512 events memory (512 events 45000 alarms)
- Clock and 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
- Optional usb flash memory
- Full digital structure
- Small footprint
- Ecomode operation (optional)
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency/range
- Split by-pass input (second input)
- Output DC leakage protection
- 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
- Manufactured according to EC Directive; EN62040
- 2 years warranty





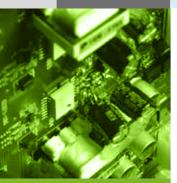
10 - 500 kVA

TECHNICAL SPECIFICATIONS

MODEL	DS310HT	DS315HT	DS320HT	DS330HT	DS340HT	DS360HT	DS380HT	DS3100HT	DS3120HT	DS3160HT	DS3200HT	DS3250HT	DS3300HT	DS3400HT	DS3500HT
Power (kVA)	10	15	20	30	40	60	80	100	120	160	200	250	300	400	500
INPUT															-
Voltage					380/40	0 VAC 3P -	+ N + G ±	20% (415	VAC +159	%, - 25% c	ptional)				
Frequency							50H:	z / 60Hz, ±	10%						
Power factor								≥ 0.99							
(THDI) (*)								≤ 3%							
By-pass voltage						380/4	00 VAC 3	Phase + N	, 4 Wires,	± 10%					
Voltage distortion								≤ 10%							
Protection				Fuses,	Voltage 8	k Frequenc	cy toleran	ce, Input p	ower limi	t, Phase s	equency i	ndicator			
OUTPUT															
Power (kW)	9	13.5	18	27	36	54	72	90	108	144	180	225	270	360	400
Power factor		0.9 0.8 380/400 VAC 3 P + N , ± 1% (415 VAC optional)													
Voltage						380/400				optional)					
Frequency						15		0Hz / 60H		0.10/					
Frequency tolerance						Line syn		: ± 2% / Fr		g: ± 0.1%					
Efficiency Crest factor								up to 94% 3:1	l						
Overload protection				1000	1/ 1 2E 0/	load: 10 n	oin 12E0/		ad. 1 min	> 1E00/	Lood, by	200			
Other protections												ent limitin	a a		
Voltage THD				Auvanceu :	SHOLL CHEC	iit, vottag		t 100% lin		nerative t	.uau, curi	ent timitin	y		
<u>-</u>							≤ 270 (a	t 10070 till	eai tuau)						
BATTERIES		VRLA AGM / GEL / NiCd													
Type								± 336 VDC							
Nominal voltage Number of batteries								± 336 VDC 28 batteri							
Float / End of discharge voltage								VDC / ± 28							
Battery cabinet							± 3/6	External	O VDC						
Battery ambient temperature								25°C							
Protections			3	level alar	ms. Batte	erv fuses. (Charging o		it. Tempe	rature con	npensatio	n (optiona	nl)		
Automatic testing					,			ry 72 hour					/		
GENERAL								,	. ,	·					
Standards						EN	62040-1. I	EN62040-2	2. EN6204	0-3					
User interface				4 li	nes LCD p	anel, Mim					nal TFT pa	anel			
Indicators						voltage, (•					
Advanced			Se	lf diagnos	tics, 3 ma	intenance	time indi	cators, Cal	ibration o	ver RS232	2,operatin	g hour me	ter		
Communication				2x	RS232 sei	rial ports,	4 standar	d and 8 op	tional DR	Y contact	alarm rel	ays			
Inputs					EP	0 input, In	teractive	battery pa	nel input,	Genset in	put				
Genset kit							Standar	d (progran	nmable)						
Software				Stan	dard T-Mo	n UPS Ma	nagement	Software	(3 clients	+ 1 serve	r manage	ment)			
Alarm logging						Star	ndard:with	time & da	ate 512 ev	ents					
Protections				P	ower mod	lule over-t				mperature	high alar	m			
Temperature range								0°C - 40°C							
Protection degree								IP20							
Relative humidity								. (non-con							
Altitude		ID.4		60 104				m above so		10.4				10.4	
Acoustic noise	< 57			< 62 dBA		< 64				dBA				dBA	
Weight (kg)	187	198.5	244	270	393	457	536	539	595	647	910,5	1150	1283	1497	2402
Dimensions (mm) HxWxD		1040x40	บบxชไว		1	440x515x	კ ეე		1770x8	25x855		19	00x1250x	ししりり	2020x2250x770
OPTIONS															
Different input / output voltage				NA A 1		OC ''		Please ash		M C	FO 400	200 !:			
Software	Cr 11 4	D DC/05 '										0-200 clier			alawa::
Adaptors Parallal eneration	SNM	P, RS485, I	remote m	onitoring	panel, MC	INRO2 (K2				igger, ICP	/IP ,65M/	GPRS Mod	iem, Comp	ort multip	otexer
Parallel operation	(*) Depend	ling on power a	ınd input/outp	ut conditions			u	p to 8 unit	.5						

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10 - 90 kVA

MTR MODULAR UPS

UNINTERRUPTIBLE POWER SUPPLIES

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













10 - 90 kVA

TECHNICAL SPECIFICATIONS

Mare										
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) 4P+N+G (220/230/240V) 3P+N+G (380/400/415V) 4P+N+G (380/400/415V)		MODEL	MTR-020/10X	*MTR-030/10X	MTR-040/10X	MTR-060/10X	MTR-030/15X	*MTR-045/15X	MTR-090/15X	
Voltage range		Capacity		TPM10X (10	OkVA/10kW)		7	ΓΡΜ15X (15kVA/15kV	V)	
Voltage range		INPUT								
Prequency range		Phase	(1/1P - 3/1P - 3	/3P) 3P+N+G (380/40	00/415V) ~ 1P+N+G (220/230/240V)	3	P+N+G (380/400/415	iV)	
Proven factor Power factor Po		Voltage range			304-47	'8Vac (line-line),100%	load;			
Normal mode: 95%; ECO mode: 99%; Battery mode: 94.5%					228-304Vac loa	d derated from 100%	- 75% linearly			
THD	Fi	requency range				40Hz-70Hz				
Voltage regulation		Power factor				>0.99				
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) Power factor 1.5% THDu THD THD (non-linear load) Crest factor 3:1 Overload capacity 110% for 1 hour; 125% for 10 min; 150% for 1 min; 150% for 200 ms BATTERY Voltage ± 240 VDC for 40 batteries (selectable battery number 36-44) Charge power 20%* System power Charge power ± 1% SYSTEM Normal mode: 95%; ECO mode: 98%; Battery mode: 94.5% System efficiency Normal mode: 95%; ECO mode: 98%; Battery mode: 94.5% PICLS IP20 IP20 POSTEM POSTEM POSTEM VPC Color touch screen LCD + LED + Keyboard IP20 POSTEM		THDi			** THE)i < 4% @ 100% linea	r load			
Noting		OUTPUT								
Power factor		Voltage	(1/1P - 3/1P - 3/3	P) 3P+ N + G (380/40	0/415V) ~ 1P + N + 0	G (220/230/240V)	3P-	+ N +G (380/400/415)	V)	
THDu	Vol	tage regulation				1.5%				
Section Standard Standard		Power factor				1				
Normal mode: 95%; ECO mode: 98%; Battery mode: 94.5%		THDu			THD < 1% (linea	r load),THD < 5.5% (r	non-linear load)			
Voltage		Crest factor				3:1				
Voltage power 240 VDC for 40 batteries (selectable battery number 36-44)	Ove	erload capacity		11	0% for 1 hour; 125%	for 10 min; 150% for 1	min ; 150% for 200 n	ns		
Charge power Charge voltage precision SYSTEM System efficiency Normal mode: 95%; ECO mode: 98%; Battery mode: 94.5% Tipsplay IP class IP class IP class IP class Operation / storage temp. Relative humidity O-40°C/-25-70°C Relative humidity O-95% (non-condensing) Options Parallel operation, Battery compansated battery charging, Movable cabinet with castors PHYSICAL Weight (kg) Cabinet 42 55 51 85 42 55 85 Physical Cabinet 42 55 51 85 42 55 85 Meight (kg) Cabinet 398x485x697 575x485x751 575x485x697										
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 IP20 Interface Standart: RS232, RS485, dry contacts Optional: SNMP, Expansion dry contact card Operation / storage temp. 0-40°C/-25-70°C Relative humidity 0-95% (non-condensing) Acoustic noise 56dBA (1 meter away) 58dBA (1 meter away) Options PHYSICAL Weight (kg) Cabinet 42 55 51 85 42 55 85 42 55 85 85 42 55 85 85 42 55 85 85 42 55 85 86 42 55					± 240 VDC for 40 bat		tery number 36-44)			
System efficiency		· ·								
Normal mode: 95%; ECO mode: 98%; Battery mode: 94.5%	Charge vo					±1%				
Display T.0" Color touch screen LCD + LED + Keyboard IP class										
P class Standart: RS232, RS485, dry contacts Optional: SNMP, Expansion dry contact card	Sy									
Interface Standart: RS232, RS485, dry contacts Optional: SNMP, Expansion dry contact card		· '		7.0" Color touch screen LCD + LED			+ Keyboard			
Operation / storage temp. 0-40°C/-25-70°C Relative humidity 0-95% (non-condensing) Acoustic noise 56dBA (1 meter away) 58dBA (1 meter away) Options PHYSICAL Weight (kg) Cabinet 42 55 51 85 42 55 85 42 55 85 42 55 85 85 Power module 15.5 15.5 15.5 Dimension (HxWXD) mm Height 70 110 110 1033x485x751 398x485x697 575x485x751 1033x485x751 398x485x697 575x485x751 1033x485x751 70 110 110 110 110 110 110 110 210 70 110 <th cols<="" th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th>	<th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>									
Relative humidity							IP, Expansion dry con	tact card		
SedBA (1 meter away) SedBA (1 meter away)	<u> </u>									
Options Parallel operation, Battery compansated battery charging, Movable cabinet with castors PHYSICAL Weight (kg) Cabinet 42 55 85 42 55 85 Power module 15.5 15.5 Dimension (HxWxD) mm Height 70 110 1033x485x751 398x485x697 575x485x751 1033x485x751 70 110 210 70 110 210 70 110 210 70 110 210 70 110	Re									
PHYSICAL Weight (kg) Cabinet 42 55 51 85 42 55 85 Power module 15.3 15.5 Cabinet 398x485x697 575x485x751 575x485x697 1033x485x751 398x485x697 575x485x751 1033x485x751 Height 7U 11U 11U 21U 7U 11U 21U					•				<u>')</u>	
Weight (kg) Cabinet 42 55 51 85 42 55 85 Power module 15.3 15.5 15.5 15.5 15.5 15.5 15.5 15.5 10.33x485x751 398x485x697 575x485x751 10.33x485x751 398x485x697 575x485x751 10.33x485x751				Parallel oper	ation, Battery compa	nsated battery charg	ng, Movable cabinet	with castors		
Weight (kg) Power module 15.3 15.5 Cabinet 398x485x697 575x485x751 575x485x697 1033x485x751 398x485x697 575x485x751 1033x485x751 Dimension (HxWxD) mm Height 7U 11U 11U 21U 7U 11U 21U									I	
Cabinet 398x485x697 575x485x751 575x485x697 1033x485x751 398x485x697 575x485x751 1033x485x751 Dimension (HxWxD) mm	Weight (kg)		42			85	42		85	
Dimension (HxWxD) mm		Power module		15	i.3			15.5	I	
(HxWxD) mm Height 7U 11U 11U 21U 7U 11U 21U	Dimension	Cabinet	398x485x697	575x485x751	575x485x697	1033x485x751	398x485x697	575x485x751	1033x485x751	
Power module (2U) 85x436x590		Height	7U	11U	11U	21U	7U	11U	21U	
		Power module				(2U) 85x436x590				

(*) Parallel operation

(**) Only for 3/3 phase





10 - 400 kVA

MTI200 MODULAR UPS

UNINTERRUPTIBLE POWER SUPPLIES

MTI200 is modular online UPS for sensitive equipments. The single cabinet power rating covers from 20kVA to 200kVA which delivers the best of combination of reliability, hot-swappable and flexibility.

With the latest IGBT 3-level technology and DSP control, MTI200 achieves a high input power factor, low THDI.

- Modular design with N+X redundancy and online hot swapping ,easy to expand the capacity
- Full DSP control of high stability, reliability and safety
- Integrated IGBT module with improved performance and reduced size

- Excellent input performances for complete compatibility with input PF of 99% and wide range of voltage
- Self-Aging mode for full load test with less than 10% of the total power capacity needed
- Smart charging management system, intelligently control the whole process of the charging and discharging effectively improve the life time of the battery
- Independent charger for batteries, intelligent battery management system
- Battery cold start, UPS can be powered on from the battery without utility.
- Totally front access, top and bottom cable connection
- User friendly machine interface with touch screen







10 - 400 kVA

	MODEL	MTI2060/20 - MTI2030/10	MTI2120/20 - MTI2060/10	MTI2200/20 - MTI2100/10						
	Capacity		10 - 400kVA							
	Power module type		TPM20/TPM15/TPM10							
	INPUT									
	Phase		3P + N + G							
	Voltage		380V/400V/415V (line to line)							
	Frequency		50Hz / 60Hz							
	Power factor		> 0.99							
	THDI		THDI < 3% @100% linear load							
	Voltage range		-20% ~ + 25%							
	Frequency range		40Hz \sim 70Hz							
	OUTPUT									
	Voltage		380V/400V/415V							
	Voltage regulation		$\pm 1\%$ (Balance load); $\pm 1.5\%$ (unbalance load)							
	Voltage THD	Т	HD < 1.5% (linear load), THD < 6% (none linear load)							
	Power factor		0.9							
	Crest ratio		3:1							
	Overload capability	110% for 1 h	our; 125% for 10 minutes ;150% for 1 minute; >150%	for 200ms						
	BATTERY									
	Voltage		± 240 VDC							
	Charge power		20%*System Power							
Chai	rge power precision		±1%							
	SYSTEM									
	Parallel (cabinet)	6	3	2						
	System efficiency		Normal mode: 95%; ECO mode: 98%;							
			Battery mode: 95%							
	Display		LCD + LED, touch screen + keyboard							
	IP class		IP20							
Interface (co	ommunication port)	Standar	d: RS232,RS485, Dry contacts, EPO / Optional: SNMF	^o card						
Operat	tion / storage temp.		0~40°C /-40~70°C							
	Relative humidity		$0\sim$ 95% (non-condensing)							
	Noise		55dB (1 meter away)							
	PHYSICAL									
Moight (kg)	Cabinet	 3-Sl	ot cabinet:120; 6- Slot cabinet:151;10-Slot cabinet:1	82						
Weight (kg)	Power module		TPM10:20kg, TPM15:21kg, TPM20:22kg							
Dimension	Cabinet	3-Slot cabinet:1100x	600x900; 6-Slot cabinet: 1600x600x900;10-Slot cabi	net: 2000x600x900						
(HxWxD) mm	Power module		TPM10/TPM15/TPM20: 134x440x590							

^(*) Single cabinet with internal batteries





30 - 900 kVA

MTI300 MODULAR UPS

UNINTERRUPTIBLE POWER SUPPLIES

The MTI300 Modular UPS provides the most compact footprint of less than 2m² with maximum capacity of 900kVA. MTI300/30kVA is considered to be the best power protection solution for large data centers, as well as for sensitive electronics.

The MTI600 Modular UPS provides power capacity of 600kVA in one single system. With the most advanced full DSP control technology, health management system and smart monitoring system, it has been proven to be the best choice for large data centers, as well as for sensitive electronics.

- 3 Level topology
- Modular design with N+X redundancy
- Online hot swapping, by-pass and power module feature
- Optional dual input
- High power density with footprints of less than 2m² up to 900kVA in parallel, 30kVA power module with only 3U height
- High power density of 600kVA in one single cabinet, 30kVA power module with only 3U height
- Green and energy saving: AC/AC efficiency > 95%, input power factor > 0.99 while input THDi < 3%
- Full DSP control of high stability, reliability and safety
- Integrated IGBT module with improved performance and reduced size

- Excellent input performances for complete compatibility with input PF of 99% and wide range of voltage
- Self-Aging mode for full load test with less than 10% of the total power capacity needed
- Smart Sleeping mode for energy saving and prolong the life time of the system
- Optimized battery management, intelligently control the whole process of the charging and discharging, effectively improve the life time of the battery
- Battery cold start, UPS can be powered on from the battery without utility
- Automatically record the critical wave information when fault happens, easy for trouble shooting
- Independent LCD display for each power module with self-starting function
- Programmable dry contacts, the function of each port can be defined by users
- User friendly machine interface with colorful touch screen of 10.4 inches







30 - 900 kVA

	MODEL	MT12400/20	MT12200/20	MT12000/20							
	MODEL	MTI3180/30	MTI3300/30	MTI3600/30							
	Capacity	30 - 900kVA		00kVA							
Р	ower 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 a	according to the min phase voltage							
	Frequency range		40Hz~70Hz								
	OUTPUT										
	Voltage		380V/400V/415V								
	oltage regulation		1.5%								
	THDu	-	THD < 1% (linear load), THD < 6% (none linear load)								
	Power factor		0.9								
	Crest factor		3:1								
0	verload capability	1 hour for 110% load; 1	10 minutes for 125% load; 1 minutes for 150% loa	d; 200ms for > 150% load							
	BATTERY										
	Voltage	± 240	OVDC for 40 batteries (selectable battery number	36-44)							
	Charge power		20%*System Power								
Charge	voltage precision		± 1%								
	SYSTEM										
	Parallel (cabinet)	5	3	-							
	System efficiency	Nor	mal mode: 95% ; ECO mode: 99% ; Battery mode:	95%							
	Display		10.4" LCD + LED, Color touch screen + Keyboard								
	IP Class		IP20								
	Interface	Stand	dard: RS232, RS485, Dry contacts, USB; Optional:	SNMP							
Operation	on / storage temp.		0 ~ 40°C / -40 ~ 70°C								
	Relative humidity		0 ~ 95% (non-condensing)								
	Acoustic noise	65dB @100% load, 6	62dB @ 45% load (1m away)	72dB @100% load, 68dB @ 45% load (1m away)							
	PHYSICAL										
Majorlat (Lux)	Cabinet	6-Slot Cabinet: 165	10-Slot Cabinet: 220	660							
Weight (kg)	Power module		TPM30kVA: 34								
Dimension	Cabinet	6-Slot Cabinet: 1600x600x1100	10-Slot Cabinet: 2000x600x1100	20-Slot cabinet: 2000x2000x1050							
(HxWxD) mm	Power module		TPM30kVA: (3U) 134x460x790	1							





50 - 500 kVA

MTI500 MODULAR UPS

UNINTERRUPTIBLE POWER SUPPLIES

MTI500 modular, online UPS ranging from 50kVA to 500kVA is designed to protect any critical load for medium and large data center achieving maximum availability.

The MTI500 Modular Ups feature the latest technology of 3 level technology and PFC input control, which guarantees high efficiency of 96% and ultra-reliability. Its compact design ensures power density of 500kVA in one cabinet, 3 units can be paralleled for capacity redundancy up to 1500kVA, making it an excellent choice for medium and large facilities.

GENERAL SPECIFICATIONS

Compact design

500kVA in one cabinet, footprint less than 1.5m², saving valuable room space

High power density

50kVA power module in 4U height, easy for capacity expansion



High efficiency

Advanced 3-level technology quarantees high efficiency operating in double conversion mode up to 96%

Intelligent charging management

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

High scalability

The system can be configured from 40kVA to 500kVA in one single cabinet, 3 units in parallel for a capacity up to 1500kVA

Friendly HMI

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

Smart sleep function

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









50 - 500 kVA

MODEL	MTI-5100/50	MTI-5200/50	MTI-5300/50	MTI-5500/50					
Capacity	100kVA	200kVA	300kVA	500kVA					
Power module type		TPM50 (50	DkVA/45kW)						
INPUT									
Dual input		Star	ndard Optional Standard						
Phase			d, 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	z/60Hz						
Frequency range		40Hz	z/70Hz						
Power factor		> (0.99						
THDi		< 3% @ 100	% linear load						
BYPASS									
Rate voltage		380/400/415V	/AC (Line-Line)						
Rated frequency		50Hz	z/60Hz						
Input voltage range		Settable, -	40% ~ +25%						
By-pass frequency range		Selectable, ±1	Hz, ±3Hz, ±5Hz						
Bypass overload	125%, long ti	me operation	110% long	term operation					
	< 130% for	10 minutes	< 130% fo	r 10 minutes					
	< 150% for	1 minutes	< 150% f	or 1 minutes					
	>150% fc	or 300ms	>150%	6 for 1ms					
OUTPUT									
Rate voltage		380/400/415	VAC (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	s; 150% for 1 min; >150% for 200 ms						
BATTERY									
Voltage			OVDC						
Battery number		· · · · · · · · · · · · · · · · · · ·	number from 32 to 44)						
Voltage precision			1%						
Charge power		up to 20% Outp	put active power						
Battery cold start		Opt	ional Standard						
SYSTEM									
System efficiency			: 99.0% Battery Mode:95.0%						
Display			LCD+LED+keyboard						
IP class			220						
Interface			nmable Dry Contact, USB						
Option			it, SPD, LBS, Dust filter						
Temperature		· · · · · · · · · · · · · · · · · · ·	C Storage: -40~70°C						
Relative humidity		· · · · · · · · · · · · · · · · · · ·	-condensing)						
Altitude		•	ower derate 1% for every 100m rise						
Acoustic noise		72dB @ 100% load, 69dB @ 45% load							
Application standards	S	afety: IEC/EN 62040-1, EMC:IEC/EN	62040-2, Performance: IEC/EN 62040)-3					
PHYSICAL									
Cabinet	120	170	220	450					
Power module			45						
Cabinet Power module	1150x600x980	1600x650x960	2000x650x1095 i10x700	2000x1300x1100					



3 - 15 kVA

XT100

UNINTERRUPTIBLE POWER SUPPLIES

Tescom XT100 is, True online, Double conversion UPS Systems, manufactured with the state of the art, PWM and IGBT technology, producing microprocessor controlled pure sinewave output to critical loads.

- Output isolation transformer
- Up to 91% efficiency
- Static by-pass
- LCD front panel
- 64 events memory
- RS232 and relay contacts

- Custom input and output voltage ranges
- SNMP compatible communication
- T-MON remote monitoring software
- Parallel operation
- Manufactured according to EC Directive; EN62040
- 2 years warranty





3 - 15 kVA

	<u> </u>										
MODEL	XT103	XT105	XT107	XT110	XT115						
Power (kVA)	3	5	7	10	15						
INPUT											
Voltage			220/230 VAC P + N + G ± 15%	, 1							
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	0.6	65	0	.7						
Voltage			220/230 VAC P+ N ± 1%								
Frequency			50Hz (60Hz on request)								
Frequency tolerance		Line syn	chronized: ± 2% , free running	g: ± 0.1 %							
Efficiency (at 100% load)		up to 90%		up to	91%						
Crest factor			3:1								
Overload protection		100%-125% load: 10 r	min., 125%-150% load: 1 min.	, > 150% load: by pass							
Short circuit protection		El	ectronic short circuit protecti	on							
Voltage THD		< 2%									
BATTERIES											
Туре			led Lead Acid - Maintenance								
Number of batteries	14	16	18	20							
Float charging voltage	189	216 VDC	243 VDC	270 VDC							
End of discharge voltage	140 VDC	160 VDC	180 VDC	200 VDC							
Battery cabinet		Internal (standard time)		Exte	ernal						
Battery ambient temp.			25℃								
Battery protection			Automatic circuit breaker								
Battery test			Optional								
GENERAL											
Standards			EN 62040-1, EN 62040-2								
Serial communication			Dry contacts & RS232								
Software		I-Mon UPS Manageme	ent Software (3 clients, +1 se	rver management std.)							
Temperature range			0°C - 40°C								
Ventilation Polarius humidita			Forced air cooling								
Relative humidity			< 90% (non-condensing)								
Protection degree			IP20 < 2000m								
Accustic poise			< 45 dBA								
Acoustic noise Weight without batteries (kg)	55	60	< 45 dBA	82	107						
Dimensions (mm) HxWxD	585x265x505	595x265x600	645x265x670	720x265x740	775x300x800						
OPTIONS	20275023202	JOUALOUROUU	043/20380/0	72082038740	7.7.3008000						
			Diagon and								
Different input / output voltage Input transformer		Calvania isalatia	Please ask n transformer at the input (in	ovtornal cabinet							
<u> </u>	4	GALVANIC ISOLATIO	· · · · · · · · · · · · · · · · · · ·	externat capinet)							
		Optional									
<u> </u>			<u> </u>								
External maintenance bypass switch Parallel operation Communication		CNIAD	N+1 (up to 4 units)	I DS/,95							
<u> </u>		SNMP, I	<u> </u>	l, RS485							





XT200

UNINTERRUPTIBLE POWER SUPPLIES

Tescom XT200 is, True online, Double conversion UPS Systems, manufactured with the state of the art, PWM and IGBT technology, producing microprocessor controlled pure sinewave output to critical loads.

- 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





6 - 40 kVA

MODEL	XT206	XT207	XT210	XT215	XT220	XT230	XT240		
Power (kVA)	6	7,5	10	15	20	30	40		
INPUT		-							
Voltage			220/380 VA	AC (230/400VAC) 3P +	N + G ± 15%				
By-pass voltage			2	20/230 VAC P + N ± 1	0%				
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 ± 9					
Frequency				50Hz (60Hz on reques					
Frequency tolerance				onized: ± 2% , free ru					
Efficiency (at 100% load)			Ente Syriem	Up to 90%	111111g. <u>2</u> 0.170				
Crest factor				3:1					
Overload protection		100	%-125% load: 10 min		min., > 150% load: by	nass			
Short circuit protection		100		ronic short circuit pro		pass			
VoltageTHD				Linear load: < 2%					
rottagemb				Non linear load: < 59	6				
BATTERIES				Tron unious rough vo					
Туре			Sealed	Lead Acid - Maintena	ance Free				
Number of batteries		20			30)			
Float charging voltage		270 VDC 405 VDC							
End of discharge voltage		200 VDC 300 VDC							
Battery cabinet		Internal for standard time							
Battery ambient temp.			25	5°C					
Battery protection			Automatic c	ircuit breaker					
Battery test		Optional			Stand	dard			
GENERAL									
 Standards			EN 62040-1	, EN 62040-2					
Maintenance bypass switch		Optional		,	Stand	dard			
Serial communication			Dry contac	ts & RS232					
Software		T-Mon UPS Ma	nagement Software (3		anagement std.)				
Temperature range			0°C -	- 40°C	-				
Ventilation			Forced a	ir cooling					
Relative humidity			< 90% (non-	-condensing)					
Protection degree			IF	20					
Altitude			< 20	000m					
Acoustic noise		< 50 dBA			< 55	dBA			
Weight without batteries (kg)	106	110	125	130	195	217	335		
Dimensions (mm) HxWxD		950x265x740			1240x500x650		1390x575x820		
OPTIONS									
Different input / output voltage				Please ask					
Input transformer			Galvanic isolation tr	ansformer at the inpu	ıt (in external cabinet)				
Input power factor			Input p	ower factor correcto	r (> 0.97)				
Adaptors			SNMP, MO	DBUS, Remote Mon. F	Panel, RS485				
Parallel operation				N+1 (up to 4 units)					





10 - 80 kVA

XT300

UNINTERRUPTIBLE POWER SUPPLIES

Tescom XT300 is, True online, Double conversion UPS Systems, manufactured with the state of the art, PWM and IGBT technology, producing microprocessor controlled pure sinewave output to critical loads.

- Output isolation transformer
- Up to 92% efficiency
- Static by-pass
- LCD front panel
- 128 events alarm memory (4000 alarms)
- RS232 and relay contacts
- Custom input and output voltage ranges

- $\bullet \ \mathsf{SNMP} \ \mathsf{compatible} \ \mathsf{communication} \\$
- 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 warrany





10 - 80 kVA

Note 60A 10								
Voltage	MODEL	XT310	XT315	XT320	XT330	XT340	XT360	XT380
Section Sect	Power (kVA)	10	15	20	30	40	60	80
By-pass voltage	INPUT			•				•
Noting Float changing voltage Float Fl	Voltage			220/380 VA	C (230/400 VAC) 3P + 1	N + G ± 15%		
Power (W/V) 8 12 16 24 32 48 64	By-pass voltage			220/380 V	AC (230/400 VAC) 3P +	- N ± 10%		
Power fet/07	Input frequency				50Hz / 60Hz ± 10%			
Power factor	OUTPUT							
Voltage tability	Power (kW)	8	12	16	24	32	48	64
Voltage resolvery time					0.8			
Voltage ratability					<u> </u>			
Voltage recovery time After step load: max. 25ms Frequency Frequency Soft x (60Hz con request)	<u> </u>			Balanced load: ± 19	%. Unbalanced load: ±	2%. Step load: ± 5%		
Frequency Internance Efficiency (at 100% load) Respent voluments Creat factor Overload protection Voltage THD Volt								
Efficiency (at 100% load)								
Crest Factor	<u> </u>				·			
Crest factor 3:1			89-91%			-	32%	
Overload protection 100%-125% load: 10 min, 125%-159% load: 1 min, >150% load: by pass Short circuit protection Electronic short circuit protection Voltage THD BATERIES Sealed Lead Acid - Maintenance Free Number of batteries Type Sealed Lead Acid - Maintenance Free Number of batteries 30 Float charging voltage 405 VDC Ent of discharge voltage 300 VDC Battery ambient temp. 25°C Battery protection Automatic every 72 hours GENERAL Standards EN 62040-2 Serial communication Dry contacts & RS232 Software T-Mon UPS Management Software (3 clients, +1 server management std.) Ferperature range 0°C - 40°C Ventilation Forced air cooling Relative humidity - 40°C 40°C - 40°C Protection degree 1P20 Altitude - 20°C - 40			35 51,5		3:1			
Short circuit protection Voltage THD Voltage THO RATTERIES Type Sealed Lead Acid - Maintenance Free Number of batteries Float charging voltage End of discharge voltage End of discharge voltage Battery protection Bat			10	0%-125% load- 10 mir		min >150% load-by	nass	
Linear load: < 2% Non linear load: < 5%	<u> </u>		10			-	puss	
BATTERIES Type Sealed Lead Acid - Maintenance Free Number of batteries Float charging voltage End of discharge voltage Battery protection Battery protection Battery protection GENERAL Standards Serial communication Software T-Mon UPS Management Software (3 clients, +1 server management std.) Temperature range Ventilation Relative humidity Protection degree Altitude Acoustic noise Acoustic noise Acoustic noise Acoustic noise Acoustic noise Acoustic noise Input transformer Input Tynot Tyn				Little				
Sealed Lead Acid = Maintenance Free	Voltage 111D							
Number of batteries Related Lead Acid - Maintenance Free 30 Related charging voltage End of discharge voltage Battery ambient temp. Battery protection Battery test Battery test Battery test Battery test Software Software T-Mon UPS Management Software (3 clients, +1 server management std.) Temperature range Vertilation Relative humidity Protection degree Attitude Acoustic noise Weight without batteries (eg) Dimensions (mm) HxWxD Different input / output voltage Input transformer Communication Input Transformer Communication Input Transformer Galvanic isolation transformer at the input (in external cabinet) Input Transformer Communication Input Transformer Input Transformer Galvanic isolation transformer at the input (in external cabinet) Input Transformer Communication Input Transformer Solven Is Pulse or 18 pulse rectifier, a cording to UPS range), %5 (with 18 pulse rectifier) Communication Input Transformer At Up to 4 units) In 18Pulse applications, the standard chassis dimensions may change.	BATTERIES				Northical toda. \ 370	<u>'</u>		
Number of batteries Float charging voltage End of discharge voltage Battery ambient temp. Battery protection Battery protection Battery test Battery protection Battery test Battery protection Battery test Battery				Sealed	Lead Δcid - Maintenar	nce Free		
Float charging voltage End of discharge voltage Battery ambient temp. Battery test: Battery test: GENERAL Standards Serial communication T-Mon UPS Management Software (3 clients, +1 server management std.) Temperature range Ventilation Relative humidity Protection degree Attitude Acoustic noise Weight without batteries (kg) Dimensions (mm) HWXDD Dimensions (mm) HWXDD Different input / output voltage Input Transformer Galvanic isolation transformer at the input (in external cabinet) Input Transformer Communication SNMP, MODBUS, Remote Mon. Panel, RS485 Randle operation SNMP, MODBUS, Remote Mon. Panel, RS485 Remote Side Mon. Panel, RS485 Randle operation N+1 (up to 4 units) in 18Pulse applications, the standard chassis dimensions may change.	<u> </u>			Scatca				
Battery ambient temp. Battery protection Battery protection Battery test GENERAL Standards Serial communication Temperature range Ventilation Relative humidity Protection degree Attitude Acoustic noise Acoustic								
Battery ambient temp. Battery protection Battery test Bat								
Battery protection Battery test GENERAL Standards Serial communication Temperature range Ventilation Relative humidity Protection degree Altitude Acoustic noise Acoustic noise Dimensions (min) HXWXD Different input / output voltage Input TrnD Input prover factor Communication Battery test Automatic circuit breaker Automatic every 72 hours BAUtomatic every 72 hours BN 62040-1, EN 62040-2 Dry contacts & R5232 Dry contacts & R5232 Dry contacts & R5232 For C - 40°C Ventilation Ventilation Ventilation For C - 40°C Ventilation								
Battery test GENERAL Standards Serial communication Software T-Mon UPS Management Software (3 clients, +1 server management std.) Temperature range Ventilation Relative humidity Protection degree Acoustic noise Acoustic noise Weight without batteries (kg) Dimensions (mm) HXWXD Different input / output voltage 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, + filte Input power factor Communication N+1 (up to 4 units) In 18Pulse applications, the standard chassis dimensions may change.						er		
Standards Serial communication Software T-Mon UPS Management Software (3 clients, +1 server management std.) Temperature range Ventilation Relative humidity Protection degree Altitude Acoustic noise Weight without batteries (kg) Dimensions (mm) HxWxD OPTIONAL Different input / output voltage Input Transformer Input Transformer Input Transformer Galvanic isolation transformer at the input (in external cabinet) Input Tput ThD Input Tput ThD Communication SNMP, MODBUS, Remote Mon. Panel, RS485 Parallel operation N+1 (up to 4 units) In 18Pulse applications, the standard chassis dimensions may change.				Δ	utomatic every 72 hou	ırs		
Standards Serial communication Software	<u></u>				,			
Serial communication Software T-Mon UPS Management Software (3 clients, +1 server management std.) Temperature range Ventilation Relative humidity Protection degree Attitude Acoustic noise Weight without batteries (kg) Dimensions (mm) HxWxD Different input / output voltage Input THD Input THD 10% (with 12 pulse or 18 pulse rectifier, according to UPS range), %5 (with 18 pulse rectifier, + filte Input Typower factor Communication SNMP, MODBUS, Remote Mon. Panel, RS485 Parallel operation				F	N 62040-1 FN 62040	-2		
Software T-Mon UPS Management Software (3 clients, +1 server management std.) Temperature range Ventilation Relative humidity Protection degree Altitude Acoustic noise Acoustic noise Weight without batteries (kg) Dimensions (mm) HxWxD Different input / output voltage Input THD Input Transformer Galvanic isolation transformer at the input (in external cabinet) Input Thub Input power factor Communication N+1 (up to 4 units) In 18Pulse applications, the standard chassis dimensions may change.								
Temperature range Ventilation Relative humidity Protection degree Altitude Acoustic noise Weight without batteries (kg) Dimensions (mm) HxWxD Different input / output voltage Input ThD Input ThD Input ThD Communication Communication Communication Protection degree Acoustic noise Communication O"C - 40°C Forced air cooling FP20 Communication FP20 Communication FP20 Communication FP40			T-N	Von UPS Management	·		std.)	
Ventilation Forced air cooling								
Relative humidity Protection degree Altitude Acoustic noise Acoustic noise Weight without batteries (kg) Dimensions (mm) HxWxD Different input / output voltage Input transformer Galvanic isolation transformer at the input (in external cabinet) Input THD Input ThD Input power factor Communication Communication SNMP, MODBUS, Remote Mon. Panel, RS485 Parallel operation N+1 (up to 4 units) In 18Pulse applications, the standard chassis dimensions may change.								
Protection degree Altitude Acoustic noise A						a)		
Acoustic noise Communication Acoustic noise Acoustic noise Communication Communication Acoustic noise Communication Communication Communication Communication Communication Acoustic noise Communication Communicati	<u> </u>				· · · · · · · · · · · · · · · · · · ·	<i>5</i> /		
Acoustic noise Veight without batteries (kg) 220 260 284 305 404 496 580 Dimensions (mm) HxWxD Different input / output voltage Input transformer Galvanic isolation transformer at the input (in external cabinet) Input THD Input power factor Communication Communication N+1 (up to 4 units) In 18Pulse applications, the standard chassis dimensions may change.				•		el		
Weight without batteries (kg) Dimensions (mm) HxWxD 1150x505x655 1390x575x820 1450x720x OPTIONAL Different input / output voltage Input transformer Input THD 10% (with 12 pulse or 18 pulse rectifier, according to UPS range), %5 (with 18 pulse rectifier, + filte Input power factor Communication Communication N+1 (up to 4 units) In 18Pulse applications, the standard chassis dimensions may change.			< 5				< 6	60 dBA
Dimensions (mm) HxWxD OPTIONAL Different input / output voltage Input transformer Input THD Input power factor Communication Communication Parallel operation N+1 (up to 4 units) In 18Pulse applications, the standard chassis dimensions may change.		220			305	404		
OPTIONAL Different input / output voltage Please ask Input transformer Galvanic isolation transformer at the input (in external cabinet) Input THD 10% (with 12 pulse or 18 pulse rectifier, according to UPS range), %5 (with 18 pulse rectifier, + filte 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.								1450x720x820
Different input / output voltage 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, + filte Input power factor Communication SNMP, MODBUS, Remote Mon. Panel, RS485 Parallel operation N+1 (up to 4 units) In 18Pulse applications, the standard chassis dimensions may change.			1130	жээжэээ		1556,65	, 5,020	143007 200020
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, + filte Input power factor Communication SNMP, MODBUS, Remote Mon. Panel, RS485 Parallel operation N+1 (up to 4 units) In 18Pulse applications, the standard chassis dimensions may change.					Please ask			
Input THD 10% (with 12 pulse or 18 pulse rectifier, according to UPS range), %5 (with 18 pulse rectifier, + filte 10put 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.	<u> </u>			Galvanic isolation to		t (in external cahinet)		
Input power factor Communication SNMP, MODBUS, Remote Mon. Panel, RS485 Parallel operation N+1 (up to 4 units) In 18Pulse applications, the standard chassis dimensions may change.		1∩0	% (with 12 nulse or		•			
Communication SNMP, MODBUS, Remote Mon. Panel, RS485 Parallel operation N+1 (up to 4 units) In 18Pulse applications, the standard chassis dimensions may change.		107	with 12 puise of	-		-	nei, i nee	
Parallel operation N+1 (up to 4 units) In 18Pulse applications, the standard chassis dimensions may change.								
			N+1 (up to				may change	
Sate temp, compensation Optional			i4∓i (up to	- anica, in 101 utae ap		a c. 103313 UII 1101 13101 13	may change.	
	Date: temp: compensation				ορτισιαι			



100 - 300 kVA

XT300

UNINTERRUPTIBLE POWER SUPPLIES

Tescom XT300 is, True online, Double conversion UPS Systems, manufactured with the state of the art, PWM and IGBT technology, producing microprocessor controlled pure sinewave output to critical loads.

- 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 warrantly





100 - 300 kVA

MODEL	XT3100	XT3120	XT3160	XT3200	XT3250	XT3300					
Power (kVA)	100	120	160	200	250	300					
INPUT			•								
Voltage			380/400 VAC 3P	P + N + G ± 15%							
By-pass voltage			380/400 VAC	3P + N ± 1%							
Input frequency			50Hz (60Hz on ı	request) ± 10%							
OUTPUT											
Power (kW)	80	96	128	160	200	240					
Power factor		0.8									
Voltage			380/400 V	AC 3P + N							
Voltage stability		Balan	nced load: ± 1%, Unbalanc	ed load: ± 2%, Step load	: ± 5%						
Voltage recovery time			After step loa	id: max. 25ms							
Frequency			50Hz (60Hz	on request)							
Frequency tolerance			Line synchronized: ± 29	% , free running: ± 0.1%							
Efficiency (at 100% load)			90-9	92%							
Crest factor			3:	:1							
Overload protection		100%-125%	% load: 10 min., 125%-150	0% load: 1 min., >150% ໄດ	oad: by pass						
Short circuit protection			Electronic short	circuit protection							
VoltageTHD			Linear lo	ad: < 2%							
		Non linear load: < 5%									
BATTERIES											
Туре			Sealed Lead Acid -	Maintenance Free							
Number of batteries		3	30		3	2					
Float charging voltage		405	VDC		432	VDC					
End of discharge voltage		300	VDC		320	VDC					
Battery ambient temp.			25								
Battery protection			Automatic cii								
Battery test			Automatic ev	ery 72 hours							
GENERAL											
Standards			EN 62040-1,	<u>, </u>							
Serial communication			Dry contact								
Software		T-Mon UPS	Management Software (3		gement std.)						
Temperature range			0°C -								
Ventilation			Forced ai								
Relative humidity			< %90 (non-	-							
Protection degree			IP2								
Altitude	C.F.	ID A	< 2000m abo		ID A						
Acoustic noise	65 (I	002	70 (4250					
Weight without batteries (kg)	750	765 110x810	802 1730x11	970	1328	1370 565x925					
Dimensions (mm) HxWxD	TOSUXT	ITUXOTU	1/30X11	1938670	1000%1	100%920					
OPTIONAL											
Different input / output voltage			Pleas		1						
Input transformer		Galvanic isolation transformer at the input (in external cabinet)									
Input THDI		10% (with 12 pulse or 18 pulse rectifier, according to UPS range)									
		5% (with 18 pulse rectifier, + filter), up to 100kVA									
Input power factor			0.95 - 0.98 (with 1								
Adaptors			SNMP, MODBUS, Remo								
Parallel operation			N+1 (up to	·							
Batt. temp. compensation			Optio	onal							
	ı										





STS 2000

STATIC TRANSFER SWITCHES

Tescom STS, allows instantaneous transfer of power sources to the load. If one power source so fast that the load never recognizes the transfer made.

- Increased power quality
- Increase noise reduction
- Power blackout protection
- Power redundancy
- Automatic static switching
- Remote monitoring input power sources
- Easy static and mechanical transfer to input sources

- Remote management the power events
- Power event logging
- Output current capability up tp 1000% for short time
- 19" Rack cabinet
- Hot swap option
- Manufactured according to EC Directive: EN62310
- 2 years warranty





STS 2000

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



STS 3000 - 4000

STATIC TRANSFER SWITCHES

Tescom STS, allows instantaneous transfer of power sources to the load. If one power source fails, the STS switches to the back-up power source so fast that the load never recognizes the transfer made.

- Increased power quality
- Increased noise reduction
- Power blackout protection
- Power redundancy
- Automatic static switching
- Remote monitoring input power sources

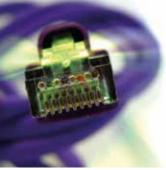
- Easy static and mechanical transfer to input sources
- Remote management the power events
- Power event logging
- \bullet Output current capability up to 100% for short time
- Manufactured according to EC Directive; EN62310
- 2 years warrantly





STS 3000 - 4000

MODEL	STS3050	STS3100	STS3150	STS3200	STS3250	STS3300	STS3400	STS3600	STS3800
	STS4050	STS4100	STS4150	STS4200	STS4250	STS4300	STS4400	STS4600	STS4800
Nominal current	50 A	100 A	150 A	200 A	250 A	300 A	400 A	600 A	800 A
ELECTRICAL DATA									
Input voltage (Ph-Ph)				380/4	00/415 VAC 3P +	N + G			
Input voltage tolerance				18	30-264 VAC (PH-	N)			
Input frequency					50Hz / 60Hz				
Input frequency range				48-65Hz (upp	er and lower limi	ts adjustable)			
Efficiency (at 100% load)					> 99%				
Input voltage THD					< 10%				
Transfer type				"Е	Break before mak	e"			
Transfer methods available				Autom	natic / Manual / R	Remote			
Transfer control					Synchron				
				With adjus	stable delay (non	synchron)			
				Zero	current (non syn	chron			
Transfer time					for synchronous				
		< 10 msn for non-synchronous sources							
Switching type		3-Poles: 3 phase switching / 4-Poles: 3 phase + Neutral switching							
Output current crest factor					3:1				
Admissible overload				0	-100% continuou	ıs			
	101% - 150% 1 min. 151% - 200% 10 second								
		> 200% 250 msec							
Protections		Output overload	and short circuit	protection, Over	temperature pro	tection, Backfee	d protection, SO	CR fault protection	า
LCD panel and mimic		Standard							
Communication		RS232 standard, RS485 optional							
TCP/IP connection		Optional							
Dry contacts		4 programmable relay outputs							
Two serial ports		Optional							
Temperature sensor		Standard for internal cabinet temperature							
ENVIRONMENTAL DATA									
Cooling	Forced cooling (redundant fans)								
Operating temperature	0°C - 40°C								
Storage temperature	-10°C up to +50°C								
Relative humidity	90% max. (non-condensing)								
Protection degree	IP20								
Standards	EN 62310-1, EN 62310-2								
Acoustic noise		< 52 dBA < 55 dBA < 60 dBA					dBA		
MECHANICAL DATA				195	205	230	240	340	F20
MECHANICAL DATA Weight (kg) (STS3000 Series)	139	145	165	195	205	230	240	340	520
	139 160	145 175	165 190	205	235	240	255	375	560





SPECIAL PRODUCTS

FREQUENCY CONVERTERS

TESCOM Frequency converters are an electrical supply system for devices powered by AC voltage from the mains and requiring a different frequency. Transportation, maritime, telecommunications and military systems are the main areas of use. Special production device with special input/output values can be made upon your request.

Tescom Frequency Converters are designed for continuous operation with PWM and IGBT technology and convert 50Hz, 60Hz or 400Hz utility line power to 50Hz, 60Hz or 400Hz power to operate your critical loads.

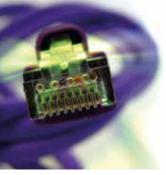
GENERAL FEATURES

- 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 coptatible2 years warranty



Voltage 220/230V single phase - 380/400V 3 phase ± 15% (other voltages; ask) Frequency 50Hz./60Hz./400Hz. (± 5%)	
ООТРОТ	
Power (kW) 5kVA to 300kVA 50Hz /60Hz /400Hz	
Voltage 120/208V 60/400Hz - 230/400V 50/60Hz. (other voltage ranges available)	
Voltage regulation + 1% (balanced load) + 2% (unbalanced load)	
Frequency 50/60/400Hz.	
Frequency stability + 0.2 Hz (free running)	
Efficiency 85% - 90%	
Protections Short circuit protection, overload protection, output voltage out of tolerance protection	
Voltage protection AC voltage low and high protection	
Output waveform Sinusoidal (THD < 3% for linear load)	
Output power factor 0.7 (single phase) - 0.8 (three phase)	







SPECIAL PRODUCTS

INVERTERS

TESCOM DC/AC Inverters are devices with low distortion, sine 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 FEATURES

- 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



INPUT				
Voltage	48 VDC - 400 VDC			
OUTPUT				
Power (kW)	10kVA - 300kVA			
 Voltage	120/208 V, 60/400 Hz - 230/400V, 50Hz / 60Hz (other voltage ranges available)			
Voltage regulation	+ 1% (balanced load) + 2% (unbalanced load)			
Frequency	50Hz / 60Hz / 400Hz			
Frequency stability	+ 0.2Hz (free running)			
Efficiency	85% - 90%			
Overcurrent protection	Electronic protection			
Voltage protection	AC voltage low and high protection			
Output waveform	Sinusoidal (THD < 3% for linear load)			
Load power factor	0.8			
GENERAL				
Power module	IGBT or IPM module			
Front panel	Alphanumeric LCD 2x16 characters			
Control buttons	3 or 5 buttons			
Bypass	Available as option			
Bypass isolation	Available as option			
Parallel operation	Available as option (up to 4 devices)			
Alarm buzzer	Available			
Remote REPO input	Available			
RS232 interface	Available			
Dry contact outputs	Available			
DC input protection	3 level alarms			





T-MON SOFTWARES

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

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

T-MON SERVER

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

T-MON SERCON

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















T-MON SOFTWARES

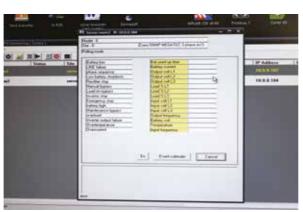
T-MON ADMIN

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

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











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

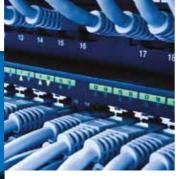
Model: ML200



Internal Serial port multiplexer for UPS and STS

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







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



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

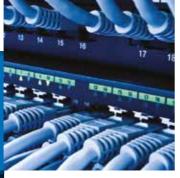
Model: GM-1



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







i-com Series UPS Accessories

Model: GM-2



External GSM / GPRS modem for UPS

- SMS option
- \bullet 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
- \bullet Easy configuration by the Utility PC software
- Uninterruptible communication with internal battery

Model: GMB1



External Battery Unit for GM-2 Modem

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



lotes



lotes



lotes





UNINTERRUPTIBLE POWER SUPPLIES

HEADQUARTERS

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