



X5 Series

X5T 10-160kVA

THREE-PHASE IN / THREE-PHASE OUT
PROGRAMMABLE DOUBLE CONVERSION ON-LINE

The transformerless double conversion three-phase UPS of the X5 series by EPI ranging from 10kVA to 160kVA, is an Uninterruptible Power Supply system that sums up all the main innovative that make this product unique in its category.

FEATURES:

- True online Double Conversion VFI-Class
- DSP Digital control system
- IGBT rectifier
- Touch screen colour display
- Advance communication function
- Paralleable up to 4 units
- Remote management software
- High over-all efficiency (93%)
- Easy to use, easy to maintain

The new X5 system represents the perfect mix of the typical reliability of a traditional UPS system and the modern digital DSP technology with its various advantages.

QUALITY POWER SUPPLY AND LOW INPUT DISTORTION

The UPS of the X5 series are VFI double conversion with filtered and stabilized output voltage. This kind of product is highly immune to power line disturbance and ensures an effective protection against loads. Furthermore the new X5 systems have sinusoidal absorption with distortion $\leq 4\%$ and power factor 0.99.

HIGH OVERALL EFFICIENCY

The UPS of the X5 series are even more efficient! They have been designed to obtain the best possible ratio between costs and the overall efficiency ratio between costs and the overall efficiency of the system. This leads to the reduced running cost for the user and to a higher respect for the environment, since it reduces the waste of precious energy.



HIGH RELIABILITY

The UPS of the X5 series have been designed to ensure the highest availability of power and the maximum reliability in time, thanks to the DSP digital control and the SMT technology.

PROTECTED BATTERIES

The X5 digital systems have a voltage compensation system of the accumulators according to the ambient temperature, in order to optimise the charge level and the life of the device, avoiding destructive charges. The X5 systems can also be used as Ni-Cd accumulators.

SCALABILITY AND EXPANDABILITY

The UPS of the X5 series have been designed according to the many different needs of the customers. These systems are parallelable in Redundancy or Power configuration, even after installation, to cope with increasing needs. It is furthermore possible to expand batteries by adding elements to the system without occupying other space.

EASY TO USE, EASY TO MAINTAIN

The X5 systems have an easy and user-friendly operator machine interface. The final user can quickly get used to the system, without useless complications, increasing the level of familiarity with complex systems like a UPS. All the parts that must undergo maintenance, including accumulator batteries, are strategically located and easy to be accessed from the front.

WORLDWIDE COMMUNICATION

The UPS of the X5 series have an advanced communication system with USB device, Ethernet, USB host, RS232 and RS485 interfaces. The most common protocols are compatible SNMP, Modbus, SMTP (e-mail), HTTP and HTTPS (browser). An evolved resident DHTML application of the UPS allows remote monitoring from any client (pc, workstation, palm, mobile phone) without any installation. Where there is no local network, it is possible to create remote connections via GPRS/GSM or telephone line. The wide color LCD display with touch screen sums up an easy use and navigation and many innovative information opportunities in all languages.

Technical Specifications:

Model	XT5-10	XT5-15	XT5-20	XT5-30	XT5-40	XT5-60	XT5-80	XT5-100	XT5-120	XT5-160
Output Power (kVA)	10	15	20	30	40	60	80	8100	120	160
Nominal Active Power: (kW)	8	12	16	24	32	48	64	80	96	128
Power Factor	0.8									
INPUT										
Number of Phases	3Ph+N+PE									
Nominal Voltage	380V/400V/415V									
Voltage Range (%100 load) (Ph-N)	187V-280V									
Voltage Range (%64 load) (Ph-N)	120V-280V									
Voltage Range (%42 load) (Ph-N)	80V-280V									
Nominal Frequency (Hz)	50 or 60									
Frequency Range for Online Operation	±10%								±5%	
Input Current THD	≤4%								≤5%	
Input Power Factor	0.99									
OUTPUT										
Number of Phases	3Ph+N+PE									
Voltage	380V/400V/415V									
Static Voltage Regulation at % 100 Linear Load (online&battery mode)	<1%									
Voltage THD at Rated Linear Load	<3%									
Crest Factor	3:1									
Frequency (Hz)	50 or 60									
Free Running Frequency (Hz)	50 or 60 ± 0.01%								50 or 60 ± 0.2%	
Overload	125% for 10 minutes ; 150% for 1 minute									
Efficiency	>92%								up to 94%	
STATIC BYPASS LINE										
Number of Phases	3Ph+N+PE									
Voltage Range for Bypass Operation	220V/230V (Ph-N) ± 10%									
Frequency Range for Bypass Operation (Hz)	47-53 (Configurable)									

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Model	XT5-10	XT5-15	XT5-20	XT5-30	XT5-40	XT5-60	XT5-80	XT5-100	XT5-120	XT5-160
BATTERY										
Type	Maintenance Free									
Battery Quantity (pcs)	62 (2*31)						60 (2*30)			
Charge Voltage	2 x 420 VDC						2x408			
Min. Discharge Voltage Value	2 x 310 VDC						2x300			
Battery Protection	Deep Discharge Protection with Auto Cut off									
Battery Test	Standard									
COMMUNICATION										
Interface	RS232 & RS422 Communication Ports									
Dry Contact Signals	AC failure, Battery under voltage, bypass operation, output failure									
Others	EPO, Generator interface									
ENVIRONMENTAL CONDITIONS										
Storage Temperature Range (°C)	-25 to +55 (15 to 40 recommended for longer battery life time)									
Operating Temperature Range (°C)	0 to 40 (20 to 25 recommended for longer battery life time)									
Relative Humidity Range	0-95% (non-condensing)									
Maximum Altitude without derating (m)	1000									
Protection Level	IP20									
Standards	EN 50091-1-1 , EN 50091-2, EN50091-3, EN55022, EN 62040-1-1, EN 62040-2, EN 62040-3 (VFI-SS-111)									
Dimensions wxdxh (cm)	40 x 78 x 107			52 x 90 x 130			52x95 x130	64x98 x138	78x89x190	
Weight (kg)	102	110		240	242	265	320	350	425	
Product Certification	CE									
OPTIONS										
Parallel kit, SNMP internal slot card or external adapter, split by-pass, remote monitoring panel, isolation transformer, battery cabinet, Netservice										