

# SMART BX

SERIES

**160-800 kVA** **3:3**  
PHASE

ONLINE UPS



DATA CENTER



MEDICAL



TRANSPORT



INDUSTRY



EMERGENCY



UPS ONLINE



TOWER



POWER FACTOR



SERVICE



## Power Protection for Datacenters, Commercial Buildings and Industrial Facilities

+ Equipped with its new IGBT rectifier **SMART BX** series keeps your critical loads protected while its space-saving compact design and front access for maintenance successfully reduce mean time to repair (MTTR).

+ Thanks to the wide variety of accessories and options **SMART BX** series presents maximum flexibility advantage to users and optimizes total cost of ownership.



- + IGBT PWM Rectifier & Inverter Technology
- + Low Input Current THD (<3%)
- + High Input Power Factor (>0.99)



The **SMART BX** Series is certified by TÜV SÜD with regard to product safety (EN 62040-1)

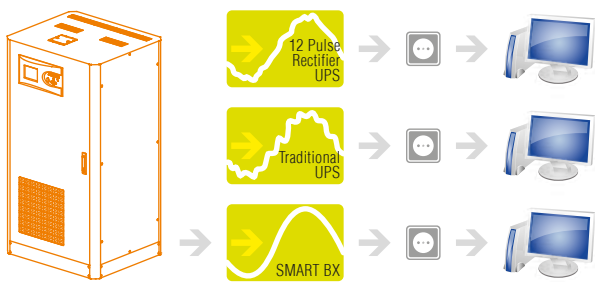


The **SMART BX** Series is attested by Bureau Veritas with regard to performance (EN 62040-3)



## High Performance & Low Total Cost of Ownership

- IGBT based power factor correction technology provides input power factor close to 1 ( $\geq 0,99$ ). The high input power leads to reduced electricity pay-out, minimizes cable, switchboard, fuse and generator requirements, thus reducing investment cost.
- Low input current total harmonic distortion (THDi) less than 3% helps to avoid the disturbance and expensive harmonic filters.
- Small footprint and easy maintenance.



	THD	Power Factor
SMART BX with IGBT Rectifier	<3%	<0.99
Traditional UPS with Input Filter	<10%	<0.95
UPS without Input Filter	<25%	<0.85

## High Input Power Factor

- 0,99 Input power factor ensures clean and sinusoidal input current.
- The high input power leads to reduced electricity pay-out, minimizes cable, switchboard, fuse and generator requirements, thus reducing investment cost.

## Maximum Availability

- Parallel configuration up to 8 units per redundancy (N+1) and power increase.
- Loop connection helps the UPS system to continue the operation when the connection cable is interrupted.

## Standard Electrical Features

- Backfeed Protection
- Cold Start (Optional)
- Advanced Battery Management
- Short Circuit and Overload Protection
- Parallel Ready
- Redundant Power Supply
- Power Walk-in for Progressive Rectifier Start-up when the Mains is Restored.
- Battery Temperature Sensor
- Static & Manual Bypass Operation

## Advanced Communication Features

- 500 Real Time Event Log with Detailed Parameters
- User Friendly Multilingual 320x240 Graphic Display Provides Operation Information
- Monitoring and Shutdown Software
- RS232 Serial and RS485 Ports
- Modbus RTU (Optional)
- 2 Communication Slots
- Remote Emergency Power Off (Optional)
- Remote Display Panel (Optional)
- Dry Contact (Optional)
- SNMP (Optional)
- ProfiBUS (Optional)

## Flexibility

- Temperature sensor for external battery cabinets for extended runtimes.
- External battery cabinets for different sizes of batteries to provide extended runtimes.
- Different sizes of 10-40kVA cabinets for larger capacity of internal batteries when long autonomy times are required.
- 3/1 Phase version is available for 10-30kVA power ratings
- Frequency converter mode.
- Isolation transformers to vary neutral connectivity in the event of separate power sources or for galvanic isolation between input and output.
- Compatible version with EN 50171 for supplying power to emergency lighting systems.

MODEL								
Capacity	160kVA	200kVA	250kVA	300kVA	400kVA	500kVA	600kVA	800kVA
Power Watt	144kW	180kW	225kW	270kW	360kW	450kW	540kW	720kW
<b>INPUT</b>								
Nominal Voltage	380/400/415 VAC 3P+N (Optional 220/380 VAC -37% +22% 3P+N+PE)							
Voltage Tolerance	-20% +15%							
Frequency Tolerance	50-60 Hz ± 10% (Selectable)							
Power Factor	>0.99							
Total Harmonic Distortion	THDi <3%							
<b>OUTPUT</b>								
Power Factor	0.9							
Nominal Voltage	380/400/415 VAC 3P+N							
Voltage Tolerance	Static ±1, Dynamic ±3							
Frequency Tolerance	50-60 Hz ±0,01% (Battery Mode)							
Output THD	Linear Load <1% / Non Linear Load <3%							
Crest Factor	3:1							
Overload Capacity*	At 125% Load 10min, At 150% Load 1min							
Efficiency (Online Mode)	Up to 92%							
Efficiency (Eco Mode)	Up to 99%							
<b>BYPASS</b>								
Nominal Voltage	380/400/415 VAC 3P+N							
Voltage Tolerance	15% (Configurable from 10% to 30%)							
Frequency Tolerance	±5 (Selectable)							
<b>BATTERY</b>								
Type	VRLA / GEL							
Quantity (12V DC VRLA)	60							
Charge Capacity	12.5% of Active Power (Nominal 0,1 C10, Adjustable)							
Recharge Time	6-8 hours							
Internal Battery	External Battery Pack							
<b>ENVIRONMENTAL</b>								
Operating Temperature	For UPS 0°C/+40°C For Battery +15°C/+25°C							
Storage Temperature	For UPS -15°C/+45°C For Battery 0°C/+30°C							
Protection Class	IP20							
Humidity	0-95% Without Condensation							
Altitude	<1000m Correction Factor 1, <2000m Correction Factor >0.92, <3000m Correction Factor >0.84							
Noise Level	<65dBA							
<b>COMMUNICATION</b>								
Communication Port	RS232 Standart, RS485 and SNMP Adapter Option							
<b>STANDARDS</b>								
Quality	ISO 9001, ISO 14001, ISO 45001, ISO 10002, CE, TSE, TSE-HYB							
Performance	EN62040-3 (VFI-SS-111, Bureau Veritas Certified)							
EMC/LVD	EN62040-2, EN62040-1, TS EN ISO/IEC 17025 Accredited Test Report							
<b>DIMENSIONS &amp; WEIGHT</b>								
Cabinet Dimensions (mm)	Width	830			1200		2000	1999
	Depth	870			825		870	868
	Hight	1800			1854		2050	2045
Net Weight (kg)	475	490	553	605	615	625	1510	1740
Packaging Dimensions (mm)	Width	900			1370		2100	2099
	Depth	970			845		950	968
	Hight	2040			2040		2250	2292
Gross Weight (kg)	505	520	583	645	655	665	1590	1820

\* under certain conditions.

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