

# SMART BX

SERIES

10-120 kVA

3:3  
PHASE

10-30 kVA

3:1  
PHASE

ONLINE UPS



DATA CENTER



MEDICAL



TRANSPORT



INDUSTRY



EMERGENCY



UPS ONLINE



TOWER



POWER FACTOR



Service

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)

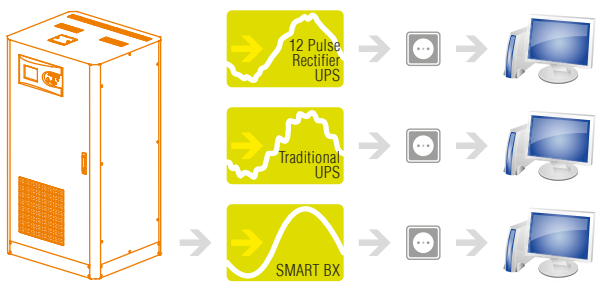


The **SMART BX** Series is attested by Bureau Veritas with regard to performance (EN 62040-3)



## 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

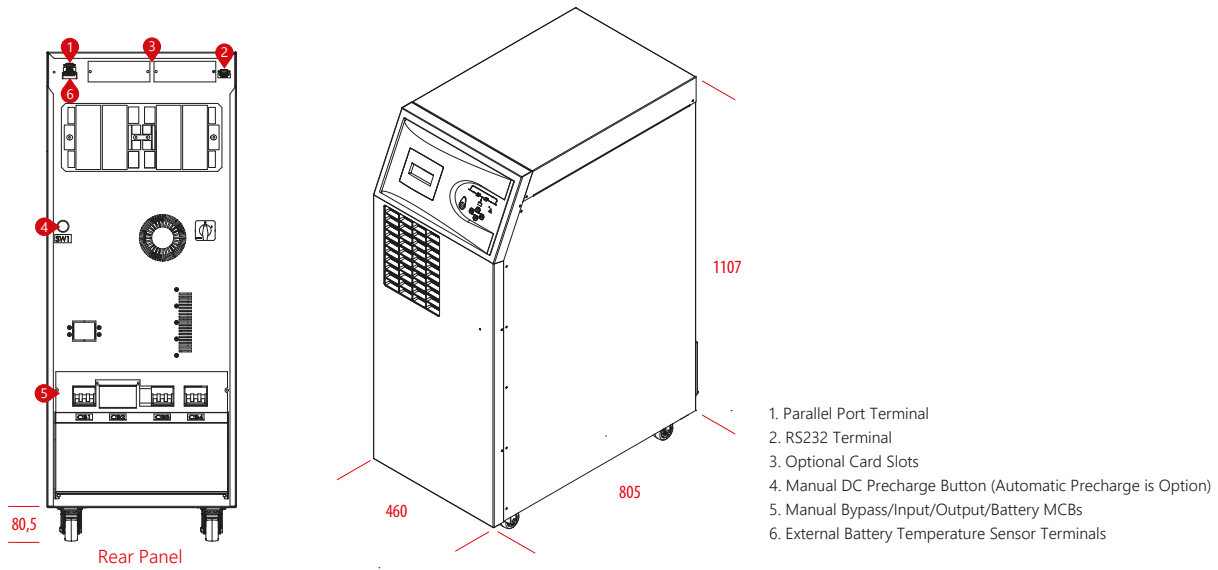
- 500 Real Time Event Log with Detailed Parameters
- User Friendly Multilingual 320x240 Graphic Display Provides Operation Information
- Monitoring and Shutdown Software
- RS232 Serial and RS485 Ports
- Modbus RTU (Optional)
- 2 Communication Slots
- Remote Emergency Power Off (Optional)
- Remote Display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

## Flexibility

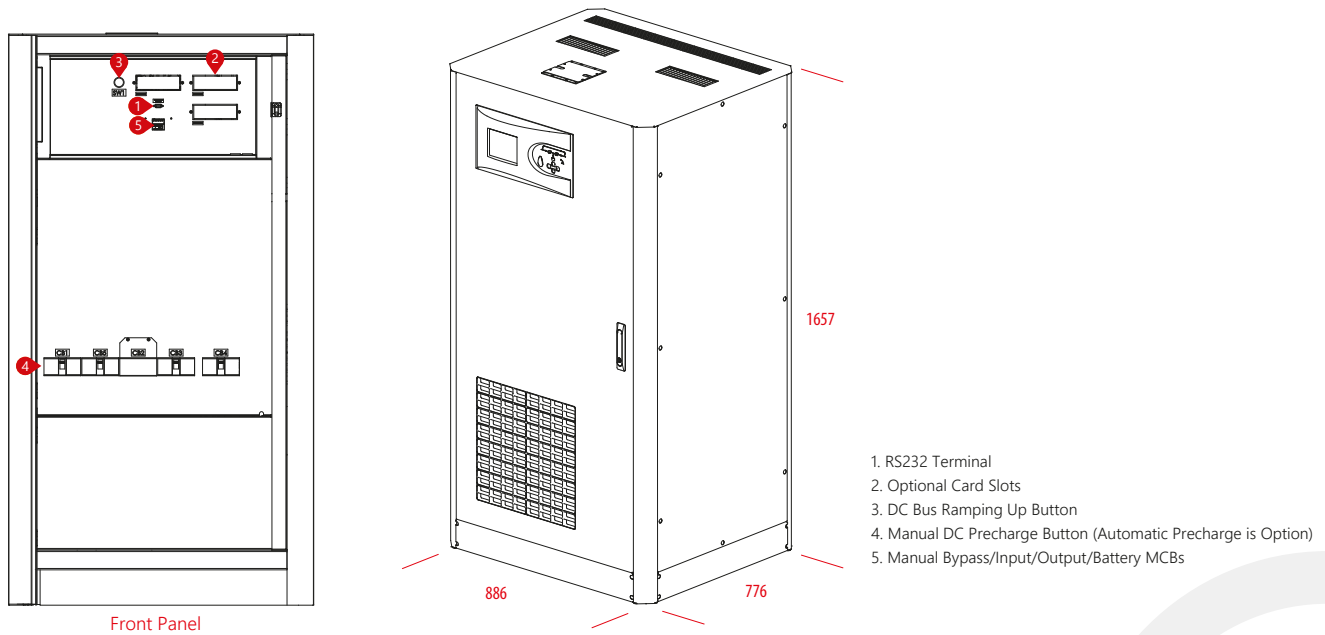
- Temperature sensor for external battery cabinets for extended runtimes.
- External battery cabinets for different sizes of batteries to provide extended runtimes.
- Different sizes of 10-40kVA cabinets for larger capacity of internal batteries when long autonomy times are required.
- 3/1 Phase version 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.

DETAILS

**SMART BX** SERIES 10-60 kVA



**SMART BX** SERIES 80-120 kVA



MODEL											
Capacity		10kVA	15kVA	20kVA	30kVA	40kVA	60kVA	80kVA	100kVA	120kVA	
Power Watt		9kW	13.5kW	18kW	27kW	36kW	54kW	72kW	90kW	108kW	
<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 93%									
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)		62									
Charge Capacity		25% of Active Power (Nominal 0,1 C10, Adjustable)									
Recharge Time		6-8 hours									
Internal Battery		62 x 7Ah or 9Ah	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		<53 dBA	<55 dBA	<60 dBA	<65 dBA	<72 dBA	<74 dBA	<75 dBA	<75 dBA	<75 dBA	
<b>COMMUNICATION</b>											
Communication Port		RS232 Standart, RS485 and SNMP Adapter Option									
<b>STANDARDS</b>											
Quality		ISO 9001, ISO 14001, ISO 18001, TSE-HYB									
Performance		EN62040-3 (VFI-SS-111, Bureau Veritas Certified)									
EMC/LVD		EN62040-2, EN62040-1, EN60950, (TÜV SÜD Certified)									
<b>DIMENSIONS &amp; WEIGHT</b>											
Cabinet Dimensions (mm)	Width	460						886			
	Depth	805						776			
	Hight	1107						1657			
Net Weight (kg)		122	123	127	146	167	177	322	351	360	
Packaging Dimensions (mm)	Width	600						970			
	Depth	900						900			
	Hight	1400						2040			
Gross Weight (kg)		140	141	145	164	185	195	357	376	395	

\* under certain conditions.  
3 Phase in / 1 Phase Out Version is Available. (10 to 30kVA)

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