

S3100/S3300 evo Series

S3100 evo Online 10 to 20KVA 3/1 transformer less

S3300 evo Online 10 to 120KVA 3/3 transformer less



FINANCE



TELECOMMUNICATION



ENERGY



MEDICAL



GOVERNMENT

VFI
type

UPS ONLINE



TOWER

PF=
1,0

POWER FACTOR



SERVICE

The S3100/S3300 evo range is SATRON UPS's Third generation of transformer less online uninterruptible power supplies.



HIGHLIGHT

- Extensive range of solutions management
- Compactness
- Efficiency up to 96.6%
- High power availability
- Smart battery management
- Maximum reliability and availability
- Flexibility of use
- Graphic touch screen display

S3100/S3300 evo UPS is available in 10-120 kVA/kW models utilising the very latest ON LINE double conversion technology.

S3100/S3300 evo is classified as VFI-SS-111 as defined by IEC EN 62040-3.

The **S3100/S3300 evo** series is a transformer-free UPS available in 10-15-20 kVA/kW models with three-phase/single-phase input and single-phase output, and 10-15-20-30-40-60-80-120 kVA/kW models with three-phase input and output.

S3100/S3300 evo is designed and built using state of-the-art technology and components. It applies the advanced technologies such as DSP (Digital Signal Processor), dual core microprocessor, three level inverter circuits and resonant control to provide maximum protection to the critical loads with no impact on downstream systems, whilst maintaining optimised energy savings.

With a unique control system, it makes it possible to reduce the inverter output harmonic voltage distortion (<1% at resistive linear load and <1.5% at non-linear load) and provide a rapid response to all load variations, ensuring an outstanding sine-wave form during all conditions.

Furthermore, SATRON UPS' technological advances in digital control and power components contribute to minimise the impact on the grid.

S3100/S3300 evo provides the solution to installation problems in systems where the mains electricity supply has limited power available, where the UPS is supported by a generator, or where there are compatibility problems with loads that generate harmonic currents.

S3100/S3300 evo is designed to protect critical industrial and Information Technology (IT) systems with the following features:

EXTENSIVE RANGE OF SOLUTIONS

S3100/S3300 evo has been conceived to optimise the specific requirements by enhancing the installation flexibility. SATRON UPS offers **S3100/S3300 evo** in three different frame solutions to satisfy any critical power demand and application.

The three different frame types available are: Compact, Active and Xtend.

Compact (CPT): this cabinet frame is specifically devised to offer a compact but efficient solution for tailored applications; thanks to the ultimate technologies applied, this solution offers unmatched power (up to 20 kVA @ Pf 1) and autonomy (12 minutes of backup time at typical load) in an extremely reduced space.

Active (ACT): optimised degree of flexibility to meet different power requirements and battery autonomies.

The solution offered is extremely compact but exceptionally powerful, with the possibility to deliver up to 60 kVA (@ pf 1). The ACT model allows to build one or two levels of internal battery backup time (NB this does not apply to the 60 kVA/kW model, which does not allow the installation of internal batteries).

Xtend (XTD): this version is the most flexible solution available to meet various installation requirements and power demands. In an extremely small footprint, it is possible to build up to three-levels of battery backup time. In addition, the mechanical design makes it possible to install an isolation transformer or easily change the degree of protection from IP20 to IP21 or even IP31. The installation of a dedicated optional seismic kit allows the XTD model to become compliant to ICC-ES AC 156 (2020) too.

The fourth frame is unique for the S3100/S3300 evo 80-120 kVA/kW power ratings: **S3300 evo 80, 100, S 120**. The layout of these models doesn't allow for the installation of internal batteries and transformers. However, as per the XTD model, the mechanical design does make it possible to easily change the degree of protection from IP20 to IP21 or even IP31.

In addition, the **S3300 evo** 80-120 models can become compliant to ICC-ES AC 156 (2020) simply by adding the optional seismic kit.

COMPACTNESS

Modern guidelines and sustainable best practices direct us to conceive and design UPS with particular focus on the entire product life cycle, therefore applying ultimate but resilient technologies, recyclable materials and miniaturisation of assemblies whilst ensuring the systems global reliability, which is pivotal for any UPS.

The internal card layout has been optimized to reduce the number of components, to reduce the number of interconnections and to reduce the space required, whilst at the same time increase global reliability and Mean Time Between Failures (MTBF) and to minimize operational expenditure such as service operations and maintenance costs. The result is an outstanding range of three different solutions providing powerful but compact designs as follows:

S3300 evo 10-60 kVA/kW power ratings

- **Compact:** less than 0.25 m² footprint and only 0.17 m³ of volume.
- **Active:** less than 0.35 m² footprint and only 0.33 m³ of volume..
- **Xtend:** less than 0.4 m² footprint and less than 0.5 m³ of volume.

S3300 evo 80-120 kVA/kW power ratings

- 80, 100, 120: less than 0.42 m² footprint and less than 0.67 m³ of volume.

HIGH EFFICIENCY

S3100/S3300 evo is a true online double-conversion UPS system providing the very highest levels of power availability, flexibility and unrivalled energy efficiency with superior performance for any small data centre and mission critical applications.

With a full power rating (kVA=kW unity PF), the **S3100/S3300 evo** MOEL provides the maximum available power without any de-rating. Thanks to the three-level IGBT inverter topology (constructed using modules rather than discrete components) and innovative digital control, the **S3100/S3300 evo** provides up to 96.6% overall efficiency, whilst maintaining a reduced number of components, connections and ribbon cables, which increases the overall system reliability, thanks to a higher MTBF.

SATRON UPS' advanced average current mode digital PFC control and State-of-the-art three-level NPC inverters working at high frequency (18 kHz), contributes to minimize the UPS's impact on the grid and hence reducing the overall operational costs and energy bills.

MECHANICAL CHARACTERISTICS	S3100/S3300 evo COMPACT-CPT 10-20	S3300 evo ACTIVE-ACT 10-60	S3300 evo XTEND-XTD 10-60	S3300 evo 80-120
Cabinet layout description	Free standing type with wheels and terminals/switches on rear	Free standing type with wheels and terminals/switches on front	Free standing type with wheels and terminals/switches on front	Free standing type with wheels and terminals/ switches on front
Range [kVA/kW]	10-15-20 (1 Ph) 10-15-20 (3 Ph)	10-15-20 (1 Ph) 10-15-20-30-40-60 (3 Ph)	10-15-20 (1 Ph) 10-15-20-30-40-60 (3 Ph)	80-100-120 (3 Ph)
Battery	Space for: 40 blocks	Space for: 2x40 blocks (No internal battery for 60kVA)	Space for: 3x40 blocks (3x40x9Ah for 60kVA model, not 7Ah)	No internal battery
Ventilation	Forced, front to rear	Forced, front to rear	Forced, front to rear (Air filter door as option)	Forced, front to rear (Air filter door as option)
Cabinet IP rating	IP20 finger proof (either with cabinet doors open or closed)	IP20 finger proof (either with cabinet doors open or closed)	IP20 finger proof (either with cabinet doors open or closed) IP21/31 as option	IP20 finger proof (either with cabinet doors open or closed) IP21/31 as option
Cable input	Bottom (rear)	Bottom (front)	Bottom (front)	Bottom (front)

S3100/S3300 evo MODEL applies a zero impact onto its power source, whether this is from the mains power supply or a generator, these results in:

- Very low input current distortion <3%;
- Near unity input power factor 0.99;
- Power walk-in function that ensures progressive rectifier start up;
- Start-up delay function, to sequentially restart the rectifiers once the mains power supply is restored if there are several UPS within the overall system;
- In addition, S MODEL provides a filtering and power factor correction function within the power network upstream of the UPS, thus eliminating harmonic components and reactive power generated by the power utilities



Graphic Touch Screen Display

HIGH POWER AVAILABILITY

S3100/S3300 evo a fully rated design and delivers full power (kVA=kW) regardless of the load power factor or operating temperature (full rated power is available up to 40 °C).

Furthermore, **S3100/S3300 evo** advanced digital control makes it possible to deliver up to 270% inverter current for 200 msec. and 150% for 300 msec. The high overcurrent availability enables the system to deal with sudden peak loads (without static bypass intervention) and provide the short circuit current if required during operation on battery. The innovative input stage design provides extremely high battery recharging current, whilst at the same time energy efficient conversion process during battery operation to reduce the power wasted and to increase the autonomy time compared to legacy DC/AC converters.

SMART BATTERY MANAGEMENT

S3100/S3300 evo Smart Battery Management consists of a series of features and capabilities to optimize battery management and obtain the best performance and operating life possible.

Battery recharging: **S3100/S3300 evo** is suitable for use with conventional hermetically sealed lead-acid (VRLA), AGM and GEL batteries, Open Vented and Nickel Cadmium batteries.

S3100/S3300 evo is also compatible with ultimate alternative backup power sources such as Li-Ion batteries and Super capacitors.

Superior battery charging current availability, up to 30 Amperes for the 40 -120 kVA/kW power range, meaning that the **S3100/S3300 evo** can be utilized within any extended battery autonomy application.

Depending on the battery type, different charging methods are available:

- One-level voltage recharge, typically used for widely available VRLA AGM batteries
- Two-level voltage recharge according to IU specification
- Cyclical recharge system to reduce electrolyte consumption and lengthen the life of VRLA batteries.
- Recharge voltage compensation based on ambient temperature to prevent excessive battery charging or overheating.

Battery tests to diagnose in advance any reduction in performance or problems with the batteries.

Deep discharge protection: during extended low-load discharges, the end-of-discharge voltage is increased - as recommended by battery manufacturers - to prevent damage or reduced battery performance.

Ripple current: recharge ripple current (residual AC component at low frequency) is one of the main causes of reduced reliability and battery life. Using a high frequency battery charger, S MODEL reduces this value to negligible levels, prolonging battery life and maintaining high performance over a long period of time.

Wide voltage range: the rectifier is designed to operate within a wide input voltage range (up to -40% at half load), reducing the need for battery discharge and thus helping to extend battery life.

S3100/S3300 evo Front View Compact



S3100/S3300 evo Extend With Open Door



MAXIMUM RELIABILITY AND AVAILABILITY

Distributed parallel configuration of up to 8 units per redundant (N+1) or capacity parallel system grants exceptional expandability. The UPS continue to operate in parallel even if the connection cable is interrupted (Closed Loop). Advanced technology and use of high performance components allows S3100/S3300 evo to provide exceptional performance and utmost reliability:

- The smallest overall footprint is only 0.35 m² for **S3300 evo** 40 kVA/kW with two strings of 40 battery blocks;
- The input power stage (IGBT rectifier) ensures an input power factor close to 1 with extremely low current distortion, avoiding the need for bulky and expensive filters;
- The **S3100/S3300 evo** unity output power factor makes it suitable for any Data Center application ensuring full power availability without downgrading no matter the load power factor range (typically from 0.9 lagging to 0.9 leading);
- Extremely low output THDV under any circumstances provides a perfect sine-wave and therefore a reliable power supply for the load preventing and disturbances from affecting the network users;
- More active power than a traditional UPS, guaranteeing a greater margin when sizing UPS for potential future load increases;
- More energy to face sudden load increase or clear output short circuits due to appliance failures downstream;
- Thanks to the principle of smart ventilation, **S3100/S3300 evo** manages the fan speed and airflow in accordance with the room temperature and load level. This preserves the lifespan of the fans, whilst at the same time reduces noise levels and overall power consumption due to unnecessary UPS ventilation. Furthermore, the overall UPS high efficiency reduces any losses and the need for high levels of ventilation compared to older legacy UPS. This results in a decrease in the overall noise level at the nominal load and a reduction in the number of fans required, which significantly benefits the operating and maintenance costs.
- Fan failure monitoring: each fan is monitored individually for the 60-120 kVA/kW power ratings as standard, while this feature is a factory-fitted option for the 10-40 kVA/kW power ratings (available for Xtend version only). In the event of a fan failure, an alarm will be raised on the UPS display and via remote monitoring device (if present); this immediately informs the user so that necessary actions can be taken to restore the system to correct operation.

FLEXIBILITY

With its flexible range of three solutions, configuration, performance, accessories and options, **S3100/S3300 evo** is suitable for use in a wide range of applications.

- Suitable for powering capacitive loads, such as blade servers, without any reduction in active power from 0.9 lead to 0.9 lag.
- ON LINE, ECO, SMART ACTIVE and STANDBY OFF operating Modes - compatible with central power supply systems (CPSS) applications.
- Frequency Converter Mode.
- Cold Start to switch on the UPS even when there is no mains power present.
- **S3300 evo** 20 XTEND version: cabinet (440x840x1320 mm WxDxH) for optimized solutions when medium to long-term runtimes are required (up to one hour back up time for a 20 kVA/kW at typical load rate).
- Parallel configuration up to 8 units for three-phase version.
- Optional temperature sensor for external battery cabinets, to assist recharge voltage compensation.
- High power battery chargers to optimize charge time in the event of long runtimes.
- Dual input mains power supply (not applicable on Compact, optional for Active, standard on Xtend version).
- Isolation transformers for modifying the neutral earthing (separate power sources), or for galvanic isolation between the input and output (optional inside Xtend, external for Compact or Active versions).
- Mechanical fitting for a higher rating of IP protection either IP21 or IP31 on Xtend version.
- Air filter door on Xtend version to protect UPS placed in dusty environment.
- Compatibility with alternative backup energy sources rather than lead batteries (NiCd or Li-ion batteries or Super capacitors).
- Different sized battery cabinets and capacities, for extended runtimes.

ADVANCED COMMUNICATIONS

S3100/S3300 evo is equipped with a coloured graphic touch screen display providing UPS information, measurements, operating states and alarms in different languages.

The default screen displays the UPS status, graphical indication of the energy path through the UPS and the operational condition of the various assemblies (rectifier, batteries, inverter, bypass) within the UPS.

Furthermore, the user interface includes a UPS status led bar which delivers immediate and clear information regarding the overall status of the UPS by changing the colour (light blue, dark blue, orange and red) according with the operating mode and condition.

- Advanced multi-platform communications for all operating systems and network environments: PowerShield3 monitoring and shutdown software included for Windows operating systems 10, 8, 7, Hyper-V, 2019, 2016, 2012, and previous versions, Mac OS X, Linux, VMWare ESXi, Citrix XenServer and other Unix operating systems.
- Compatible with SATRON CONNECT (remote monitoring service).
- RS232 serial on RJ10 connector and USB ports.
- 2 slots for the installation of optional communications accessories such as network adaptors and volt free contacts etc;
- Embedded contact interface which includes 5 programmable inputs and 4 programmable outputs.
- REPO Remote Emergency Power Off for switching off the UPS via a remote emergency button.
- Graphic display panel for remote connection.

S3100/S3300 evo APPLICATIONS

S3100/S3300 evo UPS are suitable for applications requiring critical load protection, from a simple installation to those more complex where the requirement for the highest levels of reliability and maintainability are paramount.

LAN, Server and Datacentre: the unitary output power factor (kVA=kW) ensures the greatest power availability for efficient UPS loading.

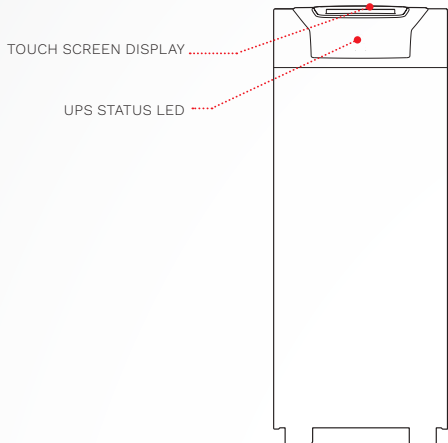
e-business and Telecommunications: parallel operation means that the installed UPS size can be increased (up to 8 units) to keep pace with the growth of the organisation.

Industrial processes, Transport and Electro-medical systems: the UPS is designed to protect a range of loads, from industrial processes to electro-medical applications. This has been achieved through careful load analysis at the design stage of the **S3100/S3300 evo** project, to ensure the following characteristics:

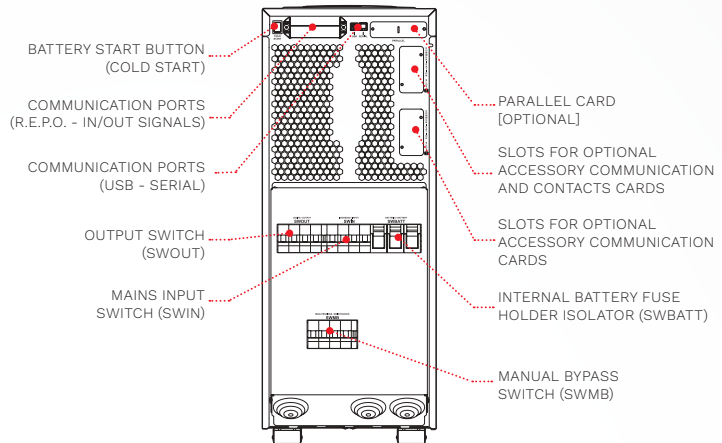
- Optimum input technical characteristics with zero impact on the power supply source.
- Extremely high inverter short circuit and overload capacity.
- High battery recharge capacity with the option to use a variety of battery types (sealed valve regulated open-vented, Nickel Cadmium, Li-Ion) for long back-up times
- Compatibility with Super capacitors for short time back-up needs and green cost-effective solutions
- Higher IP rating on site add on solution

DETAILS

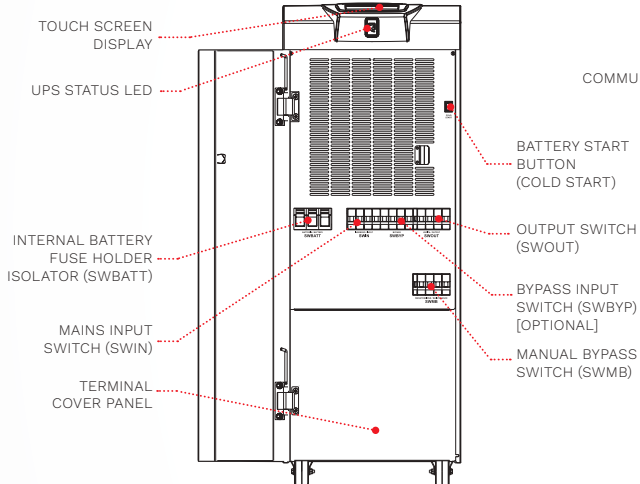
**COMPACT 10-20 kVA
(front)**



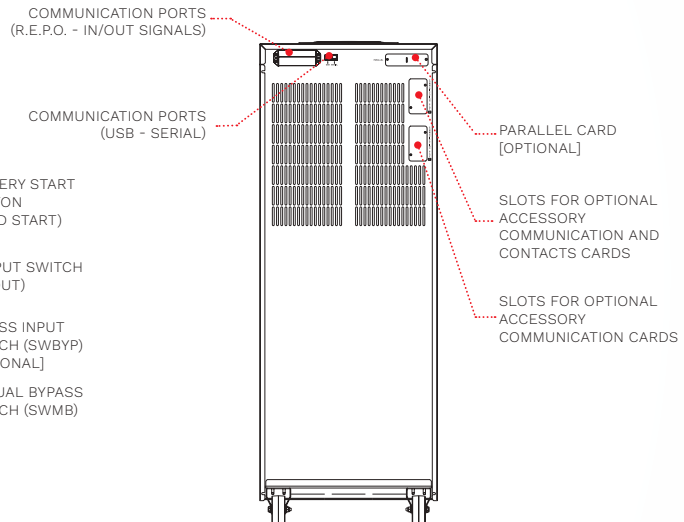
**COMPACT 10-20 kVA
(rear)**



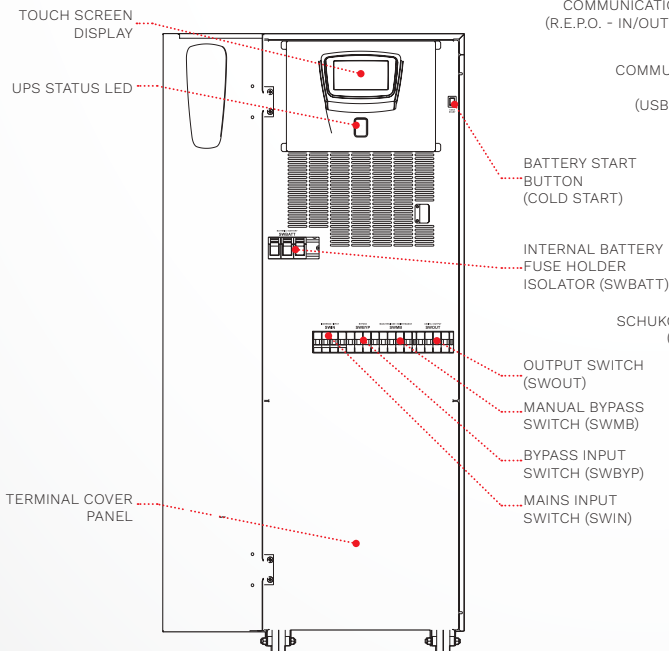
**ACTIVE 10-40 kVA
(front)**



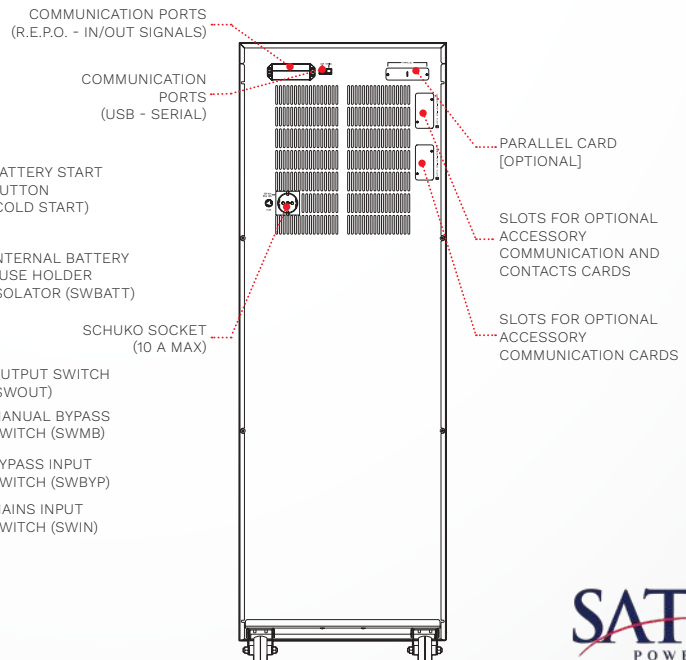
**ACTIVE 10-40 kVA
(rear)**



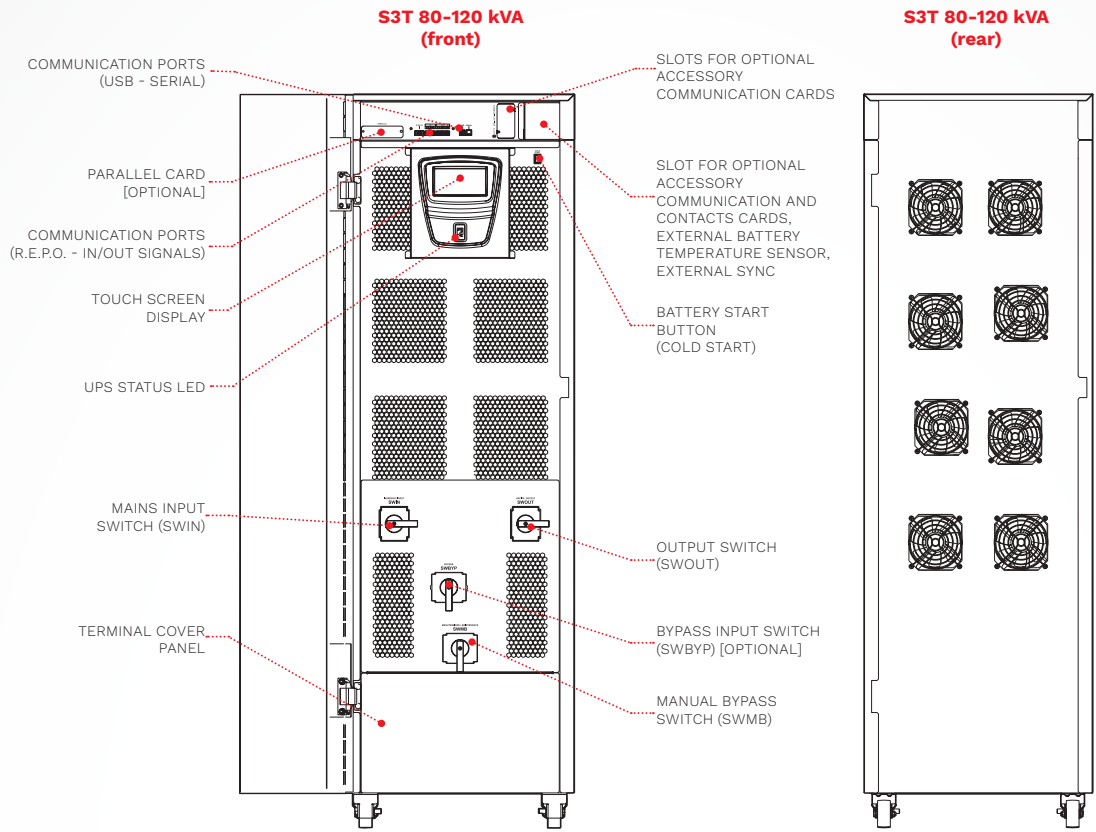
**XTEND 10-40 kVA
(front)**



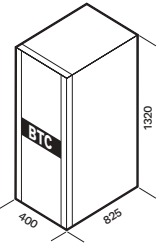
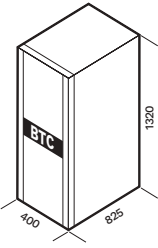
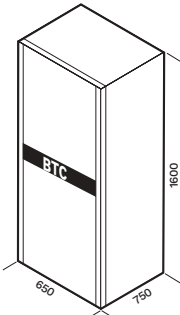
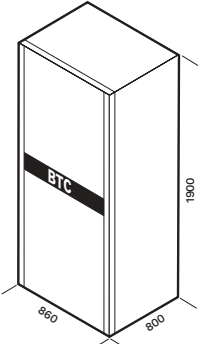
**XTEND 10-40 kVA
(rear)**



DETAILS



BATTERY CABINET

MODELS	BTC 1320 480V BB T4 3F BTC 1320 480V BB T2 3F BTC 1320 480V AB T5 3F	BTC 1320 480V BB T5 3F BTC 1320 480V AB T5 3F	BTC 1600 480V BB S5 3T BTC 1600 480V AB S5 3T	BTC 1900 480V BB V6 3T BTC 1900 480V BB V7 3T BTC 1900 480V BB V8 3T BTC 1900 480V BB V9 3T BTC 1900 480V AB V9 3T
UPS MODELS	S3M 10-20 kVA/kW ² S3T 10-40 kVA/kW ²	S3M 10-20 kVA/kW ² S3T 10-60 kVA/kW ²	S3M 10-20 kVA/kW ² S3T 10-80 kVA/kW ²	S3M 15-20 kVA/kW ² S3T 15-120 kVA/kW ²
Dimensions [mm]				
			Conditions apply on S3T 80 kVA/kW UPS model	BTC 1900 480V BB V6 3T and BTC 1900 480V BB V7 3T: Conditions apply on S3T 120 kVA/kW UPS model

² According with battery cabinet fuse associated.

OPTIONS

SOFTWARE

PowerShield³
PowerNetGuard

ACCESSORIES

NETMAN 208
MULTICOM 302
MULTICOM 352
MULTICOM 384
MULTICOM 411
MULTICOM 421
MULTI I/O
MULTIPANEL
MBB 100 A 2P
MBB 125 A 4P
MBB 400 A 4P

PRODUCT ACCESSORIES

Battery temperature sensor
ER battery charger
Parallel Kit
MULTICOM 392
UPS with internal isolation
transformers (XTEND version)
IP rating IP21/IP31
(XTEND and S3T 80-120 versions)
Dual Input Kit (ACT and S3T 80-120 versions)
Front door air filter
(XTD and S3T 80-120 versions)
Fan failure alarm for 10-40 kVA
(XTD version)
Seismic kit (XTD and S3T 80-120 versions)
ENERGYMANAGER

S3100/S3300 evo Technical Specifications

MODELS	S3100 CPT-ACT- XTD 10 BAT	S3100 CPT-ACT- XTD 15 BAT	S3100 CPT-ACT- XTD 20 BAT	S3300 CPT-ACT- XTD 10 BAT	S3300 CPT-ACT- XTD 15 BAT	S3300 CPT-ACT- XTD 20 BAT	S3300 CPT-ACT- XTD 30 BAT	S3300 CPT-ACT-XTD 40 BAT
Input								
Rated voltage [V]	380 / 400 / 415 three-phase + N 220 / 230 / 240 single-phase + N			380 / 400 / 415 three-phase + N				
Rated frequency [Hz]	50 / 60							
Voltage tolerance [V]	230 / 400 ±20% @ full load ¹			400 ±20% @ full load ¹				
Frequency tolerance [Hz]	40 - 72							
Power factor @ full load	0.99							
Current distortion	THDI ≤3%							
BYPASS								
Rated voltage [V]	220 / 230 / 240 single-phase + N			380 / 400 / 415 three-phase + N				
Number of phases	1 + N			3 + N				
Voltage tolerance (Ph-N) [V]	from 180 (adjustable 180-200) to 264 (adjustable 250-264) referring to neutral							
Rated frequency [Hz]	50 or 60 (selectable)							
Frequency tolerance	±5% (selectable)							
Bypass overload	110% infinite, 125% for 60 min., 150% for 10 min.							
OUTPUT								
Nominal power [kVA]	10	15	20	10	15	20	30	40
Active power [kW]	10	15	20	10	15	20	30	40
Power factor	1 up to 40 °C							
Number of phases	1 + N			3 + N				
Rated voltage [V]	220 / 230 / 240 single-phase + N (selectable)			380 / 400 / 415 three-phase + N (selectable)				
Rated frequency [Hz]	50 or 60							
Frequency stability on battery operation	0.01%							
Voltage stability	±1%							
Dynamic stability	EN 62040-3 class performance 1 non-linear load							
Voltage distortion	<1% with resistive linear load / 0.15% with non-linear load							
BATTERIES								
Type	VRLA AGM/GEL/NiCd/Li-ion/SuperCaps							
Recharging method	One level, Two level, Cyclic recharge (selectable)							
Number of battery cells @ 2V	120+120							
Battery arrangement	20+20 blocks (@ 12V) with Neutral central point							
Recharge time	5h							
OVERALL SPECIFICATIONS								
Weight without batteries [kg] CPT - ACT - XTD	48-72-103	50-74-105	52-76-107	48-72-103	50-74-105	52-76-107	N.A.-78-112	N.A.-82-116
Dimensions CTP (WxDxH) [mm]	Compact: 280x840x700							Not applicable
Dimensions ACT (WxDxH) [mm]	Active: 380x850x1025							
Dimensions XTD (WxDxH) [mm]	Xtend: 440x840x1320							
Communications	UPS status led bar - Graphic touch screen display - 2 slots for communications interface USB - RS232 - Contact interface with 5x opto insulated Input and 4x Output relays							
Ambient temperature for the UPS	0 °C - +40 °C							
Recommended temperature for battery life	+20 °C - +25 °C							
Range of relative humidity	5-95% non-condensing							
Colour	RAL 7016 Anthracite grey							
Noise level at 1 m [dBA ±2] SMART ACTIVE	<40							
IP rating	IP20							
SMART ACTIVE efficiency	up to 99%							
Standards	European directives: L V 2014/35/EU low voltage Directive EMC 2014/30/EU electromagnetic compatibility Directive Standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; RoHS compliant Classification in accordance with IEC 62040-3 (Voltage Frequency Independent) VFI - SS - 111							
Moving the UPS	Castors / pallet jack							

¹ For wider tolerance conditions apply.
BAT Also available with internal batteries.

S3300 evo Technical Specifications

MODELS	S3300 evo ACT-XTD 30BAT	S3300 evo ACT-XTD 40BAT	S3300 evo ACT-XTD 60BAT	S3300 evo 80	S3300 evo 100	S3300 evo 120
Input						
Rated voltage [V]	380 / 400 / 415 three-phase + N					
Rated frequency [Hz]	50 / 60					
Voltage tolerance [V]	400 ±20% @ full load ¹					
Frequency tolerance [Hz]	40 - 72					
Power factor @ full load	0.99					
Current distortion	THDI ≤3%					
BYPASS						
Rated voltage [V]	380 / 400 / 415 three-phase + N					
Number of phases	3 + N					
Voltage tolerance (Ph-N) [V]	from 180 (adjustable 180-200) to 264 (adjustable 250-264) referring to neutral					
Rated frequency [Hz]	50 or 60 (selectable)					
Frequency tolerance	±5% (selectable)					
Bypass overload	110% infinite, 125% for 60 min, 150% for 10 min.					
OUTPUT						
Nominal power [kVA]	30	40	60	80	100	120
Active power [kW]	30	40	60	80	100	120
Power factor	1 up to 40 °C					
Number of phases	3 + N					
Rated voltage [V]	380 / 400 / 415 three-phase + N (selectable)					
Rated frequency [Hz]	50 or 60					
Frequency stability on battery operation	0.01%					
Voltage stability	±1%					
Dynamic stability	EN 62040-3 class performance 1 non-linear load					
Voltage distortion	<1% with resistive linear load / 0.5% with non-linear load					
BATTERIES						
Type	VRLA AGM/GEL/NiCd/Li-ion/SuperCaps					
Recharging method	One level, Two level, Cyclic recharge (selectable)					
Number of battery cells @ 2V	120+120					
Battery arrangement	20+20 blocks (@ 12V) with Neutral central point					
Recharge time	5h					
OVERALL SPECIFICATIONS						
Weight without batteries [kg] CPT - ACT - XTD (10-60)	N.A.-78-112	N.A.-82-116	N.A.-87-130	N.A		
Weight [kg] S3T (80-120)	N.A			172	180	198
Dimensions CPT (10-20) (WxDxH) [mm]	N.A					
Dimensions ACT (10-60) (WxDxH) [mm]	Active: 380x850x1025			N.A		
Dimensions XTD (10-60) (WxDxH) [mm]	Xtend: 440x840x1320			N.A		
Dimensions S3T 80-120 (WxDxH) [mm]	N.A			500x830x1600		
Communications	UPS status led bar - Graphic touch screen display - 2 slots for communications interface USB - RS232 - Contact interface with 5x opto insulated Input and 4x Output relays					
Ambient temperature for the UPS	0 °C - +40 °C					
Recommended temperature for battery life	+20 °C - +25 °C					
Range of relative humidity	5-95% non-condensing					
Colour	RAL 7016 Anthracite grey					
Noise level at 1 m [dBA ±2] SMART ACTIVE	<40		<50		<55	
IP rating	IP20					
SMART ACTIVE efficiency	up to 99%					
Standards	European directives: L V 2014/35/EU low voltage Directive EMC 2014/30/EU electromagnetic compatibility Directive Standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; RoHS compliant Classification in accordance with IEC 62040-3 (Voltage Frequency Independent) VFI - SS - 111					
Moving the UPS	Castors / pallet jack					

¹ For wider tolerance conditions apply.

BAT Also available with internal batteries.

Note: S3300 evo ACT 60 model is without internal batteries.



SATRON Power Solutions
Approach your local SATRON Power Solutions
representative for further support.
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