



**POWER⁺ SA Series
10kVA-40kVA
&
POWER⁺ 19"
10kVA-20kVA**



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POWER⁺ Stand Alone (SA) Series 10kVA-40kVA & POWER⁺ 19" 10kVA-20kVA

Lower TCO & increase ROI:

- SAVE ON purchasing & installation costs
- SAVE ON electricity costs
- SAVE ON maintenance costs
- SAVE ON spacing costs
- SAVE ON cooling costs
- SAVE ON generator costs

General product Features:

- Ultrahigh power density
- True green power and high efficiency
- Universal UPS: frequency / voltage / phase configurable on site
- User friendly
- Maximum power availability
- True online batteries and double conversion VFI topology
- Power with environmental integrity
- Power+ controller: full remote UPS management, automatic server shutdown, alerts, and management of SNMP trap by interfacing with NMS software (a standard feature in the 19" model and optional in SA models)

POWER+ SA

**Stand Alone/Tower 10kVA
On-Line double conversion UPS
True on-line batteries**

Features

- Lightweight and compact design, weighing only 18 Kg
- Flexible use - available in 3/3, 3/1 and 1/1 phase configurations
- Great performance:
 - > High efficiency AC/AC: 96%
 - > Low input THDi: <5%
 - > Input PF of 1
 - > Backlight LCD
- Available also in 208v with UL conformity
- Mainly used for Small & Medium sized applications, as well as an OEM component for large devices (such as Medical CT products)



POWER+ SA

**Stand Alone 20/30/40kVA
On-Line double conversion UPS
True on-line batteries**

Features

- Unique and compact design, weighing only 68kg (at 40kVA)
- Great performance:
 - > High efficiency AC/AC: 96%
 - > Low input THDi: 5 %
 - > Input PF: 1
 - > Backlight LCD
 - > External battery cabinets available



POWER+19"

**10-20kVA
On-Line double conversion UPS
True on-line batteries**

Features

- The POWER +19" is a variant of the POWER+ UPS, which can be integrated as a sub rack into any standard 19" rack, for a lower cost configuration of the 10kVA and 20kVA UPS's.
- The kit includes:
 - > One or two 10kVA POWER+ modules
 - > A Controller with a built-in STSW
 - > A 19" shelf to host the POWER+ module and controller
- The kit reaches a height of 4U with one 10kva module and 6U with 2 modules.



4U height

POWER+ SA 10kVA Technical Specifications

POWER+ SA	3/3	3/1	1/1
Topology	True online battery, double conversion		
Capacity	10 kVA / 8 kVA		
Input	3 phase + N + PE		1 phase + N + PE
Voltage	3 x (380 V ~ 415 V) + N + PE		(220 V ~ 240 V) + N + PE
Voltage tolerance	-27 % and +20 %		
Current	15 A per phase, no inrush current at startup		45 A, no inrush current
Power walk-in	<60 s		
Input power factor	1		
Input THDi	< 5 %		
Earth leakage current	3 mA max.		
Output	3 phase + N + PE		1 phase + N + PE
Rated power	10 kVA / 8 kW		
Frequency tracking range	± 3 Hz		
Slew rate	1 Hz/sec		
Voltage	3x(400 V)+N+PE	(220 V ~ 240 V) + N + PE	
Static regulation	±1 %		
Regulation for unbalanced load	±1 % for 100 % unbalanced load		
Dynamic response to 100 % load step	±2 %		
Overload	110 % for 10 min; 125 % for 60 s; 1000 % for 1 cycle		
Waveform	Sinusoidal		
THD	Less than 2 % for linear load		
Load CF (max)	6:1		
Dc/Ac efficiency (nominal)	98 %		
Ac/Ac efficiency (nominal)	96 %		
Static Switch (bypass)			
Input connection	Dual feed		
General			
Maximum power dissipation (Po=8KW)	384 W (1300 BTU/h)		
Ambient temperature	operation: -10 °C to +40 °C storage: -20 °C to +60 °C		
Relative humidity	95 % max, non-condensing		
Altitude	1500 m without derating		
Enclosure	IP20		
Cooling system	Multi-fan with speed control (forced)		
Acoustic noise (full load) at 1.5 m distance	47 dBA		
MTBF	250,000 h		
Dimensions (mm)	560(H) x 90 (W) x 600 (D)		
Weight	18 kg		
LCD display			
Input	Voltage, frequency, current		
Output	Voltage, frequency, current		
Batteries	Voltage		
Log (events memory)	Last 200 events		
Communication			
RS232	Yes		
Dry contact alarm	Yes		
SNMP	Optional		
Standards			
EMC	IEC 62040-2, under EMC 2004/108/EC		
Design	IEC 62040-3		
Safety	IEC 62040-1, under LVD 2006/95/EC		
Low magnetic field radiation	EMF as per ICNIRP		
Batteries (external)			
Type	Sealed, valve-regulated, lead-acid		
Number	64 x (5 Ah / 12 V)		
Backup time	8 min @ 100 % load; 25 min @ 50 % load		
Recharge time	4~6 h		
Battery cabinet			
Dimensions (cm)	45 (H) x 26 (W) x 60 (D)		
Weight	110 kg		

* All specifications are typical and subject to change without prior notice

POWER+ SA 20 kVA, 30 kVA, 40 kVA Technical Specifications

POWER+ SA UPS	20 kVA	30 kVA	40 kVA
Topology	True online battery, double conversion		
INPUT	3 phase+N+PE		
Voltage	3 X (380V ~ 415V) + N + PE		
Frequency tolerance	45-65 Hz		
Voltage tolerance	-27% ÷ +20%		
Power walk-In	< 60 s		
Power factor	1		
THDI	<5 %		
Earth leakage current	3 mA		
OUTPUT	3 phase+N		
Rated power	20 kVA / 16 kW	30 kVA / 24 kW	40 kVA / 32 kW
Frequency tracking range	±0.5, ±1, ±2, ±3, ±4Hz (selectable)		
Slew rate	1 Hz/sec		
Voltage	3x400 V		
Frequency	50 Hz		
Static regulation	±1 %		
Regulation for unbalanced load	±1 % for 100 % unbalanced load		
Dynamic response to 100% load step	2 %		
Overload	110 % for 10 min.; 125 % for 60 sec.; 1000 % for 1 cycle		
Waveform	Sinusoidal		
THD	Less than 2 % for linear load		
Load CF (max)	6:1		
DC/AC efficiency (nominal)	98 %		
AC/AC efficiency (nominal)	96 %		
STATIC SWITCH (bypass)			
Input connection	Dual feed		
GENERAL			
Maximum power dissipation (Po=8KW)	666 W (2274 BTU)	999 W (3408 BTU)	1332 W (4544 BTU)
Ambient temperature	-10 °C to +40 °C (operating); -20 °C to +70 °C (storage)		
Relative humidity	95 % max non-condensation		
Altitude	1500 m without derating		
Enclosure	IP20		
Cooling system	Multi-Fan with speed control (forced)		
Acoustic noise (full load) @1.5m distance	54 dBA	57 dBA	
MTBF	250,000 h		
Dimensions (H x W x D) (mm)	660 x 480 x 580		
Weight (electronic cabinet)	50 kg	59 kg	68 kg
COMMUNICATION			
Dry contact alarms	Yes		
SNMP/ Web	Yes		
LCD DATA DISPLAY			
Input	Voltage, frequency, current, power		
Output	Voltage, frequency, current, power		
Batteries	Voltage		
Log (events memory)	Last 256 events		
STANDARDS			
EMC	IEC 62040-2, under EMC 2004/108/EC		
Design	IEC 62040-3		
Safety	IEC 62040-1, under LVD 2006/95/EC		
Low magnetic field radiation	EMF as per ICNIRP		
BATTERIES			
Type	Sealed, valve regulated, lead-acid		
Number	64x12 V		
Battery cabinet	External		
DC voltage	±432 V		

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POWER+ 19" Technical Specifications

POWER+ 19" UPS	10kVA	20kVA
Topology	True Online Battery, Double Conversion, VFI	
INPUT		
Voltage	3 x (380 V~ 415V) + N +PE	
Voltage Range	27%- ÷ +20%	
Current	3 x 15A per module, no inrush current at startup	
Power Walk-In	< 60 sec	
Frequency	45÷65 Hz	
Power Factor	0.99	
THDI	5%	
OUTPUT		
	3 phase +N	
Rated Power	10kVA/8kW	20kVA/16kW
Frequency Tracking Range	± 0.5, ± 1, ± 2, ± 3, ± 4Hz (selectable)	
Slew Rate	1 Hz/sec	
Voltage	3 x 400 Vac+N	
Static Regulation	± 1%	
Regulation for Unbalanced Load	± 1% for 100% Unbalanced load	
Dynamic Response to 100% Load Step	± 2%	
Overload	110% for 10 min.; 125% for 60 sec.; 1000% for 1 cycle	
Waveform	Sinusoidal	
THD	Less than 2% for linear load	
Load CF (max)	6:1	
DC/AC Efficiency (nominal)	Up to 98% at full load	
AC/AC Efficiency (nominal)	Up to 96% at full load	
GENERAL		
Maximum Power Dissipation (Po=8KW)	333W (1316 BTU/h)	666W (2274 BTU/h)
Ambient Temperature	10- ⁰ c to +40 ⁰ c (operating); -20 ⁰ c to +60 ⁰ c (storage)	
Relative Humidity	95% max non-condensing	
Altitude	1500 m without derating	
Enclosure	IP20	
Cooling System	Multi-Fan with speed control (forced)	
Acoustic Noise (full load) @1.5m distance	51dBA	54dBA
Dimensions (H x W x D) in mm	193 (4U) x 483 (19 in.) x 600	264 (6U) x 483 (19 in.) x 600
Weight (approx.)	19.9Kg	31.7Kg
STANDARDS		
EMC	IEC 62040-2, under EMC 2004/108/EC	
Design	IEC 62040-3	
Safety	IEC 62040-1, under LVD 2006/95/EC	
Low Magnetic Field Radiation	EMF as per ICNIRP	
BATTERIES		
Type	Sealed, valve regulated, lead-acid	
Number	64x12 V	
Battery cabinet	External	
DC voltage	± 432 V	

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