GAMATRONIC
A SolarEdge Division

POWER+ CLASSIC

20/30 KVA, 3X208 VAC
WITH INTERNAL BATTERIES

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Power+ CLASSIC 20/30 kVA, 3x208 Vac

The **Power+ CLASSIC** is an electrically and mechanically modular UPS system, uniquely designed to scale up as power requirements grow. Easily upgradable on-site through the addition of plug-and-play 10KVA modules, the **Power+ CLASSIC** offers an optimal combination of efficiency, economy, and usability – with a low TCO (Total Cost of Ownership) and a quick ROI (Return on Investment).

Power+ CLASSIC UPS provides:

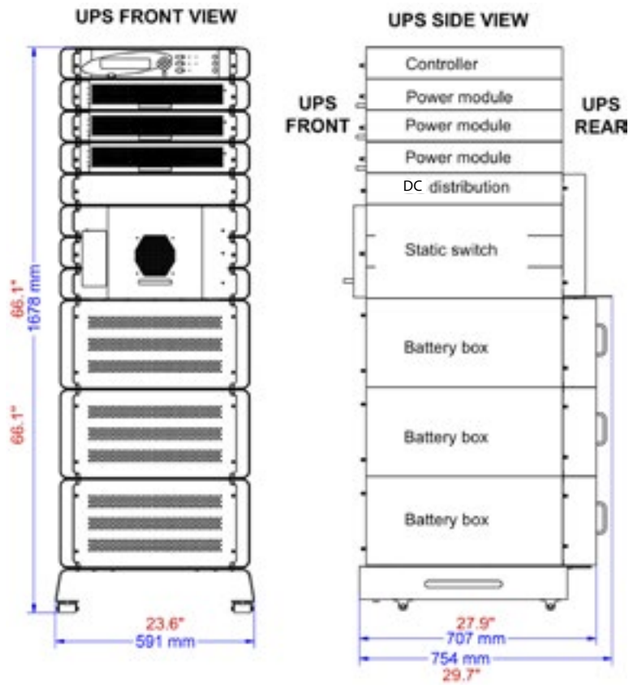
- Uninterruptible power for critical loads during failure of AC mains
- Protection of load against variation in mains power voltage and frequency
- Elimination of power line noise and voltage transients
- High power density with a space saving footprint
- User-friendly controller with easily accessible communication and control options
- Intelligent battery handling that helps prolong battery life
- Simple maintenance procedures
- Significant energy savings and lower cooling costs

Designed from the ground up with cost reduction in mind, the **Power+ CLASSIC** line of UPSs are completely modular, and can be custom built to meet specific needs. Each module is entirely self-contained and ready for hot-swapping – without the need for storage of spare components, subsystems, or parts.

The **Power+ CLASSIC** is comprised of 10KVA building modules. Built to grow as business expands, this modular UPS enables purchasing for the capacity of today, with the ability to expand for tomorrow.

The UPS module is the core of the **Power+ CLASSIC**. The model featured here can be built to include either two or three identical UPS modules in parallel, depending on capacity requirements.
Each UPS module includes a 3-phase charger with PFC (Power Factor Correction) and a 3-phase PWM (Pulse Width Modulation) inverter connected to batteries by a classic DC link. Each module is plug-in and weighs a mere 22 lbs. (10 kg).

The **Power+ CLASSIC** can be configured with either two or three internal battery boxes, depending on the number of power modules. Each internal battery box holds 32 x 12 V batteries. The batteries are available in capacities of either 7 Ah or 9 Ah. Each internal battery cabinet provides sufficient backup power for one 10 kVA / 8 kW module.
The Power+ CLASSIC 20 kVA and 30 kVA models with internal batteries have a footprint of less than 4.6 sq. ft. (0.42 m^2). The internal batteries add a clear space-saving advantage.



A Power+ CLASSIC system with three 10 kVA power modules and three sets of internal batteries.

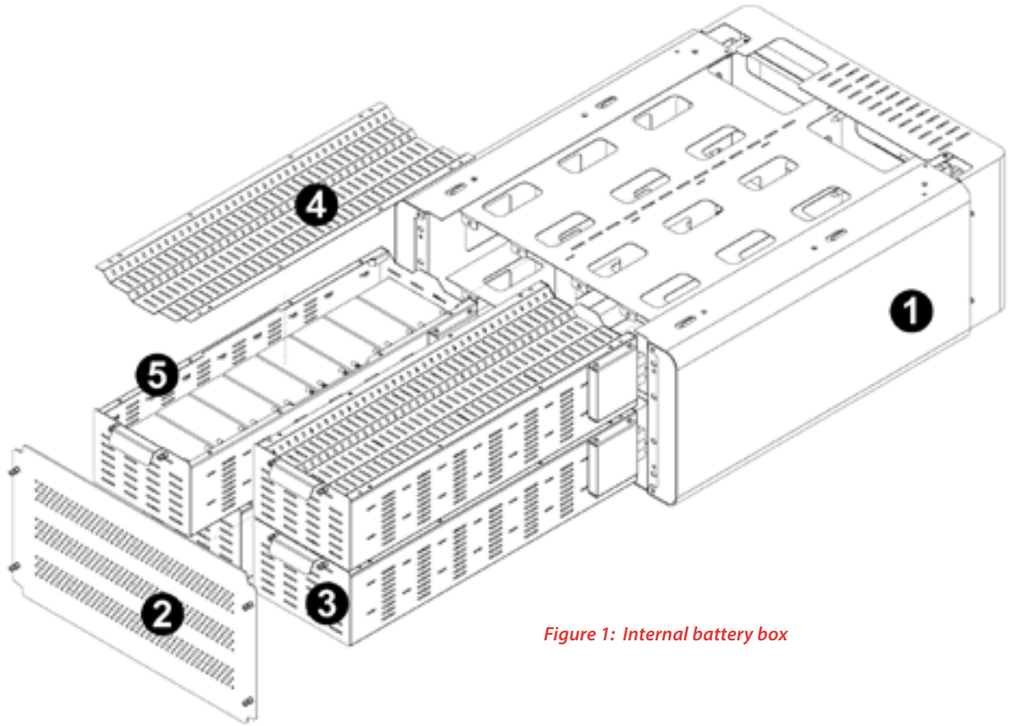


Figure 1: Internal battery box

Figure Key

ITEM	DESCRIPTION
1	Internal battery box. Houses 4 drawers. Each drawer holds eight batteries.
2	Removable front panel of the battery box.
3	One of four battery drawers
4	Top cover (lid) of a battery drawer
5	Drawer with 8 batteries. Available in capacity of 7 Ah or 9 Ah. All of the batteries in a battery box must have the same Ah rating.

Power+ CLASSIC UPS System, 3x208 V, 20/30 kVA, with Internal Batteries

POWER+ CLASSIC TECHNICAL DATA		
Topology		True on-line battery, double-conversion, VFI
Construction		Modular, parallel hot-plugged modules
Operation		Continuous
INPUT		
Voltage (Vac)		3 × 208 + N (4 wires + Ground)
Voltage range (%)		+15 and –25
Current (A)		28 per module – no inrush current at startup
Frequency (Hz)		47 ~ 63
Power walk-in (sec)		1 to 60 in 1 sec increments
Power factor		0.99
THDI (%)		5
OUTPUT		
Rated power (kVA / kW)		20 / 16 or 30 / 24
Frequency tracking range (Hz)		±0.5, ±1, ±2, ±3, ±4 (selectable)
Slew rate (Hz/sec)		1
Voltage (V)		3 × 208 + N (4 wires + Ground)
Static regulation (%)		±1
Regulation for unbalanced load (%)		±1 for 100 % unbalanced load
Dynamic response to 100% load step (%)		±2
Overload	Inverter mode	110 % for 10 minutes, 125 % for 60 sec
	Bypass mode	1000% for 1 cycle
Waveform		Sinusoidal
THD (%)		Less than 2 for linear load
Load CF		4:1
Ac-ac efficiency, nominal (%)		Up to 94 at full load
Dc-ac efficiency, nominal (%)		Up to 97 at full load
BATTERIES		
Dc-link voltage (Vdc)		+/– 160 to +/– 216
Quantity and type		32 × 12 Vdc, 7 Ah or 9 Ah
Type		Sealed, lead acid, rechargeable
GENERAL		
Maximum power dissipation (Po=8 kW)		N*510 W (N*998 BTU), N = # power modules (2 or 3)
Ambient temperature operation: storage:		 +14 to +104 °F (-10 to +40 °C) -4 to +140 °F (-20 to +60 °C)
Relative humidity (%)		95 max., non-condensing
Altitude (m)		1500 without derating
Enclosure		IP20
Cooling system		Multi-fan with speed control (forced)
STANDARDS		
EMC emissions		IEC 62040-2; FCC part 15/B
Safety		UL 1778 (2nd Ed.); IEC 62040-1
Design		IEC 62040-3
Low magnetic field radiation		EMF as per ICNIRP

Dimensions (U.S. measurements)		
UPS type	20 kVA	30 kVA
Size (in) and weight (lbs)	52.2 (H) x 23.6 (W) x 27.2 (D); 258	66.1 (H) x 23.6 (W) x 27.9 (D); 291
Dimensions (metric measurements)		
Size (mm) and weight (kg)	1325 (H) x 60 (W) x 69 (D); 117	1678 (H) x 591 (W) x 707 (D); 132
Acoustic Noise		
Noise (dBA)with half load	52	53
Noise (dBA) with full load	54	55

All specifications are subject to change without advance notice.

Power+ CLASSIC, 3x208 V, 20/30 kVA:
Controller Specifications

System Controller – TECHNICAL DATA	
Microcontroller core	16 bit
Display	4 × 40 characters LCD with backlight
Other indicators	8 LEDs, buzzer
Analog input channels	3 for battery current measurement 1 for temperature measurement
Voltage-free user input channels (dry contacts)	8
Real Time Clock (RTC)	Yes (operates for 2 weeks without power)
Power meter	kVA, kW, PF
Voltage-free outputs (dry contacts)	6 outputs, rated 50V/1A
RS232 user port	Yes, isolated
Optional communication	TCP/IP, GPRS/SMS wireless communications (optional)
Communications with system modules	Serial, isolated
Events log	255 events
System operation without controller	Unchanged
On-screen parameters	Load-level bar-graph, 3-phase voltages, 3-phase currents, battery voltage, status of each UPS module, static-switch parameters and status, battery temperature sensor
Alarms (floating output relay contacts, each rated for max. 48 Vdc 1 A)	AC failure, DC failure, UPS module(s) failure, load on bypass, battery test failure, over/under temperature, overload
Power requirements	3 × 208 Vac / ±216 Vdc 15 W

GAMATRONIC
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Gamatronic, A SolarEdge Division, provides reliable and flexible power solutions
to ensure optimal power efficiency. Contact us for more information.
Let our team of experts find a solution that would best serve your needs.

Our Power, Your Confidence

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