



SBS STORAGE BATTERY SYSTEMS, LLC.

Critical Power

UPS Systems - UPS Batteries - UPS Services - UPS Support

BATTERY



UPS SYSTEMS



GENERATOR



POWER QUALITY

Preventative Maintenance Agreements - Battery Monitoring - 24x7 Service

Generator Batteries - Generator Sets - Generator Services

Power Distribution Units - Replacement Batteries

Our History -

Established in 1915, Storage Battery Systems, LLC has become renowned for providing DC power solutions for stationary & motive applications. From flooded battery cells, to sealed VRLA strings, from Ni-Cd jars to Lithium-ION rechargeable battery packs, SBS has developed a reputation for delivering superior performance & dedication to customer service.

At SBS, we integrate mission critical solutions with single phase and three phase uninterruptible power supply (UPS) system solutions from more than ten (10) manufacturers including Eaton Powerware, Emerson Liebert, Mitsubishi, Toshiba, General Electric & APC/MGE.



SBS 1968



SBS 2012

Single-phase solutions include on-line, line interactive, and stand-by technologies ranging from 100 VA (0.1 KVA) to 18 KVA. Three phase UPS solutions include on-line, line interactive, delta conversion, and rotary technologies ranging from 5 KVA to 750 KVA (single module) and to 4500 KVA (4.5 MW) in parallel. Whereas the UPS & generator set are a fundamental component within the critical data power system, they by themselves do not address the total 'power quality state-of-health'. True power protection should be implemented by examining your one-line

electrical diagram. From there, you can ascertain coordinated protection, TVSS, grounding-bonding, points of failure, redundancy issues, harmonics & other electrical environments that should be evaluated when supporting today's sensitive non-linear electronic & computer loads all powered by switch-mode power supplies (SMPS).

Our Products -



An Uninterruptible Power Supply (UPS) or more commonly known as a "Battery Backup" is a device which maintains a continuous supply of electric power to connected equipment when a utility power source is not available. These critical power components come in a variety of shapes and sizes and offer various lengths of reserve power as needed for the application. With hundreds of brands available on market, SBS has teamed with some of world's leading manufacturers, to provide the best quality and most reliable systems for any size application.

Harmonic Mitigation Transformers are specifically designed devices, which minimize voltage distortion and power losses that result from the harmonics generated by non-linear loads such as personal computers. Through our team of skilled technicians, we can properly analyze your facilities power consumption to pin point equipment that may cause harmonic distortion on your power grid.



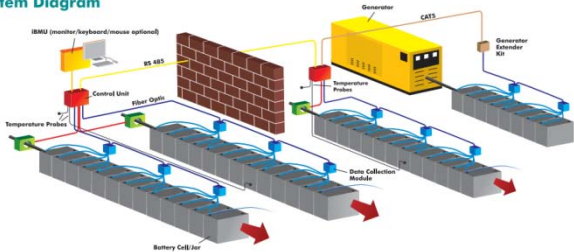


An **Automatic Transfer Switch** is an apparatus typically used with a generator, for transforming power to an alternative source. The automatic transfer switch apparatus is configured to sense a utility line failure, start up and stabilize the generator, and switch over the circuits from the utility to the generator, then switch back with the utility recovers.

Transient Voltage Surge Suppressor (TVSS) is a device that every mission critical facility should have. The purpose of a TVSS is to eliminate or reduce damage to data processing equipment and other critical equipment by limiting transient (surge) voltages and currents on electrical circuits. These transients or surges may come from inside a facility, or may be injected into a facility from the outside.



System Diagram



Battery Monitoring Systems: Power failures and glitches can happen at any time and are often a key consideration point to promote investment in a critical backup power system. A battery monitoring system is a key element in eliminating the headaches and frustrations caused by these unannounced power failures. With an SBS battery monitoring system, you can be sure your batteries will continue to support your applications, systems and networks during any power disturbance or failure.

Power Generation Products: The generator is only one important component of your critical power system. In order to achieve your maximum value for this investment, it must work with your other components in a coordinated system. In other words, the generator must not only function in accordance with its operational specifications, but also with the other components of the reserve power system. Configuring the exercising routine, programming load shedding/sharing controls, compensating for non-linear harmonic current distortion & specifying the correct generator technology for the proper waveform are just some of the advantages you receive when you select SBS.



Switchgear: In an electric power system, switchgear is the combination of electrical disconnect switches, fuses or circuit breakers used to control, protect and isolate electrical equipment. Switchgear is used both to de-energize equipment to allow work to be done and to clear faults downstream. This type of equipment is important because it is directly linked to the reliability of the electricity supply.

Maintenance Bypass: Enables power to completely bypass and isolate the UPS so that the UPS can be safely serviced or replaced without interrupting power to critical loads.





UPS Replacement Batteries



Batteries are the most vulnerable, sensitive & susceptible piece of your critical power system. The right battery will make the difference between reaching useful service life projections & replacing your strings prematurely. SBS not only manufactures the appropriate battery design for your system, but also will execute professional installation & preventative maintenance in accordance with IEEE Std 450/1187 recommendations. Unlike OEM UPS service organizations that are not experts in battery chemistry or some third party service providers who are eager to make their next sale, SBS has a vested interest in you realizing the maximum useful service life of our batteries. We understand battery design & will use our experience to engineer a total system that will improve your "level of nines" reliability.



High Rate VRLA



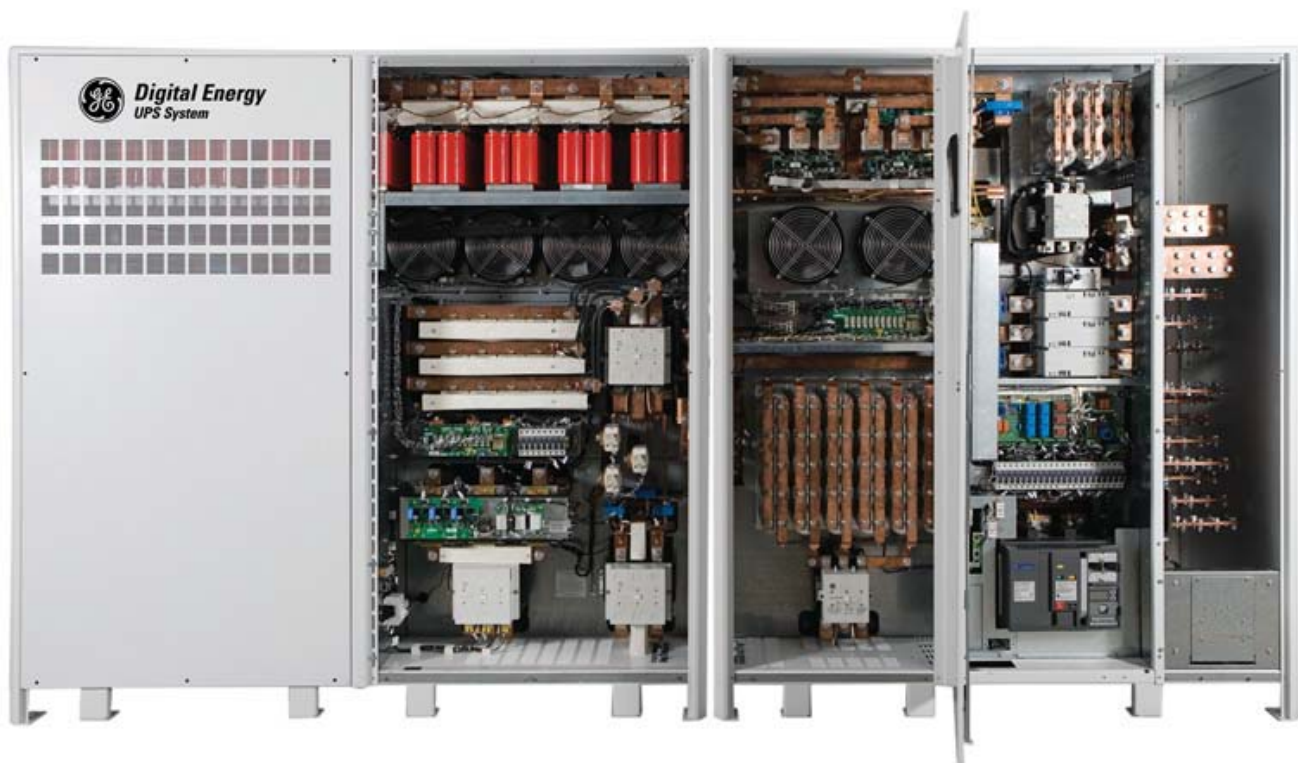
Lead Calcium

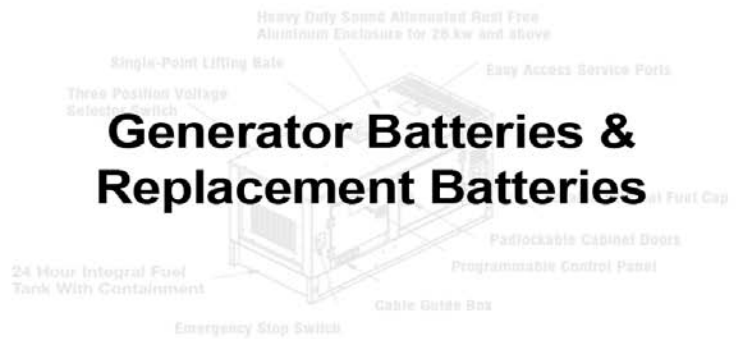


Gel



NiCad





Generator Batteries & Replacement Batteries

In a generator, Batteries are the most vulnerable, sensitive & susceptible piece of your critical power system. The right battery will make the difference between reaching useful service life projections & replacing your battery prematurely. At SBS, we offer generator batteries & replacement batteries for such manufactures as Caterpillar, Atlas Copco, Kohler, Cummins, Generac, & many other industry leaders.

Generator batteries need to be float charged for long periods of time, in order to deliver high starting current when called upon. Generator Batteries are manufactured as sealed, maintenance-free types or flooded plate types.



Gel



Cold Crank: SLA/FLA



NiCad Fiber Plate



Flooded

Typical Battery Maintenance Schedule for a Generator Set							
Starter Battery Maintenance Items		Method of Checking and Action to Take					Check
		Visual	Charge	Top up	Clean	Measure	
1	Specific gravity					X	Monthly
2	Equalize charge		X				Annually
3	Battery capacity test					X	Monthly
4	Electrolyte level	X		X			Weekly
5	Connections				X		Monthly
6	Clean battery surfaces	X			X		Monthly
7	Leakages and spillage	X					Weekly
8	Battery charger	X					Weekly

Battery Cabinets: SBS offers a full line of factory assembled battery cabinets available in a wide range of sizes and colors to meet your specific needs. With many models in stock, these cabinets are able to ship with-in two weeks of receipts of order.



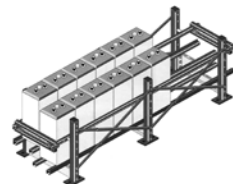
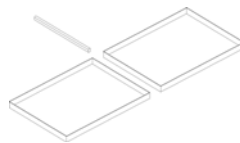
- All battery cabinet assemblies are listed to UL 1778.
- Cabinets are provided with heavy duty casters and are shipped on skids with hinged attached ramps for easy unloading.
- Cabinets are provided with locking hinged front doors for secure and easy access.
- All cabinets are Zone 4 approved and are equipped with the required mounting brackets and installation drawings.
- Adjustable battery rails or trays are provided to allow for multiple battery configurations and facilitate battery upgrades in the future.

Spill Containment: An often overlooked piece to the reserve power battery system is the requirement for spill containment. This standard varies by state, county & municipality but in all cases necessitates a method for the absorption, capture & neutralization of corrosive acid or caustic base electrolyte for flooded wet cell lead-acid or nickel-cadmium battery cells. SBS offers a variety of systems suited for new installation or retrofit.



SBS modular rack system can be specified to accommodate any battery cell or jar. From flooded to sealed, from lead-acid to nickel-cadmium, from vertical to horizontal mounting, a high density space saving rack can be provisioned. Whether for an SBS product, or one from any other manufacturer, an appropriate rack system can be sized for you by SBS.

Because SBS battery racks are built in modular sections, they are easily assembled & modified for add-change-delete environments. This also means that each section is individually seismic rated ensuring that any assembly meets or exceeds the seismic rating of the module.



Our Services -

Preventative Maintenance (PM) Agreements - Offered with your choice of frequency, coverage & duration, SBS will maintain your UPS System, batteries, Generators, & associated components in accordance with OEM specifications. Optional enhancements include time-based scheduled component replacement, battery coverage, battery insurance, service level peer review as well as time & materials (T&M) billing options. We offer standard MOPs & SOWs conforming to IEEE standards & original equipment manufacturers recommendations.



Consolidated Service Contracts - Preventative maintenance & emergency service contracts can be blended to provide full coverage for almost any device and any power system through your enterprise operation. This includes multiple brands, multiple sites & multiple types of equipment all bundled under one simplified, easily measured & monitored contract. This covers UPS, batteries, PDU's, generators, ATS, air conditioning (CRAC), fire suppression, rectifiers, inverters, MBP, switchgear, distribution & control devices heretofore requiring multiple service contracts rendered by multiple service providers



24/7 Emergency Repair- Emergency & scheduled repair service can be written under extended contracts as above and configured with 2-4-8 & 24 hour on site response times. Standard replenishment parts can be included as can the typically excluded batteries & DC capacitors, (time based schedule maintenance replacements). Service can be performed 24/7, 8 to 5 or within specific maintenance windows. Parts kits, counter-to-counter airborne delivery & NDA options can be selected. Any device currently supported by the original manufacturer can be easily covered. Units declared obsolete or discontinued require special provisions.



Partial Client Base Includes:



Providing & Servicing:



Our Locations:



Storage Battery Systems, LLC
Corporate Office

Address: N56 W16665 Ridgewood Dr
Menomonee Falls, WI 53051

Phone: 800-554-2243

Fax: 262-703-3073

