

Static Inverter Central Battery Systems For Emergency Lighting

Features

- The systems are designed and built specifically for Emergency Lighting applications
- They are compliant with BS EN 50171:2001 Central Battery Power Systems.
- Rugged and reliable with a long service life.
- More than 98% efficient.
- All lamps designed to run on the normal mains supply will work on the system without modification or conversion.
- Link 1 interface - remove or switch link to put the machine into emergency mode.
- Link 2 interface - fit a link or switch to make the maintained lights go on and off. The lights will come on in an emergency.
- Volt free changeover contacts for common alarm.
- Output for remote common alarm.
- Interface to TestTimer.
- Temperature compensated float charge to enhance battery life.
- Magnetically latched battery contactor for maximum reliability and the complete disconnection of the battery to prevent damage caused by deep discharge,
- Voltage across the battery contactor is equalised before closing to reduce arcing.
- The inverter is running all the time in active standby giving a fast changeover.
- The inverter output is monitored to ensure reliability.
- Dual power supplies for maximum reliability.
- High quality valve regulated lead acid AGM batteries with a 12 year design life.
- Will recharge the battery to more than 80% capacity in less than 12 hours and full capacity in less than 24 hours.
- Designed and built for failsafe operation.
- Designed and manufactured in the UK.
- 3 year on-site warranty including batteries.



Overview

The normal and emergency outputs of the Static Inverter Central Battery System are a sine-wave at 230VAC single phase or 400VAC three phase at 50Hz and is the same as the normal mains supply. All lamps designed to run on the mains supply will run at full brightness on the system without modification.

The Static Inverter Central Battery Systems operate

in active standby. The mains supply is fed through the machine to the load during normal operation. At the same time the batteries are charged ready for emergency operation.

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When the mains supply fails or goes outside a pre-set specification the machine goes into emergency mode and supplies the load from the batteries via the inverter.

The load is transferred onto the inverter using changeover contactors switching live and neutral. Sophisticated control reduces contact arcing as much as possible to enhance reliability and reduce maintenance. There is a short break in the output when the contactor operates.

When the incoming mains supply returns to normal the changeover contactor transfers the load back again. The load is powered from the mains supply and the batteries are recharged ready for the next emergency.

System

The system is designed and built at our factory in the UK.

The chargers are phase controlled rectifiers for high reliability. They are microprocessor controlled and are three stage with a temperature compensated float charge. They are designed to enhance battery life. The inverters are microprocessor controlled and include technology ensuring any rated lighting load will start from cold.

The smaller systems are natural convection cooled and the larger machines are cooled using fans. The fans only operate when the bulk charge is taking place or when the machine is in emergency mode. This

reduces the build up of dirt and debris in the machine caused by continuous air flow.

The fans operate only when necessary and will last for the life of the machine reducing maintenance and enhancing reliability.

Standard Interface

Four standard interfaces are fitted to all the machines: Link 1, Link 2, Common Alarm and Remote Common Alarm. This makes it easier to implement emergency lighting installations.

If ordered with TestTimer we fit an interface to allow the system to be tested automatically

Cost effective

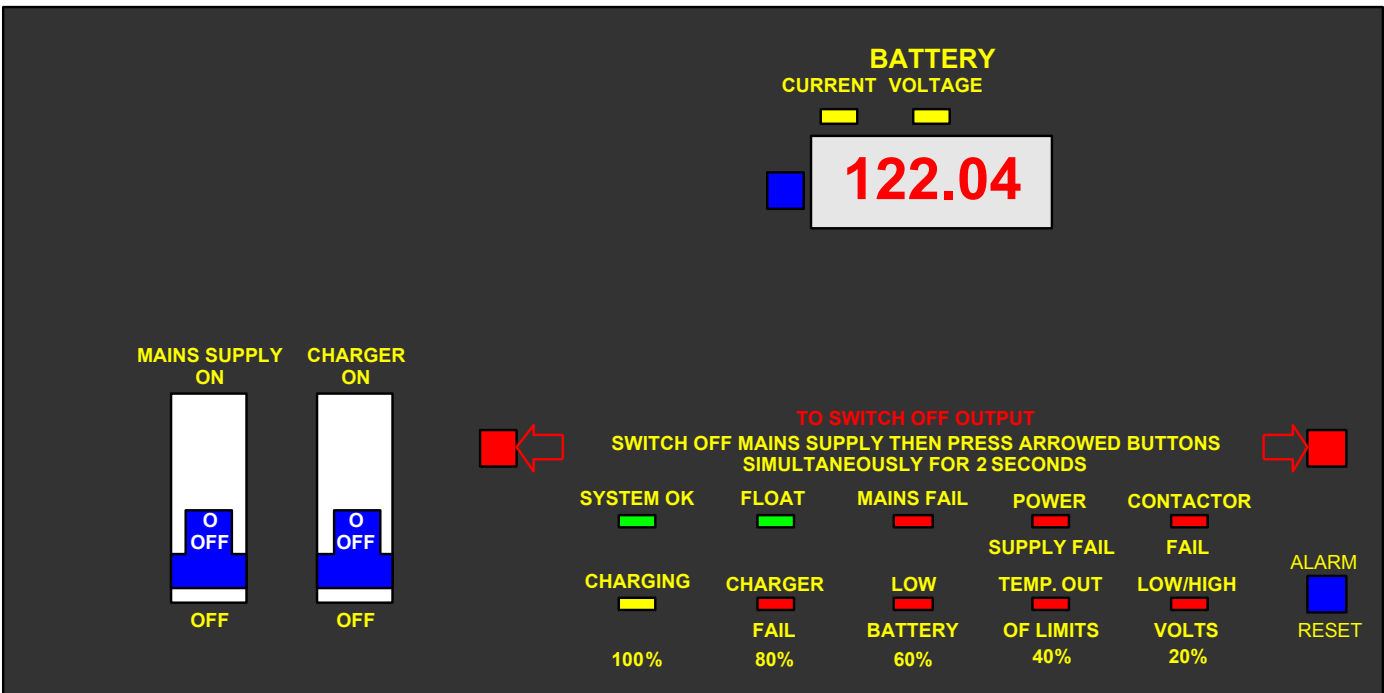
We offer Central Battery Systems that are affordable and effective for virtually all emergency lighting applications.

If used in conjunction with SmartRelay Plus and TestTimer Plus a reasonable level of self testing will be achieved.

Taking lifetime costs the Central Battery System is the preferred option when choosing an emergency lighting system.

Cost effective, reliable, efficient, easy to maintain with a long working life.

Cable entry is through an un-drilled gland plate or cover at the top of the enclosure.



Showing a typical front panel layout with LED indicators with LED battery voltage and charge/discharge current meter. The LED indicators are easy to see in dark plant rooms.