

### General Information

If you need temporary power for any purpose and an engine driven generator is not suitable because of the noise, fumes and inconvenience then you need an SP Inverter.

SP Inverters provide remote electrical power exactly like engine driven generators. The difference is that instead of diesel fuel or petrol the inverters use battery power.

SP Inverters give you the freedom to hold your event anywhere you want to.

SP inverters are particularly suitable for short term events that require power up to 20kVA although bigger systems can be supplied. They are easy to set up and operate.

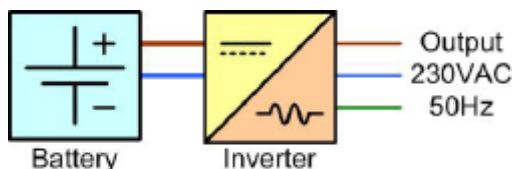
We hire or supply the systems complete with the power leads and multi socket outlets.

The SP Inverters are industrial grade systems with an output that is a low distortion sine-wave the same or better than the mains supply. It is stable, clean and regulated and is suitable for all electrical equipment designed to be powered from the mains supply. It is ideal to run computer, telecommunication and sound systems.

### Inverter Description

An inverter converts Direct Current (DC) power from a battery into Alternating Current (AC). The mains supply that we use every day is AC with a voltage of 230 Volts and a frequency of 50Hz.

Our inverters use DC from standard battery packs that are usually 108 Volts. The inverter will be sup-



plied with an appropriate battery pack. Many hours of operation can be catered for and even multi-day operation can be achieved by changing the battery packs.

The battery packs are usually recharged back at base but can be recharged anywhere there is a suitable mains supply.

- **ANYWHERE EVENTS:** A system that gives you electrical power where you need it. You are not limited by the availability of a normal mains connection. Nor by the need to operate a noisy engine driven generator giving off noxious fumes.
- **WEATHERPROOF:** SP Inverters can be safely operated outside.
- **EASY TO OPERATE:** The SP system is easy to set up and operate.
- **SILENT POWER (SP):** The name given to a range of Inverters that are designed and built to provide a reliable temporary power source.
- **SAFE OPERATION:** The output is isolated with a centre tapped earth and earth leakage protection.
- **SOUND SYSTEMS:** Even the most sophisticated sound systems can be powered with confidence.
- **LIGHTS:** No problems with lighting systems.
- **COMPUTERS & TELECOMS:** Stable regulated power for reliable operation.
- **NO NOISE:** The machines are virtually silent in operation.
- **NO FUMES:** Neither the inverter nor battery pack emit any fumes.
- **NO SMELL:** There is no smell.
- **NO FUEL:** There is no liquid or gaseous fuel to provide.
- **NO MAINTENANCE:** No user maintenance - no coolant, lubricant, grease or filters to check.
- **BATTERY POWER:** The SP Inverter runs on battery power. The batteries are recharged ready for re-use after discharge.

### Examples

On two recent occasions we supplied 5kVA SP Inverters with two battery packs to power events in fields where several bands were playing from 6:00PM to midnight. On both occasions the inverter powered the sound system and lights and on one occasion

additional facilities for hot food and drink. The event organisers were impressed by the performance and convenience of the system.

## Typical SP Inverter



## Safety Information

The SP Inverter system is fitted with automatic safety devices. The output is fully isolated with a centre tap earth. Earth leakage protection is fitted on all systems. The battery packs are isolated and leakage to the frame is monitored. When a battery pack isolator is switched off it also splits the battery so that a maximum voltage of 60VDC nominal is present.

The systems are monitored by micro-controllers and will give safe, rugged and reliable service.

The SP Inverters are weatherproof and can be operated outside.

The output can be short-circuited for more than 5 seconds and when the short is removed the load will power up again.

## Connections

The SP Inverter systems are safe and easy to use. The inverter and battery pack or packs are plugged together and switched on. Operation is completely automatic.

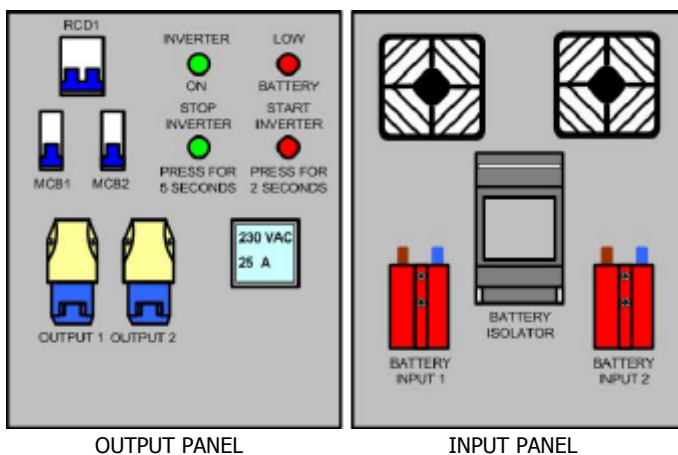
The output of the inverter is via IEC sockets and we supply extension leads fitted with standard 13 Amp sockets to make it easy to use.

## Battery Packs

We will size the battery pack for your application but the following technical information may be of interest. The battery packs are made up of nine batteries in series each one 12VDC nominal. The battery pack is 108VDC nominal and 200 Amp/hour capacity.

The battery packs can be connected in parallel to increase the capacity. Two would be 400 Amp/hours and three would be 600 Amp/hours. Any number of packs can be connected in parallel subject to physical constraints.

It is rare that an inverter runs at full load continuously and if the average load is lower the battery pack will last proportionately longer.



## Powerguard SP Inverter Range

SP Inverters are available with power ratings from 100VA to 30kVA single phase and 3kVA to 100kVA three phase.

The majority of SP Inverters supplied fall between 3kVA and 16kVA single phase.

SP Inverters can be vehicle or trailer mounted.