

5kW AC Transfer System

PREWIRED AC SWITCHING FOR COMMAND & CONTROL VEHICLES



KEY FEATURES

- 110VAC/5kVA generator input
- 110VAC/ 5kVA fireground input
- Neon Switch status indication
- Neon mains available indication
- 230V/2kVA inverter backup
- Inverter control
- Plug to plug fitting
- Safety interlocked circuits
- Easy to troubleshoot
- Mounting flanges
- Safe enclosure
- Rugged construction for vehicle use
- DC power system supply
- In service with UK fire authorities

The AC transfer system was built to provide a package that allows 230VAC equipment to be operated in a command and control vehicle from either a landline, or an on-board generator set, with inverter standby back up.

By prewiring the unit and using industry standard connectors, the unit is easy to install and commission. The unit is designed to meet the requirements of EN 60601-1 regarding electrical safety.

This leaflet covers an existing application, however our engineers are able to adapt the concept to meet the exact requirements of the vehicle.

Overview

The system incorporates all the necessary switching between generator landline and inverter. It prioritises the landline when available, then generator, and if neither of these sources are present provides an inverter backup. Each switch enclosure houses a rugged isolation transformer, these convert the 110V from the genset into 230VAC for use in the command and control cabin.

DC power system supply

A 110V 3kW output is available either to provide external power to fireground equipment or can be used to power onboard integrated power chargers, giving a DC capability of up to 60A

Safety

The transfer switch system is designed to interlock the various power sources so that



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only one source can be used at a time. It also ensures that there is no danger of live mains appearing on the exposed pins of any external leads on the fire ground. This feature also ensures that no "out of phase" arcing can appear on the output of the attached inverter avoiding damage to the output power devices. The fireground supply has been centre tapped to ensure that the touch voltage to earth is never more than 55V. The system conforms to the requirements of the European low voltage directive with all air separation distances in excess of 6mm.

Indicators

All inputs are indicated via a green mains lamp allowing the operator to instantly know that the source is present. It also shows the user that the output is available and which source is supplying the power. This is particularly useful when the loads are on inverter backup depleting the standby battery.

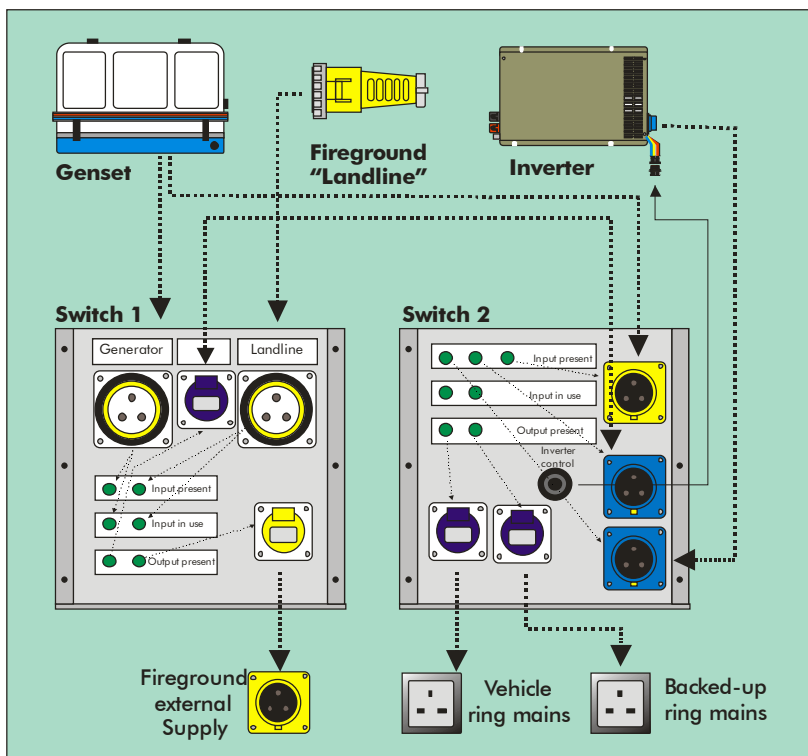
Installation

The unit is fully pre wired and can be installed using plugs and trailing sockets. If required, for reasons of space, the generator input can be hardwired directly into the unit.

There are two units interconnected with a 230V 16A connector. They do not have to be adjacent to each other.

Engineering support

Please call one our applications engineers if you need any assistance. As designers of this equipment we can undertake bespoke products.



Part number	70249
SW1 – Generator input	5kVA at 110VAC
SW1 – Landline input	5kVA at 110VAC
SW1 – fireground output	3kVA at 110VAC
SW2 – backup mains	2kVA at 230VAC (subject to inverter)
SW2 – mains	2kVA at 230VAC
DC power via IPC2	60A @ 24VDC or 120A @12VDC
Weight	TBA
Dimensions mm L x W x H	TBA
Operating Temperature	-10 to 45°C, 0 to 95% RH with derating above 30°C
Environmental	IP20 "in cab" mounting
Optional	Hardwired input