# 12V 2A Encased Switch Mode PSU to EN54-4/A2

## Part No. **BF560-12/E**

## Overview

Apowerful switch mode/digital hybrid PSU that can be customised to suit your exact requirements - seeMore Informationtab for details.

Plasticcoveron PSU PCB guards against touching live parts (to VDE 0100-410).

Includes the same electronics as our BF560-12 LPCBcertified EN54-4/A2 boxed 12V 2A PSU.

Metal base platefacilitatesstraightforwardmountinginside third-party OEMenclosures.

Includes a single-pole voltfree changeover relay that switches for any fault condition.

Includes afault type& hazardous voltages present LED.

Two selectable battery charge currents.

Battery fault impedance limits can be optimised to suit load current (helps extend battery life)*.

Mains fail simulation mode.

Improved on-board temperature sensor with optional remote sensor.

Electronic functions comply with EN50131-6 grades 1-4 for security applications.

Optional PCB-only version (without a metal base plate) available.

## More Information

EN50131-6 (POWER SUPPLIES FOR INTRUSION & HOLD UP ALARMS) CAPABILITY

The BF560-12/E has all the electrical functions required to comply with EN50131-6 Grade 4(which includes Grades 3, 2 and 1). OEM security companies interested in utilising the BF560-12/E inside their own EN50131-6 compliant tamper-resistant enclosures should contact our marketing departmentfor further detailson costs and approvals.

PSU CUSTOMISATION

The BF560-12/Ecan be customised to suit your exact requirements using a BF423 configurator &PC. Configurable parameters include float voltage temperature compensation, battery charge rate (mA), battery impedance and configurableInput/Output settings

PSU STATUS LED (located on the PSU PCB)

1 flash = Mains Failure.

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2 flashes = Battery Voltage Low.

3 flashes = Battery Voltage Critical.

4 flashes = Charger Failure.

5 flashes = Charger OK (Battery is either actively charging, or in float charge).

6 flashes = No Batteries Fitted (indicating DIP Switch 4 position).

7 flashes = Battery Resistance Fault (Level set by DIP Switch 2 position).

8flashes= Output Over Voltage.

BATTERY FAULT MONITORING

The BF560-12/E monitors battery resistance to the requirements of EN54-4/A2. The fault threshold is directly related to the ability of the battery to deliver the rated current to the load. For example, batteries stored uncharged for long periods, during shipment and/or distribution, degrade leading to increased internal resistance. If a degraded battery is fitted, a fault will be shown by the PSU as mandated by EN54-4/A2.

DATA PORT

Data on the BF560-12/E's status can be extracted from the PSU'sbi-directional data port. The data availableincludes thermistor measurements; battery terminal voltage; system voltage at load terminals; battery charge current; load current; battery impedanceandASCII text string status messages. Extracting this data requires additional equipment and permissions - contact C-TEC for details.

## Technical Specifications

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|---|---|
| Approvals/certifications | Includes the same electronics as our EN54-4/A2 certified BF560-12 PSU. Has also been tested to comply electrically/environmentally with EN 50131-6: Power Supplies for Intrusion and hold-up systems (Type A, up to Grade 4, Environmental Class II). |
| Compatibility | • ** Full compliance with all relevant standards must be checked by the responsible person with the caged PSU installed in a suitable enclosure *** |
| Application/operation | An encased Mains to regulated DC switch-mode/digital hybrid power supply providing 2A @ 12V DC. It includes a single pole volt-free changeover relay that switches for any fault condition. User customisable via a BF423 Configurator. |
| Mains supply | 230V 50/60Hz. |
| Mains rated current | 300mA r.m.s. |
| Total output current limited to | 2A (Max. output current). |
| Output | I max.a: 1.8A or 1.3A selectable. (1.8A not approved to EN54-4). A load greater than I max.a will temporarily reduce batt. charging. I.max.b: 2A, charging turned off via CONN6. Output is also customisable via a BF423 Configurator*. |
| Battery charge capacity | 2Ah up to 12Ah (battery charged to 80% capacity in 24hrs). Output is customisable via a BF423 Configurator to suit different manufacturers' batteries*. |
| Max battery size and type | Up to 12Ah VRLA dependent on the size of the enclosure the BF560-12/E is mounted in. |
| Indicators | Fault Status (Amber); Hazardous Voltages Present (Red). |
| Connections | Mains Input (CONN1); Supply Output (CONN5); Battery Input (CONN5); Fault Relay (CONN4); QT423 Configurator Connector* (PL2); Remote Thermistor Connector (PL3); Batt. Charger Inhibit & Input/Output (CONN6). |
| Expansion connections | A remote thermistor can be connected via PL3 terminals. |
| Product dimensions (mm) | 103mm W x 173mm H x 53mm D. |
| Construction & finish | Zintec base, polycarbonate cover. |
| IP Rating | Dependent on mounting enclosure. |
| Weight | 324g (without batteries). |
| Operating conditions/temperature | -5°C to +40°C. Max relative humidity: 95%. |
| Notes | • Parameters configurable via a BF423 configurator are: Float voltage temp. compensation; Batt. charge rate (mA); Batt. impedance; Input/Output settings. |