24V 1.5A EN54-4 Switch Mode PSU

Part No. BF560-24



Overview

- Certified to EN54-4/A2 by the LPCB and VdS.
- A powerful switch mode/digital hybrid PSU that can be customised* to suit your exact requirements - see **More Information** tab for details.
- Plastic cover on PSU PCB guards against touching live parts.
- Includes a single-pole voltfree changeover relay that switches for any fault condition.
- Multiple indicators - supply present, general fault, fault type & aux. equipment fault.
- 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.
- BF560-24/E caged & BF560-24/C PCB-only versions available.

More Information

TYPICAL USES Ideal for powering beam detectors, auto-dial communicators, aspirating smoke detectors, auto-open vent systems, auxiliary sounder systems or any other device performing a mandatory function of a fire alarm system.
PSU CUSTOMISATION The BF560-24 can be customised to suit your exact requirements using a BF423 configurator & PC. Configurable parameters include float voltage temperature compensation, battery charge rate (mA), battery

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impedance and configurable Input/Output settings. *It is important to note changing the PSU's parameters in this way is outside the scope of EN54-4 and any changes must be tested by the responsible person for correct operation. **PSU STATUS LED** (located on the PSU PCB) 1 flash = Mains Failure. 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). 8 flashes = Output Over Voltage.
BATTERY FAULT MONITORING The BF560-24 complies with EN54-4/A2 and therefore must monitor battery resistance. 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 BF560-24's status can be extracted from the PSU's bi-directional data port. The data available includes thermistor measurements; battery terminal voltage; system voltage at load terminals; battery charge current; load current; battery impedance and ASCII text string status messages. Extracting this data requires additional equipment and permissions - contact C-TEC for details.

Technical Specifications

Approvals/certifications	Certified to EN54-4/A2 by the LPCB & VdS
Application/operation	A boxed Mains to regulated DC power supply providing 1.5A @ 24V DC. It includes a single pole volt-free changeover relay that switches for any fault condition. User customisable via a BF423.
Mains supply	230V 50/60Hz.
Mains rated current	400mA r.m.s.
Total output current limited to	1.5A (Max. output current).
Output	I max.a: 1.3A or 0.8A selectable. A load greater than I max.a will temporarily reduce batt. charging. I.max.b: 1.5A, charging turned off via CONN6. Output is also customisable via a BF423 Config
Battery charge capacity	2Ah up to 12Ah (battery charged to 80% capacity in 24 hrs). Max. battery size/type determined by cabinet size is 3.2Ah VRLA). Output is customisable via a BF423 Configurator.
Max battery size and type	2 x 12V 3.2Ah VRLA (min. size is 2 x 12V 2Ah).
Indicators	3 external – Supply Present (green); General Fault (amber); Auxiliary Fault (amber) and 2 internal – Hazardous Voltages Present (red) and PSU Status (amber).
Connections	Mains Input (CONN1); Supply Output (CONN3); Battery Input (CONN3); Fault Relay (CONN4); Charge Off Input (CONN5). Battery Charge Current Link (PLK1); Battery Monitoring On/Off Link (PLK2)
Expansion connections	A remote thermistor can be connected via PL3 terminals.
Product dimensions (mm)	380 W x 235 H x D 96mm (hole required for flush mounting = 367 W x 220 H x 75 D mm. No bezel required).
Construction & finish	PVC lid and base; RAL7035 textured.
IP Rating	IP30 (designed for indoor use only).
Weight	1.55kg (without batteries).
Operating conditions/temperature	-5ºC to +40ºC. Max relative humidity: 95%.
Notes	*Parameters configurable via a BF423 configurator are: Float voltage temp. compensation; Batt. charge rate (mA); Batt. impedance; Configurable Input/Output settings.