

# PSU

## EN54-4 Approved Switched Mode Power Supply/ Charger



BS-EN54-4  
KM 73505

### S407 Features

- Complies with EN54-4
- Fully enclosed construction
- Small & lightweight
- True 2.5 Amp continuous output
- Comprehensive fault monitoring
- Temperature compensated charger
- Wide input supply voltage
- Low battery shut off to prevent deep discharge of battery

### S406 Features

- Complies with EN54-4
- Fully enclosed construction
- Small & lightweight
- True 5.25 Amp continuous output
- Comprehensive fault monitoring
- Microprocessor controlled
- Temperature compensated charger
- Wide input supply voltage
- Low battery shut off to prevent deep discharge of battery

### Product Overview

- The S407/S406 power supply/battery charger has been developed using switched mode technology to produce an efficient and lightweight power unit for a host of fire alarm applications.
- Suited to almost any application, the S407/S406 is designed to be a universal power source which will reduce spares stock holding and increase serviceability of systems.
- The comprehensive monitoring features of the S407/S406 include true battery present detection, low battery voltage warning, battery overcharge warning, high battery impedance monitoring and low battery shut off.
- These features combined with the temperature compensated charger output will increase the service life of sealed lead acid batteries.



S407 - 2.5 Amp PSU



S406 - 5.25 Amp PSU

## Formula

### Battery Calculation BS 5839-1:2002

$$C_{\min} = 1.25 (T_1 I_1 + D I_2 / 2)$$

#### Where:

- C min** = Minimum capacity of the battery when new at the 20 hour discharge rate and at 20 °C in ampere-hours;
- T<sub>1</sub>** = Total battery stand by period in hours;
- I<sub>1</sub>** = Total battery stand by load in amperes;
- I<sub>2</sub>** = Total battery alarm load in amperes;
- D** = a de-rating factor. (1.75)

## S407 Technical

<b>Construction</b>	- Aluminium base - sheet steel cover
<b>Finish</b>	- Epoxy powder coated
<b>Colour</b>	- Black
<b>Size</b>	- 225mm x 120mm x 55mm
<b>Weight</b>	- 0.9Kg
<b>Supply voltage</b>	- 230V AC (+10%/-15%)
<b>Output voltage</b>	- 24V DC
<b>Total output current</b>	- 3.5 Amps (continuous)
<b>Battery charge current</b>	- 1.00 Amps max.
<b>Load current</b>	- 2.5 Amps (with flat battery)
<b>Fault outputs rating</b>	- 50mA max.
<b>Mains fuse</b>	- 3 Amp 20mm HRC
<b>Load fuses</b>	- 3 Amp (self resetting)
<b>Mains failed warning</b>	- Switched -ve output
<b>Battery disconnected warning</b>	- Switched -ve output
<b>Battery low warning</b>	- Switched -ve output
<b>Battery overcharge warning</b>	- Switched -ve output
<b>Earth fault warning</b>	- Switched -ve output
<b>Common fault output</b>	- Switched -ve output
<b>Operating temperature</b>	- -5 to +50 deg. C

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<b>Supply voltage</b>	- 230V AC (+10%/-15%)
<b>Output voltage</b>	- 24V DC
<b>Total output current</b>	- 5.25 Amps (continuous)
<b>Battery charge current</b>	- 1.25 Amps max.
<b>Load current</b>	- 4.0 Amps (with flat battery)
<b>Fault outputs rating</b>	- 50mA max.
<b>Mains fuse</b>	- 3 Amp 20mm HRC
<b>Load fuses</b>	- 5 Amp (self resetting)
<b>Mains failed warning</b>	- Switched -ve output
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