



BS-EN54-4  
KM 73505

# POWER SUPPLY UNITS

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

### Features K407

- ▶ 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

### Features K406

- ▶ 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



## Description

The K407/K406 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 K407/K406 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 K407/ K406 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.

## 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;

$T_1$  = Total battery stand by period in hours;

$I_1$  = Total battery stand by load in amperes;

$I_2$  = Total battery alarm load in amperes;

$D$  = a de-rating factor. (1.75)

## Specification K407

Construction	Aluminium base - sheet steel cover
Finish	Epoxy powder coated
Colour	Black
Size	226mm x 120mm x 55mm
Weight	0.9Kg
Supply voltage	230V AC (+10%/-15%)
Output voltage	24V DC
Total output current	3.5 Amps (continuous)
Battery charge current	1.00 Amps max.
Load current	2.5 Amps (with flat battery)
Fault outputs rating	50mA max.
Mains fuse	3 Amp 20mm HRC
Load fuses	3 Amp (self resetting)
Mains failed warning	Switched -ve output
Battery disconnected warning	Switched -ve output
Battery low warning	Switched -ve output
Battery overcharge warning	Switched -ve output
Earth fault warning	Switched -ve output
Common fault output	Switched -ve output
Operating temperature	-5 to +50 deg. C

## Specification K406

Construction	Aluminium base - sheet steel cover
Finish	Epoxy powder coated
Colour	Black
Size	226mm x 120mm x 55mm
Weight	0.9Kg
Supply voltage	230V AC (+10%/-15%)
Output voltage	24V DC
Total output current	5.25 Amps (continuous)
Battery charge current	1.25 Amps max.
Load current	4.0 Amps (with flat battery)
Fault outputs rating	50mA max.
Mains fuse	3 Amp 20mm HRC
Load fuses	5 Amp (self resetting)
Mains failed warning	Switched -ve output
Battery disconnected warning	Switched -ve output
Battery low warning	Switched -ve output
Battery overcharge warning	Switched -ve output
Earth fault warning	Switched -ve output
Common fault output	Switched -ve output
Operating temperature	-5 to +50 deg. C