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## G13804NU

### 13.8vdc 4A SwitchMode Power Supply, Chassis Mounted

#### Features

High efficiency cost effective power supply ideal for use in Security, Access Control and general PSU applications. Featuring a regulated 13.8vdc output supplying continuous full rated current to load and a universal mains voltage input. Standby battery recharging is achieved within 24h.

- Continuous full rated current to load.
- Standby battery recharge to 80% within 24 hours.
- Load output features full electronic short circuit and overload protection under mains operation.
- Mains transient protection circuit.
- Lid tamper detection
- Green mains present LED.

#### Compliance

This power supply unit meets the essential requirements of the following European Directives:  
Low Voltage 73/23/EC    EMC 89/336/EC    WEEE 2002/96/EC    RoHs 2002/95/EC

#### Input Specification

Voltage	90 - 264vac
Frequency	50-60Hz
Max input current	1.8A @ 90 vac
Mains Input Fuse	T3.15A 20mm 230v HRC

#### Output Specification

Voltage	13.6 – 14.2Vdc (13.8 nominal) on mains power
Ripple	150mV pk – pk max
Max load Current	4.0A continuous
Overload	Electronic shutdown until overload / short circuit removed.
Output Fuse	F4.0A 20mm glass

#### Standby Battery

Battery Capacity	1 x 8Ah Valve Regulated Lead Acid (NP7 size)
Recharge Time	24hours to 80% from 100% discharge
Battery Fuse protection	F1.0A 20mm glass

## Local Indicators

MAINS LED (Green) Mains present

## Mechanical

Chassis Dimensions (mm) 127 x 65 x 160 (w x h x l)  
Fixing holes 4 x Ø4.0mm on 132 x 119 pitch

## Environmental

Temperature -10 to +40°C (operating) 95% RH non-condensing  
-20 to +80°C (storage)

## Connections

LOAD+ +ve voltage output to load equipment  
LOAD- -ve voltage output to load equipment  
BATT+ and - +ve (Red lead) and -ve (Black lead) connections to standby battery

## Installation and Commissioning Instructions

This unit is only suitable for installation as permanently connected equipment. The PSU is *NOT SUITABLE* for external installation. *EQUIPMENT MUST BE EARTHED*. Before installation, ensure that external disconnect device is *OFF*. Install according to all relevant safety regulations applicable to the application.

### Mounting

1) Mount chassis securely using mounting holes.

### Mains Power Up

- 2) Attach correctly rated mains cable (minimum 0.5mm<sup>2</sup> [3A], 300/500Vac) between external approved disconnect device and mains input terminal block. Ensure disconnect device has earth fault protection.
- 3) Fasten mains cable to chassis using cable ties.
- 4) Apply mains power. Check for 13.8vdc on load outputs. Check green Mains LED is on.
- 5) Disconnect mains power.

### Load Output

- 6) Attach correctly rated load cable and fasten in place using cable ties. Note polarity.
- 7) Apply mains power. Check green Mains LED is on.
- 8) Disconnect mains power.

### Standby Battery

- 9) Attach supplied battery cables to battery.  
**NOTE:** ensure correct polarity of battery connections: **+ve** use **red** lead, **-ve** use **black** lead.
- 10) Check that the batteries supply voltage and current to the load.  
**NOTE:** batteries must have sufficient charge to supply the load
- 11) Apply mains power. Check green Mains LED is on.
- 12) Using a meter set to its current measurement range, check for charging current flow *into* battery.

## Operating Instructions

This unit is intended for use by Service Personnel only - There are NO USER SERVICEABLE parts inside.

The green Mains LED will be illuminated whilst the mains supply is present.

## **Maintenance**

There is no regular maintenance required of the PSU other than periodic testing and replacement of the standby battery. ***Reference should be made to the battery manufacturer's documentation to determine typical/expected battery life with a view to periodic replacement of the battery.***

If the output of the PSU fails the cause of the failure should be investigated e.g. short circuit load. The fault should be rectified before restoring power to the PSU. The fuses may need to be replaced. Ensure the correct fuse rating and type is used.

## **CAUTION**

***Risk of explosion if battery is replaced by an incorrect type.  
Dispose of used batteries according to the battery manufacturer's  
instructions and all local and national regulations.***

The packaging supplied with this product may be recycled.  
Please dispose of packaging accordingly.

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Specifications subject to change without notice.