

ELMDENE

Protecting People & Property

Elmdene International Ltd
3 Keel Close, Interchange Park,
Portsmouth, Hampshire, PO3 5QD, UK

Tel: +44 (0)23 9269 6638

Fax: +44 (0)23 9266 0483

Web: www.elmdene.co.uk

DUAL DC/AC POWER SUPPLY

13.8Vdc @ 3A / 16.5Vac @ 5A

Model:

G13803N-16V5-C

FEATURES

High efficiency cost effective power supply with a dual output (ac/dc). Featuring a regulated 13.8Vdc 3A output supplying continuous full rated current to load and an additional 16.5Vac 5A output; ideal for access control and door release applications. The enclosure can house a 12V 7Ah battery, providing standby power for the 13.8Vdc output.

- Continuous full rated current to load
- 230Vac input
- High efficiency electronics for reduced running costs and lower operating temperatures
- Installer safe design with all high voltage electronics fully shrouded (dc output)
- Individual battery and output fuse protection
- Full electronic short circuit and overload protection on load output under mains operation
- Mains transient protection circuit
- Front tamper detection
- Green Mains present LED
- Red Fault LED

SPECIFICATION

Input Specification

Voltage	230Vac +10% / -15%
Frequency	50Hz
Max Current	2.0A
Mains Input Fuse	T2.0A HRC

DC Output Specification

Output Voltage	13.4 – 14.2Vdc (13.8Vdc nominal) on mains power 10.0 – 12.3Vdc on battery standby
Max load current	3A
Ripple	< 150 mV pk-pk max
Load output Fuse	F3.15A
Overload	Electronic shutdown until overload or short circuit removed (under mains power only)

AC Output Specification

Output Voltage	16.5Vac +/- 3 % (on load @ 4A) 17.4Vac +/- 3 % (off load)
Max load current	5A
Load output Fuse	F5.0A

Mechanical

Product Reference	G13803N-16V5-C
Enclosure Dimensions w x h x d (mm)	330 x 275 x 80
Weight (kg) excluding battery	4.8kg
Material	1.2mm steel white powder coated

Environmental

Temperature	-10 to +40°C (operating) 75% RH non-condensing -20 to +80°C (storage)
-------------	--

Standby Battery

Battery Type	12V Valve Regulated Lead Acid
Battery Capacity	7Ah
Battery Charging Fuse protection	F2.0A

CONNECTIONS

O/P +, -	Connection to equipment to be powered (Observe polarity)
BATT +, -	Connection to standby battery. Use cables provided (Observe polarity)
TAMPER	N/C Connection for front lid tamper.

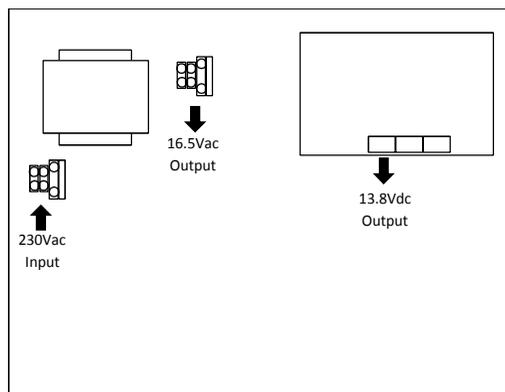


Fig.1 Power Connections

INSTALLATION INSTRUCTIONS

This unit is only suitable for installation as permanently connected equipment. This PSU is *NOT SUITABLE* for external installation. This unit must be fed from a mains power source having a separate (approved) disconnect device and fitted with a fuse or other over-current protection device rated at 3A maximum. Ensure that the disconnect device used has appropriate earth fault protection to the applicable standard. *EQUIPMENT MUST BE EARTHED*. Before installation, ensure that external disconnect device is *OFF*. The PSU should be installed according to all relevant safety regulations applicable to the application.

Mounting

- 1) Mount enclosure securely in correct orientation allowing 10cm minimum clearance on all sides.
- 2) Route mains and low voltage output cables via different knockouts and/or cable entry holes.
- 3) Use bushes and cable glands rated to UL94 HB minimum.

Mains Power Up

- 4) Attach correctly rated mains cable (minimum 0.5mm² [3A], 300/500Vac). Fasten with cable ties.
- 5) Apply 230Vac mains power.
 - Check for 13.8Vdc on the dc load output.
 - Check 16.5Vac on the ac load output (note this may be higher with no load connected)
 - Check green Mains LED is ON (dc module).
- 6) Disconnect mains power.

Load Output

- 7) Attach correctly rated load cables and fasten using cable ties. Note polarity on dc output.
- 8) Apply mains power.
 - Check Green Mains LED is ON dc module.
 - NOTE:** Red Fault LED may be illuminated to indicate no battery has been connected, this is normal.
 - Verify load is operating correctly.
- 9) Disconnect mains power.

Standby Battery

- 10) Attach supplied battery cables to terminal block and batteries.
 - NOTE:** ensure correct polarity of battery connections: **+ve** use **Red** lead, **-ve** use **Black** lead.

Tamper

- 11) Check that the tamper switch is:
 - closed when the lid is closed
 - open when the lid is open.
- 12) Close cover and secure using fastening screw(s) provided.

OPERATING INSTRUCTIONS

If the output of the PSU fails, the cause of the failure should be investigated e.g. short circuit load, connection of a deeply discharged battery. The fault should be rectified before restoring power to the PSU. If any of the fuses require replacing, ensure the correct fuse rating and type is used.

MAINTENANCE

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

COMPLIANCE

This power supply unit meets the essential requirements of the following European Directives:

Low Voltage	2014/35/EU
EMC	2014/30/EU
WEEE	2012/19/EU
RoHS2	2011/65/EU



DISPOSAL OF PRODUCT AT END OF LIFE

This product falls within the scope of EU Directives 2012/19/EU Waste Electrical and Electronic Equipment (WEEE) and 2013/56/EU (Battery). At the end of life, the product must be separated from the domestic waste stream and disposed via an appropriate approved WEEE disposal route in accordance with all national and local regulations.

Before disposal of the product, any batteries must be removed, and disposed separately via an appropriate approved battery disposal route in accordance with all national and local regulations. Package used batteries safely for onward transport to your supplier, collection point or disposal facility.

Caution: Risk of fire or explosion
if bare battery wires are allowed to touch.

See Specification for battery type information. The battery is marked with the crossed out wheellie bin symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg).

For more information see: www.recyclethis.info

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

Explanation of symbols: (Not all may apply)



Fault Indication



Shock Risk - isolate before attempting access



Certification Level



Mains Present



Protective Earth



Do not dispose of in unsorted waste

Specifications subject to change without notice