



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

13.8Vdc 2A BATTERY MONITORING SMPSU

FOR VARIOUS ACCESS CONTROL PCBs – SEE TABLE FOR DETAILS

Model:

ACCESS-PSU-N

FEATURES

High efficiency cost effective power supply ideal for use in Intruder, Access Control and General Security applications. Featuring a regulated 13.8Vdc output supplying continuous full rated current to load and up to an additional 0.5A for charging a standby battery. The universal mains input voltage enables the power supply to be used across a wide geographical area. The highly efficient switch mode design ensures low operating costs, generates less heat and with a small physical size increases the room available for additional PCBs or cables. The modular construction simplifies maintenance. An optional integrated output module allows multiple circuits to be individually fused*.

- Continuous full rated current to load
- Additional 0.5A to charge standby battery
- Universal mains input voltage 90-264Vac
- High efficiency electronics for reduced running costs and lower operating temperatures
- Installer safe design with all high voltage electronics fully shrouded
- Modular construction for ease of maintenance and installation
- Full electronic short circuit and overload protection on load output under mains operation
- Mains transient protection circuit
- Lid opening tamper detection
- Green Mains present LED
- Red Fault LED

SPECIFICATION

Input Specification

Voltage (rated)	100-240V ac
Voltage (operating)	90-264V ac
Frequency	50-60Hz
Max Current	1A
Mains Input Fuse	T2.0A

Output Specification

Voltage	12.8 – 14.2V dc (13.8V dc nominal) on mains power 9.8 – 13.0V dc on battery standby
Max Load Current	2A
Ripple	< 400 mV pk-pk max
Load output Fuse	See Model Specification Table below
Overload	Electronic shutdown until overload or short circuit removed (under mains power only)

Standby Battery

Battery Type
Battery Capacity
Battery Charging Fuse protection

12V Valve Regulated Lead Acid
See below under Mechanical specification.
See Model Specification Table below

Mechanical

Product Reference	ACCESS-PSU-N
Dimensions w x h x d (mm)	330 x 275 x 80
Battery Capacity	1 x NP7 (7Ah)
Weight (kg)	3.3
Enclosure Material	Steel white powder coated

Environmental

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

MODEL SPECIFICATION TABLE

	ACCESS-PSU-N
Max Output Current to load	2A
Output Fuse (20mm glass)	F2.0A
Max Mains Input Current	< 1.0A @ Full load
Mains Input Fuse (20mm 250Vac HBC)	T2.0A
Battery Fuse Protection	F2.0 A

SIGNALLING OUTPUTS

Lid Tamper	N/O volt free contact (See Table for rating). Note: Contact open when lid opened by normal means (TAMPER ACTIVE condition).
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CONNECTIONS

+LOAD	+ve voltage O/P to load equipment
-LOAD	-ve voltage O/P to load equipment
+BATT	Red lead to standby battery
-BATT	Black lead to standby battery
Tamper x 2	Tamper voltfree contact

STANDBY BATTERY

Battery Type	12V Valve Regulated Lead Acid
Battery Capacity	12V DC 7Ah

LOCAL INDICATORS

MAINS LED (Green)	Mains present
FAULT LED (Red)	Fault present: Output fuse fail

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 securely in correct orientation allowing minimum clearance – see Fig. 1.0
- 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.

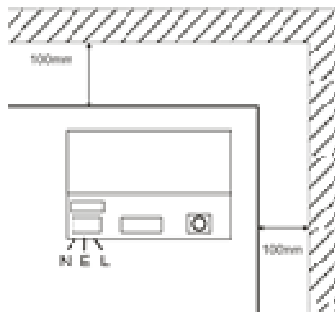


Fig 1.0 Mounting of Power Supply

Mains Power Up

- 4) Attach correctly rated mains cable (minimum 0.5mm² [3A], 300/500Vac). Fasten with cable ties.
- 5) Apply mains power.
Check for 13.8Vdc on load outputs and Green Mains LED is ON.
- 6) Disconnect mains power.

Load Output

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

Signalling

- 10) Connect EPS and GEN fault outputs to appropriate inputs of Control and Indicating Equipment (CIE).

Standby Battery

- 11) 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

- 12) Check that the tamper spring makes good contact with box lid when closed. Check that the tamper switch is:
 - closed when the lid is closed, and the lid screw is fitted
 - open when the lid is open.
- 13) Close cover and secure using fastening screw(s) provided.

CONTROL BOARDS

Ensure the PSU rating is suitable by checking the Access Control board's manual.

This ACCESS-PSU-N will allow fitting of the following access control boards, ensure they are securely in place once fitted.

Controller		Max Qty
Mercury	EP1501 (Type 3)	1
	MR51e (Type 3)	1
	MR50 (Type 5)	2
SALTO	XS4 2.0 (CV4200)	1
	CV505VN	1
PAXTON	NET2 Plus	1
	NET2 Classic	1
	NET2 I/O	1
	Paxton 10	1
Please note hole positions are subject to change without notice and Elmdene International Ltd are not responsible for any changes made by the manufacturers of the listed access control boards		

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. In the event of a fault condition, the red Fault LED will be illuminated (dependent on model).

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.

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 wheelie bin symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg).

For more information see: www.recyclethis.info

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

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