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POE-ULTRAPOD™

ULTRA POE SPLITTER WITH 12V STANDBY
BATTERY FUNCTIONALITY
POE-ULTRAPOD-MOD / POE-ULTRAPOD-B

FEATURES

The Elmdene POE-ULTRAPOD™ is a unique PoE powered device that acts as an Ultra PoE splitter whilst also providing charge locally to a 12V 17Ah battery. If power from the PoE input fails the battery seamlessly continues to provide 12V dc to the load at up to 3A. This offers the installer a cost effective solution to providing standby battery functionality to not only IP devices but any 12V device e.g. camera, maglock, etc. over a single PoE Cat5 cable.

To further enhance the device, the POE-ULTRAPOD™ offers battery Deep Discharge Protection and remote fault monitoring with the provision of volt-free fault contacts for low battery and input PoE power failure.

- Provides 13.8V dc @ 3A max when used with PoE 802.3bt (PoE++ 60W)
- Additional 0.5A available for battery charging
- RJ45 Data pass through
- Available as an unboxed module (DIN rail or lug mountable) or boxed solution
- No mains required – powered solely from PoE
- Cost effective solution to providing battery backup to IP devices
- Boxed version accommodates industry standard 12V 17Ah SLA battery
- Battery Deep Discharge Protection
- Fault Outputs

SPECIFICATION

Input Specification

PoE++	PoE 802.3bt
PoE+	PoE 802.3at
PoE	PoE 802.3af
Ethernet Data Rate	10/100 Mbps

Output Specification

PoE++	13.8V dc @ 3A
PoE+	13.8V dc @ 1A
PoE	13.8V dc @ 0.3A

Load Output Fuse Protection F3.15A (20mm Glass Fuse)

Standby Battery

Battery Type (not supplied)	12V 17Ah (max) Valve Regulated Lead Acid
Battery Charging Fuse protection	PTC – self-resetting
Battery Deep Discharge Protection	Warning: 11.6V / Disconnected 10.6V (9.8V min at Load)

Fault Outputs

POE	Healthy: N/C / Loss of PoE: N/O
GEN	Healthy: N/C / Low Battery (11.6V), Load Fuse blown

LED Indication

Green LED	PoE Present LED
Red LED	Fault LED (ON when output fuse fails)

Mechanical

	POE-ULTRAPOD-MOD™	POE-ULTRAPOD-B™
Dimensions	134L x 84W x 35D	355L x 382W x 85D
Battery Capacity	N/A	12V 17Ah
Weight	180g	2.5Kg
Enclosure Material	N/A	1.2mm steel white powder coated

Environmental

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

POE IN	PoE 802.3bt (60W) from PoE++ source <i>(PoE and PoE+ can be used, see output Specification above)</i>
DATA	Data Connection to IP device
OP +/-	Load Output: 13.8V dc (+/- 5%) @ 3A max (PoE++ input)
BATT +/-	12V Battery Connection – observe polarity
POE	Relay Output for PoE power failure. Open on loss of PoE
GEN	Relay Output for output fuse failed or/and low battery level (less than 10.7V) when PoE is off. Open in Fault condition

INSTALLATION INSTRUCTIONS

This PSU is *NOT SUITABLE* for external installation.

This unit must be fed from a compliant PoE power source (PoE 802.3bt for 3A power output)

Unboxed Module:

Mounting

- 1) Mount securely utilising the DIN rail mount or the provided mounting lugs

Boxed Module:

Mounting

- 1) Mount securely utilising the enclosure mounting points in the correct orientation, allowing 100mm clearance around the enclosure
- 2) Route cables via knockouts and/or rear cable enclosure entry holes

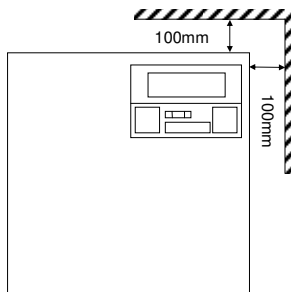


Fig. 1 Mounting of POE-ULTRAPOD-B

Power Up

- 1) Attach correctly rated load cable to load equipment and fasten using cable ties – Note polarity
- 2) Attach suitable Ethernet cable from PoE++ source to **POE IN** RJ45 connector (100m max from PSE)
- 3) Attach suitable Ethernet cable between IP device and **DATA** RJ45 connector (if required)
- 4) Loop battery cable through supplied ferrite (1 turn) and attach to **BATT** terminal block, fasten with cable ties

NOTE: ensure correct polarity of battery connections: + use **Red** lead, - use **Black** lead

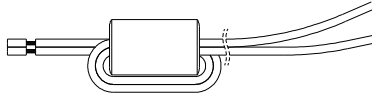


Fig. 2 Position of ferrite

- 5) Connect charged 12V battery 17Ah (max) to the other end of battery cable.
- 6) Observe Green LED is ON when PoE is present
- 7) Observe Load equipment indicates power is present
- 8) Remove **POE IN** cable and observe load equipment continues to indicate power is present
- 9) Reconnect PoE INPUT cable

Signalling

- 1) Connect fault outputs to appropriate input of Control and Indicating Equipment (CIE) if required
- 2) Close cover and secure using fastening key provided

3) CONTROL BOARDS

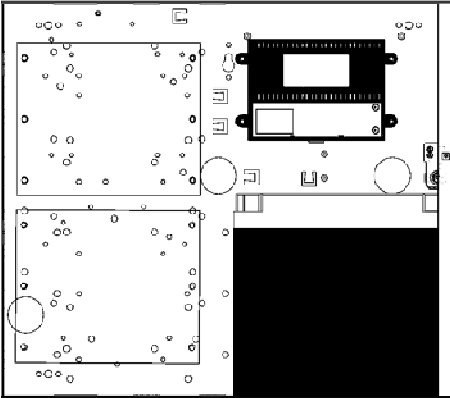
Ensure the PSU rating is suitable by checking the Access Control load specifications.

This POE-ULTRAPOD-B is supplied with fixing positions for a range of Access Control boards. The PSU contains a pack of various fixings which suit most access control boards but please ensure it is securely in place once fitted.

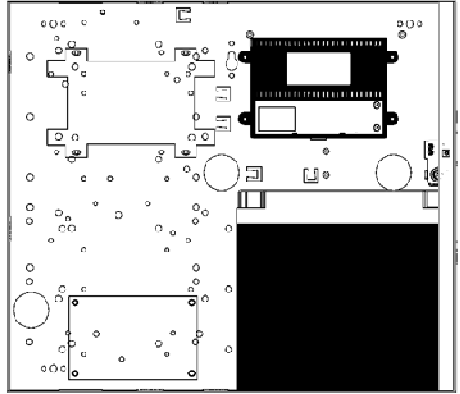
PCB Holes in the Tin		Max Qty	PCB Holes in the Tin		Max Qty
Mercury	EP1501 (Type 3)	1	Paxton	Net2 plus	2
	MR51e (Type 3)	1		Net2 I/O	2
	MR50 (Type 5)	1		Net2 classic	2
	EP2500 (Type 1)	2	Vanderbilt (ACT)	ACTPro 1500e	2
	EP1502 (Type 2)	1	NEDAP	AP7003	2
	EP4502 (Type 2)	1		AP7031	2
	MR52 (Type 2)	1		AP7803	2
	MR161N (Type 2)	1			
	MR160OUT (Type 2)	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

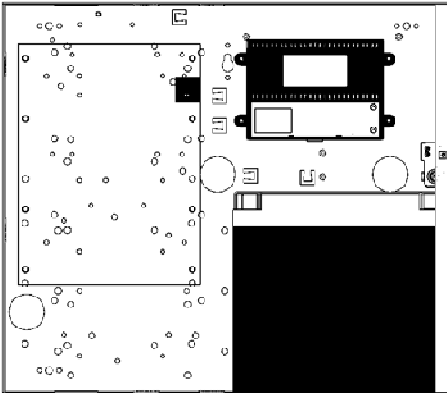
2 x Type 1



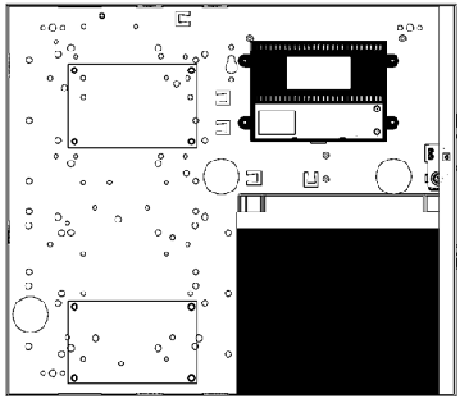
Type 3 and Type 5



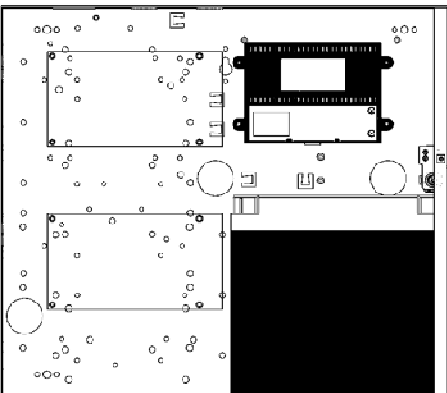
1 x Type 2



2 x Type 5

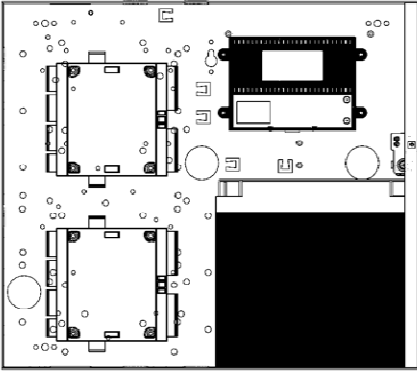


2 x ACTPro

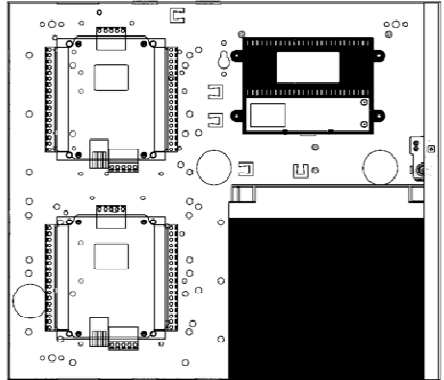


Access Control board positions (12V 7Ah battery shown)

2 x Paxton Net 2 Plus



2 x Nedap



IMPORTANT NOTE: When more than one POE-ULTRAPOD is used with an Injector Hub, the 13.8V dc output must remain isolated from all other POE-ULTRAPOD 13.8V dc outputs powered from the same injector hub. This is to avoid PoE detection signature issues that may occur. **DO NOT CONNECT** POE-ULTRAPOD outputs together and ensure there is no common Ground connection between individual POE-ULTRAPOD –ve load output lines.

OPERATING INSTRUCTIONS

In the event of loss of PoE++ to the POE-ULTRAPOD™, the PoE Fault signal contact will open and the Green LED will turn off, the POE-ULTRAPOD™ will continue to deliver up to 13.8V 3A of power to the load for up to 4 hours (dependant on charge state or capacity of 17Ah battery).

If the output of the POE-ULTRAPOD™ 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 POE-ULTRAPOD™. If any of the fuses require replacing, ensure the correct fuse rating and type is used.

Battery charging will only start after a compliant PoE power source is connected to POE-ULTRAPOD™, it will NOT start up on battery. Ensure only a 12V battery is fitted to the system.

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 POE-ULTRAPOD™ 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



NOTICE: This device complies with part 15 of the FCC rules as a class A device. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept and interference received, including interference that may cause undesired operation.

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 wheeled 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

Please dispose of packaging accordingly.