

# HAYDON 12VDC 3A Switch Mode Boxed PSU

## With 13.8V Battery Backup

### Model : HAY-PSU12V3ABBL (Large Clam Box)



#### Features :

- High efficiency, cost effective power supply. Ideal for use in Intruder, Access Control and General Security applications.
- Universal mains input voltage 90-264Vac.
- Max. 3A current to load.
- Max. 0.5A to charge standby battery.
- High efficiency electronics for reduced running costs and lower operating temperature.
- Installer safe design with all high voltage electronic fully shrouded.
- Full electronics short circuit and overload protection on load output under mains operation.
- Mains transient protection.
- Lid open & REAR anti vandal tamper detection.
- An optional integrated output module allows multiple circuits to be individually fused (Depends on box size).
- Green Mains present LED.
- Red Fault LED.

#### Compliance:

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

Directives:

**Low Voltage 2006/95/EC    EMC 2004/108/EC**

**WEEE 2002/96/EC    RoHS 2002/95/EC**

#### Input Specification:

Voltage	90-264Vac
Frequency	50-60Hz
Max. Current	3A
Mains Input Fuse	3.0A 250V
Max. Standby Power	0.5W (no load and no battery connected)

#### Output Specification:

Voltage	13.4-14.2Vdc(13.8Vdc nominal) on mains power 10.0-12.3Vdc on battery standby
Rated Load Current	3.0A
Ripple	150mV pk-pk max.
Load output Fuse	3A
Overload Protection Electronics shutdown until overload or short circuit removed ( under mains power only)	

#### Standby Battery:

Battery type	12VDC Lead Acid
Battery Capacity	7Ah & 17Ah
Battery Charging Fuse	3.0A

#### Local Indicators:

MAINS LED(green) Mains Present

FAULT LED(red) Fault present: Output fuse fail or battery fuse fail

#### Signaling Output:

Lid &Rear Tamper    N/O volt free contact

*NOTE: contact closed when both the PSU is fixed to the wall and lid closed.*

**Box Size:** 360x330x90mm (W x H x D, Removable Clam Lid, for 1x7Ah or 1x17Ah)

#### Environmental:

Working Temperature	-10°C~+40°C
Storage Temperature	-20°C~+60°C
Humidity	95% RH non-condensing

#### Terminals:

V+	+ voltage O/P to load equipment
V -	- voltage O/P to load equipment
B+	Red lead to standby battery
B -	Black lead to standby battery
Tamper x2	Tamper volt free contact

## Installation:

This unit is only suitable for installation as permanently connected equipment. The PSU is NOT SUITABLE for outdoor installation. *EQUIPMENTS MUST BE EARTHED.*

The PSU should be installed according to all relevant safety regulations applicable to the application.

## Mounting:

- 1) Mount securely in correct place.
- 2) Route mains and low voltage output cables via different knockouts and/or cable entry holes.

## Mains Power Up:

- 3) Connect correctly rated mains cable (minimum 0.5mm<sup>2</sup> [3A],300/500Vac) .
- 4) Apply mains power. Check for 13.8Vdc on load outputs. Check green Mains LED is on
- 5) Disconnect mains power.

## Load Output:

- 6) Connect correctly rated load cable. NOTE POLARITY.
- 7) Apply mains power. Check green Mains LED is on.
- 8) Verify load is operating correctly.
- 9) Disconnect mains power.

## Standby Battery:

- 10) Connect the supplied battery cables to terminal block and battery. *NOTE: ensure correct polarity of battery connections:+ use Red lead, - use Black lead.*
- 11) Apply mains power. Check green Mains LED is on
- 12) Disconnect mains power. Check that the batteries continue to supply voltage and current to the load. Green LED should be off.  
*NOTE: Batteries must have sufficient charge to supply the load.*
- 13) Reconnect the mains power . Green LED should be on.
- 14) Remove Battery fuse and check red Fault LED is on
- 15) Replace Battery fuse. Check red Fault LED is off.
- 16) Remove load fuse and check red Fault LED is on
- 17) Replace load fuse. Check red Fault LED is off.

## Tamper:

- 18) Check both tamper springs make good contact when box is fixed to wall and lid when closed.
  - When Lid open, tamper contact is open.
  - When Lid close, tamper contact is close.
  - Remove the box from the wall by 5-10mm and close Lid, tamper contact is open.
  - Re-fix the box to wall well and close Lid, tamper contact is open.

## Operating Instructions:

This unit is intended for use by Service Personal only.

There are NO USER SERVICEABLE parts inside.

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

In event of a fault condition, the red Fault LED will be illuminated.

## 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 instruction and all local and national Regulations.**

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