

# ONLINE AC & DC UPS

Model: HAY-UPSPSU1612-10ABB

#### Features:

- Ideal for a CCTV system with 1 x DVR,1 x LCD Monitor, & up to 16 x cameras
- Output Uninterruptible AC power for DVR and LCD Monitor
- Output Uninterruptible DC power for cameras
- Battery charging current limited
- High efficiency electronics for reduced running costs and lower operating temperature
- Installer safe design with all high voltage electronics fully shrouded
- Short circuit and overload protection
- Battery reverse polarity protection under no mains presents
- Main transient protection
- Mains Input GREEN LED
- UPS AC Output RED LED
- UPS DC Output RED LED
- Individual Camera GREED LED
- Battery reversed polarity RED LED
- Mains Fail Alarm (Vol. free relay)

# Compliance:

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

LVD EN60950-1:2006+A11:2009+A1:2010+A12:2011

EMC 2004/108/EC

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

# **Input Specification:**

Voltage 100~240VAC Frequency 50/60Hz Mains Input Fuse 3.0A 250V

Main transient protection

# **UPS AC Output:**

- -- Max. 80W power supply
- --2 x 230VAC Outputs
- -- Output LED indicator

# **UPS DC Output:**

- -- Max. 10A output current
- --16 x 12VDC Outputs
- -- Auto-reset PTC fuse for each output, rated 1.35Amp
- --Individual LED indicator for each output

# **Standby Battery:**

- --Recommended Battery Size: 12VDC/7Ah Lead Acid
- -- Charging Voltage: 13.8VDC
- --Battery deep discharge protection
- --Battery Capacity: 1x DC12V7Ah for UPS AC output
  - 1x DC12V7Ah for UPS DC output
- --Backup time: over 25 minutes at 85% rated load

#### **Local Indicators:**

Mains Input LED: Green indicating mains is normal

UPS AC Output LED: Red indicating AC output is normal UPS DC Output LED: Red indicating DC output is normal

# **Signaling Output:**

Mains Fail Output Relay N/O or N/C volt free output

(Note: N.C. close to com when mains presents, open when no mains)

Box Size: 330W x360H x90D mm, Hinged top, fits 2x12V/7Ah)

#### **Environmental:**

Working Temperature:  $-10 \,^{\circ}\text{C}$  to  $+40 \,^{\circ}\text{C}$ Storage Temperature:  $-20 \,^{\circ}\text{C}$  to  $+60 \,^{\circ}\text{C}$ 

Humidity: 95% RH non-condensing

#### Terminals:

BATT1+ /- Pair of leads to battery for UPS DC Output
BATT2+ /- Pair of leads to battery for UPS AC Output
Camera OUTPUT+/ - 16 Pairs for DC12V Output to Cameras

N.C / COM /N.O for Mains Fail Alarm

L / N / GND for AC230V Input Terminal

Universal AC Socket 2 sets for AC output to DVR and LCD

# 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.
- 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 0.75mm<sup>2</sup> [3A],300/500Vac) to AC input terminals
- 4) Turn on Mains Switch to apply mains power

  (If connect correctly, Mains LED, UPS AC Output LED, UPS DC Output LED, and camera LED1~16, will all light up)
- 5) Then check N/C is close to COM, N/O open to COM
- 6) Turn off Mains Switch, N/C is Open to COM, N/O close to COM

### **Load Output:**

- 7) Connect all cameras' power pairs to individual fused outputs.
  - (**NOTE**: double check and make sure +/- poles are correctly connected)
- 8) Plug mains leads of LCD& DVR to universal AC sockets.
- 9) Turn on Mains Switch, check all cameras/DVR/LCD work normally
- 10) Turn off Mains Switch

### Standby Battery:

- 11) Connect the supplied battery cables to batteries
  - (NOTE1: Before connecting batteries, make sure that no mains presents.
  - **NOTE2:** Double check and make sure +/- poles are correctly connected. LED101/201 will light up if +/- poles reversedly connected. Batteries must have sufficient charge to supply the load before connected to system)
- 12) Turn on Mains Switch to apply mains power, check all cameras/ DVR/LCD whether work normally
- 13) Close the cover with the supplied screw
- 14) Note: Once deep-discharged protection triggered, inverter recovery in 30-60 seconds after mains re-presents.

# **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.



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.