



# AL6003X220

## Triple Output Access Control Power Supply/Charger

### Overview:

The AL6003X220 triple output access control power supply/charger is specifically designed for use with access control systems and accessories. The AL6003X220 converts a 220VAC 50/60Hz input into three individually PTC protected 5VDC, 12VDC and 24VDC regulated outputs (see specifications).

### Specifications:

#### Input:

- Input 220VAC (working range 198VAC - 256VAC), 50/60Hz, 1.25 amp.

#### Output:

- 1.75 amp continuous supply current @ 5VDC.
- 1.75 amp continuous supply current @ 12VDC.
- 3 amp continuous supply current @ 24VDC.
- Filtered and electronically regulated outputs, 100mV peak output voltage ripple.

#### Battery Backup:

- Built-in charger for sealed lead acid or gel type batteries.
- Automatic switch over to stand-by battery when AC fails.
- Maximum charge current 0.7 amp.

#### Battery Backup (cont'd):

- Zero voltage drop when switched over to battery backup.

#### Supervision:

- AC fail supervision (form "C" contacts).
- Low battery supervision (form "C" contacts).

#### Additional Features:

- Thermal and short circuit protection with auto reset.
- Power supply is complete with enclosure, cam lock, and battery leads.

#### Enclosure Dimensions (H x W x D approximate):

15.5" x 12" x 4.5" (393.7mm x 304.8mm x 114.3mm)

### Stand-by Specifications

(current is specified on AL3XB input):

Output	4 hr. of Stand-by & 5 Minutes of Alarm	24 hr. of Stand-by & 5 Minutes of Alarm	60 hr. of Stand-by & 5 Minutes of Alarm
24VDC / 12AH Battery	—	Stand-by = 200mA Alarm = 6.0 amp	—
24VDC / 40AH Battery	Stand-by = 6.0 amp Alarm = 6.0 amp	Stand-by = 1.0 amp Alarm = 6.0 amp	Stand-by = 300mA Alarm = 6.0 amp

### Installation Instructions:

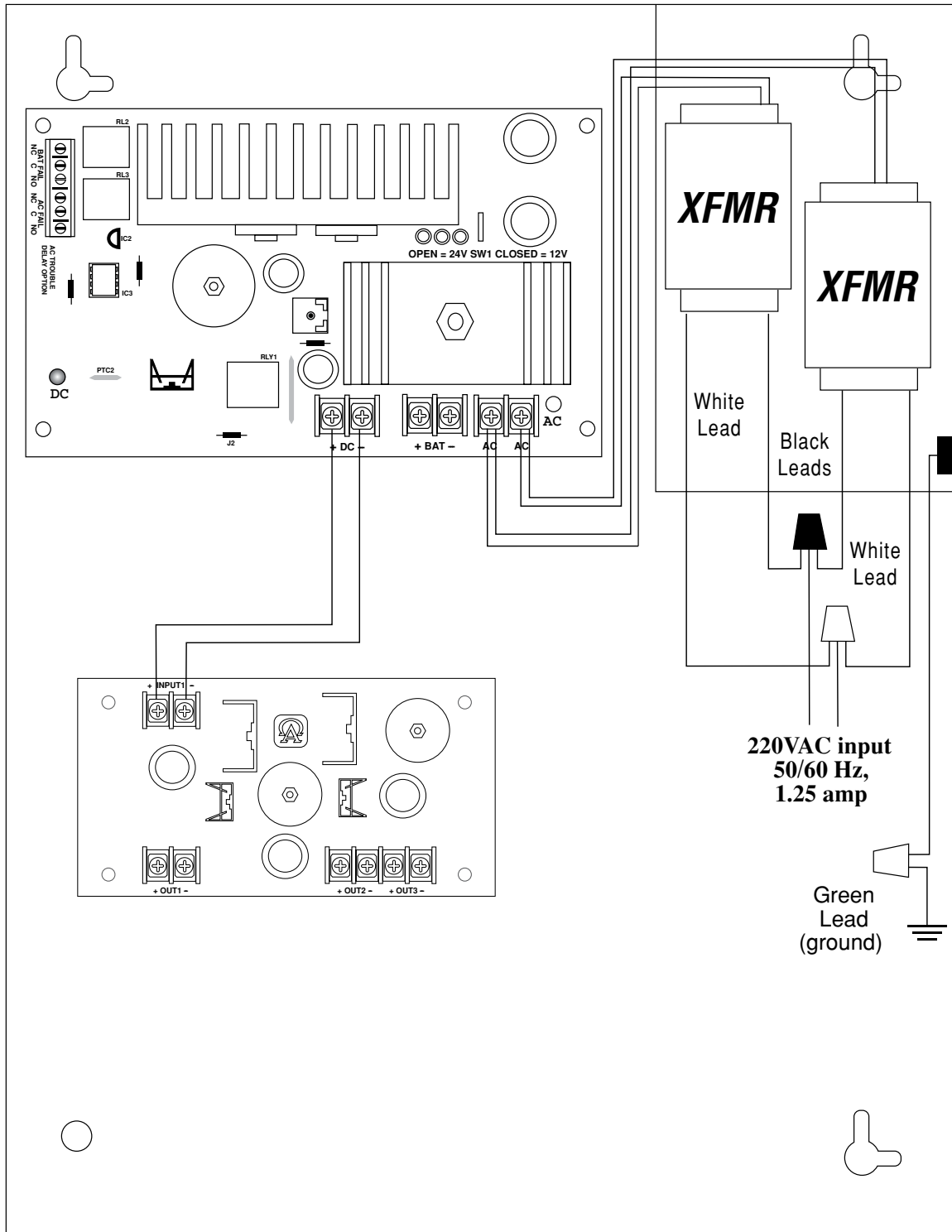
The AL6003X220 should be installed in accordance with article 760 of The National Electrical Code or NFPA 72, as well as all applicable Local Codes.

1. Mount the AL6003X220 in the desired location.
2. Connect AC power to the two black and two white flying leads of the transformer. Secure green wire lead to earth ground (Fig. 1). Use 18 AWG or larger for all power connections (Battery, DC output).
3. Measure output voltage before connecting devices. This helps avoiding potential damage.
4. Connect devices to be powered at 5VDC to the terminals marked [+ Out 3 - ].
5. Connect devices to be powered at 12VDC to the terminals marked [+ Out 2 - ].
6. Connect devices to be powered at 24VDC to the terminals marked [+ Out 1 - ].
7. Connect two (2) 12V Stand-by batteries.

**Note:** For Access Control applications batteries are optional. When batteries are not used, a loss of AC will result in the loss of output voltage. Batteries must be lead acid or gel type if used. Two (2) 12V Stand-by batteries connected in series to terminals marked [+ BAT -] (Fig. 1, pg. 3).

8. It is required to connect supervisory trouble reporting devices to outputs marked [AC FAIL, LOW BAT] (Fig. 1, pg. 3). Use 22 AWG to 18 AWG for AC Fail & Low Battery reporting. AC Failure will report in 5 minutes.

Fig. 1



**Maintenance:**

Unit should be tested at least once a year for the proper operation as follows:

**Output Voltage Test:** Under normal load conditions, the DC output voltage should be checked for proper voltage level (see power supply output specifications table).

**Battery Test:** Under normal load conditions check that the battery is fully charged, check specified voltage at the battery terminals and at the board terminals marked [- BAT +] to ensure that there is no break in the battery connection wires.

**Note:** Maximum charge current under discharge is 0.7 amp.

**Note:** Expected battery life is 5 years; however, it is recommended changing batteries in 4 years or less if necessary.

## **LED Diagnostics:**

### **Power Supply Board**

<b>Red (DC)</b>	<b>Green (AC)</b>	<b>Power Supply Status</b>
ON	ON	Normal operating condition.
ON	OFF	Loss of AC, Stand-by battery supplying power.
OFF	ON	No DC output.
OFF	OFF	Loss of AC. Discharged or no stand-by battery. No DC output.

## **Terminal Identification:**

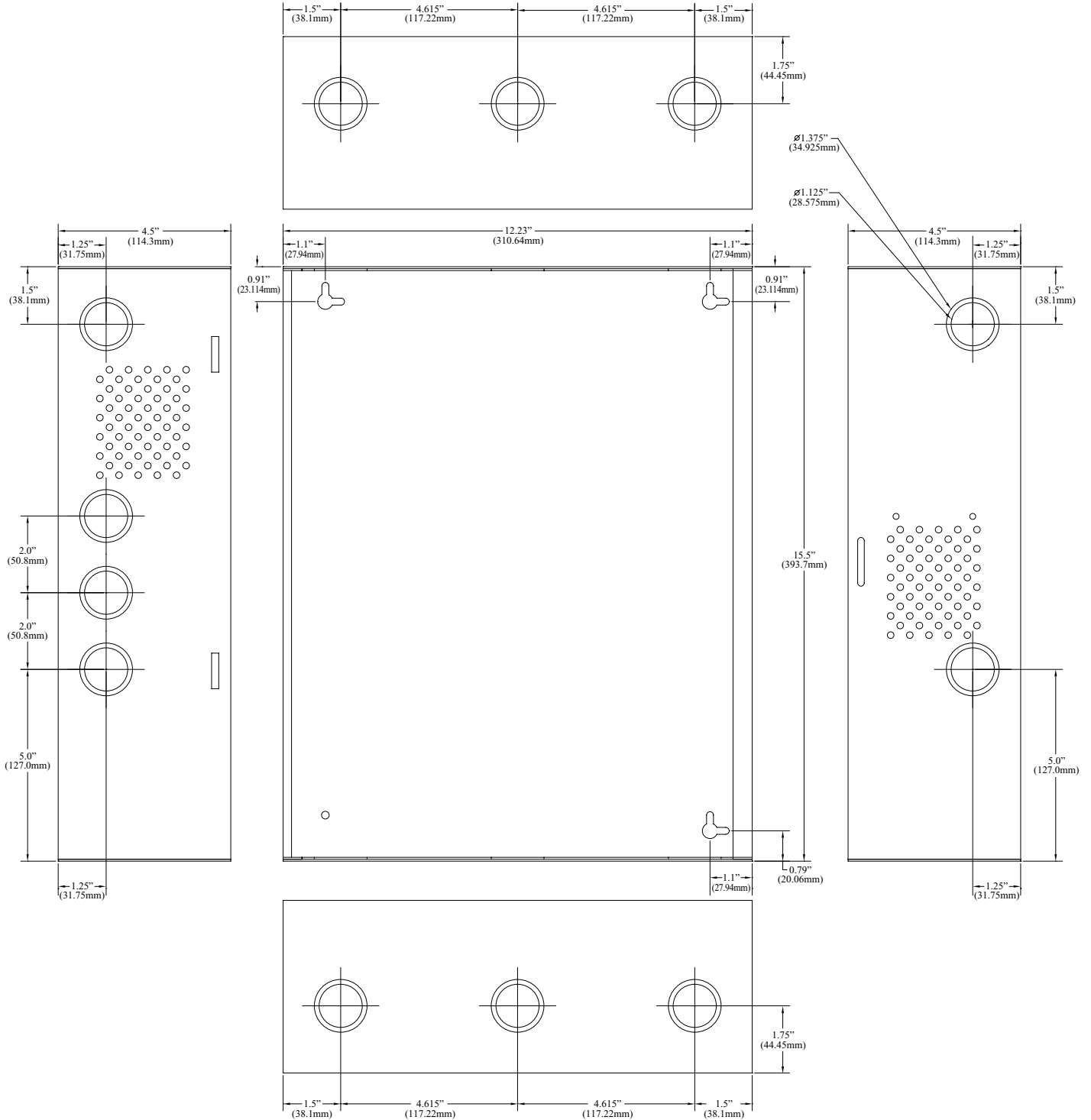
### **AL600ULB - Power Supply**

<b>Terminal Legend</b>	<b>Function/Description</b>
AC/AC	Low voltage AC input (28VAC / 200VA).
+ DC -	12VDC / 24VDC @ 6 amp continuous non power-limited output.
AC Fail NC, C, NO	Indicates loss of AC power, e.g. connect to audible device or alarm panel. Relay normally energized when AC power is present. Contact rating 1 amp @ 28VDC.
Bat Fail NC, C, NO	Indicates low battery condition, e.g. connect to alarm panel. Relay normally energized when DC power is present. Contact rating 1 amp @ 28VDC.
+ BAT -	Stand-by battery connections. Maximum charge current 0.7 amp.

### **AL3XB - Power Output Module**

<b>Terminal Legend</b>	<b>Function/Description</b>
- INPUT +	24VDC from power supply.
- OUT 1 +	24VDC @ 3 amp continuous power limited output.
- OUT 2 +	12VDC @ 1.75 amp continuous power limited output.
- OUT 3 +	5VDC @ 1.75 amp continuous power limited output.

**Enclosure Dimensions (H x W x D approximate):**  
 15.5" x 12" x 4.5" (393.7mm x 304.8mm x 114.3mm)



Altronix is not responsible for any typographical errors. Product specifications are subject to change without notice.

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