AL125220 • AL125X220
Access Control Power Supply/Chargers

Overview:

AL125220 and AL125X220 are power supply/chargers that convert 220VAC 50/60Hz input into two individual PTC protected 12VDC or 24VDC outputs (see specifications).

Specifications:

Input:
- 220VAC 50/60 Hz, 0.3 amp.

Output:
- Two (2) 12VDC or 24VDC outputs.
- 1 amp total supply current @ 12VDC or 24VDC.
- Filtered and electronically regulated output.*

Battery Backup:
- Built-in charger for sealed lead acid or gel type batteries.
- Maximum charge current: 400mA.
- Automatic switch over to stand-by battery when AC fails.

Special Features:
- AC power and unit status indicator on the front panel.
- Normally Open [NO] trigger input.

Special Features *(cont'd)*:
- Supervised Fire Alarm Disconnect (Latching w/reset or Non-Latching).
- Units include power supply, transformer, cam lock and enclosure

Enclosure Dimensions *(H x W x D approx.)*:
- AL125220 - 8.5" x 7.5" x 3.5" (215.9mm x 190.5mm x 88.9mm). Accommodates one (1) 12VDC/4AH battery.
- AL125X220 - 13.5" x 13" x 3.25" (342.9mm x 330.2mm x 82.55mm) Accommodates up to two (2) 12VDC/7AH batteries.

***Note:** When unit is powered by a battery back up (AC Fail condition), the voltage range is 9.3V-13.2V and 19.55V-26.4V for 12 and 24 volt operation respectively.

Power Supply Output Specifications: (AL125220, AL125X220)

Output VDC	Switch Position	Max. Stand-by Load DC	Max. Alarm Load DC	Battery (optional)
12VDC	SW2 - Open	1 amp	1 amp	12VDC
24VDC	SW2 - Closed	1 amp	1 amp	24VDC

Stand-by Specifications:

Output	4 hr. of Stand-by & 5 Minutes of Alarm	Output	4 hr. of Stand-by & 5 Minutes of Alarm
12VDC / 4AH Battery	0.5 amp / 1 amp	12VDC / 7AH Battery	1 amp / 1 amp
24VDC / 4AH Battery	0.5 amp / 1 amp	24VDC / 7AH Battery	1 amp / 1 amp

Installation Instructions:

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

See Terminal Identification Chart on page 2 for a description of each terminal function.

1. Mount unit in the desired location. Mark and predrill holes in the wall to line up with the top two keyholes in the enclosure. Install two upper fasteners and screws in the wall with the screw heads protruding. Place the enclosure's upper keyholes over the two upper screws; level and secure. Mark the position of the lower two holes. Remove the enclosure. Drill the lower holes and install two fasteners. Place the enclosure's upper keyholes over the two upper screws. Install the two lower screws and make sure to tighten all screws *(Enclosure Dimensions, pg. 4)*.
2. Power connections: Connect secondary (blue and yellow leads) from the transformer to the Power Supply Board terminals marked [XFMR] *(Fig. 1 - Board Installation Diagram, pg. 3)*. Connect 220VAC 50/60Hz to the black and white flying leads of the transformer. Secure green wire lead to earth ground. Use 18 AWG or larger for all power connections (Battery, AC input, DC outputs). Use 22 AWG to 18 AWG for power limited circuits (Trigger inputs, Dry outputs, DC outputs).
3. Measure output voltage before connecting devices. This helps avoiding potential damage.
4. Set the desired DC output voltage by setting switch SW2 to the appropriate position *(Power Supply Output Specifications Table, pg. 1, Fig. 1a, pg. 3).*

5. Connect Fail-Safe locking devices to the terminals marked [COM– and LOCK+]. Connect Fail-Secure locking devices to the terminals marked [COM– and STRIKE+] (*Fig. 2, pg. 3).*
6. Connect normally open access control device (i.e. cardreader, request to exit device, access control system) to the terminals marked TRG INPUT [NO, GND] (*Fig. 1 - Application Diagram, pg. 3).*
7. Connect FACP interface to the terminals marked [FACP1 and FACP2]. Wire the 2.2K resistor (supplied) in series for a normally closed input or in parallel for a normally open input (*Fig. 1, pg. 3).* If required, set the latching FACP interface mode by closing SW1 *(Fig. 1a, pg. 3)*, and connect a normally open reset device to the terminals marked RESET [NO, GND].
8. Connect battery to the terminals marked [+ BAT –] (battery leads included). Use two (2) 12VDC batteries connected in series for 24VDC operation.
   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. When the use of stand-by batteries is desired, they must be lead acid or gel type.
9. Please ensure that the cover is secured with the provided cam lock.

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 *(Power Supply Output Specifications Table, pg. 1).*
Battery Test: Under normal load conditions check that the battery is fully charged, check specified voltage both at battery terminal and at the board terminals marked [- BAT +] to ensure that there is no break in the battery connection wires.
Note: Maximum charging current under discharge is 400mA.
Note: Expected battery life is 5 years; however, it is recommended changing batteries in 4 years or less if needed.

Terminal Identification:

Terminal Legend	Function/Description
XFMR	Low voltage transformer connections.
+ AUX –	Aux power output terminals. These terminals will supply 12VDC or 24VDC, not affected by trigger, reset or fire alarm interface.
LOCK +, STRIKE +, COM –	Switched power output. Fail-Safe [LOCK+] supplies positive power when unit is not triggered and FACP interface is inactive. Fail-Secure [STRIKE+] supplies positive power when unit is triggered and/or fire alarm interface is activated. [COM –] supplies negative power.
FACP1, FACP2	Supervised by 2.2K end of line resistor FACP interface. Short or open will cause power to be dropped to the terminal marked [LOCK+] and supply power to the terminal marked [STRIKE+]. Condition can be maintained even after restoration of the circuit (latching mode).
TRG INPUT, NO, GND	Short between these two (2) terminals will cause power to be dropped to the terminal marked [LOCK+] and supplied to the terminal marked [STRIKE+].
RESET, NO, GND	Momentary short between these terminals would end latching FACP interface condition. Feature active only if latching FACP is selected (SW1 closed).
– BAT +	Stand-by battery connections.

LED Diagnostics:

Red	Power Supply Status
ON	Normal condition.
OFF	No DC output.
Slow Blink	Loss of AC.
Rapid Blink	Unit is triggered, awaiting reset. Fire alarm interface activated.

Application Diagram:

Fig. 1

Fig. 1a - SW1 & SW2

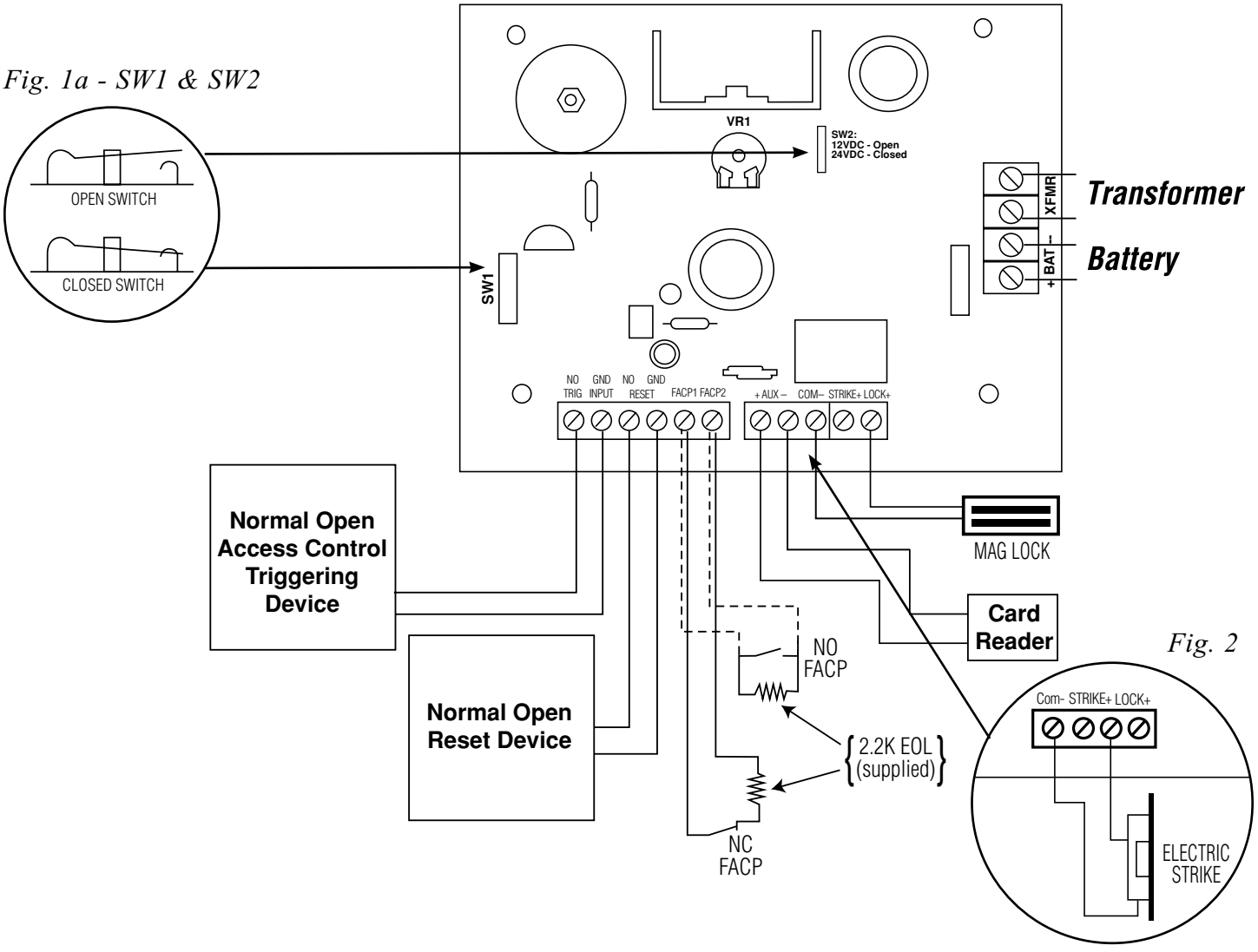


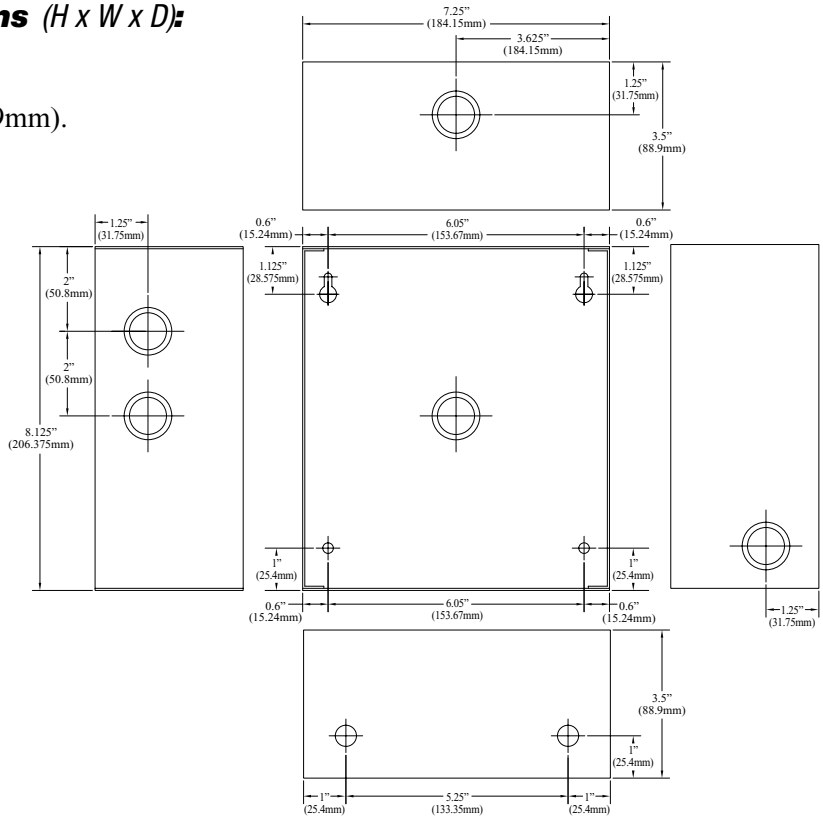
Fig. 2

Enclosure Dimensions (H x W x D):

AL125220

8.5” x 7.5” x 3.5”

(215.9mm x 190.5mm x 88.9mm).

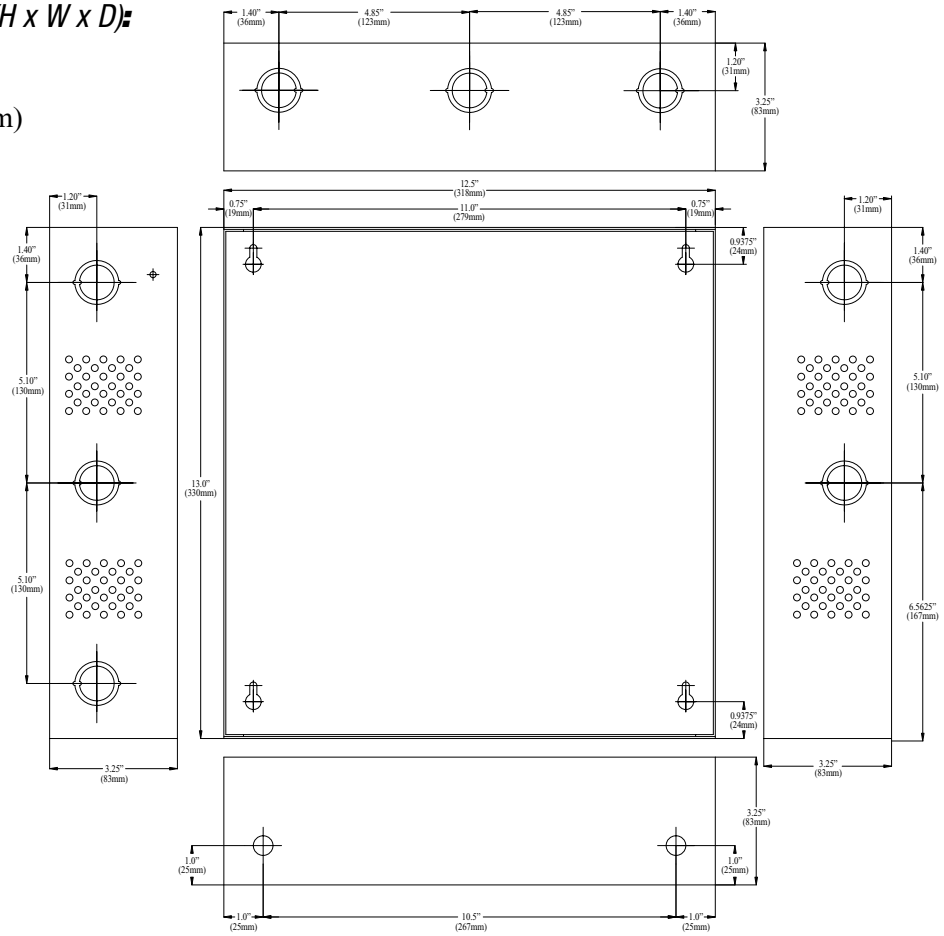


Enclosure Dimensions (H x W x D):

AL125X220

13.5” x 13” x 3.25”

(342.9mm x 330.2mm x 82.55mm)



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