

# RPSMLR2/RPSMLR2BB Panic Device Power Controller Installation Guide



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Call 1-800-392-5209 or visit <https://dhwsupport.dormakaba.com/hc/en-us>



Installing Company: \_\_\_\_\_ Service Rep. Name: \_\_\_\_\_  
Address: \_\_\_\_\_ Phone #: \_\_\_\_\_

## Overview:

RPSMLR2BB, RPSMLR2 will operate up to two (2) 24VDC panic hardware devices simultaneously. It is designed to handle the Motorized Latch Retraction (MLR) exit devices demand. Each lock output has an adjustable re-lock delay timer. It will control a pair of doors simultaneously or independently control two individual doors. It has a relay for each output to trigger external door opening mechanisms. In addition, one un-switched auxiliary voltage output is provided. A configurable FACP interface will remove power from the lock outputs when activated. LED status indicators are provided to monitor Input status, battery condition, AC power, FACP status. Intelligent logic provides protection against accidental shorting of lock outputs.

## Specifications:

### Agency Approval:

- UL 294 - Access Control Unit Power Supply. Evaluated to the following levels of UL 294 6th Ed:  
Destructive Attack - I, Line Security - I  
Endurance - IV, Stand-by Power - II
- ULC-S319 - Access Control Unit Power Supply. Class 1.

### Input:

- Input 115VAC 60Hz, 2.5 amp or 230VAC 50Hz, 1.5 amp.
- Two (2) Normally Open (N.O.) trigger inputs (Input1 and Input2).
- FACP Normally Closed (N.C.) input.
- Two (2) Normally Open (N.O.) latch status inputs.

### Outputs:

- Two (2) 19.8VDC-26.4VDC rated individually controlled lock outputs for applications with battery back-up. 24VDC-26.4VDC rated for applications without battery back-up (US applications only). Current rating 2 amp combined for 400ms, 200mA continuous supply current.
- One (1) 19.8VDC-26.4VDC @ 0.8A rated auxiliary output for applications with battery back-up, 24VDC-26.4VDC @ 0.8A rated for applications in US not requiring battery back-up. Not affected by FACP trigger.
- Two (2) delayed follower Normally Open relay outputs for triggering auto operators after 1 second time delay or after the latch switch trigger, selected via dip switch. The option, when disabled, will trigger the auto operators when the latch switch input closes and, when enabled, will trigger them after the 1 second time delay regardless of latch switch position.

### Outputs (cont'd):

- Trouble relay output indicating low AC voltage trouble.

### Battery Backup:

- Battery leads included.
- Battery PTC rating: 6A.
- Maximum charge current 650mA.
- Built-in charger for sealed lead acid batteries.
- Automatic switch over to stand-by battery when AC fails.
- When 7AH batteries are used, battery capacity for emergency stand-by is 30 minutes.

### Visual Indicators:

- Green AC Power LED indicates AC presence.
- Red trigger input LEDs indicate panic device status/trouble (activated, short circuit).
- Green Fire Alarm Interface (FAI) LED indicates FACP interface is activated.
- Red Battery LED indicates low battery during AC failure.
- Green AC LED indicates loss of AC trouble.

### Enclosure Dimensions (H x W x D approx.):

RPSMLR2:

12.5" x 7.5" x 3.25" (317.5mm x 190.5mm x 82.55mm)

RPSMLR2BB:

13.5" x 13" x 3.25" (342.9mm x 330.2mm x 82.55mm)

## Installation Instructions:

Wiring methods shall be in accordance with the National Electrical Code/NFPA 70/NFPA 72/ANSI, and with all local codes and authorities having jurisdiction. Product is intended for indoor use only. For Canadian installations - shielded wiring of appropriate gauge must be used. Unit is to be serviced by authorized personnel and de-energized prior to opening.

1. Mount unit in desired location within protected premises (*Maximum Wiring Distance, pg. 5*). 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 the 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. 8-9*). Secure cabinet to earth ground.
2. Hard wire unit: Connect unswitched AC power (115VAC 60Hz or 230VAC 50Hz) to terminals marked [L, N]. Use 14 AWG or larger for all power connections. Secure green wire lead to earth ground.

**Keep power-limited wiring separate from non power-limited wiring (115VAC 60Hz or 230VAC 50Hz Input, Battery Wires). Minimum 0.25" spacing must be provided.**

**CAUTION: Do not touch exposed metal parts. Shut branch circuit power before installing or servicing equipment. There are no user serviceable parts inside. Refer installation and servicing to qualified service personnel.**

Connect earth ground to a ground lug or ground lead. Do not connect to a receptacle controlled by a switch. Unit is intended for permanent connection using metal enclosed system. A fixed product shall be connected with one of the applicable wiring systems in accordance with CSA C22.1, Canadian Electrical Code, Part I, Safety Standard for Electrical Installations.

**Note:** RLSMPR2, RPSMLR2BB is intended to be permanently connected.

3. Measure aux. output voltage before connecting devices. This helps avoid potential damage.
4. For ULC applications all interconnecting devices must be ULC Listed.  
Connect panic hardware device # 1 to terminals marked [+ OUT1 -], connect panic hardware device # 2 to terminals marked [+ OUT2 -] (*Fig. 1, pg. 5*). Be sure to observe polarity. The panic hardware device operating voltage specifications must cover 19.8VDC to 26.4VDC range.
5. Set lock output release time by adjusting [OUT1] and [OUT2] potentiometers. Turn potentiometer clockwise to increase time or counter-clockwise to decrease time. Timing range is 1 second to 4 minutes.  
**Note:** When external control of door unlock time is desired, i.e., card reader, set time to minimum (completely counter-clockwise).
6. Connect Normally Open (N.O.) Dry Contacts from actuating devices such as an Access Control Panel, REX PIR, Keypad, etc. to terminals marked [GND, INP1] and [GND, INP2] (*Fig. 1, pg. 5*) (*100 ohm line resistance maximum*).
7. Connect auxiliary devices to be powered (Keypads, REX motion detectors, electronic timers, external relays ) to the appropriate auxiliary power output terminals (*Fig. 1, pg. 5*).  
**Note:** Operating voltage range of device should be 19.8VDC- 26.4VDC or wider for applicators with battery backup and 24VDC-26.4VDC for applications not requiring battery backup.
8. Connect Automatic Door Operators to terminals marked [ADO1, ADO2]. Connect latch switch contacts to terminals marked [GND, Lt1] and [GND, Lt2] (if used), set OPT1 and OPT2 dip switches to the ON position if no Lt contacts are used.  
**Note:** For UL/ULC applications all interconnecting devices must be UL/ULC Listed respectively.
9. To hookup the Fire Alarm Disconnect feature, wire the normally closed (NC) dry contact output from a Fire Alarm Control Panel to the terminals marked [FACP] and [GND] of RLSMPR2, RLSMPR2BB.  
The “Fire 1 option” and “Fire 2 option” dip switches [Fr1] and [Fr2] when in the ON position will cause the unit to re-lock the mechanism if it was previously un-locked when FACP trigger input is activated (open circuit).
10. For ULC applications batteries must be connected. Stand-by batteries must be lead acid. 7AH batteries will provide 30 minutes of backup time. Connect two (2) 12VDC batteries wired in series to the terminals marked [+ BAT -]. For Access Control applications in the U.S. batteries are optional, for Canadian applications batteries are required. When batteries are not used, loss of AC will result in the loss of output voltage.
11. Mount UL Listed tamper switch (Sentrol model 3012 or equivalent) at the top of the enclosure. Slide the tamper switch bracket onto the edge of the enclosure approximately 2” from the right side (*Fig. 3, pg. 7*). Connect tamper switch wiring to the Access Control Panel input or the appropriate UL Listed reporting device. To activate alarm signal open the door of the enclosure.  
**Note:** Do not exceed voltage and current ratings of tamper switch. Please refer to tamper switch installation instructions.
12. Upon completion of wiring secure enclosure door with screws or cam lock (supplied).

### **LED Diagnostics:**

<b>LED</b>	<b>LED Status</b>	<b>Panic Device Power Controller Status</b>
Power - Green (AC)	On	Normal operating condition.
	Off	Loss of AC.
INP1 - Red Trigger Input 1	On	Output 1 - Energized.
	Rapid Blink	Output 1 - Over current.
	Off	Output 1 - De-energized.
INP2 - Red Trigger Input 2	On	Output 2 - Energized.
	Rapid Blink	Output 2 - Short Circuit.
	Off	Output 2 - De-energized.
FAI - Green	On	FACP Input triggered (alarm condition).
	Off	FACP normal (non-alarm condition).
BAT Trouble Red	Off	Bad battery or no battery.
	Slow Blink	Battery low.
AC Trouble Green	Off	AC normal.
	Slow blink	AC low or missing.

### **Maintenance:**

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

**FACP Supervision:** To ensure proper connection and operation of the Fire Alarm disconnect hookup, remove wire from the terminal marked [FACP] on RLSMPR2, RLSMPR2BB. With the dip switches [Fr1] and [Fr2] in ON position, unlocked Panic Hardware Devices will re-lock. With dip switches [Fr1] and [Fr2] in the OFF position (*Fig. 2, 3, pg. 6, 7*), locked Panic Hardware Devices will not be affected.

**Output Voltage Test:** Under normal load conditions the DC output voltage should be checked for proper voltage level.

**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 there is no break in the battery connection wires.

**Note:** Maximum charging current under discharge is 650mA.

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

**Caution:** For continuous protection against risk of electric shock and fire hazard, replace input fuse with the same type and rating: 5 amp/250V. Do not expose to rain or moisture; indoor use only.

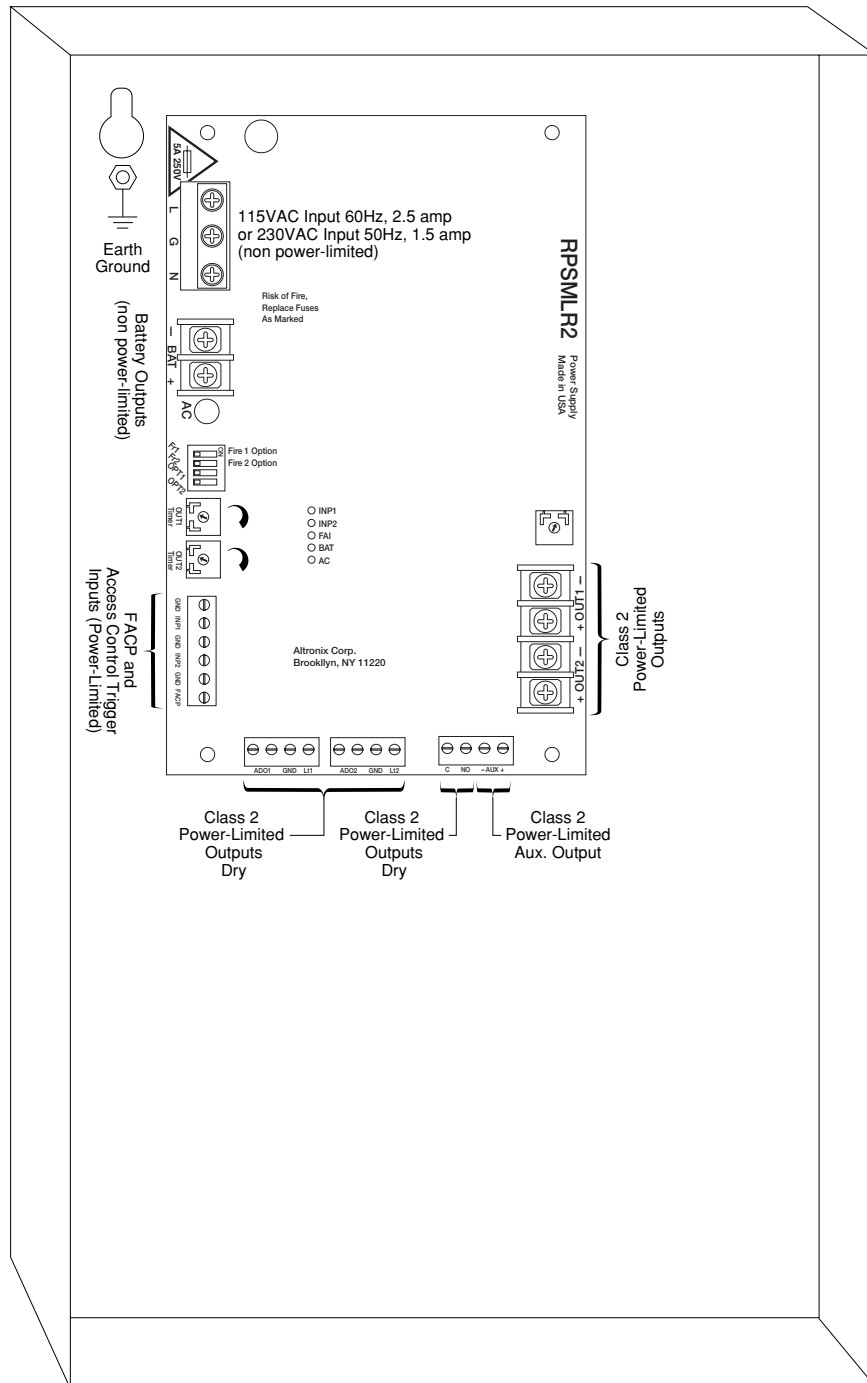
### **Terminal Identification:**

<b>Terminal Legend</b>	<b>Function/Description</b>
+ AUX –	24VDC Auxiliary Output @ 0.8 amp. 19.8-26.4VDC for applications with battery back-up.
+ BAT –	24VDC Stand-by Battery Connection (Two (2) 12VDC batteries wired in series).
– OUT 1 +	Connect 24VDC Panic Hardware Device #1
– OUT 2 +	Connect 24VDC Panic Hardware Device #2.
FACP / GND	Normally Closed Dry Contact from Fire Alarm Control (100 ohm maximum wiring resistance).
INP1 / GND	Normally Open Trigger input controls Output 1. May be held closed for extended unlocking (100 ohm maximum wiring resistance).
INP2 / GND	Normally Open Trigger input controls Output 2. May be held closed for extended unlocking (100 ohm maximum wiring resistance).
ADO1	Dry form “A” contacts provide a signal for door opening mechanism. With dip switch [OPT1] in the ON position, door opening mechanism will be triggered within 1 second after Input 1 signal. With dip switch [OPT1] in the OFF position, the door opening mechanism will be triggered after the latch switch contacts close indicating lock retraction.
ADO2	Dry form “A” contacts provide a signal for door opening mechanism. With dip switch [OPT2] in the ON position, door opening mechanism will be triggered within 1 second after Input 2 signal. With dip switch [OPT2] in the OFF position, the door opening mechanism will be triggered after the latch switch contacts close indicating lock retraction.
C, NO	Indicates AC trouble condition. Normally Open, closed if AC is low or missing.
Lt1, GND	Dry normally open inputs for latch switch 1 connection.
Lt2, GND	Dry normally open inputs for latch switch 2 connection.



Fig. 2 - RLSMPR2

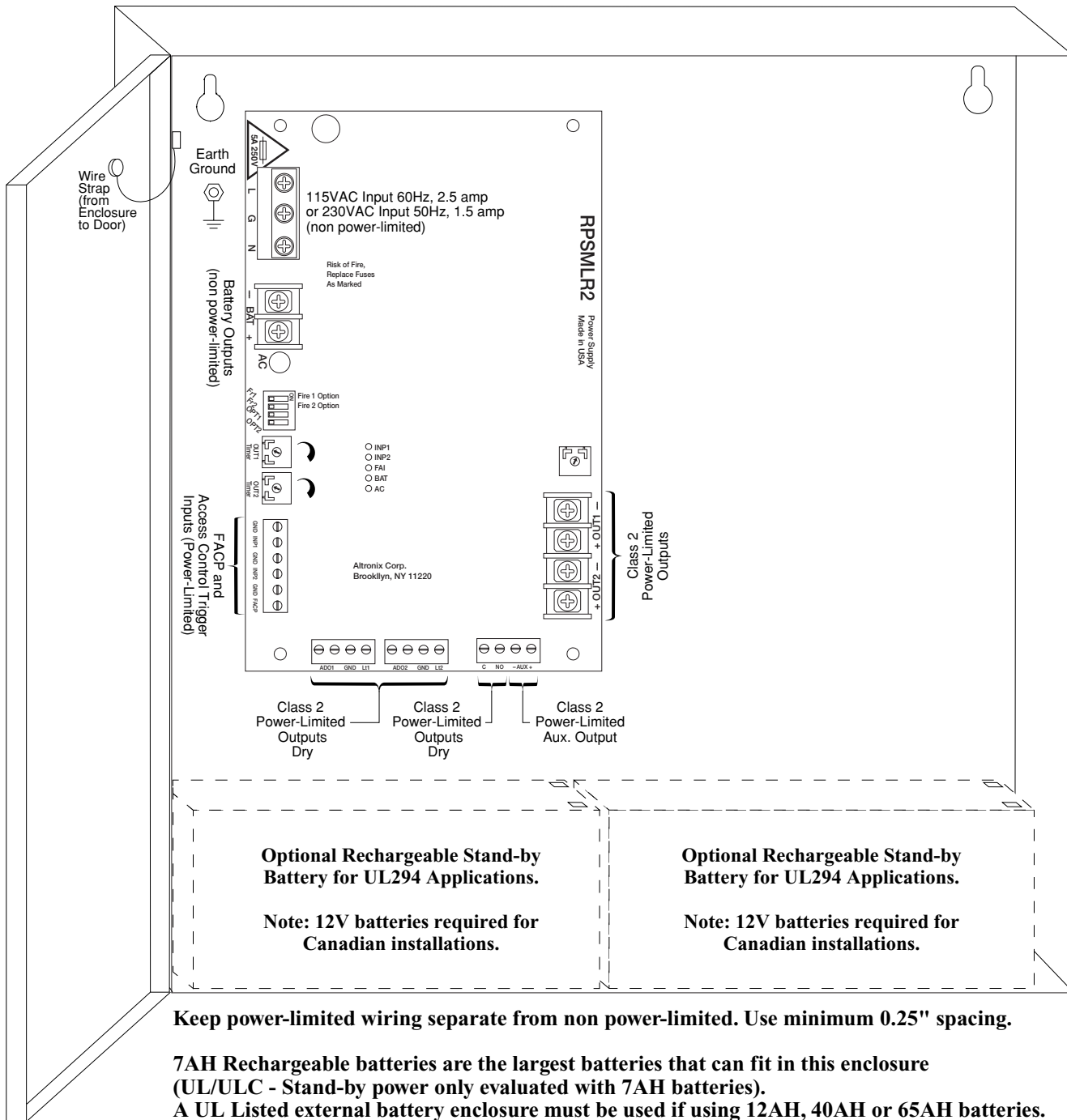
**WARNING: To reduce the risk of fire or electric shock, do not expose the unit to rain or moisture. Replace fuse with the same type and rating: Input Fuse is rated at 5A/250V, Battery PTC rated at 6A.**



**Keep power-limited wiring separate from non power-limited. Use minimum 0.25" spacing.**

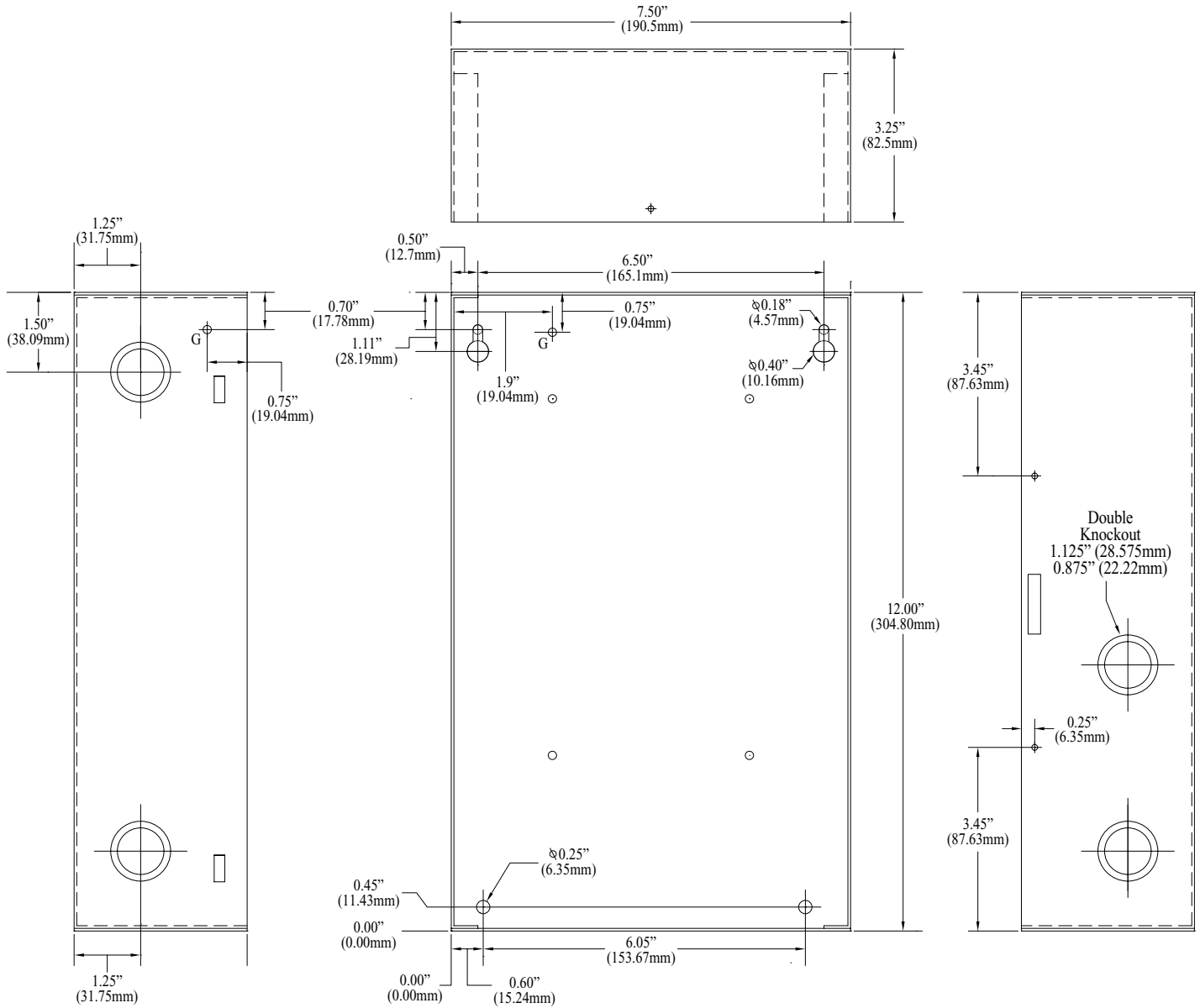
Fig. 3 - RLSMPR2BB

**WARNING: To reduce the risk of fire or electric shock, do not expose the unit to rain or moisture. Replace fuse with the same type and rating: Input Fuse is rated at 5A/250V, Battery PTC rated at 6A.**



**RPSMLR2 Enclosure Dimensions (H x W x D approximate):**

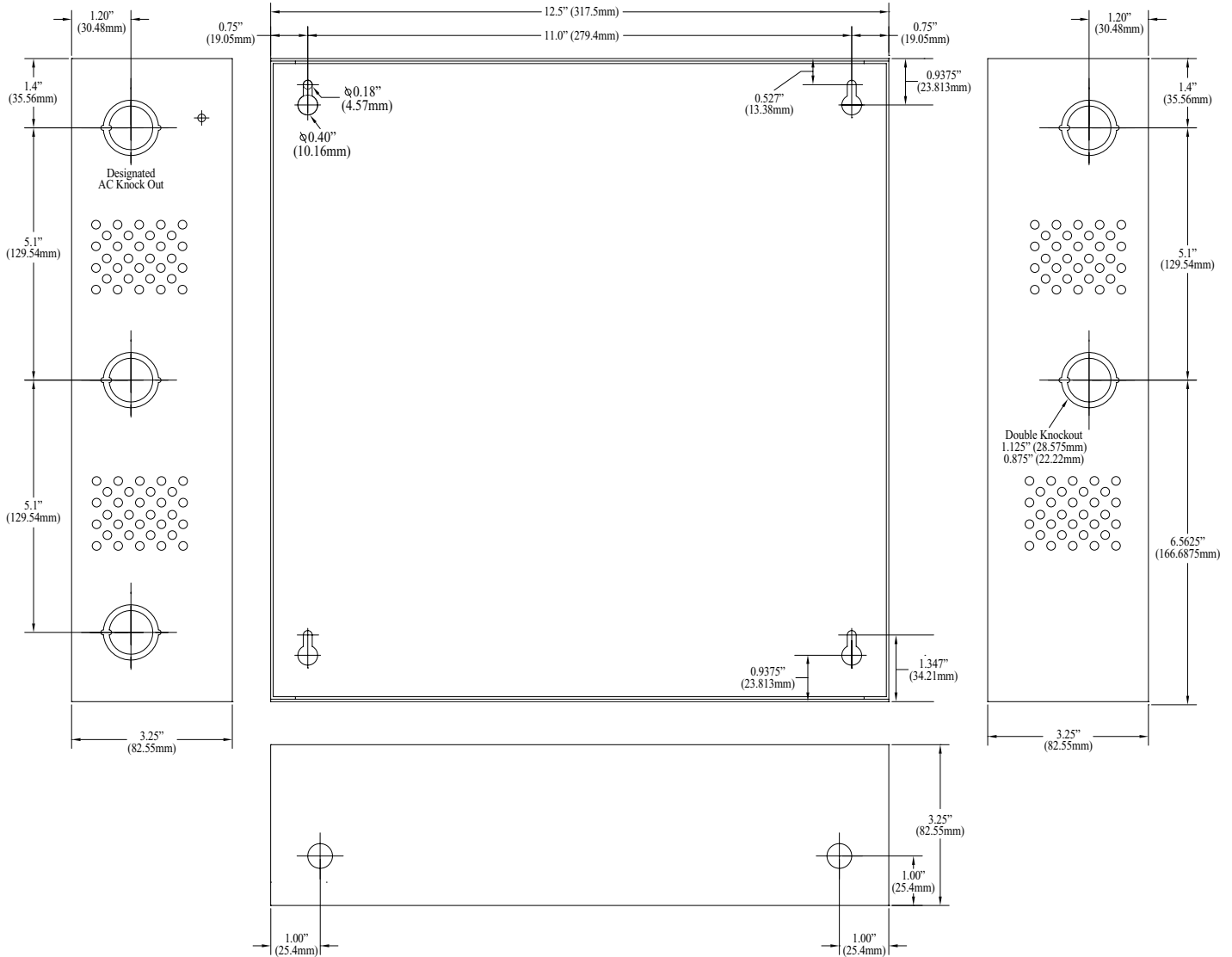
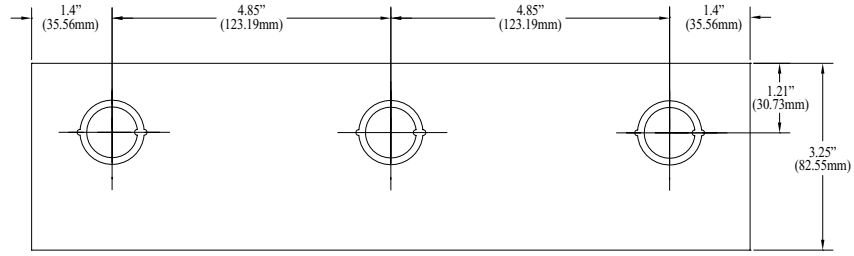
12" x 7.5" x 3.25" (304.80mm x 190.50mm x 82.5mm)



Not to scale 1:1. Measurements are for reference only.  
Not a drilling template.



**RPSMLR2BB Enclosure Dimensions (H x W x D approximate):**  
 13.5" x 13" x 3.25" (342.9mm x 330.2mm x 82.55mm)



Not to scale 1:1. Measurements are for reference only.  
 Not a drilling template.

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

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