

ROSSLARE

SECURITY PRODUCTS

PS-x25/TU

Dual Relay Secured Power Supplies for the Convertible and Secured Controller Families

INSTALLATION INSTRUCTIONS

INTRODUCTION & KEY FEATURES

The PS-x25 family of secured power supplies converts AC power to 12 VDC power limited output (see specification for each product) with an integrated battery charger, designed for use with all of Rosslare's convertible & secure controller units (ACU). The PS-x25 family contains two power supplies. One for the lock output and the other for the ACU.

This design isolates the lock from the ACU, securing the functionality of the lock even if the ACU is tampered with. When a valid code is entered via the ACU, it communicates with the PS-x25 family using a Rosslare proprietary protocol sending a command to activate the lock or auxiliary relay.

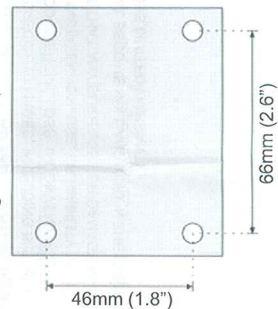
Similarly, the Release to Exit (REX) button is attached directly to the PS-x25 family.

If the data line between the ACU and the PS-x25 family is cut, the system will immediately detect that the data line has been tampered with and will generate a one minute siren as well as close the lock output, in addition the Auxiliary relay can be activated by the ACU.

A sealed lead acid battery charger is built-in to provide back-up power for the ACU and the Lock. The PS-x25 can also power an external speaker to announce Bell and Siren tones.

PCB MOUNTING HOLES DIMENSIONS

Dimensions for PCB mounting holes are provided below.



INSTALLATION PROCEDURE

The PS-x25 should be installed in accordance with article 760 of the National Electric Code NFPA 72 as well as applicable Local Codes.

Note: Circuit breaker must be close to the PS-x25 and must be accessible.

1. Mount the PS-x25 within the secured perimeter
2. Connect AC power (16.5 VAC / 60Hz to the marked terminals, "~ VIN ~". Use a Class 2 Transformer such as DSC part no. PTC1640U. Use 18 AWG or larger for all power connections (Battery, DC output).
3. Connect the ACU's power input to the power terminal marked [SECURED CONTROLLER +V and (-)]
4. Connect the two lock outputs to the power terminal marked [LOCK 12VDC NiC or NiO]
5. Connect the Auxiliary relay if you wish.
6. Backup Battery is optional. When battery is not used, loss of AC will result in the loss of output voltage. When using a backup battery, it must be a UL certified "lead acid" or "gel" type. Connect the battery terminal to power terminal marked [12VDC +Bat and (-)] (Battery leads included)
7. Panic hardware shall not be used with this device.

WIRING

Use 18 AWG or larger for all power connections.

Ensure that the power-limited circuit is wired separately from the non-power limited wiring (16.5 VAC, Battery)

Note: see the wiring diagram below for wiring reference

MAINTENANCE

For proper operation, the unit should be tested at least once a year as described below:

Output voltage test:

Check DC output for proper voltage level under normal load conditions.

Battery test:

Check specified voltage, at both battery terminal and board terminals marked [12VDC +Bat and (-)] under normal load conditions, verify that the battery is fully charged and insure there is no break in the battery connection wires.

Note: Maximum charging current under discharges is 1.2A

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

Dispose of used batteries according to manufacturers' instructions.

ELECTRICAL SPECIFICATIONS

Input	PS-A25T*	PS-C25T*	PS-C25TU
	230VAC 50Hz, 0.14A	120VAC 60Hz, 0.3A	
Internal transformer	230/16VAC, 25VA	NA	
DC output	DC output: 11.7-13.2VDC, 1A max. combined ACU output and lock power supply		
Lock output	5A, SPDT relay. Max Switched current: 5A Max Switched voltage: 150VDC or 300VAC UL Rating: 5A at 30VDC or 5A at 125VAC		
Auxiliary Output	5A, SPDT relay. Max Switched current: 5A Max Switched voltage: 150VDC or 300VAC UL Rating: 5A at 30VDC or 5A at 125VAC		
Speaker	In casing	In casing	External
Speaker Output	8 Ohm, 0.25W (minimum) for bell chime and siren alerts		
Space for backup battery	NO	YES	
Battery Backup	NA	Built in charger for sealed UL certified 7Ah battery lead acid or gel Maximum charge current 1.2A Automatic switch over to stand-by battery when AC fails <i>Caution: Risk of explosion, when battery is replaced by a wrong battery type.</i>	
Visual indicators	DC output LED indicator on PCB		
Additional features	Short circuit and thermal overload protection Includes battery leads		
Communications:	Rosslare proprietary protocol		

*Model not UL listed

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature:

14°F to 122°F (-10°C to 50°C)

Operating Humidity:

0 to 85% (Non-Condensing)

MECHANICAL SPECIFICATIONS

	PS-A25T	PS-C25T	PS-C25TU
Dimensions: (H x W x D)	7.2 x 3.1 x 2.7"	8.85 x 9.05 x 3.00	
	182 x 80 x 68mm	225 x 230 x 76mm	
Weight	2.73lbs (1.24kg)	5.38lbs (2.44kg)	3.3lbs (1.5kg)