

13.5Vdc 2.5A Series

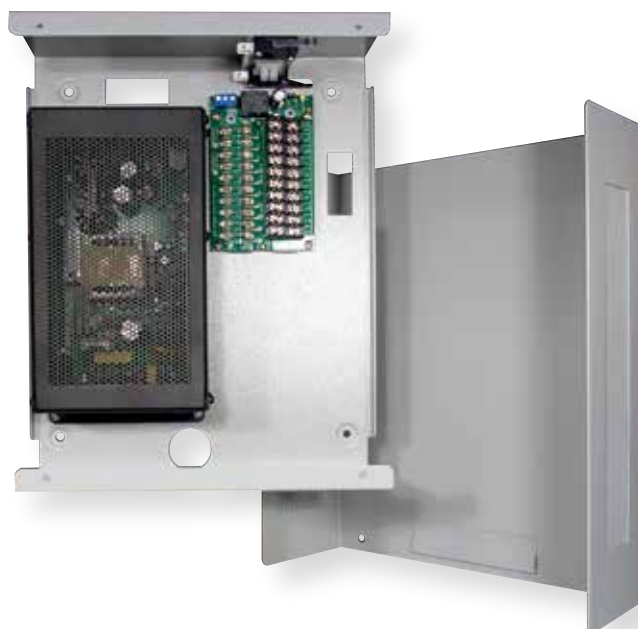
MODEL :

TPS13-2.5DC



Eco Range

SECURITY POWER SUPPLIES



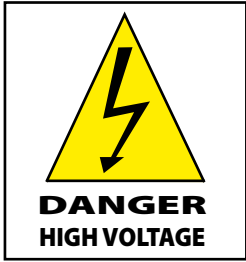
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Installation Manual



CAUTION



Dangerous internal voltages exceeding 400 Volts - **DO NOT REMOVE COVERS !**

Equipment must be installed & serviced by suitably qualified service personnel in a restricted access area.

Dangerous Voltages Inside !

Do not remove covers

No user serviceable parts inside

General

These power supplies are part of the Tactical ECO Range and are designed for **indoor use only**.

TPS13-2.5DC models are high performance, extremely low noise, Dual Channel Switch Mode power supplies offering 13.5Vdc at 2.5A continuous.

When operating from mains, these models provide an output of 13.5Vdc (to power connected equipment) and are configured with a separate 13.8Vdc battery charging channel. Available battery charge current is 700mA @ 13.8Vdc (total supply output current 3.2A)

Output short-circuit and overload protection are provided . Removal of the fault / short circuit condition will return the power supply to normal operation (Auto-Reset).

Model Variants

TPS13-2.5DC

TPS-SMALL KIT

TPS-MEDIUM KIT

TPS-LARGE KIT

Single 2.5A Output + battery charger, supply only - no cabinet (225L x 120W x 60H)

Small steel enclosure (250W x 310H x 100D mm) will house 12V 7AH SLA Battery and 1 PDM

Medium steel enclosure (340W x 436H x 145D mm) will house 12V 17AH SLA Battery and 2 PDM

Large steel enclosure (480W x 470H x 185D mm) will house 12V 55AH SLA Battery and 2PDM

All enclosures are supplied with mounting hardware, tamper switches and battery leads.

Connection

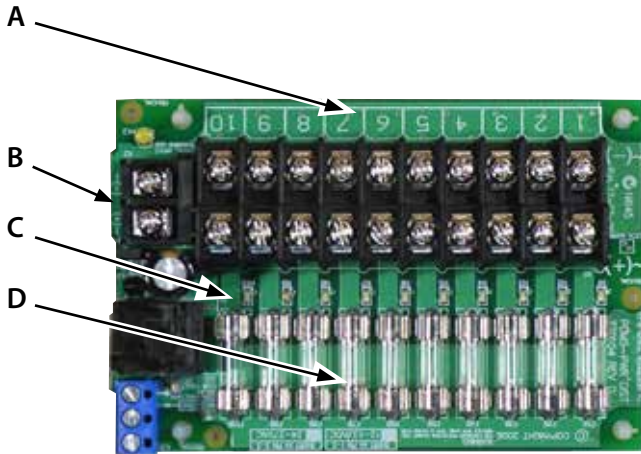
| Single Output Models | Multiple Output Models |
|---|--|
| 10-way removable terminal block provides the following: (See over the page for a layout) * 13.5Vdc Output * 13.8Vdc Output for SLA (Sealed Lead Acid) Batteries * AC OK Relay Output (Relay is NC when mains is OK) * Battery Fault / Low Battery Relay Output (SPDT) (This relay is NO when Battery is OK, going NC when Battery voltage drops below approx. 10.5V during AC Fail) | 13.5Vdc Output is via individually fused outputs (10 way) 10-way removable terminal block provides the following: (See over the page for a layout) * 13.8Vdc Output for SLA (Sealed Lead Acid) Batteries * AC OK Relay Output (Relay is NC when mains is OK) * Battery Fault / Low Battery Relay Output (SPDT) (This relay is NO when Battery is OK, going NC when Battery voltage drops below approx. 10.5V during AC Fail) |

Caution when handling batteries:

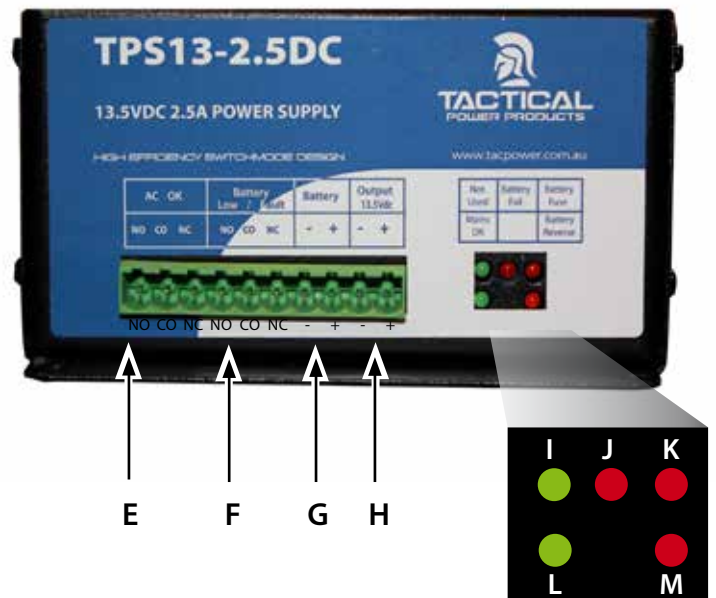
Exercise care when terminating and connecting batteries. Mishandling or short circuit of SLA batteries can cause severe damage and fire.

LAYOUT

Multi-Output Models
(e.g. TPS13-2.5DC-BD10)



TPS13-2.5DC Module Front Face



| | | | |
|----------|--|----------|---|
| A | Output Terminals (Multi Output models only) | B | PDM Input (Multi Output models only) |
| C | Individual Circuit Status LEDs (Multi Output Models) | D | Individual Circuit Fuses (Multi Output models only) |
| E | AC Mains OK Output (NO / COM / NC) | F | Battery Low / Fault Output (NO / COM / NC) |
| G | - Battery + (Connect Sealed Lead Acid Battery) | H | - Output 13.5Vdc + (Connect to load or PDM) |
| I | Not used in this model | J | Battery Test Fail LED (Red ON = Fail) |
| K | Battery Fuse Fail LED (Red ON = Fail) | L | AC Mains OK LED (Green ON = OK) |
| M | Reverse Battery LED (Red ON = Fail) | N | 240V IEC Mains Socket |
| O | Compliance / Date of Manufacture Label | ~ | |



13.5Vdc 2.5A Series



Specifications :

(In the interests of product improvement, Tactical reserves the right to change specifications without notice)

| Eco Range® | 2.5DC | 2.5DC& SMALL KIT | 2.5DC,SMALL KIT & PDM5-250 | 2.5DC& MEDIUM KIT | 2.5DC-MEDIUM KIT & PDM5-250 |
|-----------------------|--|--------------------|----------------------------|--------------------|-----------------------------|
| Output Voltage | 13.5 Vdc | | | | |
| Output Current | 2.5A Continuous | | | | |
| Output Channels | 1 | 1 | 10 | 1 | 10 |
| Output per Channel | 2.5A | 2.5A | 250mA | 2.5A | 250mA |
| Input Voltage | 240 V ac (+6% / -10%) 50Hz | | | | |
| Input Current | 0.4A @ full load | | | | |
| Input In-Rush Current | <20A (25 ⁰ C cold start up) | | | | |
| Battery Charger | 13.8Vdc / 700mA (Max) | | | | |
| Low Battery Indicator | 1 x SPDT relay & Red LED | | | | |
| AC Input Indicator | 1 x SPDT Relay & Green LED | | | | |
| Weight (Approx) | 1.2Kg | 4Kg | | 6Kg | |
| Dimensions (mm) | 226L x 123W x 60H | 250W x 310H x 100D | | 340W x 436H x 145D | |
| Overload Protection | Hysteretic thermal shutdown with automatic fault recovery | | | | |
| Load Regulation | < 1% from open to full load | | | | |
| Line Regulation | < 0.2% | | | | |
| Output Ripple | 25mV p-p @ full load (Typical) | | | | |
| Working Temperature | 0 - 50 ⁰ C without derating | | | | |
| Revision | E | | | | |
| Safety Standards | Safety Standard AS NZS 62368.1:2022 Certificate of Compliance EESS250020-0 | | | | |
| EMC Standards | AS/NZS CISPR 11:2004 (Class B Conducted and Radiated) | | | | |
| | | | | | |



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