

13.5Vdc 5A Series

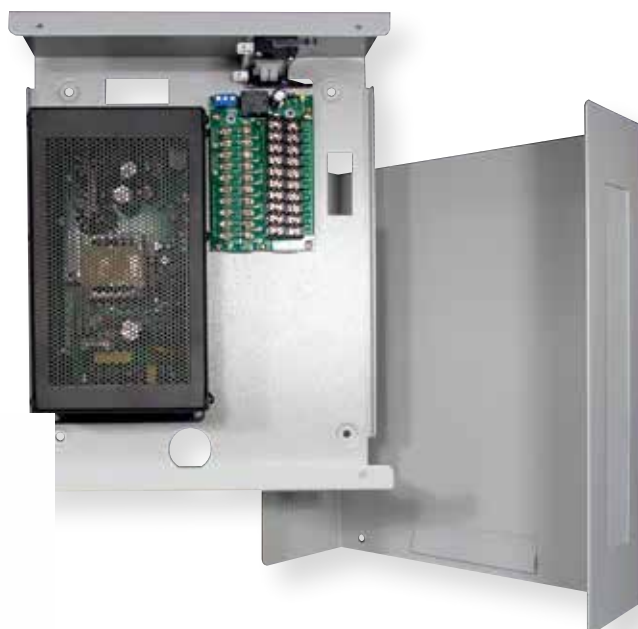


Eco Range

MODELS:

TPS13-5DC

Security Power Supplies



TPS13-5DC, TP Small Kit & PDM5 above

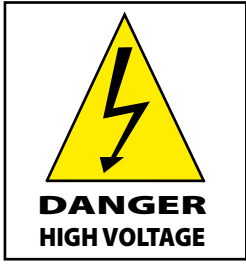


Installation Manual



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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 **ITE** and **indoor use only**.



TPS13-5DC models are high performance, extremely low noise, Dual Channel Switch Mode power supplies offering 13.5Vdc at 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 1.4A @ 13.8Vdc (total supply output current 6.4A)

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

The TPS13-5DC ships as a single power module, additional enclosures are available to accomodate power module, power distribution module and SLA battery. Models listed below

- TPS13-5DC** Single 5A Output + 1.4A battery charger, supply only - no cabinet (225L x 120W x 60H)
- TP-SMALL KIT** Small steel enclosure (250W x 310H x 100D mm) will house 12V 7AH SLA Battery and 1 PDM
- TP-MEDIUM KIT** Medium steel enclosure (340W x 436H x 145D mm) will house 12V 17AH SLA Battery and 2 PDM
- TP-LARGE KIT** Large steel enclosure (480W x 470H x 185D mm) will house 12V 55AH SLA Battery and 4 PDM

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

Connection

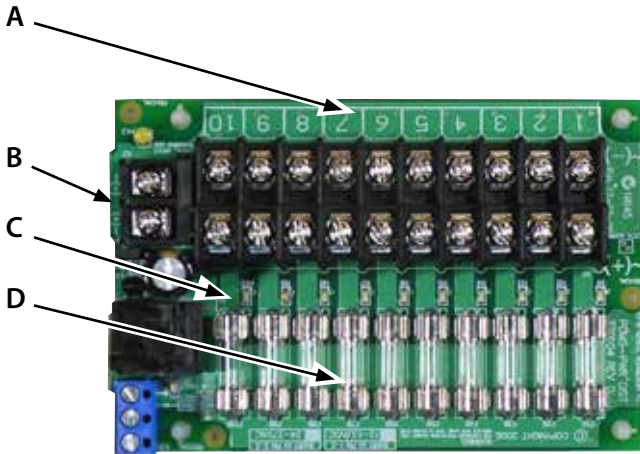
| Single Output Models | Multiple Output Models |
|---|--|
| 10-way removable terminal block provides the following: (See over the page for a layout) * 13.5Vdc Output * 13.8Vdc Output for SLA (Sealed Lead Acid) Batteries * AC OK Relay Output (Relay is NC when mains is OK) * Battery Fault / Low Battery 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:

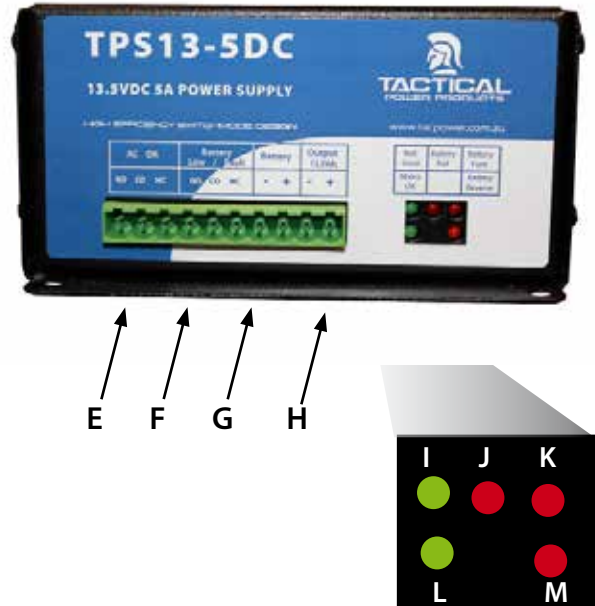
Exercise care when terminating and connecting batteries. Mishandling or short circuit of SLA batteries can cause severe damage and fire.

LAYOUT

Multi-Output Models
(e.g. TPS13-5DC+CAB+PDM5)



TPS13-5DC 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 5A Series



Specifications :

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

| Eco Range® | 5DC | 5DC+ TTSmall Cab | 5DC+TTSmall Cab + PDM5-500 | 5DC+TTMedium Cab | 5DC+TTMedium Cab +PDM5-500 |
|-----------------------|---|--------------------|----------------------------|--------------------|----------------------------|
| Output Voltage | 13.5 Vdc | | | | |
| Output Current | 5A Continuous | | | | |
| Output Channels | 1 | 1 | 10 | 1 | 10 |
| Output per Channel | 5A | 5A | 500mA | 5A | 500mA |
| Input Voltage | 240V ac (+6% / -10%) 50Hz | | | | |
| Input Current | 0.8A @ full load | | | | |
| Input In-Rush Current | <20A (25 ⁰ C cold start up) | | | | |
| Battery Charger | 13.8Vdc / 1.4A (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 | D | | | | |
| Safety Approval | Safety Standard AS NZS 62368:1:2022 Certificate of Approval EESS-240725-0 | | | | |
| EMC Standards | AS/NZS CISPR 11:2004 (Class B Conducted and Radiated) | | | | |



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