

TSW100 Powering Options

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This chapter contains information on powering options supported by TSW100 switch.

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The switch has a 4 pin power socket and can be powered by a 7-57 VDC power supply unit (PSU). Refer to the image below for the power socket's pinout information:

Power socket

4 pin power socket

| No. | Description | Wire color | |
|-----|---------------|------------|---|
| 1 | Power | Red | |
| 2 | Ground | Black | |
| 3 | Not connected | - |  |
| 4 | Not connected | - | |

If you decide not to use the standard 50 VDC power supply unit and want to power the device with other voltages (7-57 VDC), please make sure that you choose a power supply of high quality. Some power supplies can produce voltage peaks significantly higher than the declared output voltage, especially during connection and disconnection.

While the device is designed to accept input voltage of up to 57 VDC peaks, high voltage power supplies can harm the device. If you want to use high voltage power supplies it is recommended to also use additional safety equipment to suppress voltage peaks from the power supply.

Note that TSW100 PoE ports works properly when switch is powered using PSU, which can supply 44 VDC or higher voltages. If TSW100 switch is powered with voltages ranging from 7 VDC to 43 VDC, it will work as standard switch, without PoE capabilities.

TSW100 Batch 001 onwards: use UTP (Unshielded) cable only when connecting non-Active PoE (non-803.3af/at) equipment or make sure that these devices support voltages, provided by TSW100 PSU.

Disclaimer: TSW100 and Passive PoE devices

There are a couple of options to stay safe when using TSW100 **Active PoE** with devices that only support **Passive PoE**:

- Connect TSW100 and Passive PoE device only via non-PoE Ethernet ports (for example, **do not** use TSW100 PoE ports with **LAN1** ports on Teltonika devices).
- If there is a need to use **LAN1** port on the end device, make sure that TSW100 and the end device are **powered from different voltage sources** (for example, power both devices from different PSUs, or different batteries).

If TSW100 and a Passive PoE device are connected with common ground, **do not use LAN1 port**, other ports can be used (refer to image below):

