

## DIN-rail Power Supply

### PS-60

- **Compact PSU for demanding edge network applications**
  - Compact, slim design catering for space savings
  - Handles short power interruptions, ensuring system operation
  - Rigorously tested and approved to several demanding industry standards
- **Powerful and efficient**
  - Impressive power budget of 60W and more with boost functionality
  - Manages start-up currents and power spikes with dynamic boost
  - Excellent power efficiency, 92%, and low heat dissipation
- **Robust and reliable**
  - Long service life, thanks to high MTBF > 700,000 hrs
  - Operating temperatures from -25 to +70°C, start-up capacity in -40°C
  - Wiring is secured with screw connectors, for safe and reliable installation



**IEC 61850-3**  
Substation Automation

**EN 50121-4**  
Railway Trackside

**EN 61000-6-2**  
Industrial Immunity

**EN 61000-6-4**  
Industrial Emission

**EN 61000-6-5**  
Immunity Power Station &  
Substation Environments

The PS-60 is a perfect companion to most devices in the Westermo portfolio, designed to match the robust and reliable products that Westermo is known for. With superior buffering capacity and EMC immunity, the PS-60 can power network communication equipment even in harsh applications such as trackside and substation automation. The compact form factor of the PS-60 occupies a very small part of the DIN-rail, 32mm, leaving room for more mission critical equipment.

The PS-60 supports wide ranges of input voltage, both AC and DC, supporting most applications and scenarios. With a 60 W power budget, the PS-60 provides a high level of flexibility for various load scenarios, such as powering of several switches or other equipment from one single power supply. In addition, the device provides static boost which allows for system expansion and dynamic boost which removes the need for over dimensioning the PSU to manage start-up currents.

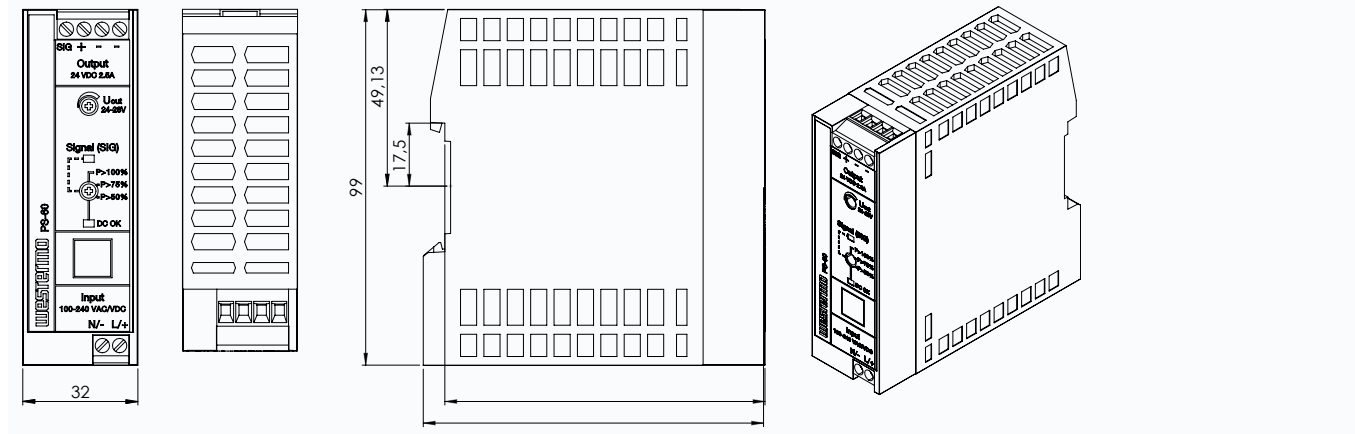
With its wide operating temperature range and tolerance for tough shock and vibrations, installation in a multitude of conditions are possible. Combined with excellent MTBF values and a wide operating temperature range, the PS-60 can be used to power anything from a simple unmanaged switch to a managed, high end switch for substation automation. Whatever your needs, the PS-60 is an ideal companion.

#### Ordering information

| Art. no.  | Description                  |
|-----------|------------------------------|
| 3125-0150 | PS-60, DIN-rail Power Supply |

# Specifications - PS-60

## Dimensional drawing



## General data

|                        |                                       |
|------------------------|---------------------------------------|
| Dimensions (W x H x D) | 32 x 99 x 90 mm                       |
| Weight                 | 0.25 kg                               |
| MTBF hours             | 734,000 at 40 °C (IEC 61709, SN29500) |
| Housing                | Plastic (polycarbonate)               |
| Warranty               | 5 years                               |

## Input power data

|                                       |                                                          |
|---------------------------------------|----------------------------------------------------------|
| Rated input voltage                   | 100 to 240 VAC, 50 to 60 Hz or 110 to 250 VDC            |
| Operating input voltage               | 85 to 264 VAC, 45 to 66 Hz or 88 to 350 VDC              |
| Rated current (nominal)               | 0.39 A at 230 VAC, 0.75 A at 110 VDC                     |
| Electric strength, maximum            | 300 VAC for 30 s                                         |
| Discharge current to PE typical       | < 0.25 mA (264 V AC, 60 Hz)<br>0.22 mA (264 V AC, 60 Hz) |
| Mains buffering (120 and 130 VAC)     | > 54 ms                                                  |
| Typical response time                 | 500 ms                                                   |
| Hold up time                          | 5 periods                                                |
| Protective circuit                    | Transient surge protection varistor                      |
| Switch-on current surge               | 4.3 A                                                    |
| Inrush surge current I <sup>2</sup> t | < 0.1 A <sup>2</sup> s                                   |
| Input fuse slow-blow, internal        | 3.15 A                                                   |

| Output power data                                                          |                                                                                                                                         |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Output voltage                                                             | 24 to 28 VDC, adjustable by potentiometer                                                                                               |
| Output current                                                             | 2.5 A<br>3,125 A (static boost, permanently available up to 40 °C)<br>5 A (dynamic boost, available for 5 sec up to 60 °C)              |
| Control deviation                                                          | < 0.5 % (Static load change 10 to 90%)<br>< 2 % (Dynamic load change 10 to 90 %, 10 Hz)<br>< 0.1 % (Change in input voltage $\pm 10$ %) |
| Short-circuit proof                                                        | Yes                                                                                                                                     |
| No-load proof                                                              | Yes                                                                                                                                     |
| Residual ripple                                                            | < 40 mVPP                                                                                                                               |
| Feedback resistance                                                        | $\leq 35$ VDC                                                                                                                           |
| Circuit breaker against surge voltage at output by invasive foreign matter | $\leq 35$ VDC (load impedance <90 mOhm)                                                                                                 |
| Rise time typical                                                          | 50 ms ( $U_{Out} = 10$ to 90 %)                                                                                                         |

| Environmental                     |                                                           |
|-----------------------------------|-----------------------------------------------------------|
| Ingress protection                | IP20                                                      |
| Operating temperature             | -25 to +70 °C (-40 °C startup) > 60 °C, derating: 2.5 %/K |
| Storage and transport temperature | -40 to +85 °C (-58 to +185 °F)                            |
| Humidity (operating)              | $\leq 95$ %                                               |
| Altitude                          | $\leq 5000$ m (>2000 m, observe derating)                 |

| Approvals |                                                                                                                                                                                                                                                                                                 |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EMC       | IEC 61850-3, Communication networks and systems for power utility automation – Part 3: General requirements<br>EN/IEC 61000-6-2, Immunity industrial environments<br>EN/IEC 61000-6-4, Emission industrial environments<br>EN/IEC 61000-6-5, Immunity power station and substation environments |
| Safety    | IEC 61558-2-16, Safety of power supply units etc.<br>EN/IEC/UL 61010-1 Safety requirements for electrical equipment for measurement, control, and laboratory use<br>EN/IEC/UL 61010-1 (SELV), EN/IEC/UL 61010-2-201 (PELV)                                                                      |
| Trackside | EN 50121-4/IEC 62236-4, Railway signalling and telecommunications apparatus                                                                                                                                                                                                                     |