A major step forward for protection relays

Easergy P5 protection relay

The Easergy P5 is a protection relay for demanding medium-voltage applications. It offers users dedicated features for industry-leading protection relay functionality to reduce risks, improve reliability, all with advanced connectivity.

The Easergy P5 is part of the PowerLogic range of power monitoring and control solutions.

It has been built on more than 100 years of experience in protection relays.

Additionally, it can be used with a range of digital tools that make everyday operations simpler for users.

Product at a glance:

- Industry-leading protection functions
- Best-in-class reliability
- Maximized everyday simplicity

schneider-electric.com/easergy-p5
Enjoy a package of sought-after features in one device

The Easergy P5 presents a major step forward for protection relays, bringing a number of best-in-class features together in one device.

**Built-in arc-flash protection functions**
Arc-flashes will always exist when switching or during unexpected conditions. Arc-flash protection functions detect if an arc-flash exists, and take action within milliseconds to isolate the connected circuit breaker, meaning that arc-flash energy should not grow and cause unexpected outages or risks.

**Advanced cybersecurity**
IEC 62443 compliant, the P5 has been designed with an optional cybersecurity package. This means reduced exposure to cyber threats and improved operational security. By default, the Easergy P5 includes important features such as password management, port hardening, and secured communication compliant to the latest international standards.

**Intuitive withdrawable design**
With a handle built in as part of the design, the P5 can be quickly disconnected or exchanged to speed up maintenance. Wiring, data, communication, and settings (including backup) can be stored with the panel and will be there when the relay is reconnected.

**Improved recovery time**
When maintenance or testing is required, Easergy P5 helps dramatically decrease your outage recovery time. The backup memory can automatically restore settings, you can continue your operations in as little as 10 minutes.*

*Result of mean time to repair (MTTR) calculation conducted by Schneider Electric

**Greater connectivity**
The protection relay features seven communication protocols. This includes compliance with IEC 61850 ed. 1 and ed. 2, Modbus (serial/TCP), IEC 60870-5-103, IEC 60870-5-101, Ethernet/IP, and DNP3 (serial/TCP). Additionally, thanks to the P5's modular design, communication ports can be added at any time to enable you to upgrade your device in line with future network evolutions.
Make everyday operations easier with digital tools

The Easergy P5’s industry leading protection features are complemented by a comprehensive set of tools available on mobile devices such as smartphones or tablets, and desktop computers. This means you get simpler installation, configuration, and maintenance, enabling you to save time and money. Nearby control and monitoring allows users to fully operate the device via wireless communication, from a safer distance.

Digital tools for the Easergy P5 include:

- The EcoStruxure Power Build – Medium Voltage online ordering tool for quicker and easier ordering
- The eSetup Easergy Pro software with virtual injection testing
- An embedded web server, allowing easy and fast settings changes
- The EcoStruxure™ Power Device app for simpler and safer operation and maintenance
- The mySchneider app, a simple way to access support and product data just by flashing the QR code on the device

As an EcoStruxure-ready solution, the Easergy P5’s digital benefits can be taken even further with best-in-class monitoring of substation equipment health. For example, when paired with EcoStruxure Asset Advisor software, users get data for predictive maintenance, which helps them reduce OpEx, speed up processes, and boost efficiency.
Easergy P5 contains two main devices, each with specific functions to address your needs in a one-box design, regardless of application.

<table>
<thead>
<tr>
<th>Easergy P5x20</th>
<th>Easergy P5x30</th>
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<tbody>
<tr>
<td><strong>P5V20</strong></td>
<td><strong>PSF30</strong> (with directional)</td>
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<tr>
<td><strong>-</strong></td>
<td><strong>PSM30</strong></td>
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**Characteristics**

- **Voltage**
  - P5V20: VT (x4)
  - P5U20: VT (x4) or LPVT (x4) (*)

- **Feeder**
  - P5F30: VT (x4) or CSH

- **Transformer**
  - P5T30: VT (x4) or LPVT (x4) (*)

- **Motor**
  - P5M30: VT (x4) or CSH

**Measuring inputs**

- **Phase current**
  - 1/5A CT (x3) (*)

- **Residual current**
  - 1/5A CT & 1A CT or CSH

- **Voltage**
  - VT (x4) or LPVT (x4) (*)

**Arc-flash sensor inputs**

- **0 to 6 point sensors**

**Digital Imports**

- **4 to 10**

**Outputs**

- **3 to 7 + WD**

**Analog Imports**

- **-**

**Outputs**

- **-**

**Temperature sensor input**

- **- 0 to 16 (external module)**

**Front ports**

- **USB device and USB host**

**Nominal Power Supply**

- **- 24-250 VDC ; 100-230 VAC**

**Ambient temperature, in service**

- **- -40 to 70°C (-40 to 158°F)**

**Communication**

- **Extension + Backup memory**
  - IEC 61850 Ed.1 & Ed.2
  - IEC 60870-5-103 & 101

- **Serial**
  - DNP3 Ethernet
  - DNP3 serial

- **Ethernet**
  - Modbus Ethernet
  - Modbus serial

- **EtherNet IP**
  - RSTP
  - PRP / HSR

**Redundancy protocols**

- **RSTP**

- **PRP / HSR**

**Others**

- **Control**
  - 6 controlled + 2 monitored objects Mimic

- **Logic (Matrix + Logic Equations)**
  - 102/176/219 mm

- **Cyber security**
  - 4.0/6.93/8.62 in

- **Draw-out device**

- **Hardware dimensions (H/W/D)**

(*) Contact us for availability

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