

# Product data sheet

Specifications



## protection relay Easergy P1F 24-250V 3CT 1Io: 0.01-2IN 0DI-4DO RS485

REL15002

### Main

|                                       |   |
|---------------------------------------|---|
| Range of product                      | Easergy P1  |
| Product or component type             | Protection relay  |
| Relay application                     | Feeder  |
| Product reference                     | P1  |
| Device mounting                       | Flush   |
| Mounting support                      | Fixing kit  |
| Mounting mode                         | Flush-mounted   |
| Power supply                          | 24...240 V AC<br>24...250 V DC  |
| Measuring inputs                      | : 1/5 A CT phase current 0  |
| Number of Digital Inputs (DI)         | 0   |
| Number of Digital Outputs (DO)        | 4 DO<br>1 watchdog  |
| Type of temperature module connection | 1 twisted shielded pair   |
| Communication ports                   | RS485 1 rear  |
| Communication protocols               | CEI 60870-5-103<br>Modbus RTU   |
| Cybersecurity                         | Password protection   |
| Protection functions                  | Breaker failure 50BF<br>Phase overcurrent 50/51<br>Earth fault overcurrent 50N/51N<br>Lockout relay 86<br>Cold load pick-up |
| Arc flash protection                  | No  |
| Measurement functions                 | Current 3-phase<br>Current RMS<br>Current peak<br>Frequency   |
| Control functions                     | I/O push-button   |
| Monitoring functions                  | Trip circuit supervision 74<br>Relay self-monitoring  |
| Logs and records                      | Trip context information  |
| Switchgear diagnosis type             | Trip circuit supervision ANSI code: TCS   |
| Connections - terminals               | Snap-on fixed   |

## Complementary

|                                       |   |
|---------------------------------------|---|
| <b>Maximum power consumption in W</b> | 13.5 W AC<br>4 W DC   |
| <b>Display type</b>                   | and graphic display terminal  |
| <b>Number of key</b>                  | 9   |
| <b>Local signalling</b>               | 6 x LED red/orange programmable<br>1 x LED red relay trip indicator<br>1 x LED green watchdog |
| <b>Device connection</b>              | Serial port 1 shielded twisted pair   |
| <b>Communication compatibility</b>    | IEC 60870-5-103<br>Modbus RTU   |
| <b>Standards</b>                      | EN 60255-26:2009<br>EN 60255-1:2010<br>EN 60255-27:2005                                       |
| <b>Product certifications</b>         | CE  |
| <b>Height</b>                         | 101.5 mm embedded:<br>116.5 mm total:   |
| <b>Width</b>                          | 101.5 mm embedded:<br>116.5 mm total:   |
| <b>Depth</b>                          | 108 mm embedded:<br>119 mm total:   |
| <b>Net weight</b>                     | 0.8 kg maximum  |

## Environment

|  |  |
|--|--|
| <b>Directives</b>                            | 2006/95/EC - low voltage directive<br>2004/108/EC - electromagnetic compatibility  |
| <b>Electromagnetic compatibility</b>         | Electromagnetic immunity level 3 conforming to EN 61000-4-2/3/4/5/6/8  |
| <b>Mechanical robustness</b>                 | Seismic tests: 2 Gn horizontal, 1 Gn vertical conforming to EN 60255-21-3<br>Shocks (level: class 1) : 5 Gn for 11 ms conforming to EN 60255-21-2<br>Shocks withstand (level: class 1) : 10 Gn for 16 ms conforming to EN 60255-21-2<br>Bumps (level: class 1) : 15 Gn for 11 ms conforming to EN 60255-21-2<br>Vibrations (level: class 1) : 1 Gn, 10...150 Hz, 1 cycle conforming to EN 60255-21-1 |
| <b>Ambient air temperature for operation</b> | -25...60 °C<br>-30...70 °C ( 16 h )  |
| <b>Ambient air temperature for storage</b>   | -30...70 °C  |
| <b>IP degree of protection</b>               | IP54 conforming to IEC 60529   |
| <b>Relative humidity</b>                     | 0...93 % at 40 °C, 21 days<br>0...93 % at 60 °C, 10 days<br>93 % at 25...55 °C, 6 cycles, 12 + 12 hours  |

## Packing Units

|                                     |         |
|-------------------------------------|---------|
| <b>Unit Type of Package 1</b>       | PCE     |
| <b>Number of Units in Package 1</b> | 1       |
| <b>Package 1 Height</b>             | 19.5 cm |
| <b>Package 1 Width</b>              | 16.5 cm |
| <b>Package 1 Length</b>             | 16.5 cm |
| <b>Package 1 Weight</b>             | 917.0 g |
| <b>Unit Type of Package 2</b>       | S03     |
| <b>Number of Units in Package 2</b> | 6       |
| <b>Package 2 Height</b>             | 30.0 cm |
| <b>Package 2 Width</b>              | 30.0 cm |

|                  |          |
|------------------|----------|
| Package 2 Length | 40.0 cm  |
| Package 2 Weight | 5.943 kg |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| REACH Regulation           | <a href="#">REACH Declaration</a>   |
| EU RoHS Directive          | Compliant<br><a href="#">EU RoHS Declaration</a>  |
| Mercury free               | Yes   |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a>  |
| RoHS exemption information | Yes   |
| Circularity Profile        | <a href="#">End of Life Information</a>   |
| California proposition 65  | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |

## Recommended replacement(s)