

Product data sheet

Specifications



REL52109 discontinued. To order it, click on blue Product Selector button, configure P3U30, and use its output xml file

REL52109

⚠ Discontinued

⚠ Discontinued on: Jun 30, 2023

Main

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|---------------------------------------|--|
| Range Of Product | Easergy P3 |
| Product Or Component Type | Protection relay |
| Relay Application | Feeder |
| Product Reference | P3F30-CGIAA-AAECA-BAAAA |
| Power Supply | 48...230 V AC/DC |
| Measuring Inputs | : 1/5 A CT phase current 3 : 5/1 A CT residual current 1 : 1/0.2 A CT residual current 1 : 100 V/110 V VT voltage 4 |
| Number Of Digital Inputs (Di) | 16 |
| Number Of Digital Outputs (Do) | 1 watchdog 9 |
| Number Of Analogue Outputs | 0 |
| Type Of Temperature Module Connection | Copper cable external module Fiber optic cable external module |
| Communication Ports | USB port 1 front RS232 1 rear RJ45 1 rear |
| Communication Protocols | IEC 61850 ed. 1 IEC 61850 ed. 2 IEC 60870-5-101 IEC 60870-5-103 DNP3 DNP3 TCP Modbus RTU Modbus TCP EtherNet/IP Modbus TCP master SPAbus |
| Cybersecurity | Password protection Port hardening |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

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| Protection Functions | Phase overcurrent 50/51 |
| | Directional phase overcurrent 67 |
| | Earth fault overcurrent 50N/51N |
| | Directional earth fault 67N |
| | Transient earth fault 67NI |
| | Capacitor bank unbalance 51C |
| | Broken conductor 46 I2/I1 |
| | Cold load pick-up |
| | Switch ON to fault (SOTF) |
| | Breaker failure 50BF |
| | Directional active underpower 37P |
| | Fault locator 21FL |
| | Recloser 79 |
| | Phase undercurrent 37 |
| | Excessive starting time, locked rotor 48/51LR |
| | Motor restart inhibition 66 |
| | Capacitor overvoltage 59C |
| | Negative sequence overcurrent 46 |
| | Overvoltage 59 |
| | Undervoltage 27 |
| | Positive sequence undervoltage 27P |
| | Earth fault overvoltage 59N |
| | Underfrequency 81/81N |
| | Rate of change of frequency 81R |
| | Synchro-check 25 |
| | Lockout relay 86 |
| | CT supervision 60 |
| | VT supervision 60 |
| | H2 detection 68H2 |
| | H2 detection |
| | H5 detection 68H5 |
| | Programmable stages 99 |
| | Programmable curve |
| | H5 detection |
| Arc Flash Protection | No |
| Measurement Functions | Current 3-phase |
| | Current zero sequence |
| | Current positive sequence |
| | Current negative sequence |
| | Current ratio of negative and positive |
| | Voltage phase to earth |
| | Voltage phase to phase |
| | Voltage zero sequence |
| | Voltage positive sequence |
| | Voltage negative sequence |
| | Voltage ratio of negative and positive |
| | Short circuit fault reactance |
| | Fault location current |
| | Earth fault reactance |
| | Frequency |
| | Active power |
| | RMS active power |
| | Reactive power |
| | RMS reactive power |
| | Apparent power |
| | RMS apparent power |
| | Active energy |
| | Reactive energy |
| | Cos φ |
| | Tan φ |
| | Power angle |
| | Power factor |
| | Voltage phasor diagram view |
| | Current phasor diagram view |
| | Current 2nd, 15th harmonics with THD |
| | Voltage 2nd, 15th harmonics with THD |
| | Voltage interruption |
| | Condition monitoring CB wear |

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| Control Functions | Switchgear control and monitoring Programmable switchgear interlocking Local control on single-line diagram Local control with I/O keys Local/remote control 2 function keys Mobile application with Easergy SmartApp Web-server Programmable logic |
| Controllable Switchgear Devices | 6 controlled + 8 displayed |
| Number Of Setting Groups | 4 |
| Monitoring Functions | Trip circuit supervision 74 Circuit breaker monitoring Relay self-monitoring |
| Logs And Records | Event recording Disturbance recording Tripping context |
| Switchgear Diagnosis Type | CT/VT supervision ANSI code: 60 CT supervision Trip circuit supervision ANSI code: TCS |
| Connections - Terminals | Screw removable (digital input/output) Pin fixed (current transformer) Pin removable (voltage transformer) |

Complementary

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| Operating Threshold | 24...230 V AC/DC |
| Time Synchronisation Protocol | SNTP IRIG-B |
| Software Name | EcoStruxure Power Device ESetup Easergy Pro |
| Web Server | Embedded HTTP server |
| Display Type | LCD 128 x 128 pixels with single line diagram |
| Number Of Key | 2 customizable |
| Local Signalling | 2 LEDs 16 LEDs programmable |
| Standards | IEC |
| Height | 176 mm |
| Width | 270 mm |
| Depth | 230 mm |
| Net Weight | 4.2 kg maximum |

Environment

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| Electromagnetic Compatibility | Emission tests conforming to IEC/EN 60255-26 ed. 3 Emission tests class A conforming to CISPR 11 Emission tests class A conforming to CISPR 22 EMC immunity conforming to IEC/EN 60255-26 ed. 3 EMC immunity conforming to EN/IEC 61000-4-18 EMC immunity level 4 conforming to EN/IEC 61000-4-2 EMC immunity level 3 conforming to EN/IEC 61000-4-3 EMC immunity level 4 conforming to EN/IEC 61000-4-4 EMC immunity level 3 conforming to EN/IEC 61000-4-5 EMC immunity level 3 conforming to EN/IEC 61000-4-6 EMC immunity conforming to EN/IEC 61000-4-8 EMC immunity level 5 conforming to EN/IEC 61000-4-9 EMC immunity conforming to EN/IEC 61000-4-29 EMC immunity conforming to EN/IEC 61000-4-11 EMC immunity conforming to EN/IEC 61000-4-17 |
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| Mechanical Robustness | Vibrations (level: class II) conforming to IEC 60255-21-1 Vibrations: Fc conforming to IEC 60068-2-6 Shocks (level: class II) conforming to IEC 60255-21-2 Shocks: Ea conforming to IEC 60068-2-27 Seismic tests method A (level: class II) conforming to IEC 60255-21-3 Bumps (level: class II) conforming to IEC 60255-21-2 Bumps: Ea conforming to IEC 60068-2-27 |
| Climatic Withstand | Exposure to dry heat Bb tests conforming to EN/IEC 60068-2-2 Exposure to cold Ad tests conforming to EN/IEC 60068-2-1 Exposure to damp heat in service Db tests conforming to EN/IEC 60068-2-30 Exposure to damp heat in service Cab tests conforming to EN/IEC 60068-2-78 |
| Ambient Air Temperature For Operation | -40...65 °C |
| Relative Humidity | 0...95 %, without condensation |
| Maximum Operating Altitude | 2000 m |
| Protective Treatment | Conformal coating |

Packing Units

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| Unit Type Of Package 1 | PCE |
| Number Of Units In Package 1 | 1 |
| Package 1 Height | 26 cm |
| Package 1 Width | 21 cm |
| Package 1 Length | 31.5 cm |
| Package 1 Weight | 5.259 kg |

Contractual warranty

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| Warranty | Up to 10 years extended warranty (Standard warranty 2 years. Please check with your local SE representative for extended warranty availability and conditions) |
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Sustainability

Green Premium™ label is Schneider Electric’s commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.


[Learn more about Green Premium >](#)


[Guide to assess a product’s sustainability >](#)



Transparency RoHS/REACH

Well-being performance

 Mercury Free

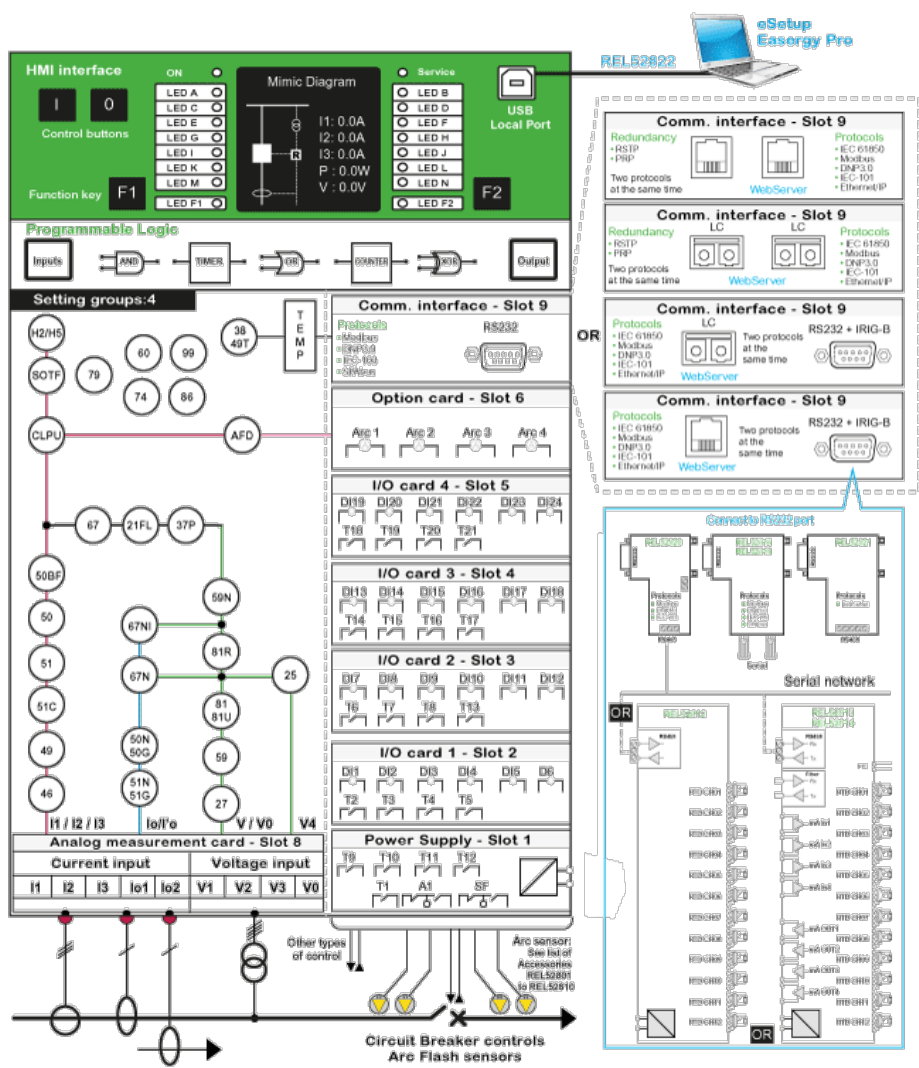
 Rohs Exemption Information [Yes](#)

Certifications & Standards

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| Reach Regulation | REACH Declaration |
| Eu Rohs Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| China Rohs Regulation | China RoHS declaration |
| Environmental Disclosure | Product Environmental Profile |
| Weee | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Circularity Profile | End of Life Information |

Connections and Schema

Functional View



Dimensions Drawings

Base Unit Dimensions

