

Product datasheet

Specifications



Easergy P5U20 24-250V 3CT 1CSH 4DI-4DO RSTP Eth RJ45

REL50332

Main

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| Range of product | Easergy P5 |
| Product or component type | Protection relay |
| Relay application | Universal |
| Product reference | P5U20-AABA-CABAH-AAAA |
| Mounting case size | 20TE |
| Device mounting | Flush |
| Mounting mode | Withdrawable |
| Power supply | 24...240 V DC 100...230 V AC |
| Measuring inputs | : 1/5 A CT phase current 3 : CSH residual current 1 |
| Number of sensors | 0 temperature sensor(s) 0 arc sensor(s) |
| Number of Digital Inputs (DI) | 4 |
| Number of Digital Outputs (DO) | 3 DO 1 watchdog |
| Number of analogue inputs | 0 |
| Number of analogue outputs | 0 |
| Communication ports | RJ45 2 rear Extension port 1 rear with backup memory USB port 2 front |
| Communication protocols | IEC 61850 ed. 1 IEC 61850 ed. 2 DNP3 over ethernet Modbus TCP EtherNet/IP |
| Cybersecurity | Password protection Port hardening Firmware signature Client IP address filter Secured communication with associated tools |
| Protection functions | Phase overcurrent 50/51 Earth fault overcurrent 50N/51N Capacitor bank unbalance 51C Broken conductor 46 I2/I1 Current unbalance 46 I2/I1 Cold load pick-up Switch ON to fault (SOTF) H2 detection H5 detection Breaker failure 50BF Recloser 79 Thermal overload protection 49 |

Phase undercurrent 37
 Negative sequence overcurrent 46
 Excessive starting time, locked rotor 48/51LR
 Motor restart inhibition 66
 Capacitor overvoltage 59C
 Lockout relay 86
 CT supervision 60
 Programmable stages 99
 Programmable logic
 Programmable curve

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| Measurement functions | Current 3-phase Current zero sequence Current positive sequence Current negative sequence Current ratio of negative and positive Frequency Phasor diagram of currents or voltages Current 2nd, 15th harmonics with THD |
| Control functions | Switchgear control and monitoring Programmable switchgear interlocking Local/remote control |
| Controllable switchgear devices | 6 controlled + 2 monitored objects |
| 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 Relay maintenance |
| Switchgear diagnosis type | CT supervision ANSI code: 60 Trip circuit supervision ANSI code: 74 |
| Connections - terminals | Screw (digital input/output) Ring lugs (analog inputs and outputs) |

Complementary

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| Time synchronisation protocol | SNTP |
| Web server | Embedded HTTP server |
| Software name | EcoStruxure Power Device ESetup Easergy Pro: virtual simulation test |
| Display type | and LCD 192 x 96 pixels |
| Number of key | 1 customizable |
| Local signalling | 4 x LED 6 x LED tri-colour programmable |
| Height | 176 mm |
| Width | 102 mm |
| Depth | 219 mm |
| Net weight | 2.5 kg |

Environment

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| Electromagnetic compatibility | Emission tests class A conforming to CISPR 11 Emission tests class A conforming to CISPR 22 Emission tests conforming to IACS E10 EMC immunity class 4 conforming to IEC 61000-4-2 EMC immunity class 4 conforming to ANSI C37.90.3 EMC immunity level 3 conforming to IEC 61000-4-3 EMC immunity conforming to ANSI C37.90.2 EMC immunity conforming to GOST 32137 EMC immunity conforming to GOST 30804.4.3 EMC immunity conforming to IACS E10 EMC immunity level 5 conforming to IEC 61000-4-8 EMC immunity level 5 conforming to IEC 61000-4-9 EMC immunity level 5 conforming to IEC 61000-4-10 EMC immunity level 3 conforming to IEC 61000-4-6 EMC immunity level 3 conforming to IEC 61000-4-18 EMC immunity conforming to ANSI C37.90.1 EMC immunity conforming to IEC 61000-4-12 EMC immunity conforming to GOST 30804.4.12 EMC immunity level 4 conforming to IEC 61000-4-16 |
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EMC immunity level 4 conforming to IEC 61000-4-4
EMC immunity level 4 conforming to IEC 61000-4-5

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| Mechanical robustness | Vibrations (level: class 2) conforming to IEC 60255-21-1 Vibrations conforming to GOST 17516.1 Vibrations conforming to IACS E10 Shocks (level: class 2) conforming to IEC 60255-21-2 Earthquakes (level: class 2) conforming to IEC 60255-21-3 |
| Climatic withstand | Exposure to cold conforming to IEC 60068-2-1 Exposure to dry heat conforming to IEC 60068-2-2 Exposure to damp heat in service conforming to IEC 60068-2-78 Exposure to damp heat in service conforming to IEC 60068-2-30 Temperature variation conforming to IEC 60068-2-14 Salt mist conforming to IEC 60068-2-52 Influence of corrosion/gas test 2 conforming to IEC 60068-2-60 Influence of corrosion/gas test 4 conforming to IEC 60068-2-60 Influence of corrosion/gas test 2 conforming to IEC 60721-3-3 Influence of corrosion/gas test 4 conforming to IEC 60721-3-3 |
| Ambient air temperature for operation | -40...85 °C (16 h) -40...70 °C (96 h) |
| Ambient air temperature for storage | -40...85 °C |
| IP degree of protection | IP54 conforming to IEC 60529 |
| Relative humidity | 0...93 % at 40 °C, without condensation, 56 days 93...95 % at 25...55 °C, 6 cycles, 12 + 12 hours |
| Maximum operating altitude | 2000 m |
| Protective treatment | Conformal coating conforming to IEC 60068-2-52:Kb/1 Conformal coating conforming to IEC 60068-2-60:Ke Conformal coating conforming to IEC 60721-3-3:3C2 |

Packing Units

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| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Weight | 2.8 kg |
| Package 1 Height | 13.5 cm |
| Package 1 width | 27 cm |
| Package 1 Length | 37 cm |

Offer Sustainability

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| Sustainable offer status | Green Premium product |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS declaration |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End of Life Information |
| WEEE | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

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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