Product data sheet Characteristics

REL52047

Easergy P3U30, 4L ringlug, 4U, 16DI/8DO, Uaux: 48-230V, DI: 24-230V, RS-485





Main

| IVICIII | | 6 |
|---------------------------------------|---|--|
| Range of product | Easergy P3 | |
| Product or component type | Protection relay | ţ |
| Relay application | Universal | |
| Product reference | P3U30-6AAA1BBAA | |
| Power supply | 48230 V AC/DC | (>> ::: |
| Measuring inputs | : 1/5 A CT phase current 3 : 1/5 A CT residual current 1 : 100 V/110 V VT voltage 4 | rije Po od |
| Number of sensors | 0 temperature sensor(s) 0 arc sensor(s) | - c. |
| Number of Digital Inputs (DI) | 16 | |
| Number of Digital Outputs (DO) | 1 watchdog 8 | ************************************** |
| Number of analogue inputs | 0 | |
| Number of analogue outputs | 0 | |
| Type of temperature module connection | Copper cable external module Fiber optic cable external module | <u></u> |
| Communication ports | USB port 1 front RS485 1 rear | , y d |
| Communication protocols | IEC 60870-5-101 IEC 60870-5-103 DNP3 Modbus RTU DeviceNet SPAbus | This documentation is not intended as a substitute for and is not to be lead for defamiliary of these and the product of the p |
| Cybersecurity | Password protection Port hardening | |
| Protection functions | Phase overcurrent 50/51 Directional phase overcurrent 67 Earth fault overcurrent 50N/51N Directional earth fault 67N Transient earth fault 67NI | olojin ar Thie documan |

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

H5 detection 68H5

Programmable stages 99

Programmable curve

Arc flash protection

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

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 kevs

Mobile application with Easergy SmartApp

Web-server

Programmable logic

Controllable switchgear devices

4 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) Ring lugs removable (current transformer) Pin removable (voltage transformer) |

Complementary

| Operating threshold | 24230 V AC/DC |
|---------------------|--|
| Web server | Embedded HTTP server |
| Software name | EcoStruxure Power Device ESetup Easergy Pro |
| Number of key | 2 customizable |
| Local signalling | 4 LEDs 8 LEDs programmable |
| Standards | IEC |
| Height | 169.5 mm |
| Width | 170 mm |
| Depth | 205 mm |
| Net weight | 2.5 kg maximum |
| | |

Environment

| 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 | |
| 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 Db tests conforming to EN/IEC 60068-2-30 | |
| Ambient air temperature for operation | -4065 °C | — |
| Ambient air temperature for storage | -4070 °C | — |
| IP degree of protection | IP54 conforming to IEC 60529 | — |
| Relative humidity | 095 %, without condensation | — |
| | <u> </u> | _ |
| Maximum operating altitude | 2000 m | _ |
| Protective treatment | Conformal coating | |

Packing Units

| Dealess 4 Weight | 2 200 1 |
|------------------|----------|
| Package 1 Weight | 3.200 kg |

| Package 1 Height | 21.000 cm | |
|------------------|-----------|--|
| Package 1 width | 26.000 cm | |
| Package 1 Length | 31.500 cm | |

Offer Sustainability

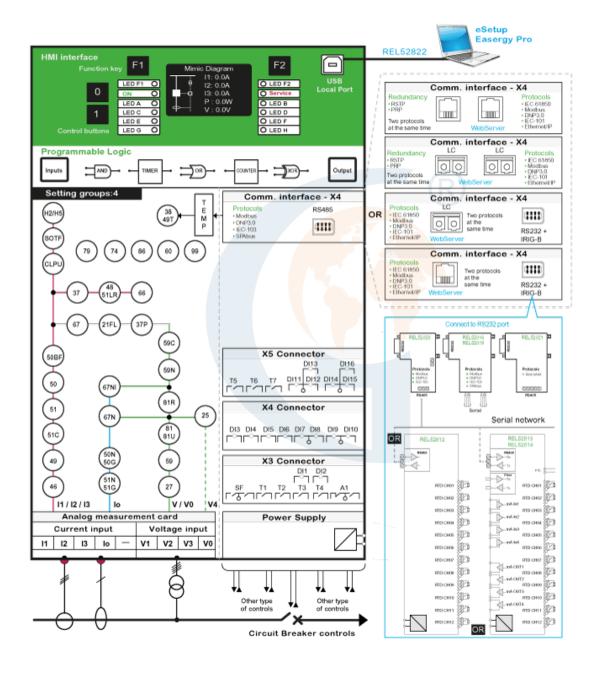
| Sustainable offer status | Green Premium product | |
|--|---|--|
| EU RoHS Directive Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration | | |
| Mercury free | Yes | |
| RoHS exemption information | Yes | |
| China RoHS Regulation | China RoHS declaration | |
| Environmental 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

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



Functional View

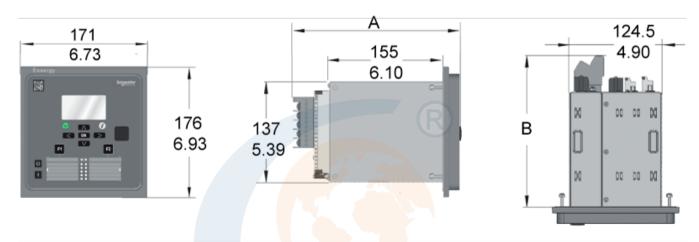


Product data sheet Dimensions Drawings

REL52047

Base Unit Dimensions

 $\frac{\text{mm}}{\text{in.}}$



| | Α | В |
|-------------------------|--------------|-------------|
| With screw connector | 214 mm/8.43" | 192 mm/7.6" |
| With ring-lug connector | 226 mm/8.90" | 204 mm/8.0" |