

# Product data sheet

Specifications



universal protection relay,  
PowerLogic P3U 3CT 1Io ringlug  
1VT 10DI 5DO 48-230V DI110V  
2RJ45

REL52015

## Main

|  |  |
|--|--|
| Range Of Product                       | PowerLogic P3  |
| Product Or Component Type              | Protection relay   |
| Relay Application                      | Universal  |
| Product Reference                      | P3U20-6AAA2ACAA  |
| Mounting Case Size                     | 20TE   |
| Power Supply                           | 48...230 V AC/DC   |
| Measuring Inputs                       | : 1/5 A CT phase current 3<br>: 1/5 A CT residual current 1<br>: 100 V/110 V VT voltage 1      |
| Number Of Sensors                      | 0 temperature sensor(s)<br>0 arc sensor(s)   |
| Number Of Digital Inputs (Di)          | 10   |
| Number Of Digital Outputs (Do)         | 1 watchdog<br>5  |
| Number Of Analogue Inputs              | 0  |
| Number Of Analogue Outputs             | 0  |
| Communication Ports                    | USB port 1 front<br>RJ45 2 rear  |
| Communication Protocols                | IEC 61850 ed. 1<br>IEC 61850 ed. 2<br>IEC 60870-5-101<br>DNP3 TCP<br>Modbus TCP<br>EtherNet/IP |
| Redundancy Communication Port Protocol | RSTP<br>PRP  |
| Cybersecurity                          | Password protection<br>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

|                                 |   |
|---------------------------------|---|
| Protection Functions            | Phase overcurrent 50/51<br>Earth fault overcurrent 50N/51N<br>Directional earth fault 67N<br>Transient earth fault 67NI<br>Capacitor bank unbalance 51C<br>Broken conductor 46 I2/I1<br>Cold load pick-up<br>Switch ON to fault (SOTF)<br>Breaker failure 50BF<br>Recloser 79<br>Phase undercurrent 37<br>Excessive starting time, locked rotor 48/51LR<br>Motor restart inhibition 66<br>Capacitor overvoltage 59C<br>Negative sequence overcurrent 46<br>Earth fault overvoltage 59N<br>Rate of change of frequency 81R<br>Lockout relay 86<br>H2 detection 68H2<br>H5 detection 68H5<br>Programmable stages 99<br>Programmable curve |
| Arc Flash Protection            | No  |
| Measurement Functions           | Current 3-phase<br>Current zero sequence<br>Current positive sequence<br>Current negative sequence<br>Current ratio of negative and positive<br>Voltage zero sequence<br>Earth fault reactance<br>Frequency<br>Current phasor diagram view<br>Current 2nd, 15th harmonics with THD<br>Condition monitoring CB wear  |
| Control Functions               | Switchgear control and monitoring<br>Programmable switchgear interlocking<br>Local control on single-line diagram<br>Local control with I/O keys<br>Local/remote control<br>2 function keys<br>Mobile application with Easergy SmartApp<br>Web-server<br>Programmable logic   |
| Controllable Switchgear Devices | 2 controlled + 4 displayed  |
| Number Of Setting Groups        | 4   |
| Monitoring Functions            | Trip circuit supervision 74<br>Circuit breaker monitoring<br>Relay self-monitoring  |
| Logs And Records                | Event recording<br>Disturbance recording<br>Tripping context  |
| Switchgear Diagnosis Type       | Trip circuit supervision ANSI code: TCS<br>CT supervision ANSI code: 60   |
| Connections - Terminals         | Screw removable (digital input/output)<br>Ring lugs removable (current transformer)<br>Pin removable (voltage transformer)  |

## Complementary

|                               |  |
|-------------------------------|--|
| Operating Threshold           | 110...230 V AC/DC                              |
| Time Synchronisation Protocol | SNTP   |
| Software Name                 | EcoStruxure Power Device<br>ESetup Easergy Pro |
| Web Server                    | Embedded HTTP server                           |
| Display Type                  | LCD 128 x 64 pixels with single line diagram   |

|                  |                               |
|------------------|-------------------------------|
| Number Of Key    | 2 customizable                |
| Local Signalling | 4 LEDs<br>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<br>Emission tests class A conforming to CISPR 11<br>Emission tests class A conforming to CISPR 22<br>EMC immunity conforming to IEC/EN 60255-26 ed. 3<br>EMC immunity conforming to EN/IEC 61000-4-18<br>EMC immunity level 4 conforming to EN/IEC 61000-4-2<br>EMC immunity level 3 conforming to EN/IEC 61000-4-3<br>EMC immunity level 4 conforming to EN/IEC 61000-4-4<br>EMC immunity level 3 conforming to EN/IEC 61000-4-5<br>EMC immunity level 3 conforming to EN/IEC 61000-4-6<br>EMC immunity conforming to EN/IEC 61000-4-8<br>EMC immunity level 5 conforming to EN/IEC 61000-4-9<br>EMC immunity conforming to EN/IEC 61000-4-29<br>EMC immunity conforming to EN/IEC 61000-4-11<br>EMC immunity conforming to EN/IEC 61000-4-17 |
| Mechanical Robustness                 | Vibrations (level: class II) conforming to IEC 60255-21-1<br>Vibrations: Fc conforming to IEC 60068-2-6<br>Shocks (level: class II) conforming to IEC 60255-21-2<br>Shocks: Ea conforming to IEC 60068-2-27<br>Seismic tests method A (level: class II) conforming to IEC 60255-21-3<br>Bumps (level: class II) conforming to IEC 60255-21-2<br>Bumps: Ea conforming to IEC 60068-2-27  |
| Climatic Withstand                    | Exposure to dry heat Bb tests conforming to EN/IEC 60068-2-2<br>Exposure to cold Ad tests conforming to EN/IEC 60068-2-1<br>Exposure to damp heat in service Db tests conforming to EN/IEC 60068-2-30<br>Exposure to damp heat in service Cab tests conforming to EN/IEC 60068-2-78   |
| Ambient Air Temperature For Operation | -40...65 °C   |
| Ambient Air Temperature For Storage   | -40...70 °C   |
| Ip Degree Of Protection               | IP54 conforming to IEC 60529  |
| Relative Humidity                     | 0...95 %, without condensation  |
| Maximum Operating Altitude            | 2000 m  |
| Protective Treatment                  | Conformal coating   |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type Of Package 1       | PCE     |
| Number Of Units In Package 1 | 1       |
| Package 1 Height             | 26 cm   |
| Package 1 Width              | 21.5 cm |
| Package 1 Length             | 31.5 cm |
| Package 1 Weight             | 3.5 kg  |

## 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) |
|----------|--|

# 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-CO<sub>2</sub> 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 >](#)

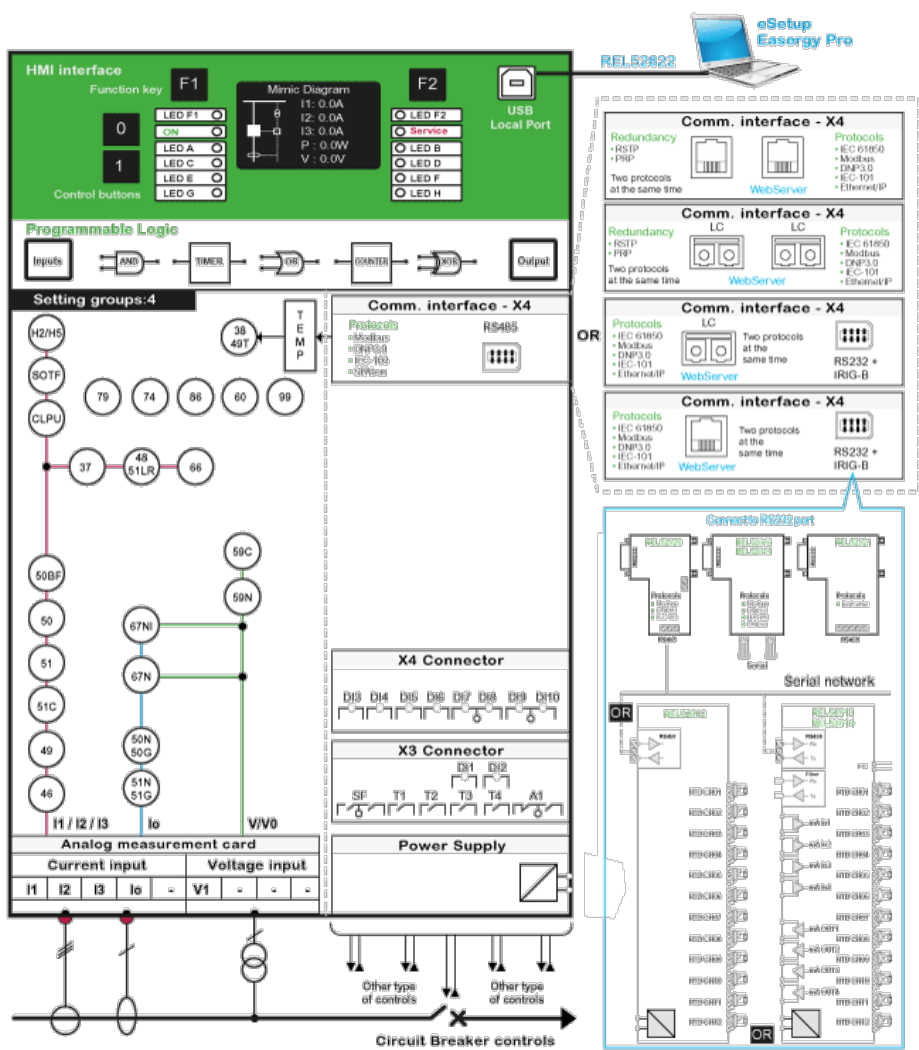


## Transparency

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

Connections and Schema

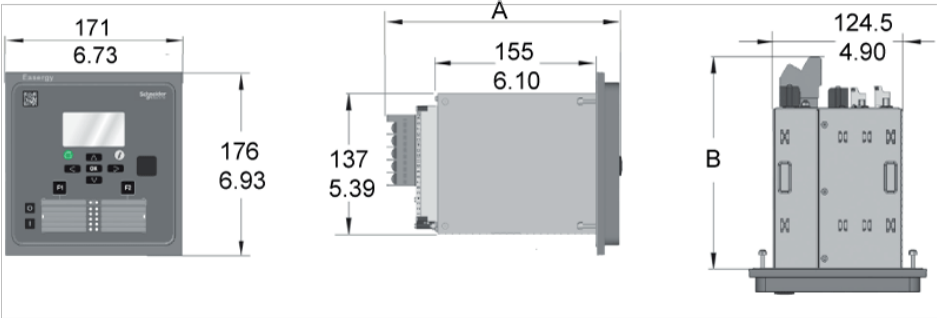
Functional View



Dimensions Drawings

Base Unit Dimensions

mm  
in.



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