

# Product data sheet

Specifications



universal protection relay,  
PowerLogic P3U 3CT 1Io RINGLUG  
4VT 8DI 16DO 48-230V DI24V  
RS485 ANSI

REL53003

## Main

Range of product	PowerLogic P3
Product or component type	Protection relay
Relay application	Universal
product reference	P3U30-6AAA2BEAB
Mounting case size	30TE
Device mounting	Flush
Mounting mode	Flush mounting
power supply	48...230 V AC/DC
measuring inputs	3 1/5 A CT phase current 1 1/5 A CT residual current 4 100 V/110 V VT voltage
number of Digital Inputs (DI)	16
number of analogue inputs	0
number of Digital Outputs (DO)	8 DO 1 watchdog
number of analogue outputs	0
communication ports	Front USB port 1 Rear RS232 1 Rear RJ45 1
communication protocols	IEC 60870-5-101 IEC 60870-5-103 DNP3 Modbus RTU DeviceNet 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  
H2 detection 68H2  
H5 detection 68H5  
Cold load pick-up 50/51  
Breaker failure 50BF  
Switch ON to fault (SOTF)  
Directional active underpower 37P  
Fault locator 21FL  
Recloser 79  
Phase undercurrent 37  
Switch ON to fault (SOTF) 59N  
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  
Programmable stages 99 8  
Programmable curve 99 8

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**Arc flash protection**

No

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**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  
Frequency 2nd, 15th harmonics with THD  
Reactive power  
RMS reactive power  
Apparent power  
RMS apparent power  
Active energy  
Reactive energy  
Active power positive sequence  
Cos  $\phi$   
Tan  $\phi$   
Power angle  
Power factor  
RMS active power negative sequence  
Voltage phasor diagram view  
Current phasor diagram view  
Current 2nd, 15th harmonics with THD  
Voltage 2nd, 15th harmonics with THD  
Condition monitoring CB wear  
Voltage interruption  
Reactive power phase to earth  
RMS reactive power phase to phase  
Condition monitoring CB wear 2nd, 15th harmonics with THD

<b>control functions</b>	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
<b>controllable switchgear devices</b>	4 controlled + 8 displayed
<b>number of setting groups</b>	4
<b>monitoring functions</b>	Trip circuit supervision 74 Circuit breaker monitoring Relay self-monitoring
<b>logs and records</b>	Event recording Disturbance recording Tripping context
<b>Switchgear diagnosis type</b>	CT supervision TCS Trip circuit supervision TCS
<b>Connections - terminals</b>	Screw removable (digital input/output) Pin removable (voltage transformer) Ring lugs removable (current transformer)

## Complementary

<b>Operating threshold</b>	24 V AC/DC
<b>Time synchronisation protocol</b>	SNTP
<b>Software name</b>	ESetup Easergy Pro virtual simulation test Easergy SmartApp
<b>Web server</b>	Embedded HTTP server
<b>Display type</b>	LCD 128 x 64 pixels with single line diagram
<b>Number of key</b>	2 customizable
<b>Local signalling</b>	4 LEDs 8 LEDs programmable
<b>Height</b>	6.7 in (169.5 mm)
<b>Width</b>	6.7 in (170 mm)
<b>Depth</b>	8.07 in (205 mm)
<b>Net weight</b>	5.5 lb(US) (2.5 kg) maximum

## Environment

<b>climatic withstand</b>	Exposure to dry heat Bb EN/IEC 60068-2-2 Exposure to cold Ad EN/IEC 60068-2-1 Exposure to damp heat in service Db EN/IEC 60068-2-30 Exposure to damp heat in service Cab EN/IEC 60068-2-78
<b>Mechanical robustness</b>	Vibrations class II) IEC 60255-21-1 VibrationsFc IEC 60068-2-6 Shocks class II) IEC 60255-21-2 ShocksEa IEC 60068-2-27 Seismic tests method A class II) IEC 60255-21-3

<b>Electromagnetic compatibility</b>	Emission tests IEC/EN 60255-26 ed. 3 Emission tests class A CISPR 11 Emission tests class A CISPR 22 EMC immunity IEC/EN 60255-26 ed. 3 EMC immunity EN/IEC 61000-4-18 EMC immunity level 4 EN/IEC 61000-4-2 EMC immunity level 3 EN/IEC 61000-4-3 EMC immunity level 4 EN/IEC 61000-4-4 EMC immunity level 3 EN/IEC 61000-4-5 EMC immunity level 3 EN/IEC 61000-4-6 EMC immunity EN/IEC 61000-4-8 EMC immunity level 5 EN/IEC 61000-4-9 EMC immunity EN/IEC 61000-4-29 EMC immunity EN/IEC 61000-4-11 EMC immunity EN/IEC 61000-4-17 EMC immunity IEC 60255-22-1 EMC immunity IEC 60255-22-2 EMC immunity IEC 60255-22-3 EMC immunity IEC 60255-22-4 EMC immunity IEC 60255-22-5 EMC immunity IEC 60255-22-6 EMC immunity IEC 60255-27 EMC immunity class III IEC 60255-5 EMC immunity EN/IEC 60255-1
<b>Ambient air temperature for operation</b>	-40...149 °F (-40...65 °C)
<b>IP degree of protection</b>	IP54 front IEC 60529
<b>maximum operating altitude</b>	2000 m
<b>Protective treatment</b>	Conformal coating
<b>Relative humidity</b>	0...95 %, without condensation

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	15.75 in (40 cm)
<b>Package 1 Width</b>	11.81 in (30 cm)
<b>Package 1 Length</b>	11.81 in (30 cm)
<b>Package 1 Weight</b>	8.4 lb(US) (3.8 kg)

## Contractual warranty

<b>Warranty</b>	Up to 10 years (Standard warranty 2 years. Please check with your local SE representative for extended warranty availability and conditions)
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## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Environmental footprint

[Environmental Disclosure](#)

[Product Environmental Profile](#)

## Use Better

### Materials and Substances

Packaging made with recycled cardboard **No**

Packaging without single use plastic **No**

EU RoHS Directive **Compliant with Exemptions**

REACH Regulation [REACH Declaration](#)

China RoHS Regulation [China RoHS declaration](#)

## Use Again

### Repack and remanufacture

[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

Take-back

No

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