

# Product data sheet

Specifications



## Easergy P3U 3CT 1Io 1VT 10DI 5DO 48-230V DI24V 2RJ45

REL52013

### Main

<b>Range of product</b>	Easergy P3
<b>Product or component type</b>	Protection relay
<b>Relay application</b>	Universal
<b>Product reference</b>	P3U20-5AAA1ACAA
<b>Power supply</b>	48...230 V AC/DC
<b>Measuring inputs</b>	: 1/5 A CT phase current 3 : 1/5 A CT residual current 1 : 100 V/110 V VT voltage 1
<b>Number of sensors</b>	0 temperature sensor(s) 0 arc sensor(s)
<b>Number of Digital Inputs (DI)</b>	10
<b>Number of Digital Outputs (DO)</b>	1 watchdog 5
<b>Number of analogue inputs</b>	0
<b>Number of analogue outputs</b>	0
<b>Communication ports</b>	USB port 1 front RJ45 2 rear
<b>Communication protocols</b>	IEC 61850 ed. 1 IEC 61850 ed. 2 IEC 60870-5-101 DNP3 TCP Modbus TCP EtherNet/IP
<b>Redundancy communication port protocol</b>	RSTP PRP
<b>Cybersecurity</b>	Password protection Port hardening
<b>Protection functions</b>	Phase overcurrent 50/51 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 Recloser 79 Phase undercurrent 37 Excessive starting time, locked rotor 48/51LR Motor restart inhibition 66 Capacitor overvoltage 59C Negative sequence overcurrent 46 Earth fault overvoltage 59N Rate of change of frequency 81R Lockout relay 86

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

H2 detection 68H2  
H5 detection 68H5  
Programmable stages 99  
Programmable curve

<b>Arc flash protection</b>	No
<b>Measurement functions</b>	Current 3-phase Current zero sequence Current positive sequence Current negative sequence Current ratio of negative and positive Voltage zero sequence Earth fault reactance Frequency Current phasor diagram view Current 2nd, 15th harmonics with THD Condition monitoring CB wear
<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>	2 controlled + 4 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>	Trip circuit supervision ANSI code: TCS CT supervision ANSI code: 60
<b>Connections - terminals</b>	Screw removable (digital input/output) Pin removable (current transformer) Pin removable (voltage transformer)

## Complementary

<b>Operating threshold</b>	24...230 V AC/DC
<b>Time synchronisation protocol</b>	SNTP
<b>Web server</b>	Embedded HTTP server
<b>Software name</b>	EcoStruxure Power Device ESetup Easergy Pro
<b>Number of key</b>	2 customizable
<b>Local signalling</b>	4 LEDs 8 LEDs programmable
<b>Standards</b>	IEC
<b>Height</b>	169.5 mm
<b>Width</b>	170 mm
<b>Depth</b>	205 mm
<b>Net weight</b>	2.5 kg maximum

## Environment

<b>Electromagnetic compatibility</b>	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

<b>Mechanical robustness</b>	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
<b>Climatic withstand</b>	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
<b>Ambient air temperature for operation</b>	-40...65 °C
<b>Ambient air temperature for storage</b>	-40...70 °C
<b>IP degree of protection</b>	IP54 conforming to IEC 60529
<b>Relative humidity</b>	0...95 %, without condensation
<b>Maximum operating altitude</b>	2000 m
<b>Protective treatment</b>	Conformal coating

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Weight</b>	3.31 kg
<b>Package 1 Height</b>	300 mm
<b>Package 1 width</b>	299 mm
<b>Package 1 Length</b>	398 mm
<b>Unit Type of Package 2</b>	S03
<b>Number of Units in Package 2</b>	1
<b>Package 2 Weight</b>	3.8 kg
<b>Package 2 Height</b>	30 cm
<b>Package 2 width</b>	30 cm
<b>Package 2 Length</b>	40 cm

## Offer Sustainability

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

# Contractual warranty

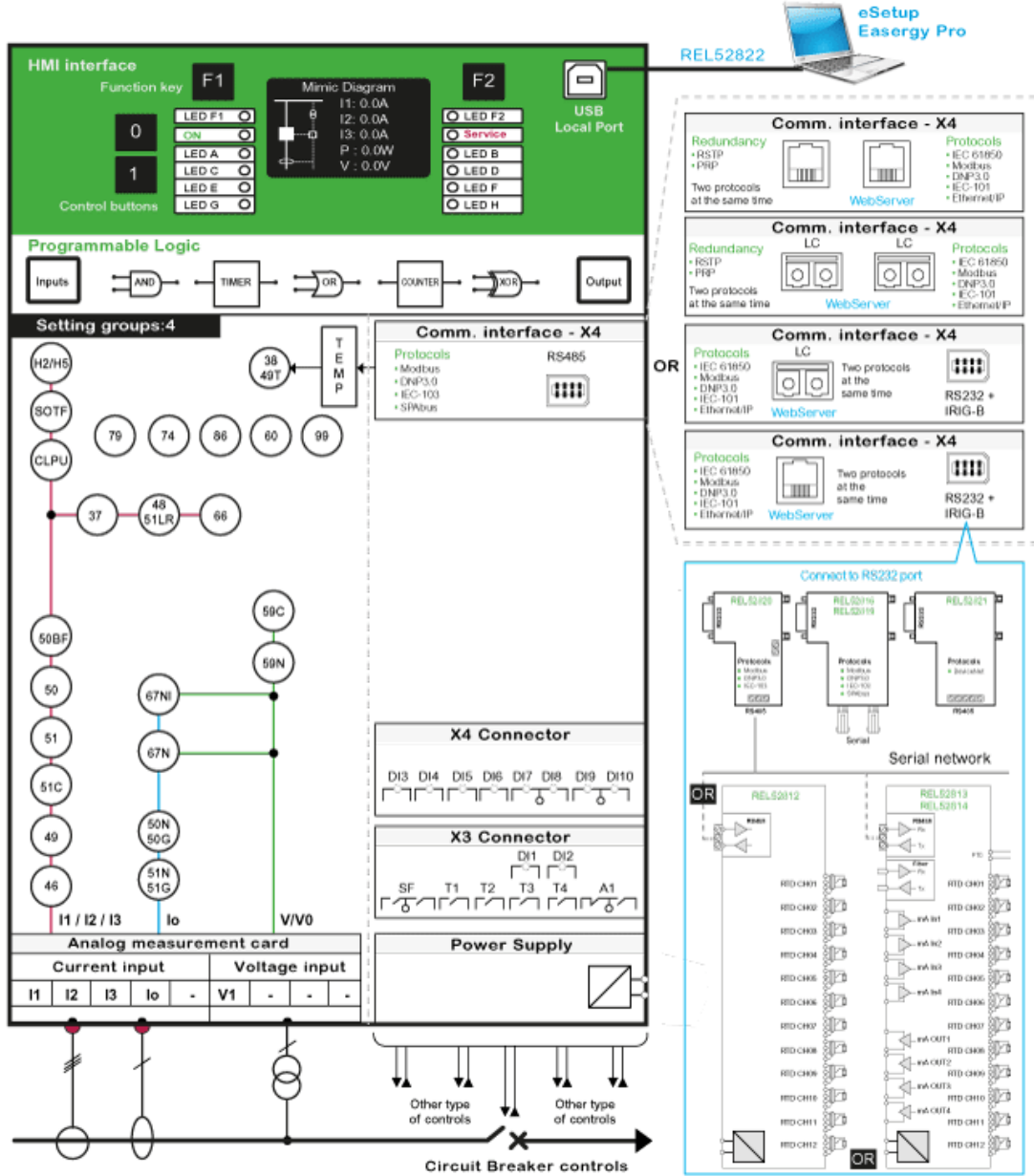
---

**Warranty**

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

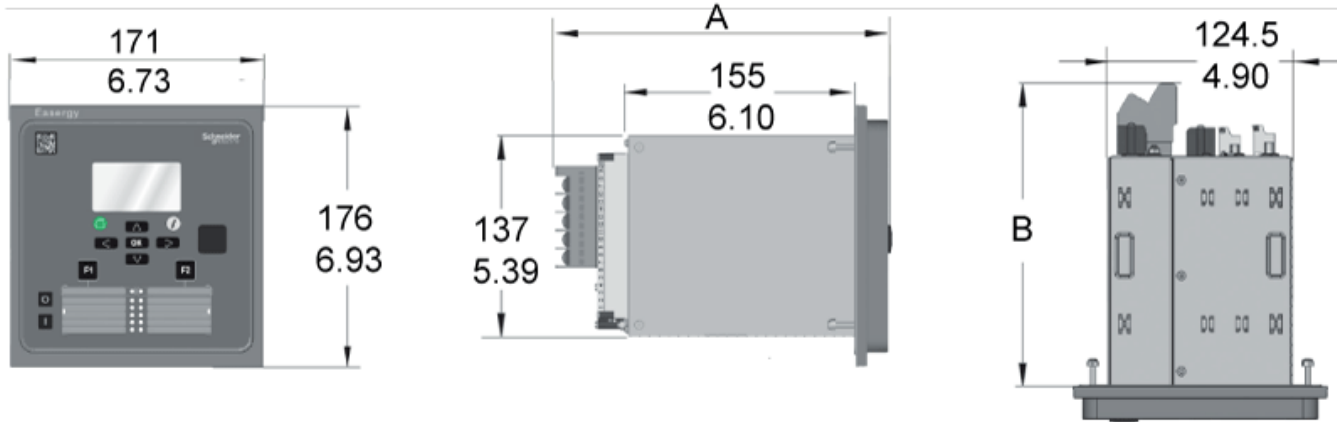
---

Functional View



**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"