



## Main

Range of product	Easergy P3
Product or component type	Protection relay
Relay application	Universal
Product reference	P3U30-5AAA2BCAA
Power supply	48...230 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
Number of sensors	0 temperature sensor(s) 0 arc sensor(s)
Number of Digital Inputs (DI)	16
Number of Digital Outputs (DO)	1 watchdog 8
Number of analogue inputs	0
Number of analogue outputs	0
Communication ports	USB port 1 front RJ45 2 rear
Communication protocols	IEC 61850 ed. 1 IEC 61850 ed. 2 IEC 60870-5-101 DNP3 TCP Modbus TCP Ethernet/IP
Redundancy communication port protocol	RSTP PRP
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 Capacitor bank unbalance 51C

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

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  
 H5 detection  
 Programmable stages 99  
 Programmable curve

Arc flash protection	No
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 $\varphi$ Tan $\varphi$ 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 keys 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) Pin removable (current transformer) Pin removable (voltage transformer)

## Complementary

Operating threshold	110...230 V AC/DC
Time synchronisation protocol	SNTP
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 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

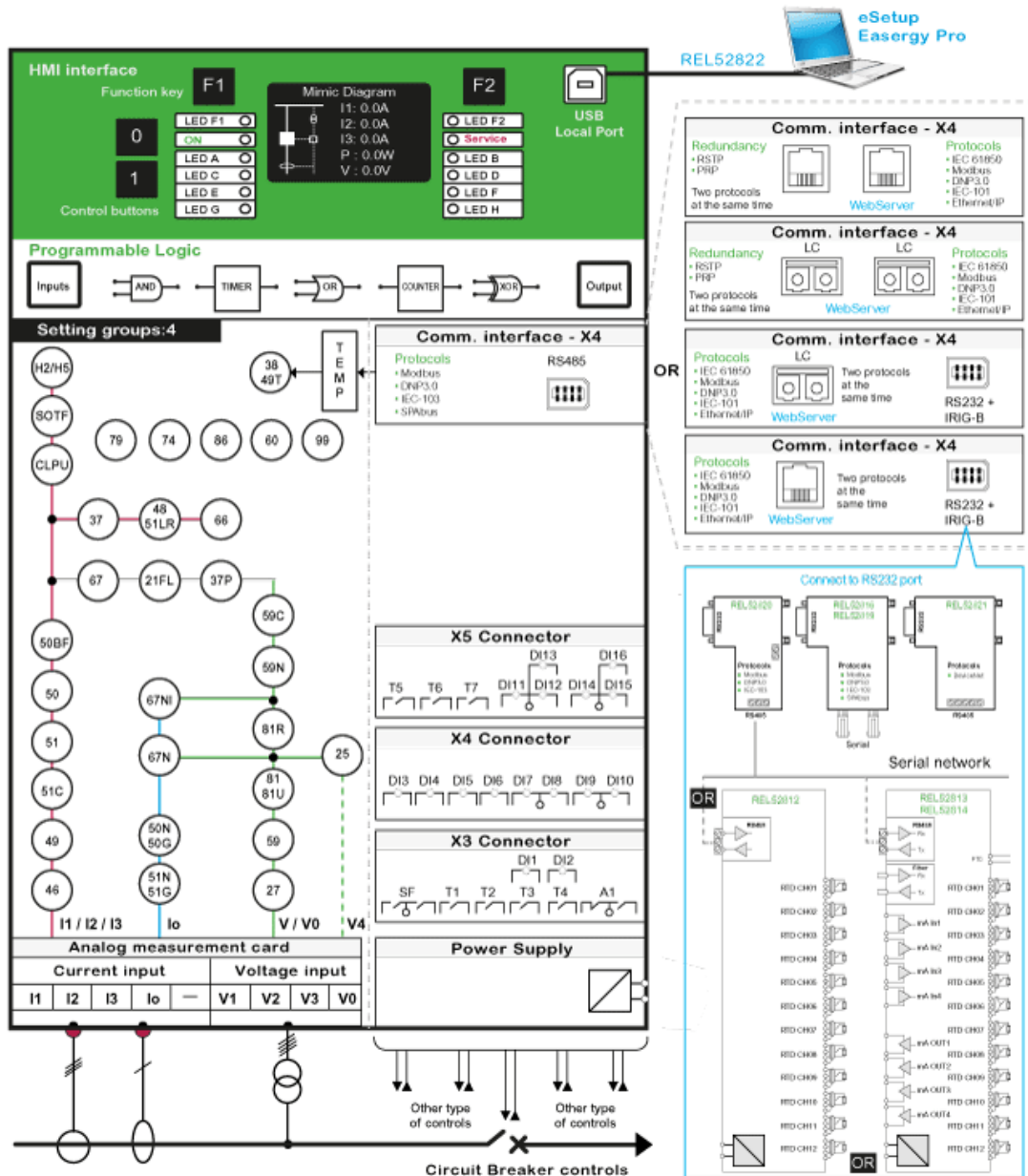
## Offer Sustainability

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

## Contractual warranty

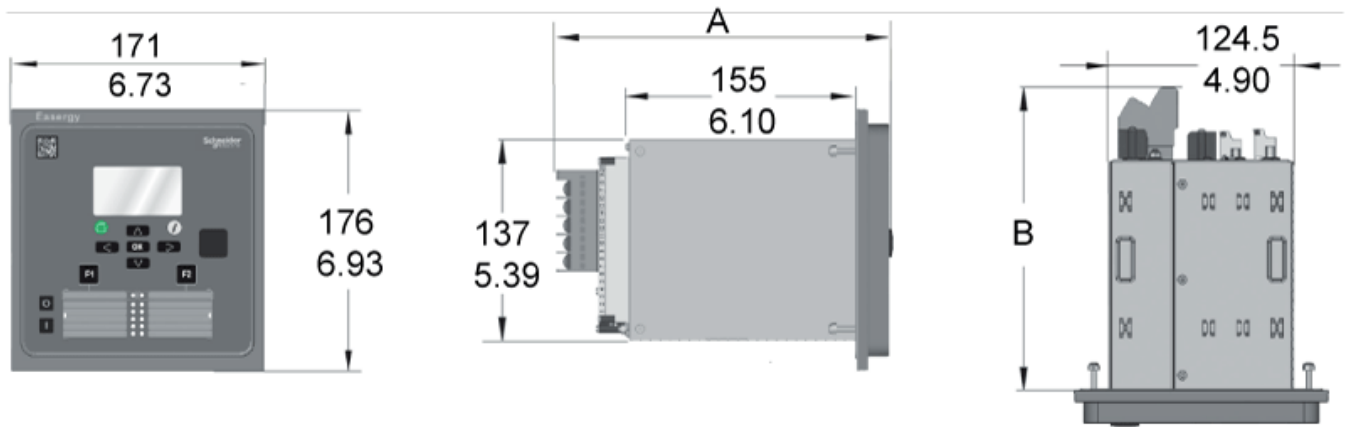
Warranty	Up to 10 years extended warranty (Standard warranty 2 years. Please check with your local SE representative for extended warranty availability and conditions)
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Functional View



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"