Product datasheet

Specifications

Easergy P3U 3CT 1Io 4VT 16DI 8DO 48-230V DI24V RS485

REL52005

Main

Range of product	PowerLogic P3
Product or component type	Protection relay
Relay application	Universal
product reference	P3U30-5AAA1BBAA
Mounting case size	30TE
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 Digital Inputs (DI)	16
number of analogue inputs	0
number of Digital Outputs (DO)	1 watchdog 8
number of analogue outputs	0
type of temperature module connection	Copper cable external module Fiber optic cable external module
communication ports	USB port 1 front RS485 1 rear
communication protocols	IEC 60870-5-101 IEC 60870-5-103 DNP3 Modbus RTU DeviceNet SPAbus
Cybersecurity	Port hardening Password protection

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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 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	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 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 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	24...230 V AC/DC
Software name	EcoStruxure Power Device 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 8 LEDs programmable
Standards	IEC
Height	169.5 mm
Width	170 mm
Depth	205 mm
Net weight	2.5 kg maximum

Environment

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
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
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

Ambient air temperature for operation	-40…65 °C
IP degree of protection	IP54 conforming to IEC 60529
maximum operating altitude	2000 m
Protective treatment	Conformal coating
Relative humidity	0…95 %, without condensation

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	21 cm
Package 1 Width	26 cm
Package 1 Length	32 cm
Package 1 Weight	3.18 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)

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	Yes
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
REACh Regulation	REACh Declaration
China RoHS Regulation	China RoHS declaration

Use Again

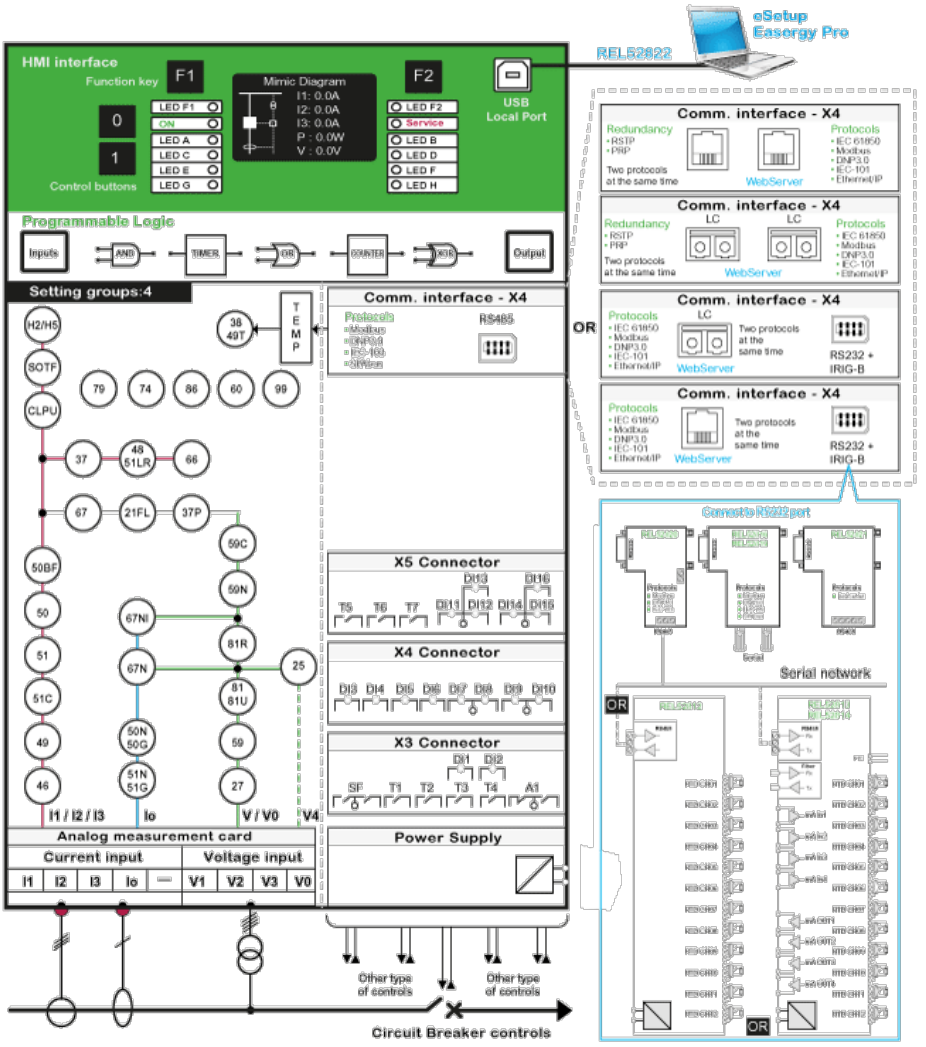
Repack and remanufacture

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**

Connections and Schema

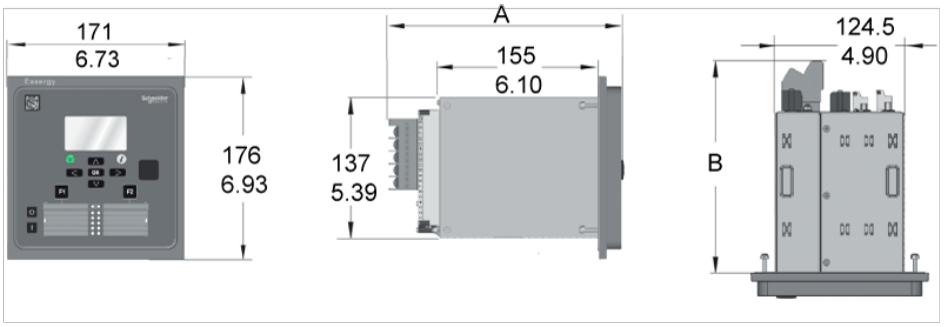
Functional View



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”