Product datasheet

Specifications

universal protection relay, PowerLogic P3U 3CT CSH 16DI 8DO 48-230V DI110 2LC RL

REL52095

Main

Range of product	PowerLogic P3
Product or component type	Protection relay
Relay application	Universal
product reference	P3U30-6CAA2BDAA
Mounting case size	30TE
Device mounting	Flush
Mounting mode	Flush mounting
power supply	48...230 V AC/DC
measuring inputs	: 1/5 A CT phase current 3 : CSH 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)	8 DO 1 watchdog
number of analogue outputs	0
communication ports	USB port 1 front LC 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	Negative sequence overcurrent 47 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 Cold load pick-up 67NI H2 detection 68H2 H5 detection 68H5 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) 46 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 Vector shift 78V 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
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 Short circuit fault reactance 2nd, 15th harmonics with THD Active power RMS active power Fault location current 3-phase Reactive power RMS reactive power Apparent power RMS apparent power Active energy Reactive energy Cos φ Earth fault reactance zero sequence Tan φ Power angle Power factor Voltage phasor diagram view Frequency phase to earth Current phasor diagram view Current 2nd, 15th harmonics with THD Voltage 2nd, 15th harmonics with THD Condition monitoring CB wear Voltage interruption Active power negative sequence RMS active power ratio of negative and positive

control functions	Switchgear control and monitoring Programmable switchgear interlocking Local control on single-line diagram Local control with I/O keys Programmable switchgear interlocking with I/O keys Local/remote control 2 function keys Mobile application with Easergy SmartApp Web-server Local/remote control on single-line diagram
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 supervision Trip circuit supervision ANSI code: TCS
Connections - terminals	Screw removable (digital input/output) Ring lugs removable (current transformer) Pin removable (voltage transformer)

Complementary

Operating threshold	110 V AC/DC
Time synchronisation protocol	SNTP
Software name	ESetup Easergy Pro: virtual simulation test Easergy SmartApp
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
Height	169.5 mm
Width	170 mm
Depth	205 mm
Net weight	2.5 kg maximum

Environment

climatic withstand	Exposure to dry heat Bd 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

Electromagnetic compatibility	Emission tests conforming to IEC/EN 60255-26 ed. 3 Emission tests class A conforming to IEC/EN 60255-26 ed. 3 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 conforming to IEC 60255-22-1 EMC immunity level 4 conforming to EN/IEC 61000-4-2 EMC immunity conforming to IEC 60255-22-2 EMC immunity level 3 conforming to EN/IEC 61000-4-3 Emission tests class A conforming to CISPR 22 ed. 3 EMC immunity level 4 conforming to EN/IEC 61000-4-4 EMC immunity conforming to IEC 60255-22-4 EMC immunity level 3 conforming to EN/IEC 61000-4-5 EMC immunity conforming to IEC 60255-22-5 EMC immunity level 3 conforming to EN/IEC 61000-4-6 EMC immunity conforming to IEC 60255-22-6 EMC immunity level 5 conforming to EN/IEC 61000-4-9 EMC immunity conforming to EN/IEC 61000-4-29 EMC immunity level 4 conforming to IEC 60255-22-2 EMC immunity level 4 conforming to IEC 60255-22-3 EMC immunity level 3 conforming to IEC 60255-22-4 EMC immunity conforming to IEC 60255-22-5 ed. 3 EMC immunity level 3 conforming to IEC 60255-22-6 EMC immunity level 5 conforming to EN/IEC 61000-4-29
Ambient air temperature for operation	-40…65 °C
IP degree of protection	IP54 front
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	29.0 cm
Package 1 Width	30.0 cm
Package 1 Length	40.0 cm
Package 1 Weight	3.51 kg

Contractual warranty

Warranty	Up to 10 years (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	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**