

Product datasheet

Specifications



universal protection relay,
PowerLogic P3U 3CT 1Io 16DI 8DO
24-48V DI24 RJ45 RS232 RL

REL53154

Main

Range of product	PowerLogic P3
Product or component type	Protection relay
Relay application	Universal
product reference	P3U30-6ABA1BEAB
Mounting case size	30TE
Device mounting	Flush
Mounting mode	Flush mounting
power supply	24...48 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)	8 DO 1 watchdog
number of analogue outputs	0
communication ports	USB port 1 front RJ45 1 rear RS232 1 rear
communication protocols	IEC 61850 ed. 1 IEC 61850 ed. 2 IEC 60870-5-101 DNP3 TCP Modbus TCP EtherNet/IP Modbus RTU Modbus TCP master 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

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 59
Breaker failure 50BF
Switch ON to fault (SOTF)
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
Switch ON to fault (SOTF) 50/51
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

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
Frequency positive sequence
RMS active power
Reactive power
RMS reactive power
Apparent power
RMS apparent power
Active energy
Reactive energy
Active power ratio of negative and positive
Cos φ
Tan φ
Power angle
Power factor
Voltage phasor diagram view
Current phasor diagram view
RMS active power zero sequence
Current 2nd, 15th harmonics with THD
Reactive power positive sequence
Voltage 2nd, 15th harmonics with THD
Condition monitoring CB wear
Voltage interruption
RMS reactive power negative sequence
Apparent 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 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 supervision ANSI code: TCS Trip circuit supervision ANSI code: TCS
Connections - terminals	Screw removable (digital input/output) Pin removable (voltage transformer) Pin removable (current transformer)

Complementary

Operating threshold	24 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 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

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 front 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	40 cm
Package 1 Width	30 cm
Package 1 Length	30 cm
Package 1 Weight	3.8 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)
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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 **Yes**

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
