Product data sheet

Specifications

universal protection relay, PowerLogic P3U 3CT 1Io 14DI 11DO 24-48V DI24 2RJ45 RL

REL53132

Discontinued on: Oct 3, 2024

Discontinued

Product availability: Non-Stock - Not normally stocked in distribution facility

Main

Range of Product	PowerLogic P3
Product or Component Type	Protection relay
Relay application	Universal
product reference	P3U30-6ABA1BHAB
Mounting case size	30TE
Device mounting	Flush
Mounting Mode	Flush mounting
power supply	24...48 V DC
measuring inputs	3 1/5 A CT phase current 1 1/5 A CT residual current 4 100 V/110 V VT voltage
Number of sensors	0 temperature sensor(s) 0 arc sensor(s)
number of Digital Inputs (DI)	14
number of analogue inputs	0
number of Digital Outputs (DO)	11 DO 1 watchdog
number of analogue outputs	0
communication ports	Front USB port 1 Rear RJ45 2
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

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

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 8 Broken conductor 46 I2/I1 Cold load pick-up 46 I2/I1 H2 detection 68H2 H5 detection 68H5 Breaker failure 50BF Cold load pick-up 81/81N Switch ON to fault (SOTF) 68H5 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 Switch ON to fault (SOTF) 37P 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 Programmable stages 99 8 Programmable curve 99 8
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 3-phase Earth fault reactance zero sequence Frequency positive sequence Frequency phasor diagram view Active power phase to earth RMS active power negative sequence Reactive power ratio of negative and positive RMS reactive power Apparent power RMS apparent power Active energy Active power 2nd, 15th harmonics with THD Reactive energy Cos φ Tan φ Power angle Power factor RMS active power 3-phase Voltage phasor diagram view Current phasor diagram view Current 2nd, 15th harmonics with THD Voltage 2nd, 15th harmonics with THD Condition monitoring CB wear phasor diagram view Voltage interruption 2nd, 15th harmonics with THD Reactive power phase to earth RMS reactive power phase to phase Apparent power negative sequence

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	5 controlled + 7 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 TCS Trip circuit supervision 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	6.7 in (169.5 mm)
Width	6.7 in (170 mm)
Depth	8.07 in (205 mm)
Net weight	5.5 lb(US) (2.5 kg) maximum

Environment

climatic withstand	Exposure to dry heat Bb EN/IEC 60068-2-2 Exposure to cold Ad EN/IEC 60068-2-1 Exposure to damp heat in service Db EN/IEC 60068-2-30 Exposure to damp heat in service Cab EN/IEC 60068-2-78
Mechanical robustness	Vibrations class II) IEC 60255-21-1 VibrationsFc IEC 60068-2-6 Shocks class II) IEC 60255-21-2 ShocksEa IEC 60068-2-27 Seismic tests method A class II) IEC 60255-21-3

Electromagnetic compatibility	Emission tests IEC/EN 60255-26 ed. 3 Emission tests CISPR 11 Emission tests CISPR 22 EMC immunity IEC/EN 60255-26 ed. 3 EMC immunity EN/IEC 61000-4-18 EMC immunity level 4 EN/IEC 61000-4-2 EMC immunity level 3 EN/IEC 61000-4-3 EMC immunity level 4 EN/IEC 61000-4-4 EMC immunity level 3 EN/IEC 61000-4-5 EMC immunity level 3 EN/IEC 61000-4-6 EMC immunity EN/IEC 61000-4-8 EMC immunity level 5 EN/IEC 61000-4-9 EMC immunity EN/IEC 61000-4-29 EMC immunity EN/IEC 61000-4-11 EMC immunity EN/IEC 61000-4-17
Ambient air temperature for operation	-40…149 °F (-40…65 °C)
Ambient air temperature for storage	-40…158 °F (-40…70 °C)
IP degree of protection	IP54 front IEC 60529
maximum operating altitude	6561.68 ft (2000 m)
Protective treatment	Conformal coating
Relative humidity	0…95 %, without condensation

Ordering and shipping details

Category	US1PL1S11405
Discount Schedule	PL1S
GTIN	3606487107057
Returnability	No

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	15.7 in (40 cm)
Package 1 Width	11.8 in (30 cm)
Package 1 Length	11.8 in (30 cm)
Package weight(Lbs)	8.4 lb(US) (3.8 kg)

Contractual warranty

Warranty (in months)	24

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 >

Use Better

Materials and Substances

EU RoHS Directive	Compliant By Exemption

Use Longer

Lifetime extension

Repair	No

Use Again

Repack and remanufacture

WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.