Product data sheet

Specifications

transformer protection relay, PowerLogic P3T32 6CT 3Io RINGLUG 4VT 12DI 14DO 110-230V DI110V RS232 2RJ45 ANSI

REL53052

Main

Range of product	PowerLogic P3
Product or component type	Protection relay
Relay application	Transformer
product reference	P3T32-CGG1A-KA1NA-BBAAB
Mounting case size	30TE
Device mounting	Flush
Mounting mode	Flush mounting
power supply	48...230 V AC/DC
measuring inputs	6 1/5 A CT phase current 2 5/1 A CT residual current 1 1/0.2 A CT residual current 4 100 V/110 V VT voltage
number of Digital Inputs (DI)	12
number of analogue inputs	0
number of Digital Outputs (DO)	14 DO 1 watchdog
number of analogue outputs	0
communication ports	Front USB port 1 Rear RS232 1 Rear RJ45 2
communication protocols	IEC 61850 ed. 1 IEC 61850 ed. 2 IEC 60870-5-101 IEC 60870-5-103 DNP3 DNP3 TCP Modbus RTU Modbus TCP EtherNet/IP Modbus TCP master SPAbus
Redundancy communication port protocol	RSTP PRP
Cybersecurity	Password protection Port hardening

protection functions	Overfluxing (V/Hz) 24 Synchro-check 25 Undervoltage 27 Directional active underpower 32 Negative sequence overcurrent 46 Thermal overload protection 49 Earth fault overcurrent 50N/51N Phase overcurrent 50/51 Breaker failure 50BF Switch ON to fault (SOTF) Capacitor bank unbalance 51C Capacitor overvoltage 59C Switch ON to fault (SOTF) 50/51 Overvoltage 59 Earth fault overvoltage 59N Restricted earth fault 64REF Directional phase overcurrent 67 Directional earth fault 67N Magnetising inrush detection 68F2 H5 detection 68H5 Underfrequency 81/81N Rate of change of frequency 81R Lockout relay 86 Two-winding transformer differential 87T Programmable stages 99 8 Programmable curve Cold load pick-up CT supervision 60 VT supervision 60FL
Arc flash protection	No
Relay type	Differential current relay
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 RMS reactive power zero sequence Reactive energy Cos φ Apparent power positive sequence Tan φ Power angle Power factor Voltage phasor diagram view RMS apparent power negative sequence Current phasor diagram view Current 2nd, 15th harmonics with THD Voltage 2nd, 15th harmonics with THD Active energy zero sequence Condition monitoring CB wear phasor diagram view Voltage interruption 2nd, 15th harmonics with THD

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	6 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 TCS Trip circuit supervision TCS
Connections - terminals	Screw removable (digital input/output) Pin removable (voltage transformer) Ring lugs fixed (current transformer)

Complementary

Operating threshold	110...230 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 128 pixels with single line diagram LCD 128 x 128 pixels with ANSI symbols
Number of key	2 customizable
Local signalling	2 LEDs 16 LEDs programmable
Height	6.9 in (176 mm)
Width	10.6 in (270 mm)
Depth	9.06 in (230 mm)
Net weight	9.3 lb(US) (4.2 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 class A CISPR 11 Emission tests class A 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 EMC immunity IEC 60255-22-1 EMC immunity IEC 60255-22-2 EMC immunity IEC 60255-22-3 EMC immunity IEC 60255-22-4 EMC immunity IEC 60255-22-5 EMC immunity IEC 60255-22-6 EMC immunity IEC 60255-27 EMC immunity class III IEC 60255-5 EMC immunity EN/IEC 60255-1
Ambient air temperature for operation	-40…149 °F (-40…65 °C)
IP degree of protection	IP54 front 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	15.75 in (40 cm)
Package 1 Width	11.81 in (30 cm)
Package 1 Length	11.81 in (30 cm)
Package 1 Weight	10.1 lb(US) (4.6 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**