

Product datasheet

Specifications



REL52109 discontinued. To order it, click on blue Product Selector button, configure P3U30, and use its output xml file

REL52109

! Discontinued

! Discontinued on: 13 Nov 2023

Main

Range of product	PowerLogic P3
Product or component type	Protection relay
Relay application	Feeder
product reference	P3F30-CGIAA-AAECA-BAAAA
Mounting case size	30TE
power supply	48...230 V AC/DC
measuring inputs	: 1/5 A CT phase current 3 : 5/1 A CT residual current 1 : 1/0.2 A CT residual current 1 : 100 V/110 V VT voltage 4
Number of sensors	0 temperature sensor(s) 0 arc sensor(s)
number of Digital Inputs (DI)	16
number of analogue inputs	0
number of Digital Outputs (DO)	1 watchdog 9
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 RS232 1 rear RJ45 1 rear
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
Cybersecurity	Password protection Port hardening

Excluding VAT, FCA Jabal Ali & are subject to change – check with your local distributor.

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
	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
	H2 detection
	H5 detection 68H5
	Programmable stages 99
	Programmable curve
	H5 detection
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	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/VT supervision ANSI code: 60 CT supervision Trip circuit supervision ANSI code: TCS
Connections - terminals	Screw removable (digital input/output) Pin fixed (current transformer) Pin removable (voltage transformer)

Complementary

Operating threshold	24...230 V AC/DC
Time synchronisation protocol	SNTP IRIG-B
Software name	EcoStruxure Power Device ESetup Easergy Pro
Web server	Embedded HTTP server
Display type	LCD 128 x 128 pixels with single line diagram
Number of key	2 customizable
Local signalling	2 LEDs 16 LEDs programmable
Standards	IEC
Height	176 mm
Width	270 mm
Depth	230 mm
Net weight	4.2 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 conforming to CISPR 11 Emission tests 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	26 cm
Package 1 Width	21 cm
Package 1 Length	31.5 cm
Package 1 Weight	5.259 kg

Contractual warranty

Warranty (in months)	24
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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 >](#)

Use Better



Materials and Substances

EU RoHS Directive

[Compliant By Exemption](#)

Use Longer



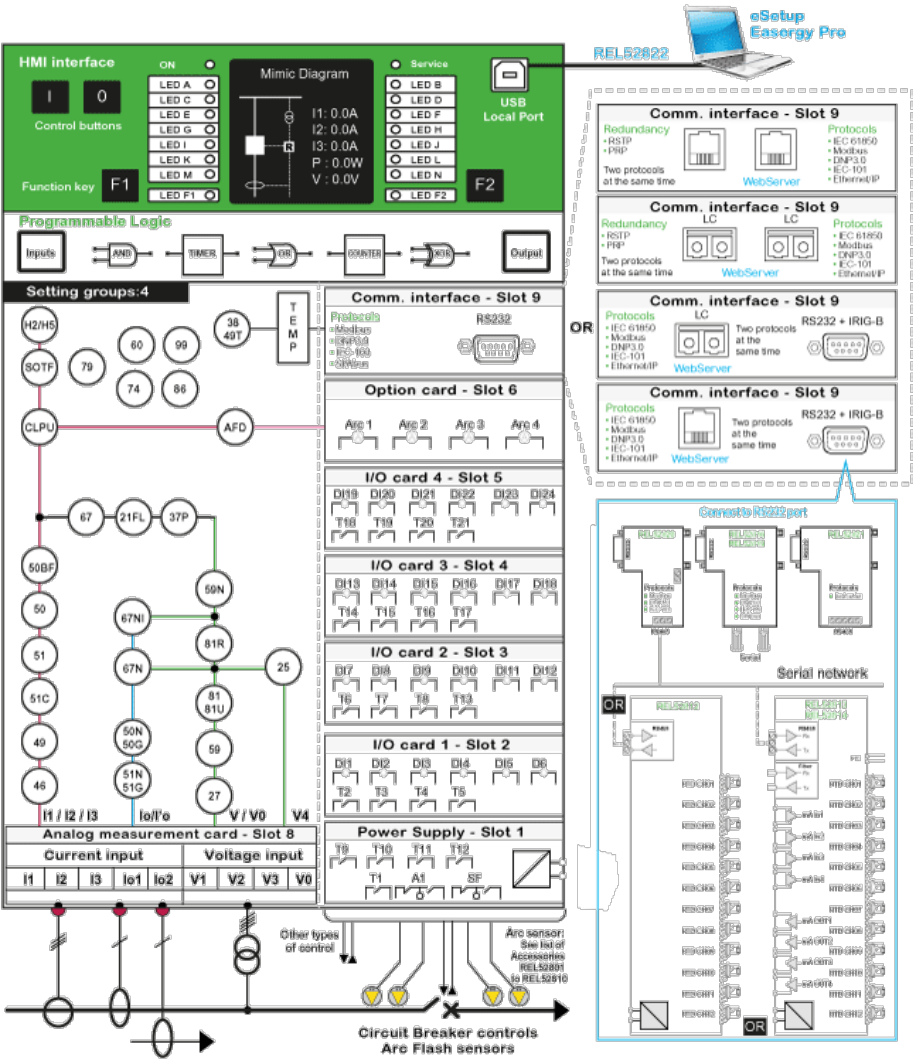
Lifetime extension

Repair

No

Connections and Schema

Functional View



Dimensions Drawings

Base Unit Dimensions

