



universal protection relay, PowerLogic P3U 3CT 1lo ringlug 4VT 16DI 8DO 48-230V DI110V 2LC

REL52021

Main

Range Of Product	PowerLogic P3
Product Or Component Type	Protection relay
Relay Application	Universal
Product Reference	P3U30-6AAA2BDAA
Mounting Case Size	30TE
Power Supply	48230 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 Digital Outputs (Do)	1 watchdog 8
Number Of Analogue Inputs	0
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

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 H5 detection 68H5

Negative sequence overcurrent 47

Programmable stages 99

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 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	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/VT supervision ANSI code: 60 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	110230 V AC/DC	
Time Synchronisation Protocol	SNTP	
Software Name	EcoStruxure Power Device ESetup Easergy Pro	
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	
Standards	IEC	
Height	169.5 mm	
Width	170 mm	
Depth	205 mm	
Net Weight	2.5 kg maximum	

Environment

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
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

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	
Ambient Air Temperature For Operation	-4065 °C	
Ip Degree Of Protection	IP54 conforming to IEC 60529	
Relative Humidity	095 %, without condensation	
Maximum Operating Altitude	2000 m	
Protective Treatment	Conformal coating	

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	3.23 kg

Contractual warranty

Warranty

Up to 10 years extended warranty (Standard warranty 2 years. Please check with your local SE representative for extended warranty availability and conditions)



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Transparency RoHS/REACh

Well-being performance



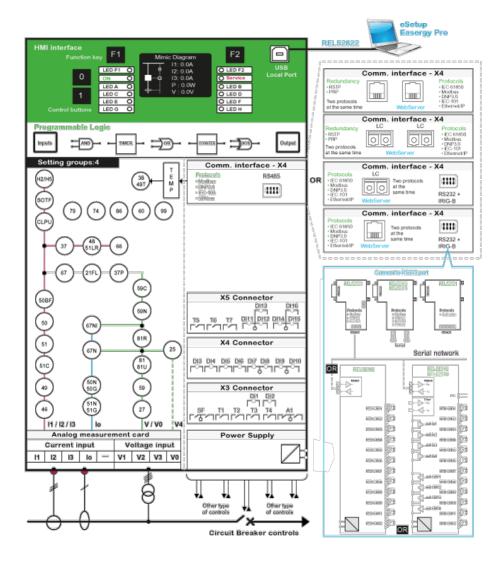
Rohs Exemption Information

Certifications & Standards

Reach Regulation	REACh Declaration	
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)	
China Rohs Regulation	China RoHS declaration	
Environmental Disclosure	Product Environmental Profile	
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins	
Circularity Profile	End of Life Information	

Connections and Schema

Functional View

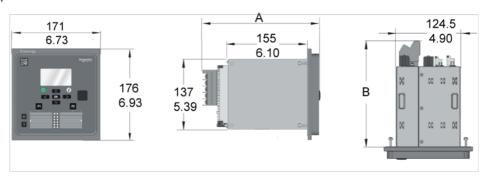


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Dimensions Drawings

Base Unit Dimensions

 $\frac{\text{mm}}{\text{in.}}$



	Α	В
With screw connector	214 mm/8.43"	192 mm/7.6"
With ring-lug connector	226 mm/8.90"	204 mm/8.0"