Product datasheet

Specifications





PowerLogic P5U20 24-250V 3CT 2Io 10DI-8DO

REL50303

Main

mann	
Range Of Product	PowerLogic P5
Product Or Component Type	Protection and control relay
Relay Application	Universal
Product Reference	P5U20-AABB-BAAAA-AAEA
Mounting Case Size	20TE
Device Mounting	Flush
Mounting Mode	Withdrawable
Power Supply	24240 V DC 100230 V AC
Measuring Inputs	: 1/5 A CT phase current 3 : 1/5 A CT residual current 1 : 1 A CT residual current 1
Number Of Digital Inputs (Di)	10
Number Of Digital Outputs (Do)	7 DO 1 watchdog
Number Of Analogue Inputs	0
Number Of Analogue Outputs	0
Communication Ports	USB port 2 front
Communication Protocols	-
Cybersecurity	Port hardening Firmware signature Client IP address filter Secured communication with assciated tools Security policy management Role-based access control Security log LDAP

RADIUS based user authentication

IEC 62442-4-2 SL1

Protection Functions	Phase overcurrent 50/51
	Earth fault overcurrent 50N/51N
	Capacitor bank unbalance 51C
	Broken conductor 46 I2/I1
	Current unbalance 46 I2/I1
	Cold load pick-up
	Switch ON to fault (SOTF)
	H2 detection
	H5 detection
	Breaker failure 50BF
	Recloser 79
	Thermal overload protection 49
	Phase undercurrent 37
	Negative sequence overcurrent 46
	Excessive starting time, locked rotor 48/51LR
	Motor restart inhibition 66
	Capacitor overvoltage 59C
	Lockout relay 86
	CT supervision 60
	Programmable stages 99
	Programmable logic
	Programmable curve
Measurement Functions	Current 3-phase
	Current zero sequence
	Current positive sequence
	Current negative sequence
	Current ratio of negative and positive
	Frequency
	Phasor diagram of currents or voltages
	Current 2nd, 15th harmonics with THD
Control Functions	Switchgear control and monitoring
	Programmable switchgear interlocking
	Local/remote control
Controllable Switchgear Devices	6 controlled + 2 monitored objects
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
	Relay maintenance
Switchgear Diagnosis Type	CT supervision ANSI code: 60
	Trip circuit supervision ANSI code: 74
Connections - Terminals	
connections - Terminais	Screw (digital input/output)
	Ring lugs (analog inputs and outputs)

Complementary

Software Name	ESetup Easergy Pro: virtual simulation test
Display Type	LCD 192 x 96 pixels
Number Of Key	1 customizable
Local Signalling	4 x LED 6 x LED tri-colour programmable
Height	176 mm
Width	102 mm
Depth	219 mm
Net Weight	2.5 kg

Environment

Electromagnetic Compatibility	Emission tests class A conforming to CISPR 11
	Emission tests class A conforming to CISPR 32
	Emission tests conforming to IACS E10
	EMC immunity class 4 conforming to IEC 61000-4-2
	EMC immunity class 4 conforming to ANSI C37.90.3
	EMC immunity level 3 conforming to IEC 61000-4-3
	EMC immunity conforming to ANSI C37.90.2
	EMC immunity conforming to GOST 32137
	EMC immunity conforming to GOST 30804.4.3
	EMC immunity conforming to IACS E10
	EMC immunity level 5 conforming to IEC 61000-4-8
	EMC immunity level 5 conforming to IEC 61000-4-9
	EMC immunity level 5 conforming to IEC 61000-4-10
	EMC immunity level 3 conforming to IEC 61000-4-6
	EMC immunity level 3 conforming to IEC 61000-4-18
	EMC immunity conforming to ANSI C37.90.1
	EMC immunity conforming to IEC 61000-4-12
	EMC immunity conforming to GOST 30804.4.12
	EMC immunity level 4 conforming to IEC 61000-4-16
	EMC immunity level 4 conforming to IEC 61000-4-4
	EMC immunity level 4 conforming to IEC 61000-4-5
Mechanical Robustness	Vibrations (level: class 2) conforming to IEC 60255-21-1
	Vibrations conforming to GOST 17516.1
	Vibrations conforming to IACS E10
	Shocks (level: class 2) conforming to IEC 60255-21-2
	Earthquakes (level: class 2) conforming to IEC 60255-21-3
Climatic Withstand	Exposure to cold conforming to IEC 60068-2-1
	Exposure to dry heat conforming to IEC 60068-2-2
	Exposure to damp heat in service conforming to IEC 60068-2-78
	Exposure to damp heat in service conforming to IEC 60068-2-30
	Temperature variation conforming to IEC 60068-2-14
	Salt mist conforming to IEC 60068-2-52
	Influence of corrosion/gas test 2 conforming to IEC 60068-2-60
	Influence of corrosion/gas test 4 conforming to IEC 60068-2-60
	Influence of corrosion/gas test 2 conforming to IEC 60721-3-3
	Influence of corrosion/gas test 4 conforming to IEC 60721-3-3
Ambient Air Temperature For	-4085 °C (16 h)
Operation	-4070 °C (96 h)
Ip Degree Of Protection	IP54 conforming to IEC 60529
Relative Humidity	093 % at 40 °C, without condensation, 56 days
	9395 % at 2555 °C, 6 cycles, 12 + 12 hours
Maximum Operating Altitude	2000 m
Protective Treatment	Conformal coating conforming to IEC 60068-2-52:Kb/1
	Conformal coating conforming to IEC 60068-2-60:Ke
	Conformal coating conforming to IEC 60721-3-3:3C2

Packing Units

U	
Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	30.0 cm
Package 1 Width	30.0 cm
Package 1 Length	40.0 cm
Package 1 Weight	3.0 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)

Sustainability Screen Premium

Green PremiumTM label is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Yes

Learn more about Green Premium >

Guide to assess a product's sustainability >



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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