Product datasheet

Specification





PowerLogic P5F30 48-250V 3CT 2lo 4VT 16DI-12DO RSTP Eth RJ45

REL50453

Main

Range Of Product	PowerLogic P5
Product Or Component Type	Protection and control relay
Relay Application	Feeder - directional over current
Product Reference	P5F30-BACB-GABAH-AAEA
Mounting Case Size	30TE
Device Mounting	Flush
Mounting Mode	Withdrawable
Power Supply	48250 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 : VT voltage 4
Number Of Digital Inputs (Di)	16
Number Of Digital Outputs (Do)	11 DO 1 watchdog
Number Of Analogue Inputs	0
Number Of Analogue Outputs	0
Communication Ports	RJ45 2 rear Extension port 1 rear with backup memory USB port 2 front
Communication Protocols	IEC 61850 ed. 1 IEC 61850 ed. 2 DNP3 over ethernet Modbus TCP EtherNet/IP
Redundancy Communication Port Protocol	RSTP
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
	Directional phase overcurrent 67
	Earth fault overcurrent 50N/51N
	Restricted earth fault 64REF
	Directional earth fault 67N Transient earth fault 67NI
	Neutral admittance 21YN
	Earth fault wattmetric 32N
	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
	Directional active underpower 37P
	Fault locator 21FL
	Recloser 79
	Negative sequence overcurrent 46
	Overvoltage 59
	Undervoltage 27
	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
	Programmable logic
	Programmable curve
Management Franchisms	0 10 1
Measurement Functions	Current 3-phase
	Current zero sequence Current positive sequence
	Current negative sequence
	Current ratio of negative and positive
	Phasor diagram of currents or voltages
	Current 2nd, 15th harmonics with THD
	Voltage 3-phase
	Voltage residual
	Voltage zero sequence
	Voltage positive sequence
	Voltage negative sequence Frequency
Control Functions	Switchgaar control and manitaring
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	Firest seconding
Logs And Records	Event recording Disturbance recording
	Tripping context
	Relay maintenance
Switchgear Diagnosis Type	CT/VT supervision ANSI code: 60 Trip circuit supervision ANSI code: 74
Connections - Terminals	Screw (digital input/output)
	Ring lugs (analog inputs and outputs)
Complementary	
	CNITD
Time Synchronisation Protocol	SNTP
Software Name	EcoStruxure Power Device
	ESetup Easergy Pro: virtual simulation test
Web Server	ESetup Easergy Pro: virtual simulation test Embedded HTTP server

Display Type	Colour LCD 480 x 272 pixels
Number Of Key	7 customizable
Local Signalling	4 x LED 10 x LED tri-colour programmable
Height	176 mm
Width	152 mm
Depth	219 mm
Net Weight	3.5 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

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	35.0 cm
Package 1 Weight	4.5 ka

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