

# Product data sheet

Specifications



## PowerLogic P5M30 48-250V 3CT 2Io 4VT 16DI-12DO RSTP Eth RJ45

REL50457

### Main

Range Of Product	PowerLogic P5
Product Or Component Type	Protection and control relay
Relay Application	Motor
Product Reference	P5M30-BACB-GABAH-AAEA
Mounting Case Size	30TE
Device Mounting	Flush
Mounting Mode	Withdrawable
Power Supply	48...250 V DC 100...230 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 Sensors	0 temperature sensor(s) 0 arc sensor(s)
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 associated tools Security policy management Role-based access control Security log LDAP RADIUS based user authentication IEC 62442-4-2 SL1

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 Restricted earth fault 64REF Directional earth fault 67N Transient earth fault 67NI Neutral admittance 21YN Earth fault wattmetric 32N 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 Phase undercurrent 37 Excessive starting time, locked rotor 48/51LR Motor restart inhibition 66 Negative sequence overcurrent 46 Overvoltage 59 Undervoltage 27 Positive sequence undervoltage 27P Earth fault overvoltage 59N Underfrequency 81/81N Lockout relay 86 CT supervision 60 VT 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 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	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/VT supervision ANSI code: 60 Trip circuit supervision ANSI code: 74
Connections - Terminals	Screw (digital input/output) Ring lugs (analog inputs and outputs)

## Complementary

Time Synchronisation Protocol	SNTP
Software Name	EcoStruxure Power Device ESetup Easergy Pro: virtual simulation test
Web Server	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 Operation	-40...85 °C ( 16 h ) -40...70 °C ( 96 h )
Ambient Air Temperature For Storage	-40...85 °C
Ip Degree Of Protection	IP54 conforming to IEC 60529
Relative Humidity	0...93 % at 40 °C, without condensation, 56 days 93...95 % at 25...55 °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 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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## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

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


[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency   RoHS/REACH

## Well-being performance

 **Rohs Exemption Information**   [Yes](#)

## Certifications & Standards

Reach Regulation	<a href="#">REACH Declaration</a>
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	<a href="#">End of Life Information</a>
California Proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>