

# Product datasheet

Specifications



## PowerLogic P5M30 24-48V 3CT 2Io 4VT 40DI-16DO Advanced Logic and Cybersec Backup memory ANSI

REL50488

EAN Code: 3606482117921

### Main

Range of product	PowerLogic P5
Product or component type	Protection and control relay
Relay application	Universal
product reference	P5M30-EEDE-GAAAH-BAFK
Mounting case size	30TE
Device mounting	Flush
Mounting support	Rack
Mounting mode	Withdrawable
power supply	48...230 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 : voltage 4 : digital 40
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 8 watchdog
number of analogue outputs	0
communication ports	USB port 1 front RJ45 2 rear with backup memory
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	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 62443-4-2 SL1

<b>protection functions</b>	<ul style="list-style-type: none"> <li>Phase overcurrent 50/51</li> <li>Directional phase overcurrent 67</li> <li>Earth fault overcurrent 50N/51N</li> <li>Directional earth fault 67N</li> <li>Transient earth fault 67NI</li> <li>Capacitor bank unbalance 51C</li> <li>Broken conductor 46 I2/I1</li> <li>Cold load pick-up 64REF</li> <li>Switch ON to fault (SOTF) 46 I2/I1</li> <li>Breaker failure 50BF</li> <li>Directional active underpower 37P</li> <li>Fault locator 21FL</li> <li>Recloser 79</li> <li>Phase undercurrent 37</li> <li>Excessive starting time, locked rotor 48/51LR</li> <li>Motor restart inhibition 66</li> <li>Capacitor overvoltage 59C</li> <li>Negative sequence overcurrent 46</li> <li>Overvoltage 59</li> <li>Undervoltage 27</li> <li>Positive sequence undervoltage 27P</li> <li>Earth fault overvoltage 59N</li> <li>Underfrequency 81/81N</li> <li>Rate of change of frequency 81R</li> <li>Synchro-check 25</li> <li>Lockout relay 86</li> <li>CT supervision 60</li> <li>VT supervision 60</li> <li>H2 detection 68H2</li> <li>H5 detection 68H5</li> <li>Negative sequence overcurrent 47</li> <li>Programmable stages 99</li> <li>Programmable curve</li> </ul>
<b>Arc flash protection</b>	No
<b>measurement functions</b>	<ul style="list-style-type: none"> <li>Current 3-phase</li> <li>Current zero sequence</li> <li>Current positive sequence</li> <li>Current negative sequence</li> <li>Current ratio of negative and positive</li> <li>Voltage phase to earth</li> <li>Voltage phase to phase</li> <li>Voltage zero sequence</li> <li>Voltage positive sequence</li> <li>Voltage negative sequence</li> <li>Voltage ratio of negative and positive</li> <li>Short circuit fault reactance negative sequence</li> <li>Fault location current phasor diagram view</li> <li>Earth fault reactance</li> <li>Frequency</li> <li>Active power</li> <li>RMS active power</li> <li>Reactive power</li> <li>RMS reactive power</li> <li>Apparent power</li> <li>RMS apparent power</li> <li>Active energy</li> <li>Reactive energy</li> <li>Cos <math>\varphi</math></li> <li>Tan <math>\varphi</math></li> <li>Power angle</li> <li>Power factor</li> <li>Voltage phasor diagram view</li> <li>Current phasor diagram view</li> <li>Current 2nd, 15th harmonics with THD</li> <li>Voltage 2nd, 15th harmonics with THD</li> <li>Voltage interruption</li> <li>Condition monitoring CB wear</li> </ul>
<b>control functions</b>	<ul style="list-style-type: none"> <li>Switchgear control and monitoring</li> <li>Programmable switchgear interlocking</li> <li>Local control on single-line diagram</li> <li>Local control with I/O keys</li> <li>Local/remote control</li> <li>2 function keys</li> <li>Mobile application with Easergy SmartApp</li> <li>Web-server</li> <li>Programmable logic</li> </ul>

<b>controllable switchgear devices</b>	4 controlled + 8 displayed
<b>number of setting groups</b>	4
<b>monitoring functions</b>	Trip circuit supervision 74 Circuit breaker monitoring Relay self-monitoring
<b>logs and records</b>	Event recording Disturbance recording Tripping context
<b>Switchgear diagnosis type</b>	CT/VT supervision ANSI code: 60 CT supervision Trip circuit supervision ANSI code: TCS
<b>Connections - terminals</b>	Screw removable (digital input/output) Ring lugs removable (current transformer) Pin removable (voltage transformer) Ring lugs (voltage transformer)

## Complementary

<b>Operating threshold</b>	24...230 V AC/DC
<b>Time synchronisation protocol</b>	SNTP
<b>Software name</b>	EcoStruxure Power Device: virtual simulation test ESetup Easergy Pro
<b>Web server</b>	Embedded HTTP server
<b>Display type</b>	LCD 128 x 64 pixels with single line diagram
<b>Number of key</b>	2 customizable
<b>Local signalling</b>	10 x 4 LEDs tri-colour programmable 4 x 8 LEDs red programmable
<b>Standards</b>	IEC
<b>Height</b>	169.5 mm
<b>Width</b>	170 mm
<b>Depth</b>	205 mm
<b>Net weight</b>	2.5 kg maximum

## Environment

<b>climatic withstand</b>	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 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 Stationary use at weatherprotected locations conforming to IEC 60721-3-3
<b>Mechanical robustness</b>	Vibrations (level: class II) conforming to IEC 60255-21-1 Vibrations (level: class 2) : 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

<b>Electromagnetic compatibility</b>	Emission tests class A conforming to IEC/EN 60255-26 ed. 3 Emission tests class A conforming to CISPR 11 Emission tests class A conforming to CISPR 32 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 level 3 conforming to EN/IEC 61000-4-8 EMC immunity level 4 level 5 conforming to EN/IEC 61000-4-9 EMC immunity level 4 conforming to EN/IEC 61000-4-29 EMC immunity level 3 conforming to EN/IEC 61000-4-11 EMC immunity level 5 conforming to EN/IEC 61000-4-17 EMC immunity level 5 conforming to IEC 61000-4-9 EMC immunity level 5 conforming to IEC 61000-4-10 EMC immunity conforming to IEC 61000-4-12 EMC immunity level 4 conforming to IEC 61000-4-16 EMC immunity level 3 conforming to IEC 61000-4-18
<b>Ambient air temperature for operation</b>	-40...65 °C ( 16 h ) -40...70 °C ( 96 h )
<b>IP degree of protection</b>	IP54 conforming to IEC 60529
<b>maximum operating altitude</b>	2000 m
<b>Protective treatment</b>	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
<b>Relative humidity</b>	0...95 % at 40 °C, without condensation, 56 days 93...95 % at 25...55 °C, 6 cycles, 12 + 12 hours

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	30.0 cm
<b>Package 1 Width</b>	30.0 cm
<b>Package 1 Length</b>	35.0 cm
<b>Package 1 Weight</b>	4.5 kg

## Contractual warranty

<b>Warranty</b>	Up to 10 years (Standard warranty 2 years. Please check with your local SE representative for extended warranty availability and conditions))
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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 >](#)

### Environmental footprint

Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	447
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Environmental Disclosure	<a href="#">Product Environmental Profile</a>
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## Use Better

### Materials and Substances

Packaging made with recycled cardboard	Yes
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Packaging without single use plastic	No
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EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
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REACH Regulation	<a href="#">REACH Declaration</a>
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China RoHS Regulation	<a href="#">China RoHS declaration</a>
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## Use Again

### Repack and remanufacture

Circularity Profile	<a href="#">End of Life Information</a>
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WEEE



The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

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Take-back

No

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