

Product data sheet

Specifications



PowerLogic P5M30 48-250V 3CT
2Io 4VT 22DI-14DO 6 Arc Sensors
Advanced Logic and Cybersec
Backup memory ANSI

REL50478

Product availability: Stock - Normally stocked in distribution facility

Main

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Range of Product | PowerLogic P5 |
| Product or Component Type | Protection and control relay |
| Relay application | Universal |
| product reference | P5M30-CCCE-GAAAH-BAFK |
| Mounting case size | 30TE |
| Device mounting | Flush |
| Mounting Support | Rack |
| Mounting Mode | Withdrawable |
| power supply | 48...230 V AC/DC 48...250 V DC |
| measuring inputs | 3 1/5 A CT phase current 1 1/5 A CT residual current 4 100 V/110 V VT voltage 4 voltage 22 digital |
| 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 | Front USB port 1 Rear RJ45 2 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 |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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

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| 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 |
| 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 64REF Switch ON to fault (SOTF) 46 I2/I1 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 |

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| 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 negative sequence Fault location current phasor diagram view 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 60 CT supervision Trip circuit supervision TCS |
| Connections - terminals | Screw removable (digital input/output) Ring lugs removable (current transformer) Pin removable (voltage transformer) Ring lugs (voltage transformer) |

Complementary

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|-------------------------------|------------------------------------------------------------------------|
| Operating threshold | 24...230 V AC/DC |
| Time synchronisation protocol | SNTP |
| Software name | EcoStruxure Power Device virtual simulation test ESetup Easergy Pro |
| Web server | Embedded HTTP server |
| Display type | LCD 128 x 64 pixels with single line diagram |

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|------------------|--------------------------------------------------------------------|
| Number of key | 2 customizable |
| Local signalling | 10 x 4 LEDs tri-colour programmable 4 x 8 LEDs red programmable |
| Standards | IEC |
| Height | 6.7 in (169.5 mm) |
| Width | 6.7 in (170 mm) |
| Depth | 8.07 in (205 mm) |
| Net weight | 5.5 lb(US) (2.5 kg) maximum |

Environment

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|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| climatic withstand | Exposure to dry heat Bb EN/IEC 60068-2-2 Exposure to cold Ad EN/IEC 60068-2-1 Exposure to damp heat in service Db EN/IEC 60068-2-30 Exposure to damp heat in service Cab EN/IEC 60068-2-78 Temperature variation IEC 60068-2-14 Salt mist IEC 60068-2-52 Influence of corrosion/gas test 2 IEC 60068-2-60 Influence of corrosion/gas test 4 IEC 60068-2-60 Stationary use at weatherprotected locations IEC 60721-3-3 |
| Mechanical robustness | Vibrations class II) IEC 60255-21-1 Vibrations class 2) Fc IEC 60068-2-6 Shocks class II) IEC 60255-21-2 ShocksEa IEC 60068-2-27 Seismic tests method A class II) IEC 60255-21-3 Bumps class II) IEC 60255-21-2 BumpsEa IEC 60068-2-27 |
| Electromagnetic compatibility | Emission tests class A IEC/EN 60255-26 ed. 3 Emission tests class A CISPR 11 Emission tests class A CISPR 32 EMC immunity IEC/EN 60255-26 ed. 3 EMC immunity EN/IEC 61000-4-18 EMC immunity level 4 EN/IEC 61000-4-2 EMC immunity level 3 EN/IEC 61000-4-3 EMC immunity level 4 EN/IEC 61000-4-4 EMC immunity level 3 EN/IEC 61000-4-5 EMC immunity level 3 EN/IEC 61000-4-6 EMC immunity level 3 EN/IEC 61000-4-8 EMC immunity level 4 level 5 EN/IEC 61000-4-9 EMC immunity level 4 EN/IEC 61000-4-29 EMC immunity level 3 EN/IEC 61000-4-11 EMC immunity level 5 EN/IEC 61000-4-17 EMC immunity level 5 IEC 61000-4-9 EMC immunity level 5 IEC 61000-4-10 EMC immunity IEC 61000-4-12 EMC immunity level 4 IEC 61000-4-16 EMC immunity level 3 IEC 61000-4-18 |
| Ambient air temperature for operation | -40...149 °F (-40...65 °C) 16 h) -40...158 °F (-40...70 °C) 96 h) |
| Ambient air temperature for storage | -40...158 °F (-40...70 °C) |
| IP degree of protection | IP54 IEC 60529 |
| maximum operating altitude | 6561.68 ft (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 |
| Relative humidity | 0...95 % at 104 °F (40 °C), without condensation, 56 days 93...95 % at 77...131 °F (25...55 °C), 6 cycles, 12 + 12 hours |

Ordering and shipping details

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|-------------------|--------------|
| Category | US1PL1S11406 |
| Discount Schedule | PL1S |

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|-------------------|---------------|
| GTIN | 3606482117839 |
| Returnability | Yes |
| Country of origin | LV |

Packing Units

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|------------------------|---------------------|
| Unit Type of Package 1 | PCE |
| Nbr. of units in pkg. | 1 |
| Package 1 Height | 11.8 in (30.0 cm) |
| Package 1 Width | 11.8 in (30.0 cm) |
| Package 1 Length | 13.8 in (35.0 cm) |
| Package weight(Lbs) | 9.9 lb(US) (4.5 kg) |

Contractual warranty

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|----------------------|----|
| Warranty (in months) | 24 |
|----------------------|----|



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

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|--------------------------------------------------------|-----------------------------------------------|
| Total lifecycle Carbon footprint | 382 kg CO2 eq. |
| Environmental Disclosure | Product Environmental Profile |
| Carbon footprint of the manufacturing phase [A1 to A3] | 171 kg CO2 eq. |
| Carbon footprint of the distribution phase [A4] | 0.6 kg CO2 eq. |
| Carbon footprint of the installation phase [A5] | 0.1 kg CO2 eq. |
| Carbon footprint of the use phase [B2, B3, B4, B6] | 209 kg CO2 eq. |
| Carbon footprint of the end-of-life phase [C1 to C4] | 2 kg CO2 eq. |

Use Better



Materials and Substances

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Packaging made with recycled cardboard | Yes |
| Packaging without single use plastic | No |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| SCIP Number | 7e74021a-7de9-46d1-8b18-7794e721876f |
| REACH Regulation | REACH Declaration |
| 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 www.P65Warnings.ca.gov |

Use Longer



Lifetime extension

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|--------|----|
| Repair | No |
|--------|----|

Use Again



Repack and remanufacture

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|---------------------|-----------------------------------------|
| Circularity Profile | End of Life Information |
| Take-back | No |