

# Product datasheet

Specifications



## Easergy P5F30 48-250V 3LPCT 1CSH 4LPVT 10DI-8DO

REL50403

### Main

Range of product	PowerLogic P5
Product or component type	Protection and control relay
Relay application	Feeder - directional over current
product reference	P5F30-AACB-IAAAA-AAEA
Mounting case size	30TE
Device mounting	Flush
Mounting mode	Withdrawable
power supply	48...250 V DC 100...230 V AC
measuring inputs	: LPCT phase current 3 : CSH residual current 1 : LPVT voltage 4
number of Digital Inputs (DI)	10
number of analogue inputs	0
number of Digital Outputs (DO)	7 DO 1 watchdog
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 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

<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>Neutral admittance 21YN</li> <li>Earth fault wattmetric 32N</li> <li>Capacitor bank unbalance 51C</li> <li>Broken conductor 46 I2/I1</li> <li>Current unbalance 46 I2/I1</li> <li>Cold load pick-up</li> <li>Switch ON to fault (SOTF)</li> <li>H2 detection</li> <li>H5 detection</li> <li>Breaker failure 50BF</li> <li>Directional active underpower 37P</li> <li>Fault locator 21FL</li> <li>Recloser 79</li> <li>Negative sequence overcurrent 46</li> <li>Overvoltage 59</li> <li>Undervoltage 27</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>Programmable stages 99</li> <li>Programmable logic</li> <li>Programmable curve</li> </ul>
<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>Phasor diagram of currents or voltages</li> <li>Current 2nd, 15th harmonics with THD</li> <li>Voltage 3-phase</li> <li>Voltage residual</li> <li>Voltage zero sequence</li> <li>Voltage positive sequence</li> <li>Voltage negative sequence</li> <li>Frequency</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/remote control</li> </ul>
<b>controllable switchgear devices</b>	6 controlled + 2 monitored objects
<b>number of setting groups</b>	4
<b>monitoring functions</b>	<ul style="list-style-type: none"> <li>Trip circuit supervision 74</li> <li>Circuit breaker monitoring</li> <li>Relay self-monitoring</li> </ul>
<b>logs and records</b>	<ul style="list-style-type: none"> <li>Event recording</li> <li>Disturbance recording</li> <li>Tripping context</li> <li>Relay maintenance</li> </ul>
<b>Switchgear diagnosis type</b>	<ul style="list-style-type: none"> <li>CT/VT supervision ANSI code: 60</li> <li>Trip circuit supervision ANSI code: 74</li> </ul>
<b>Connections - terminals</b>	<ul style="list-style-type: none"> <li>Screw (digital input/output)</li> <li>Ring lugs (analog inputs and outputs)</li> </ul>

## Complementary

<b>Software name</b>	ESetup Easergy Pro: virtual simulation test
<b>Display type</b>	Colour LCD 480 x 272 pixels
<b>Number of key</b>	7 customizable

<b>Local signalling</b>	4 x LED 10 x LED tri-colour programmable
<b>Height</b>	176 mm
<b>Width</b>	152 mm
<b>Depth</b>	219 mm
<b>Net weight</b>	3.5 kg

## Environment

<b>climatic withstand</b>	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 60068-2-60 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
<b>Mechanical robustness</b>	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
<b>Electromagnetic compatibility</b>	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
<b>Ambient air temperature for operation</b>	-40...85 °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...93 % 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

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Package 1 Weight

4.5 kg

## Contractual warranty

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Warranty

Up to 10 years extended warranty (Standard warranty 2 years. Please check with your local SE representative for extended warranty availability and conditions)

# 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 >](#)

## Use Better

### Materials and Substances

EU RoHS Directive

**Pro-active compliance  
(Product out of EU RoHS legal  
scope)**

China RoHS Regulation

[China RoHS declaration](#)

## Use Again

### Repack and remanufacture

WEEE



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