Product datasheet

Specifications

PowerLogic P5F30 48-250V 3CT 2Io 4VT 16DI-12DO Backup memory German language

REL50490

EAN Code: 3606482170094

Main

Range of product	PowerLogic P5
Product or component type	Protection and control relay
Relay application	Feeder - directional over current
product reference	P5F30-BACB-GAAAH-AEAD
Mounting case size	30TE
Device mounting	Flush
Mounting support	Rack
Mounting mode	Withdrawable
power supply	100...230 V AC 48...250 V DC
measuring inputs	: 1/5 A CT phase current 3 : 1/5 A CT residual current 1 : 1 A CT current 1 : voltage voltage 4 : digital 10
number of Digital Inputs (DI)	16
number of analogue inputs	0
number of Digital Outputs (DO)	1 watchdog 11 digital
number of analogue outputs	0
communication ports	USB port 2 front Extension port 1 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	Password protection Port hardening Firmware signature Client IP address filter Secured communication with assciated tools

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) 51C Breaker failure 50BF Directional active underpower 37P Fault locator 21FL Recloser 79 Restricted earth fault 64REF Earth fault wattmetric 32N Neutral admittance 21YN Negative sequence overcurrent 46 Overvoltage 59 Undervoltage 27 Earth fault overvoltage 59N Overfrequency 81/81N 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 99 Programmable logic
Arc flash protection	No
measurement functions	Current 3-phase Current zero sequence Current positive sequence Current negative sequence Current ratio of negative and positive Voltage zero sequence Voltage positive sequence Voltage negative sequence Voltage 3-phase Voltage residual Frequency ratio of negative and positive Voltage phasor diagram view Current phasor diagram view Current 2nd, 15th harmonics with THD 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 2nd, 15th harmonics with THD Voltage interruption Condition monitoring CB wear
control functions	Switchgear control and monitoring Programmable switchgear interlocking Local/remote control on single-line diagram 2 function keys with I/O keys Programmable logic 2 function keys Mobile application with Easergy SmartApp Web-server
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 CT supervision Trip circuit supervision ANSI code: TCS
Connections - terminals	Pin removable (digital input/output) Ring lugs removable (current transformer) Pin removable (voltage transformer) Ring lugs (voltage transformer) Screw (connector)

Complementary

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	Colour LCD 480 x 272 pixels with single line diagram
Number of key	7 customizable
Local signalling	10 x LED tri-colour programmable 4 x LED red programmable
Standards	IEC
Height	176 mm
Width	152 mm
Depth	219 mm
Net weight	3.5 kg maximum

Environment

climatic withstand	Exposure to dry heat Bb tests conforming to IEC 60068-2-2 Exposure to cold Ad tests conforming to IEC 60068-2-1 Exposure to damp heat in service Db tests conforming to IEC 60068-2-30 Exposure to damp heat in service Cab tests conforming to 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 Stationary use at weatherprotected locations conforming to IEC 60721-3-3
Mechanical robustness	Vibrations (level: class II) conforming to GOST 17516.1 Vibrations (level: class 2) : Fc conforming to IACS E10 Shocks (level: class II) conforming to IEC 60255-21-2 Seismic tests (level: class II) : Ea conforming to IEC 60255-21-3 Bumps method A (level: class II) conforming to IEC 60255-21-2 Vibrations (level: class II) conforming to IEC 60255-21-1 Bumps: Ea conforming to IEC 60068-2-27

Electromagnetic compatibility	Emission tests class A conforming to IACS E10 ed. 3 Emission tests class A conforming to CISPR 11 Emission tests class A conforming to CISPR 32 EMC immunity level 4 conforming to IEC 61000-4-2 ed. 3 EMC immunity level 3 conforming to IEC 61000-4-3 EMC immunity level 4 conforming to IEC 61000-4-4 EMC immunity level 4 conforming to IEC 61000-4-5 EMC immunity level 3 level 4 conforming to IEC 61000-4-6 EMC immunity level 5 level 3 conforming to IEC 61000-4-8 EMC immunity level 3 conforming to IACS E10 EMC immunity level 5 conforming to IEC 61000-4-10 EMC immunity level 4 level 5 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 EMC immunity level 5 conforming to ANSI C37.90.1 EMC immunity level 5 conforming to ANSI C37.90.2 EMC immunity level 5 class 4 conforming to ANSI C37.90.3 EMC immunity conforming to GOST 30804.4.12 EMC immunity level 4 conforming to GOST 32137 EMC immunity level 3 conforming to GOST 30804.4.3
Ambient air temperature for operation	-40…85 °C (16 h) -40…70 °C (96 h)
IP degree of protection	IP54 conforming to IEC 60529
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
Relative humidity	0…95 % at 40 °C, without condensation, 56 days 93…95 % at 25…55 °C, 6 cycles, 12 + 12 hours

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	19 cm
Package 1 Width	27 cm
Package 1 Length	37 cm
Package 1 Weight	4.5 kg

Contractual warranty

Warranty	Up to 10 years (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 >

Environmental footprint

Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	**273**
Environmental Disclosure	**Product Environmental Profile**

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)**
REACh Regulation	**REACh Declaration**
China RoHS Regulation	**China RoHS declaration**

Use Again

Repack and remanufacture

Circularity Profile	**End of Life Information**

WEEE	 **The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins**
Take-back	**No**