Product datasheet

Specifications

PowerLogic P5F30 48-250V 3LPCT 1CSH 4LPVT 40DI-16DO Advanced Logic and Cybersec Backup memory ANSI

REL50475

EAN Code: 3606482117815

Main

Range of product	PowerLogic P5
Product or component type	Protection and control relay
Relay application	Universal
product reference	P5F30-EECE-IAAAH-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	: 1/5 A CT phase current 3 : 1/5 A CT residual current 1 : 100 V/110 V VT 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 assciated tools Security policy management Role-based access control Security log LDAP RADIUS based user authentication IEC 62443-4-2 SL1

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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 51C
	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
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 ANSI code: 60 CT supervision Trip circuit supervision ANSI code: TCS
Connections - terminals	Screw removable (digital input/output) Ring lugs removable (current transformer) Pin removable (voltage transformer) Ring lugs (voltage transformer)

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	LCD 128 x 64 pixels with single line diagram
Number of key	2 customizable
Local signalling	10 x 4 LEDs tri-colour programmable 4 x 8 LEDs red programmable
Standards	IEC
Height	169.5 mm
Width	170 mm
Depth	205 mm
Net weight	2.5 kg maximum

Environment

climatic withstand	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
Mechanical robustness	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

Electromagnetic compatibility	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
Ambient air temperature for operation	-40…65 °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	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 (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)	**447**
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**	