Product data sheet

Specifications

PowerLogic P5L30 24-48V 3CT 2Io 4VT 22DI-14DO MM 2km 6 Arc AdvLogic Backup ANSI

REL50519

Product availability: Non-Stock - Not normally stocked in distribution facility

Main

Range of Product	PowerLogic P5
Product or Component Type	Protection and control relay
Relay application	Line differential
product reference	P5L30-CCDE-LEAAH-BAFK
Mounting case size	30TE
Device mounting	Flush
Mounting Mode	Withdrawable
power supply	24...48 V DC
measuring inputs	3 1/5 A CT phase current 1 1 A CT 1 1/5 A CT residual current 4 voltage input VT voltage
Number of sensors	0 temperature sensor(s)
number of Digital Inputs (DI)	22
number of analogue inputs	0
number of Digital Outputs (DO)	13 DO 1 watchdog
number of analogue outputs	0
communication ports	Front USB port 2 Rear LC 2 Rear extension port 2 with backup memory
communication protocols	SDLC
Cybersecurity	Password protection Port hardening Firmware signature Client IP address filter Secured communication with assciated tools Role-based access control Security policy management Security log LDAP RADIUS based user authentication IEC 62443-4-2 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

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

protection functions	Phase overcurrent 50/51 Line differential 87L 2 Directional phase overcurrent 67 Earth fault overcurrent 50N/51N Directional earth fault 67N Transient earth fault 67NI Neutral admittance 21YN Earth fault wattmetric 32N Restricted earth fault 64REF Thermal overload protection 49F Broken conductor 46 I2/I1 Cold load pick-up Switch ON to fault (SOTF) H2 detection H5 detection Breaker failure 50BF Directional active underpower 37P Fault locator 21FL Recloser 79 Negative sequence overcurrent 46 Overvoltage 59 Undervoltage 27 Earth fault overvoltage 59N Underfrequency 81/81N Rate of change of frequency 81R Synchro-check 25 Lockout relay 86 CT supervision VT supervision Programmable stages 99 Programmable curve Programmable logic
Arc flash protection	Yes
measurement functions	Phase current differential mode Phase current bias Current 3-phase Current zero sequence Current positive sequence Current negative sequence Current ratio of negative and positive Current phasor diagram view Current 2nd, 15th harmonics with THD Voltage single voltage Voltage residual Frequency bias
control functions	Switchgear control and monitoring Programmable switchgear interlocking Local/remote control
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	Disturbance recording Event recording Trip context information Relay maintenance
Connections - terminals	Pin (digital input/output) Ring terminal (voltage transformer) Ring terminal (current transformer)

Complementary

Digital inputs nominal operation voltage	Digital input 24...240 V DC Digital input 100...230 V AC
Time synchronisation protocol	SNTP
Software name	ESetup Easergy Pro virtual simulation test

Display type	LCD 480 x 272 pixels with single line diagram
Number of key	7 customizable
Local signalling	4 x LED device status 10 x LED tri-colour programmable
Height	6.9 in (176 mm)
Width	6.0 in (152 mm)
Depth	8.6 in (219 mm)
Net weight	7.7 lb(US) (3.5 kg)

Environment

climatic withstand	Exposure to dry heat EN/IEC 60068-2-2 Exposure to cold EN/IEC 60068-2-1 Exposure to damp heat in service EN/IEC 60068-2-30 Exposure to damp heat in service 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 Influence of corrosion/gas test 2 IEC 60721-3-3 Influence of corrosion/gas test 4 IEC 60721-3-3
Mechanical robustness	Vibrations class 2) IEC 60255-21-1 Vibrations GOST 17516.1 Vibrations IACS E10 Shocks class 2) IEC 60255-21-2 Earthquakes class 2) IEC 60255-21-3
Electromagnetic compatibility	Emission tests class A CISPR 11 Emission tests class A CISPR 32 Emission tests IACS E10 EMC immunity class 4 IEC 61000-4-2 EMC immunity level 3 IEC 61000-4-3 EMC immunity level 4 IEC 61000-4-4 EMC immunity level 4 IEC 61000-4-5 EMC immunity level 3 IEC 61000-4-6 EMC immunity level 5 IEC 61000-4-8 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 EMC immunity ANSI C37.90.1 EMC immunity ANSI C37.90.2 EMC immunity class 4 ANSI C37.90.3 EMC immunity GOST 30804.4.3 EMC immunity GOST 30804.4.12 EMC immunity GOST 32137 EMC immunity IACS E10
Ambient air temperature for operation	-40…185 °F (-40…85 °C) 16 h) -40…158 °F (-40…70 °C) 96 h)
Ambient air temperature for storage	-40…185 °F (-40…85 °C)
IP degree of protection	IP54 front 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…93 % 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

Category	US1PL1S11406
Discount Schedule	PL1S

GTIN	3606487097143
Returnability	No
Country of origin	LV

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	11.8 in (30 cm)
Package 1 Width	11.8 in (30 cm)
Package 1 Length	15.7 in (40 cm)
Package weight(Lbs)	9.9 lb(US) (4.5 kg)

Contractual warranty

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

Total lifecycle Carbon footprint	**712 kg CO2 eq.**
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]	**538 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**2 kg CO2 eq.**
Environmental Disclosure	**Product Environmental Profile**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**No**
SCIP Number	**7e74021a-7de9-46d1-8b18-7794e721876f**
EU RoHS Directive	**Compliant By Exemption**
REACh Regulation	**Reference contains Substances of Very High Concern above the threshold**

Use Longer

Lifetime extension

Repair	**No**

Use Again

Repack and remanufacture

Recyclability potential, in %	**27**
Circularity Profile	**End of Life Information**
Take-back	**No**
WEEE Label	**The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.**