Product data sheet

Specifications

PowerLogic P5V20 24-250V 4VT 10DI-8DO Eth RSTP 2*RJ45 Backup ANSI

REL50539

Product availability: Stock - Normally stocked in distribution facility

Main

Range of Product	PowerLogic P5
Product or Component Type	Protection and control relay
Relay application	Voltage
product reference	P5V20-AABB-DABAH-BAEK
Mounting case size	20TE
Device mounting	Flush
Mounting Mode	Withdrawable
power supply	24...250 V DC 100...230 V AC
measuring inputs	4 VT voltage
Number of sensors	0 temperature sensor(s)
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	Rear RJ45 2 Rear extension port 1 with backup memory Front USB port 2
communication protocols	IEC 61850 ed. 1 IEC 61850 ed. 2 DNP3 over ethernet Modbus TCP EtherNet/IP
Redundancy communication port protocol	RSTP
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

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	Overvoltage 59 Undervoltage 27 Positive sequence undervoltage 27P Earth fault overvoltage 59N Underfrequency 81/81N Rate of change of frequency 81R Synchro-check 25 Breaker failure 50BF Lockout relay 86 Programmable stages 99 Programmable logic Programmable curve
Arc flash protection	No
measurement functions	Voltage 3-phase Voltage residual Voltage zero sequence Voltage positive sequence Voltage negative sequence Voltage phasor diagram view Frequency
control functions	Switchgear control and monitoring Programmable switchgear interlocking Local/remote control
controllable switchgear devices	8 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	VT supervision 60
Connections - terminals	Pin terminal (digital input/output) Ring lugs (analog inputs and outputs)

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 EcoStruxure Power Device configuration
Web server	Embedded web page
Display type	LCD 192 x 96 pixels
Number of key	1 customizable
Local signalling	4 x LED 6 x LED tri-colour programmable
Height	6.9 in (176 mm)
Width	4.02 in (102 mm)
Depth	8.6 in (219 mm)
Net weight	5.5 lb(US) (2.5 kg)

Environment

climatic withstand	Exposure to cold IEC 60068-2-1 Exposure to dry heat IEC 60068-2-2 Exposure to damp heat in service IEC 60068-2-78 Exposure to damp heat in service IEC 60068-2-30 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 class 4 ANSI C37.90.3 EMC immunity level 3 IEC 61000-4-3 EMC immunity ANSI C37.90.2 EMC immunity GOST 32137 EMC immunity GOST 30804.4.3 EMC immunity IACS E10 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 level 3 IEC 61000-4-6 EMC immunity level 3 IEC 61000-4-18 EMC immunity ANSI C37.90.1 EMC immunity IEC 61000-4-12 EMC immunity GOST 30804.4.12 EMC immunity level 4 IEC 61000-4-16 EMC immunity level 4 IEC 61000-4-4 EMC immunity level 4 IEC 61000-4-5
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 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	3606487869511
Returnability	Yes
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)	7.7 lb(US) (3.5 kg)

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	**398 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**118 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.4 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**278 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**1 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**
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

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.**