

# Product datasheet

Specifications



motor protection relay, PowerLogic  
P3M32 6CT 3Io ringlug 4VT 6DI  
10DO 110-230V DI110V 3BIO  
6ARC RS485 RJ45 ANSI

REL52129

## Main

Range of product	PowerLogic P3
Product or component type	Protection relay
Relay application	Motor
product reference	P3M32-CBG1A-DA1FA-BAAAB
Mounting case size	30TE
Device mounting	Flush
Mounting mode	Flush mounting
power supply	48...230 V AC/DC
measuring inputs	: 1/5 A CT phase current 6 : 5/1 A CT residual current 2 : 1/0.2 A CT residual current 1 : 100 V/110 V VT voltage 4
number of Digital Inputs (DI)	6
number of analogue inputs	0
number of Digital Outputs (DO)	10 DO 1 watchdog
number of analogue outputs	0
communication ports	USB port 1 front RJ45 1 rear RS485 1 rear
communication protocols	IEC 61850 ed. 1 IEC 61850 ed. 2 IEC 60870-5-101 DNP3 TCP Modbus TCP EtherNet/IP IEC 60870-5-103 DNP3 Modbus RTU DeviceNet SPAbus
Cybersecurity	Password protection Port hardening

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>	Synchro-check 25 Undervoltage 27 Directional active underpower 32 Phase undercurrent 37 Negative sequence overcurrent 46 Phase sequence 46 Excessive starting time, locked rotor 48/51LR Thermal overload protection 49 Earth fault overcurrent 50N/51N Phase overcurrent 50/51 Breaker failure 50BF Switch ON to fault (SOTF) Capacitor bank unbalance 51C Capacitor overvoltage 59C Overvoltage 59 Earth fault overvoltage 59N Stator earth fault 64S Restricted earth fault 64REF Motor restart inhibition 66 Directional phase overcurrent 67 Directional earth fault 67N Magnetising inrush detection 68F2 H5 detection 68H5 Underfrequency 81/81N Rate of change of frequency 81R Lockout relay 86 Machine differential 87M Programmable stages 99 8 Programmable curve CT supervision 60 Cold load pick-up VT supervision 60FL
<b>Arc flash protection</b>	Yes
<b>Relay type</b>	Differential current relay
<b>measurement functions</b>	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 Fault location current Earth fault reactance Frequency Active power RMS active power Reactive power RMS reactive power Apparent power RMS apparent power Active energy Reactive energy Cos $\varphi$ Tan $\varphi$ Power angle Power factor Voltage phasor diagram view Current phasor diagram view Current 2nd, 15th harmonics with THD Voltage 2nd, 15th harmonics with THD Condition monitoring CB wear Voltage interruption

<b>control functions</b>	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
<b>controllable switchgear devices</b>	3 controlled + 5 displayed
<b>number of setting groups</b>	4
<b>monitoring functions</b>	Trip circuit supervision 74 Circuit breaker monitoring Relay self-monitoring
<b>logs and records</b>	Event recording Disturbance recording Tripping context
<b>Switchgear diagnosis type</b>	CT/VT supervision Trip circuit supervision ANSI code: TCS
<b>Connections - terminals</b>	Screw removable (digital input/output) Ring lugs fixed (current transformer) Pin removable (voltage transformer)

## Complementary

<b>Operating threshold</b>	110 V AC/DC
<b>Time synchronisation protocol</b>	SNTP
<b>Software name</b>	ESetup Easergy Pro: virtual simulation test Easergy SmartApp
<b>Web server</b>	Embedded HTTP server
<b>Display type</b>	LCD 128 x 128 pixels with single line diagram LCD 128 x 128 pixels with ANSI symbols
<b>Number of key</b>	2 customizable
<b>Local signalling</b>	2 LEDs 16 LEDs programmable
<b>Height</b>	176 mm
<b>Width</b>	270 mm
<b>Depth</b>	230 mm
<b>Net weight</b>	4.2 kg maximum

## Environment

<b>climatic withstand</b>	Exposure to dry heat Bd 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
<b>Mechanical robustness</b>	Vibrations (level: class II) conforming to IEC 60255-21-1 Vibrations: 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

<b>Electromagnetic compatibility</b>	Emission tests conforming to IEC/EN 60255-26 ed. 3 Emission tests class A conforming to CISPR 11 Emission tests class A conforming to CISPR 22 EMC immunity conforming to IEC/EN 60255-26 ed. 3 EMC immunity conforming to EN/IEC 61000-4-18 EMC immunity conforming to IEC 60255-22-1 EMC immunity level 4 conforming to EN/IEC 61000-4-2 EMC immunity conforming to IEC 60255-22-2 EMC immunity level 3 conforming to EN/IEC 61000-4-3 EMC immunity conforming to IEC 60255-22-3 EMC immunity level 4 conforming to EN/IEC 61000-4-4 EMC immunity conforming to IEC 60255-22-4 EMC immunity level 3 conforming to EN/IEC 61000-4-5 EMC immunity conforming to IEC 60255-22-5 EMC immunity level 3 conforming to EN/IEC 61000-4-6 EMC immunity conforming to IEC 60255-22-6 EMC immunity conforming to EN/IEC 61000-4-8 EMC immunity level 5 conforming to EN/IEC 61000-4-9 EMC immunity conforming to EN/IEC 61000-4-29 EMC immunity conforming to EN/IEC 61000-4-11 EMC immunity conforming to EN/IEC 61000-4-17 EMC immunity conforming to IEC 60255-27 EMC immunity class III conforming to IEC 60255-5 EMC immunity conforming to EN/IEC 60255-1
<b>Ambient air temperature for operation</b>	-40...65 °C
<b>IP degree of protection</b>	IP54 front conforming to IEC 60529
<b>maximum operating altitude</b>	2000 m
<b>Protective treatment</b>	Conformal coating
<b>Relative humidity</b>	0...95 %, without condensation

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	40 cm
<b>Package 1 Width</b>	30 cm
<b>Package 1 Length</b>	30 cm
<b>Package 1 Weight</b>	4.6 kg

## Contractual warranty

<b>Warranty</b>	Up to 10 years (Standard warranty 2 years. Please check with your local SE representative for extended warranty availability and conditions)
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## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency RoHS/REACH

## Well-being performance

 **Rohs Exemption Information** [Yes](#)

## Certifications & Standards

**Reach Regulation** [REACH Declaration](#)

**Eu Rohs Directive** Compliant with Exemptions

**China Rohs Regulation** [China RoHS declaration](#)

**Environmental Disclosure** [Product Environmental Profile](#)

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

**Circularity Profile** [End of Life Information](#)