

Product datasheet

Specifications



Power Factor controller - VarPlus Logic - VPL 12

VPL12N

Main

| | |
|---------------------------|---------------------------|
| Range | PowerLogic |
| Product Name | PowerLogic PFC Controller |
| Device Short Name | VPL12 |
| Product Or Component Type | Power factor controller |

Complementary

| | |
|--|---|
| Number Of Step Output Contacts | 12 |
| [Us] Rated Supply Voltage | 90...550 V AC <= 999 kV AC with external VT |
| Measurement Current | 0...5 A |
| Measurement Voltage | 90...550 V AC 50/60 Hz |
| Operating Mode | Manual or automatic |
| Number Of Quadrant Operation For Generator Application | 4 |
| Device Connection | Communication protocol: Modbus interface: RS485 |
| Input Function | Switch: 1 x dry contact |
| Colour Code | Front: dark grey RAL 7016 |
| Display Type | Backlit LCD |
| Display Size | 56 x 25 mm |
| Function Available | Manual programming Automatic initialisation Automatic detection Advanced programming (expert) Any step sequence |
| Metering Type | Power factor and displacement PF (signed, four quadrant) Total current harmonic distortion THD (I) Power factor average over lifetime Temperature maximum Phase current I1, I2, I3 RMS on load Active power P, P1, P2, P3 on load Reactive power Q, Q1, Q2, Q3 on load Apparent power S, S1, S2, S3 on load Voltage U21, U32, U13, V1, V2, V3 on load |
| Type Of Measurement | Capacitor current overload Irms/I1 Individual voltage harmonic Power factor Operating time Cos ϕ Ambient temperature inside the cubicle Tan ϕ |

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

| | |
|---------------------------------------|---|
| Information Displayed | Number of switching cycles per step Individual step size in kVA Remaining step capacity in % |
| Type Of Alarms | Step power loss (< 75 %) / Action: message and alarm contact + step blocked Step faulty / Action: message and alarm contact + step blocked High current (> 6 A CT) / Action: message and alarm contact Hunting (unstable regulation) / Action: message and alarm contact + step blocked Low current (< 15 mA CT) / Action: message and alarm contact Overcompensation / Action: message and alarm contact Capacitor current overload (Irms/I1) (> 130 % I1) / Action: message and alarm contact + step switched off Overtemperature (50 °C) / Action: message and alarm contact + step switched off Overtemperature (30 °C) / Action: fan switch Overvoltage (+/- 10 %) / Action: message and alarm contact + control stopped Total harmonic distortion (> 7 %) / Action: message and alarm contact + step switched off |
| Data Recording | 5 alarms |
| Operational Hours Alarm | 100000 h without maintenance |
| Operational Counter Alarm | 65000 cycles without maintenance |
| Input Type | Phase to phase Phase to neutral Insensitive to CT polarity Insensitive to phase rotation polarity Current input CT...X/5 A and X/1 A |
| Output Type | Control relay: 0.2 A 110 V DC Control relay: 1 A 48 V DC Control relay: 2 A 400 V AC 50/60 Hz Control relay: 1 A 24 V DC Control relay: 5 A 250 V AC 50/60 Hz Control relay: 5 A 120 V AC 50/60 Hz Fan: 5 A 250 V AC 50/60 Hz Fan: 1 A 48 V DC Alarm relay: 5 A 250 V AC 50/60 Hz Alarm relay: 1 A 48 V DC |
| Maximum At The Common Terminal | 10 A |
| Settings Operating Mode | Automatic Manual |
| Type Of Setting | Choice of stepping programs: auto Choice of stepping programs: LIFO Choice of stepping programs: linear Delay between 2 successive switch on the same step: 5...1200 s Step configuration programming: auto Step configuration programming: off Step configuration programming: fixed Target cos phi: 0.7 inductive...0.7 capacitive Target cos phi: dual cos φ |
| Measurement Accuracy | Voltage +/- 1 % Current +/- 1 % Frequency +/- 1 % Energy (P,Q,S) +/- 2 % Cos φ +/- 2 % Total voltage harmonic distortion THD (U) +/- 2 % Individual voltage harmonic +/- 3 % Temperature +/- 3 °C |
| Time Delay Range | 1...6500 s (on reconnection) 1...6500 s (on response) |
| Provided Equipment | User manual |
| Mounting Mode | Flush-mounted |
| Mounting Support | Panel - thickness: 1...3 mm |
| Mounting Location | In cabinet |
| Cut-Out Dimensions | 138 x 138 mm |
| Height | 144 mm |

| | |
|-------------------|--------|
| Width | 144 mm |
| Depth | 58 mm |
| Net Weight | 0.6 kg |

Environment

| | |
|--|---|
| Standards | IEC 61000-6-4 UL 61010-1 EN 61010-1 IEC 61000-6-2 IEC 61326-1 |
| Product Certifications | EAC NRTL cNRTL CE |
| Ip Degree Of Protection | Front face: IP41 Rear face: IP20 |
| Operating Altitude | <= 2000 m |
| Ambient Air Temperature For Operation | -20...60 °C |
| Ambient Air Temperature For Storage | -40...85 °C |

Packing Units

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|-------------------------------------|-----------|
| Unit Type Of Package 1 | PCE |
| Number Of Units In Package 1 | 1 |
| Package 1 Height | 9.200 cm |
| Package 1 Width | 17.700 cm |
| Package 1 Length | 18.400 cm |
| Package 1 Weight | 724.000 g |
| Unit Type Of Package 2 | S03 |
| Number Of Units In Package 2 | 8 |
| Package 2 Height | 30.000 cm |
| Package 2 Width | 30.000 cm |
| Package 2 Length | 40.000 cm |
| Package 2 Weight | 6.155 kg |
| Unit Type Of Package 3 | P06 |
| Number Of Units In Package 3 | 64 |
| Package 3 Height | 75.000 cm |
| Package 3 Width | 60.000 cm |
| Package 3 Length | 80.000 cm |
| Package 3 Weight | 58.408 kg |

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-CO₂ 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

Reach Free Of Svhc

Mercury Free

Rohs Exemption Information Yes

Certifications & Standards

Reach Regulation [REACH Declaration](#)

Eu Rohs Directive Compliant with Exemptions

China Rohs Regulation [China RoHS declaration](#)
Product out of China RoHS scope. Substance declaration for your information

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