Product data sheet

Specifications



Power Factor controller, PowerLogic PFC Controller, VPL 12

VPL12N

Product availability: Stock - Normally stocked in distribution facility

Main

Range	PowerLogic
Product name	PowerLogic PFC Controller
Product or Component Type	Power factor controller
Device short name	VPL12

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 Modbus 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
Information Displayed	Number of switching cycles per step Individual step size in kVAr Remaining step capacity in %

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

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

Type of alarms	Step power loss < 75 %)message and alarm contact + step blocked Step faultymessage and alarm contact + step blocked High current > 6 A CT)message and alarm contact Hunting (unstable regulation)message and alarm contact + step blocked Low current < 15 mA CT)message and alarm contact Overcompensationmessage and alarm contact Capacitor current overload (Irms/I1) > 130 % I1)message and alarm contact + step switched off Over Temperature 50 °C)message and alarm contact + step switched off Over Temperature 30 °C)fan switch Over Voltage +/- 10 %)message and alarm contact + control stopped Total harmonic distortion > 7 %)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 0.04…0.1 in (1…3 mm)
Mounting Location	In cabinet
Cut-out dimensions	138 x 138 mm
Height	5.7 in (144 mm)
Width	5.7 in (144 mm)
Depth	2.3 in (58 mm)
Net Weight	1.3 lb(US) (0.6 kg)

Compatibility code	VPL 12

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	<= 6561.68 ft (2000 m)
Ambient Air Temperature for Operation	-4…140 °F (-20…60 °C)
Ambient Air Temperature for Storage	-40…185 °F (-40…85 °C)

Ordering and shipping details

Category	US1DE2C00050
Discount Schedule	DE2C
GTIN	3606480800115
Returnability	Yes
Country of origin	DE

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	3.622 in (9.200 cm)
Package 1 Width	6.969 in (17.700 cm)
Package 1 Length	7.244 in (18.400 cm)
Package weight(Lbs)	25.644 oz (727.000 g)
Unit Type of Package 2	S03
Number of Units in Package 2	8
Package 2 Height	11.811 in (30.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	13.569 lb(US) (6.155 kg)
Unit Type of Package 3	P06
Number of Units in Package 3	64
Package 3 Height	29.528 in (75.000 cm)
Package 3 Width	23.622 in (60.000 cm)
Package 3 Length	31.496 in (80.000 cm)
Package 3 Weight	128.768 lb(US) (58.408 kg)

Contractual warranty

Warranty (in months)	18

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	**238 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**82 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.2 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0.3 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**155 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	**Yes**
SCIP Number	**Fb1ad43d-1a69-4fc3-8936-92a443d1d0b3**
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 Again

Repack and remanufacture

Recyclability potential, in %	**20**
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.**