

# Product datasheet

Specifications



## Power Factor controller - VarPlus Logic - VPL 6

VPL06N

### Main

Range	PowerLogic
Product name	PowerLogic PFC Controller
Device short name	VPL6
Product or component type	Power factor controller

### Complementary

Number of step output contacts	6
[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	Automatic detection Advanced programming (expert) Manual programming Any step sequence Automatic initialisation
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	Ambient temperature inside the cubicle Tan $\phi$ Individual voltage harmonic Cos $\phi$ Operating time Power factor Capacitor current overload Irms/I1

<b>Information displayed</b>	Number of switching cycles per step Remaining step capacity in % Individual step size in kVAr
<b>Type of alarms</b>	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 (I <sub>rms</sub> /I <sub>1</sub> ) (> 130 % I <sub>1</sub> ) / 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
<b>Data recording</b>	5 alarms
<b>Operational Hours alarm</b>	100000 h without maintenance
<b>Operational counter alarm</b>	65000 cycles without maintenance
<b>Input type</b>	Insensitive to phase rotation polarity Insensitive to CT polarity Phase to neutral Current input CT...X/5 A and X/1 A Phase to phase
<b>Output type</b>	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
<b>Maximum at the common terminal</b>	10 A
<b>Settings operating mode</b>	Manual Automatic
<b>Type of setting</b>	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
<b>Measurement accuracy</b>	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
<b>Time delay range</b>	1...6500 s (on reconnection) 1...6500 s (on response)
<b>Provided equipment</b>	User manual
<b>Mounting mode</b>	Flush-mounted
<b>Mounting support</b>	Panel - thickness: 1...3 mm
<b>Mounting location</b>	In cabinet
<b>Cut-out dimensions</b>	138 x 138 mm
<b>Height</b>	144 mm
<b>Width</b>	144 mm
<b>Depth</b>	58 mm
<b>Net weight</b>	0.6 kg

## Environment

<b>Standards</b>	IEC 61000-6-2 EN 61010-1 IEC 61000-6-4 IEC 61326-1 UL 61010-1
<b>Product certifications</b>	EAC NRTL cNRTL CE
<b>IP degree of protection</b>	Front face: IP41 Rear face: IP20
<b>Operating altitude</b>	<= 2000 m
<b>Ambient air temperature for operation</b>	-20...60 °C
<b>Ambient air temperature for storage</b>	-40...85 °C

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	9.2 cm
<b>Package 1 Width</b>	17.8 cm
<b>Package 1 Length</b>	18.4 cm
<b>Package 1 Weight</b>	696 g
<b>Unit Type of Package 2</b>	S03
<b>Number of Units in Package 2</b>	8
<b>Package 2 Height</b>	30 cm
<b>Package 2 Width</b>	30 cm
<b>Package 2 Length</b>	40 cm
<b>Package 2 Weight</b>	6.05 kg
<b>Unit Type of Package 3</b>	P06
<b>Number of Units in Package 3</b>	64
<b>Package 3 Height</b>	50 cm
<b>Package 3 Width</b>	80 cm
<b>Package 3 Length</b>	60 cm
<b>Package 3 Weight</b>	60.348 kg

## Offer Sustainability

<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>REACH free of SVHC</b>	Yes
<b>EU RoHS Directive</b>	Compliant <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information
<b>RoHS exemption information</b>	<a href="#">Yes</a>
<b>WEEE</b>	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

**Recommended replacement(s)**