

# Hoja de datos del producto

## Características

# VPL06N

## Controlador de factor de potencia VarPlus Logic 6 pasos ModBus



### Principal

Gama	VarPlus
Product name	VarPlus Logic
Device short name	VPL6
Tipo de producto o componente	Power factor controller

### Complementos

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	1 dry contact (switch for cos phi 2.)
Colour code	Front : dark grey (RAL 7016)
Display type	Backlit LCD
Display size	56 x 25 mm
Function available	Automatic detection Manual programming Any step sequence Advanced programming (expert) 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	Individual voltage harmonic Power factor Capacitor current overload Irms/I1 Cos φ Ambient temperature inside the cubicle Operating time Tan φ
Information displayed	Individual step size in kVA Number of switching cycles per step Remaining step capacity in %
Data recording	5 alarms

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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 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 Overcompensation / Action: message and alarm contact
Service life in hours	100000 h without maintenance
Mechanical durability	65000 cycles without maintenance
Input type	Current input CT...X/5 A and X/1 A Phase to neutral Phase to phase Insensitive to CT polarity Insensitive to phase rotation polarity
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
Current of common	10 A
Settings operating mode	Manual Automatic
Type of setting	Choice of stepping programs : linear Step configuration programming : auto Step configuration programming : fixed Target cos phi : dual cos φ Choice of stepping programs : auto Choice of stepping programs : LIFO Delay between 2 successive switch on the same step : 5...1200 s Step configuration programming : off Target cos phi : 0.7 inductive...0.7 capacitive
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
Equipo suministrado	User manual
Mounting mode	Flush-mounted
Mounting support	1...3 mm panel
Mounting location	In cabinet
Cut-out dimensions	138 x 138 mm
Altura	144 mm
Anchura	144 mm
Profundidad	58 mm
Peso del producto	0.6 kg

## Ambiente

Normas	IEC 61000-6-2 EN 61010-1 IEC 61000-6-4 IEC 61326-1 UL 61010-1
Certificaciones de producto	EAC CE CNRTL NRTL
IP degree of protection	Rear face : IP20 Front face : IP41
Operating altitude	<= 2000 m
Temperatura ambiente de trabajo	-20...60 °C
Temperatura ambiente de almacenamiento	-40...85 °C