



## Power Quality Solutions

### PQvar Series Static Var Generator (SVG)

**Series/Type:** PQSWF8050V344/ 3P4W wall-mounted

**Ordering code:** B44066F8050V344

**Date:** August 2018

**Version:** 1

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### Characteristics

- The SVG PQVar series is a Static Var Generator (SVG) system designed to eliminate reactive power produced by non-linear loads; it monitors the current permanently and compensates the unwanted elements of the measured current.
- 50 kvar 3P4W (3-phase/4-wire) device for phase and neutral wire current correction

### Features

- User-friendly menu operation via TFT color touch screen
- Reactive power compensation  $\cos \varphi \leq 0.99$
- Ultra-fast reactive power compensation
- Load balancing between phases and neutral wire
- Power factor correction fully inductive and capacitive current compensation from 0 ... 100%
- High performance and reliability
- Simple installation & commissioning

### Typical applications

- Industries having variable frequency drives, inverters UPS, furnaces such as paper, steel rolling mills, textile, garment, software parks, automotive, battery manufacturing, continuous process plants, pharmaceutical industries, etc.
- Green power generation (e.g. photovoltaics and wind turbines)
- Data centers, hotels, hospitals, shopping malls and office buildings

### Safety features

- Highest safety and reliability
- Overload protection
- Internal short-circuit protection
- Overheating protection
- Overvoltage and undervoltage protection
- Inverter bridge protection
- Resonance protection
- Fan fault alarm

**Technical data and specifications SVG system**

Type	PQSWF8500V344
Ordering code	B44066F8500V344
System input / number of phases	3-phase/4-wire
Compensation capacity	500 kvar
Frequency	45 ... 62Hz
Input voltage (min. / max.)	400V(-40% ... +20%)
Inverter technology	12 IGBT three-level topology
Steady state response time	< 5 ms (steady state response time to full steady state compensation)
Power factor correction	Fully inductive and capacitive current compensation from 0 ... 100%
Weight of a single unit	Approx. 35kg
Dimensions of a single unit	Approx. 500x190x560 mm (w x d x h)
Current transformer	3 CTs are needed. Source or load-side selectable, primary current range 150 A ... 10000 A, secondary current 5 A (see details of choosing the right CT in the manual) External current transformers are mandatory needed, but not included in the SVG delivery.
Efficiency	> 97%
Cabinet mounting	Wall
Cooling	Smart air cooling 220L/sec
Communication ports	RS485, CAN, and network port
Communication protocols	Modbus and PMBus
Operating temperature	-10 ... +40 °C
Protection class	IP20 (other IP classes are customizable)
Panel color	RAL7035 light grey

**Technical data and specifications SVG system (cont.)**

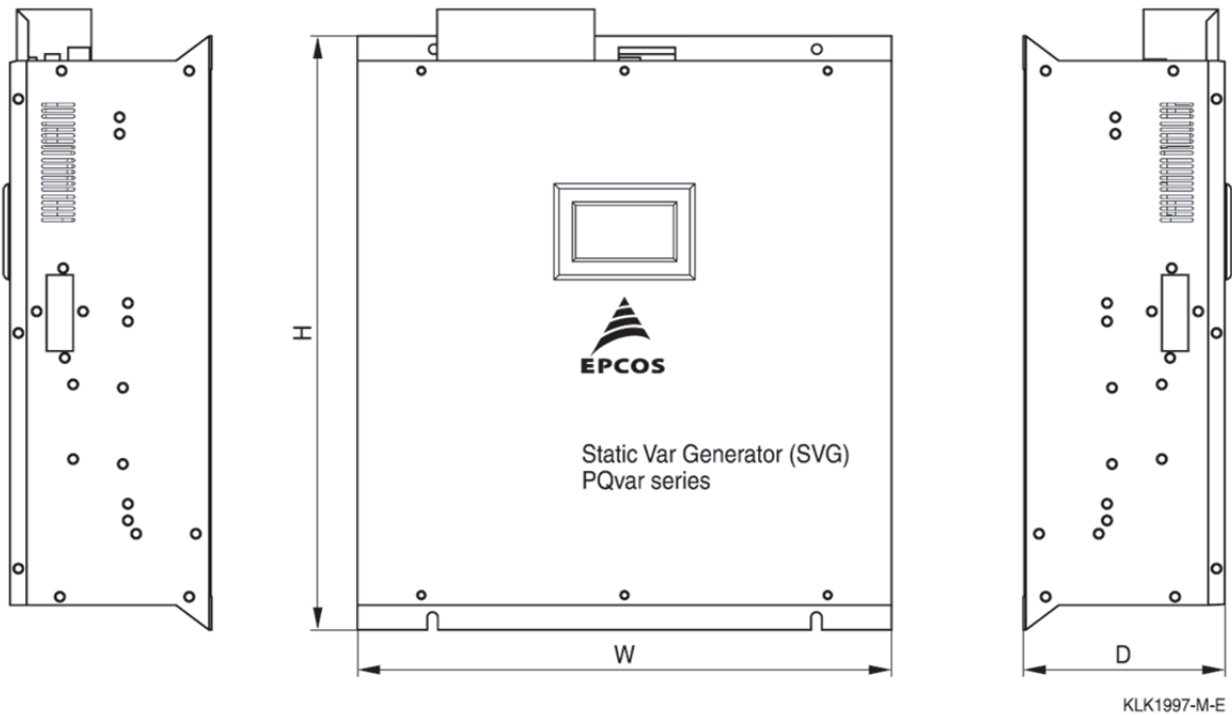
Humidity	5 ... 95%, non-condensing
Self-protection	Yes
Overheating protection	Yes
Overvoltage and undervoltage protection	Yes
Typical noise level	< 65 dB (depending on model and load conditions)
Altitude	1% up 1500 m. Between 1500 m to 4000 m, according to GB/T3859.2, the power decreases by 1% for every additional 100 m.
General safety requirements for SVG use and operation area	EN 50178:1997/IEC 50178:1997
SVG EMC requirements	EN 61000_6_2(2005)/EN55011, GROUP1, CLASS A IEC 61000_6_2(1999)/CISPR11, GROUP1, CLASS A
SVG performance requirements	EN 50091-3/IEC 62040-3/AS 62040-3(VFI SS 111)

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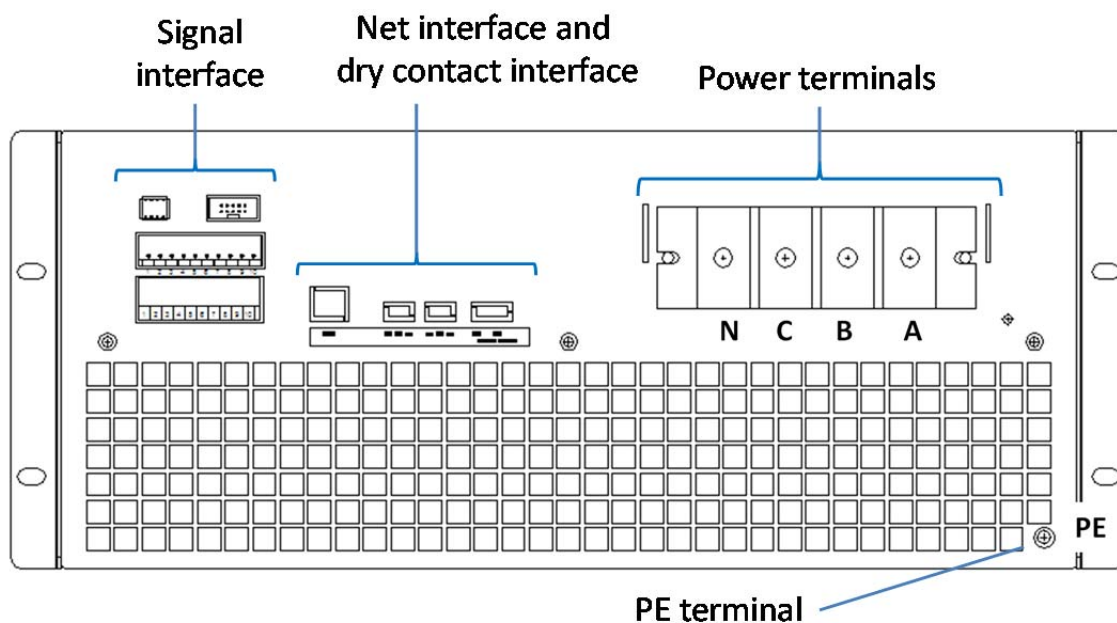
Dimensional drawing – 50 kvar Wall-Mounted system

Outside cabinet dimensional drawings

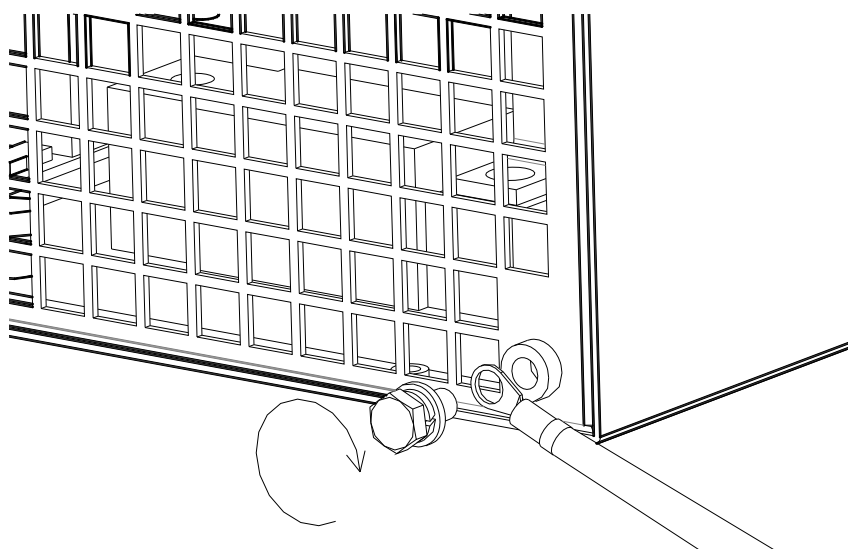


Model	W (width) mm	D (depth) mm	H (high) mm
30 kvar wall-mounted	500	190	560

AC mains connection

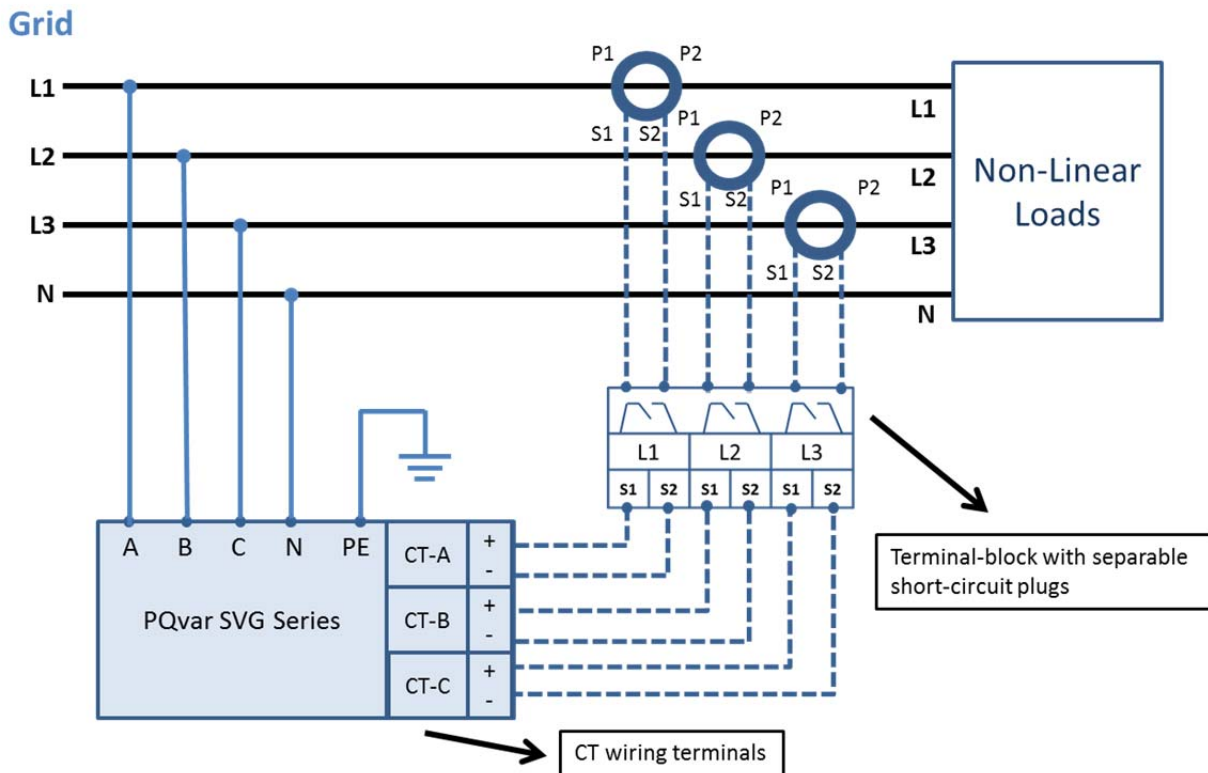


Wiring terminal



Installation of ground wire

Connection Diagram



Principle of CT connection

Note: Current transformers are not included in the delivery and must be purchased separately.

**Please also carefully read the cautions, notes and warnings in the SVG PQVar operating and installation instructions manual!**

## Important notes

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## Important notes

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