Power Quality Solutions

PQvar Series Static Var Generator (SVG)

Series/Type:	**PQSF6500V315 / 3P3W Floor-mounted**
Ordering code:	**B44066F6500V315**
Date:	August 2018
Version:	1

EPCOS AG is a TDK Group Company.

Characteristics

- The SVG PQvar series is a Static Var Generator (SVG) system is designed to eliminate reactive power produced by non-linear loads; it monitors the current permanently and compensates the unwanted elements of the measured current.
- 500 kvar 3P3W (3-phase/3-wire) device for phase current correction

Features

- User-friendly menu operation via TFT color touch screen
- Ultra-fast reactive power compensation cos φ≤0.99
- Load balancing between phases
- 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	PQSF6500V315
Ordering code	B44066F6500V315 (floor-mounted)
System input / number of phases	3-phase/3-wire
Compensation capacity	500 Kvar (5x100Kvar module)
Frequency	45 … 62 Hz
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. 500 kg
Dimensions of a single unit	Approx. 600x1000x2200 mm (w x d x h)
Current transformer	2 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	Rack
Cooling	Smart air cooling 1030L/sec
Communication ports	RS485, CAN, and network port
Communication protocols	Modbus and PMBus
Operating temperature	-10 … +40 °C
Protection class	IP20 according to IEC 529 (other IP classes are customizable)
Panel color	RAL7035 light grey

Technical data and specifications SVG system (cont.)

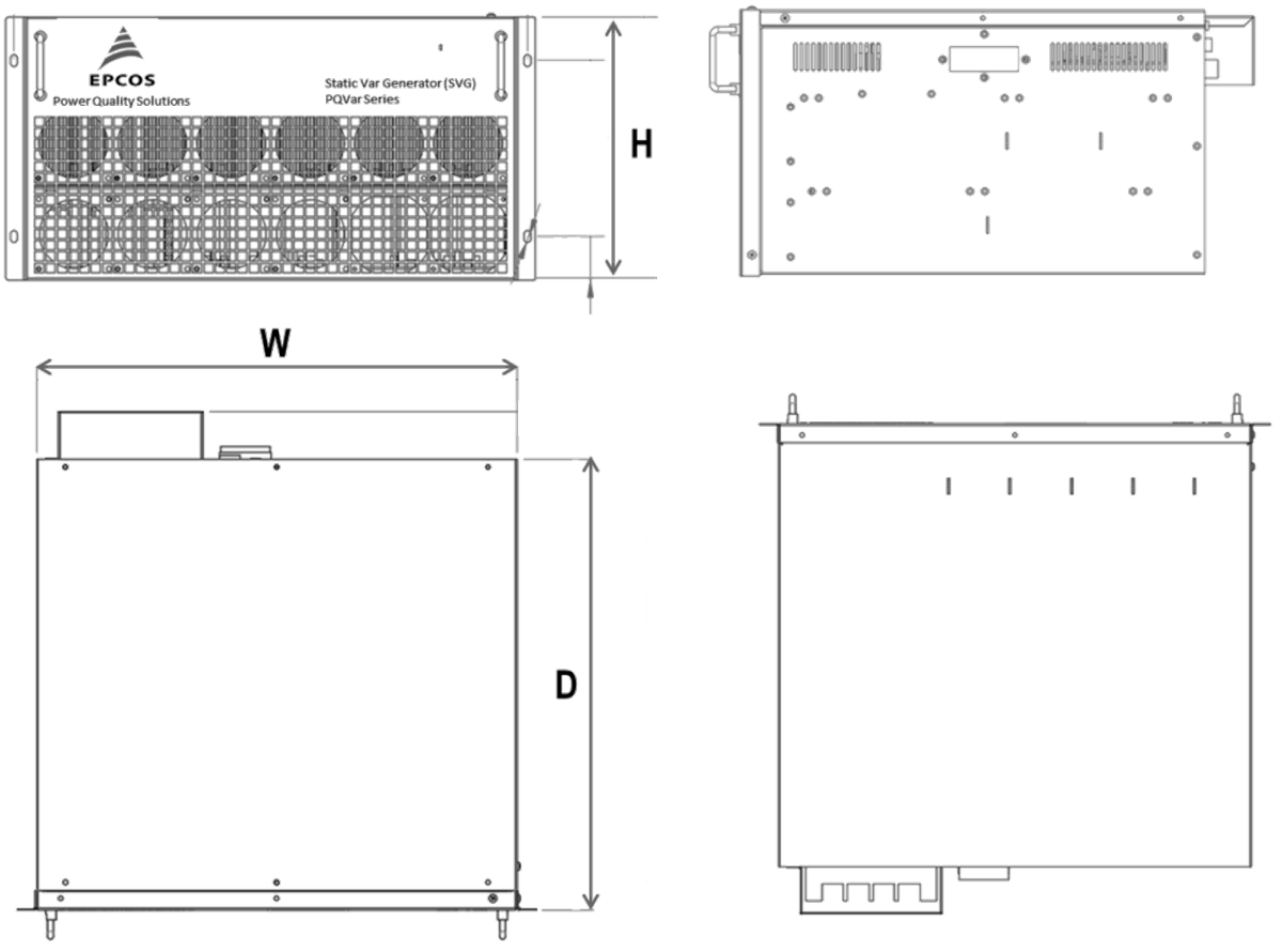
Humidity	5 …95%, non-condensing
Self-protection	Yes
Overheating protection	Yes
Overvoltage and undervoltage protection	Yes
Typical noise level	< 65 dB (depending on model and load conditions)
Altitude	1% up 1500 m. Between 1500 m to 4000 m, according to GB/T3859.2, the power decreases by 1% for every 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)

Display of ordering codes for EPCOS products

The ordering code for one and the same EPCOS product can be represented differently in data sheets, data books, other publications, on the EPCOS website, or in order-related documents such as shipping notes, order confirmations and product labels. **The varying representations of the ordering codes are due to different processes employed and do not affect the specifications of the respective products**. Detailed information can be found on the Internet under www.epcos.com/orderingcodes

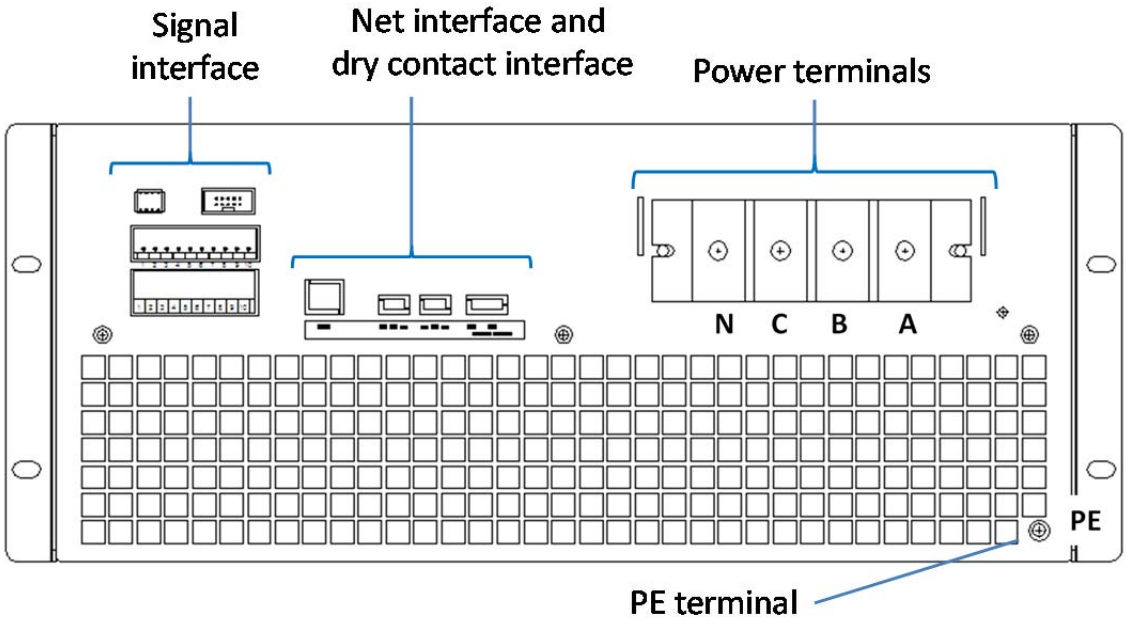
Dimensional drawing

100 Kvar modules

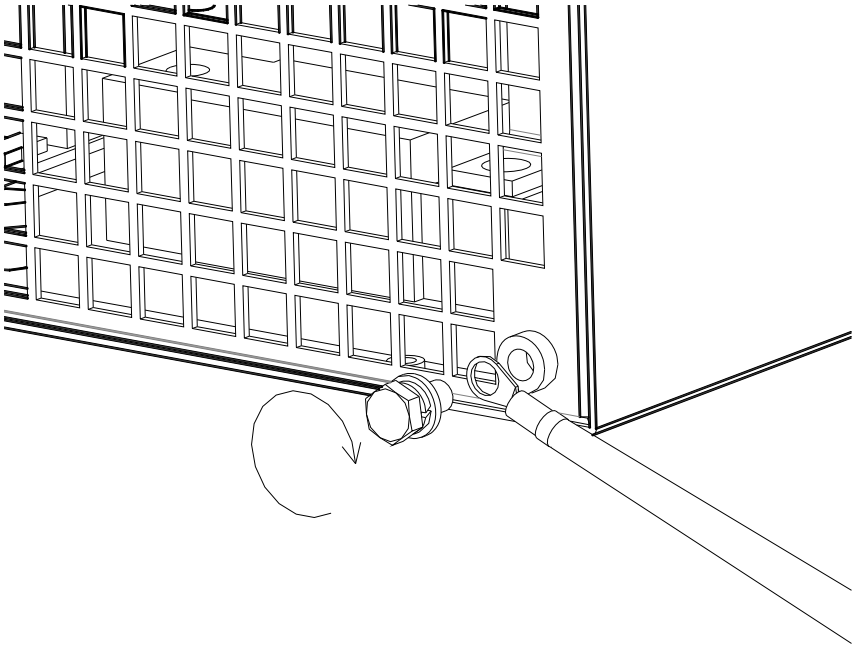


Model	W (Width) mm	D (Depth) mm	H (High) mm
100 kvar Module	500	470	269

AC mains connection

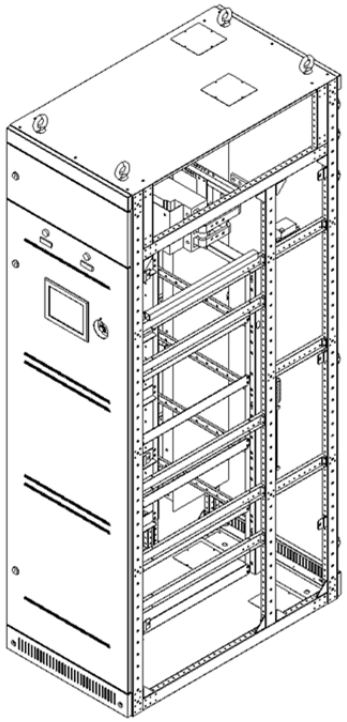


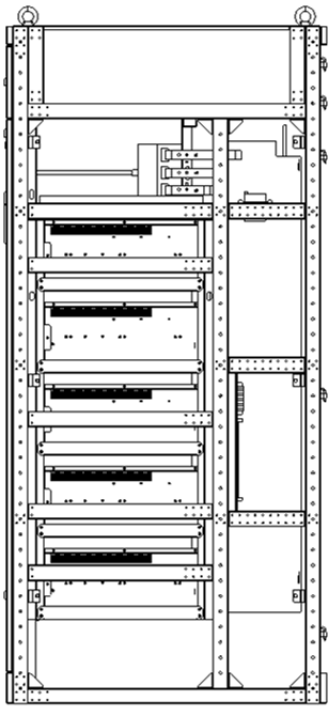
Wiring terminal

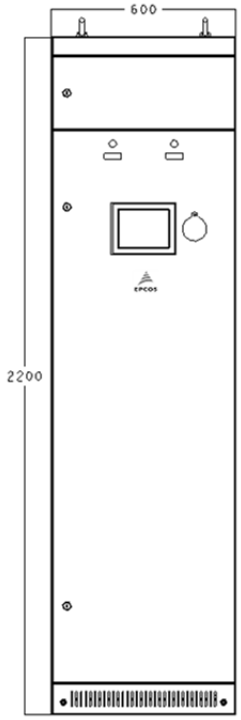


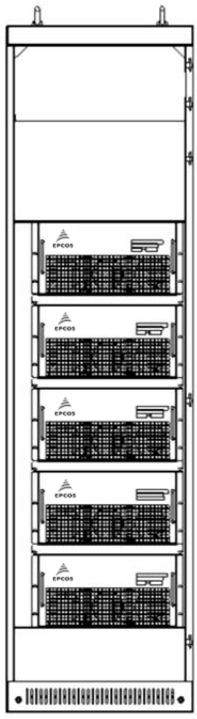
Installation of ground wire

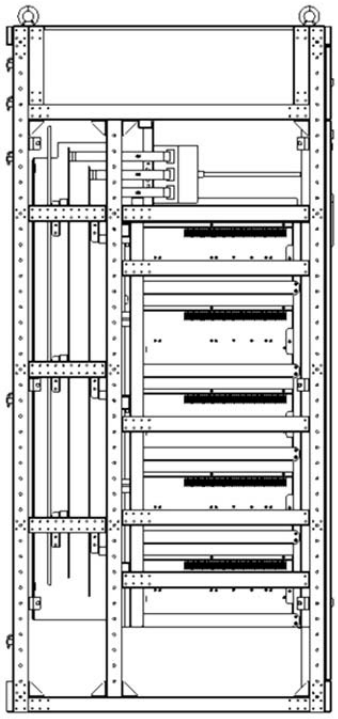
Cabinet dimensional drawings

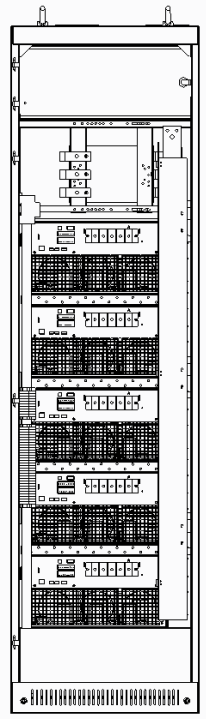


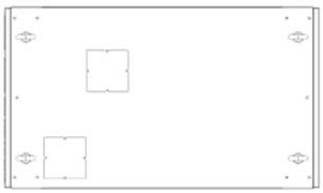


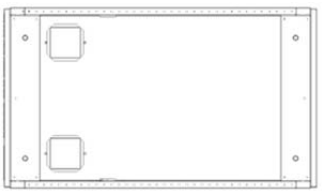




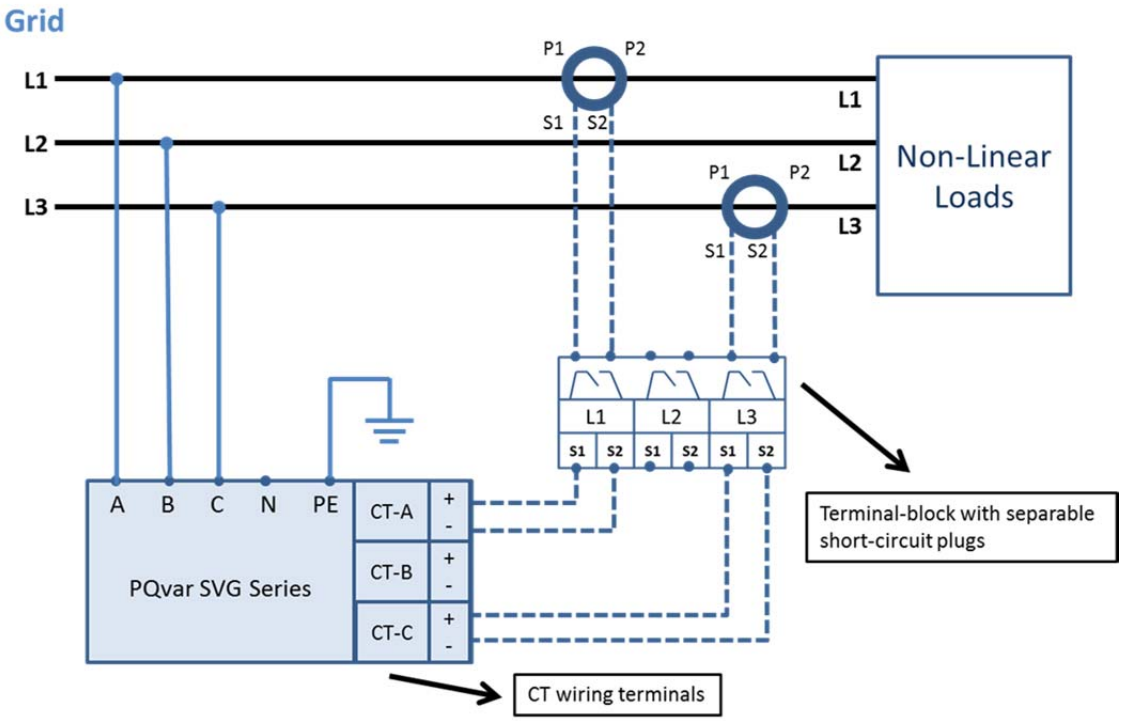








Connection Diagram



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

The following applies to all products named in this publication:

1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application.** As a rule, EPCOS is either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether an EPCOS product with the properties described in the product specification is suitable for use in a particular customer application.
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Important notes

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