



Power Quality Solutions

PQvar Series Static Var Generator (SVG)

Series/Type: PQSF6100V315 / 3P3W Floor-mounted
Ordering code: B44066F6100V315
Date: August 2018
Version: 1

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Characteristics

- Static Var Generator (SVG) PQvar Series utilizes three level inverter topology to provide real time response to reactive power requirements and load balancing. It monitors the current continuously and compensates the reactive part of the measured current.
- 100 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 $\cos \varphi \leq 0.99$
- Load balancing between phases
- Power factor correction fully inductive and capacitive current compensation from 0 to 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

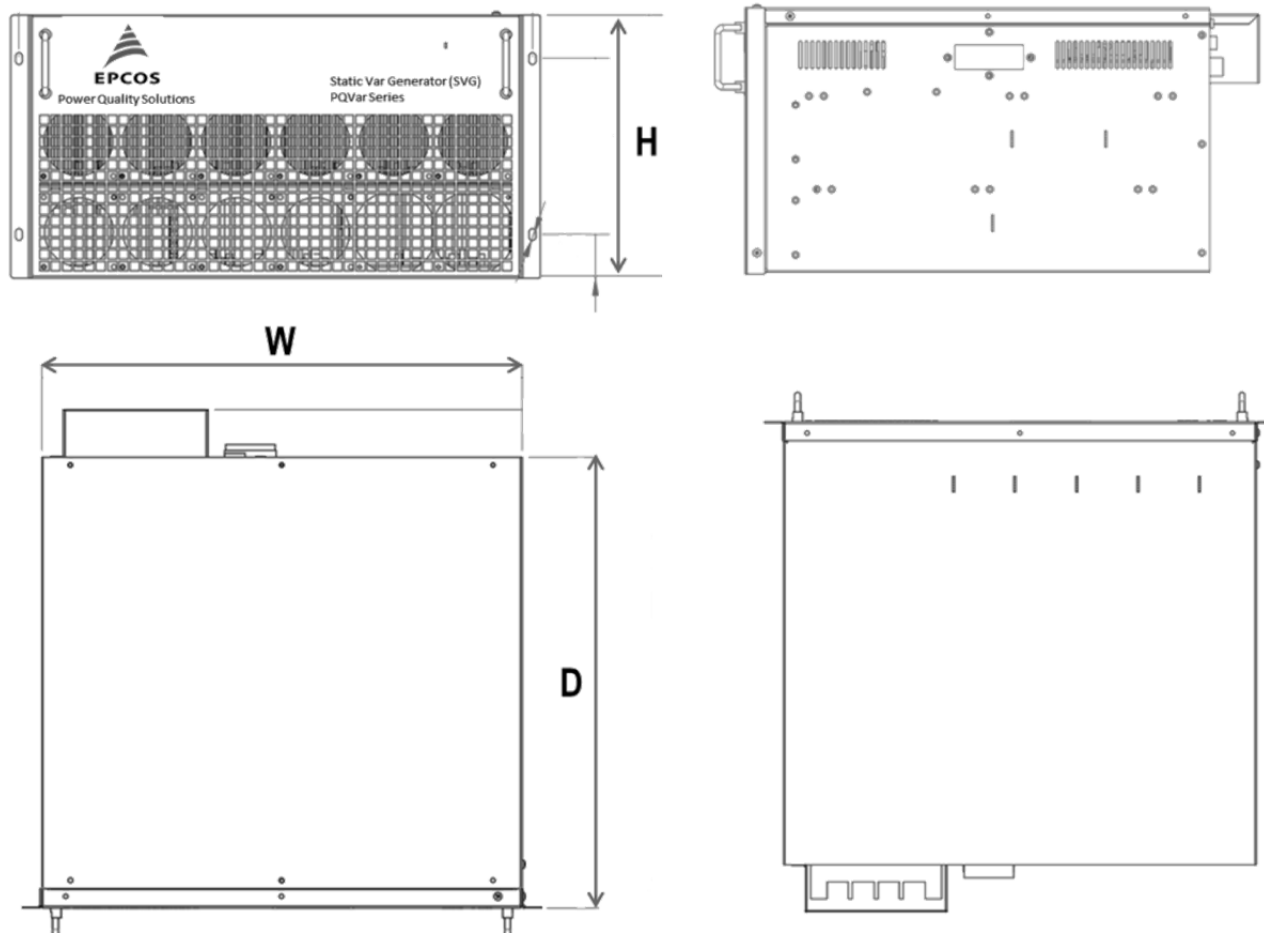
Type	PQSF6100V315
Ordering code	B44066F6100V315 (floor-mounted)
System input / number of phases	3-phase/3-wire
Compensation capacity	100 Kvar (1x100Kvar module)
Frequency	45 ... 62 Hz
Input voltage (min. / max.)	400 V (-40 ... +20%)
Inverter technology	12 IGBT three-level topology
Steady state response time	<15 ms (steady state response time to full steady state compensation)
Power factor correction	Fully inductive and capacitive current compensation from 0 to 100%
Weight of a single unit	Approx. 308kg
Dimensions of a single unit	Approx. 600 x 1000 x 2200 mm (w x d x h)
Current transformer	2 CTs are needed. Source or load-side selectable, primary current range 150 ... 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 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)

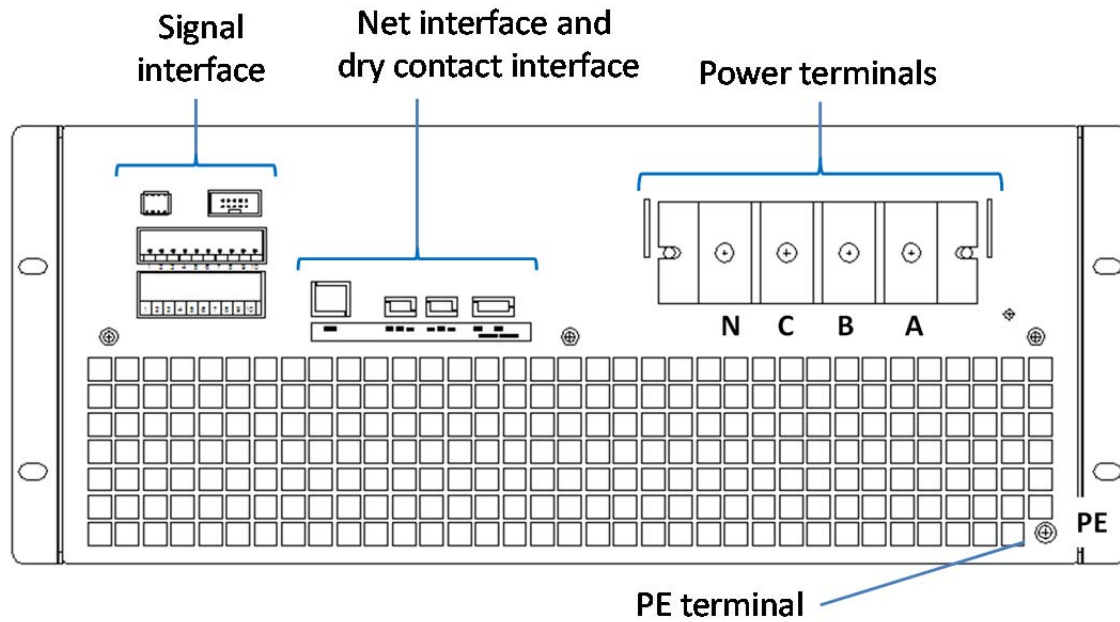
Dimensional drawing

100 kvar module

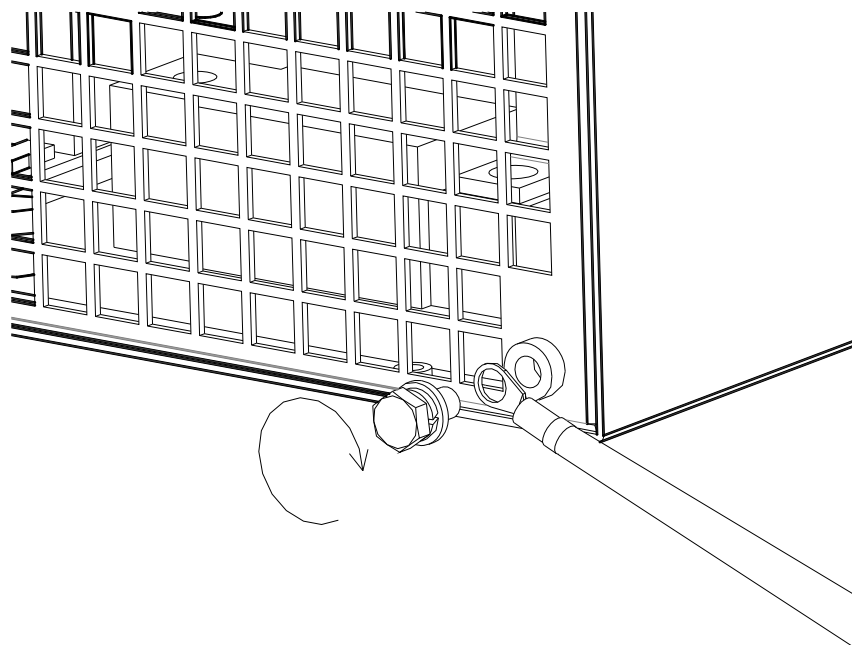


Model	W (Width) mm	D (Depth) mm	H (High) mm
100 kvar Module	500	520	269

AC mains connection

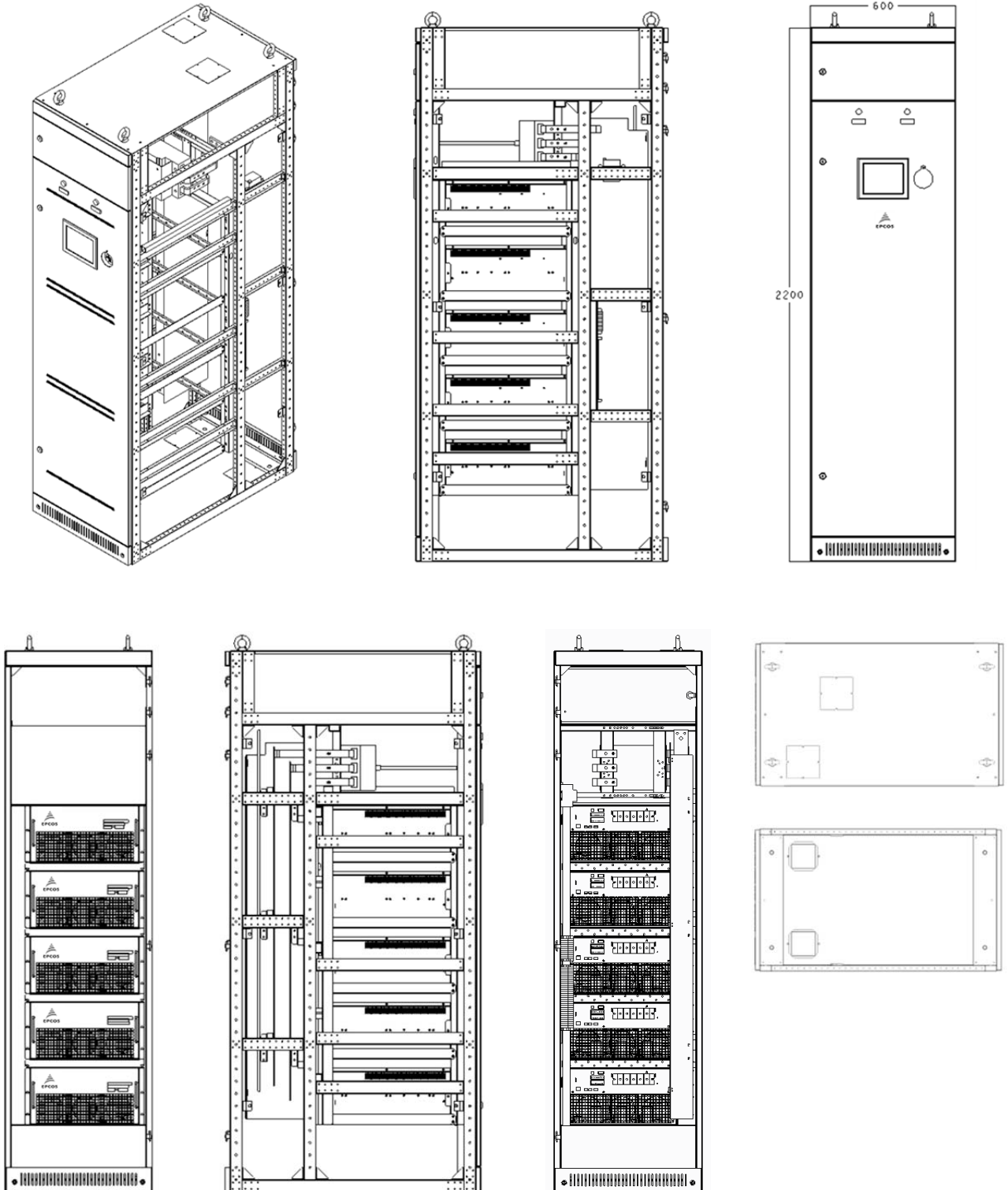


Wiring terminal

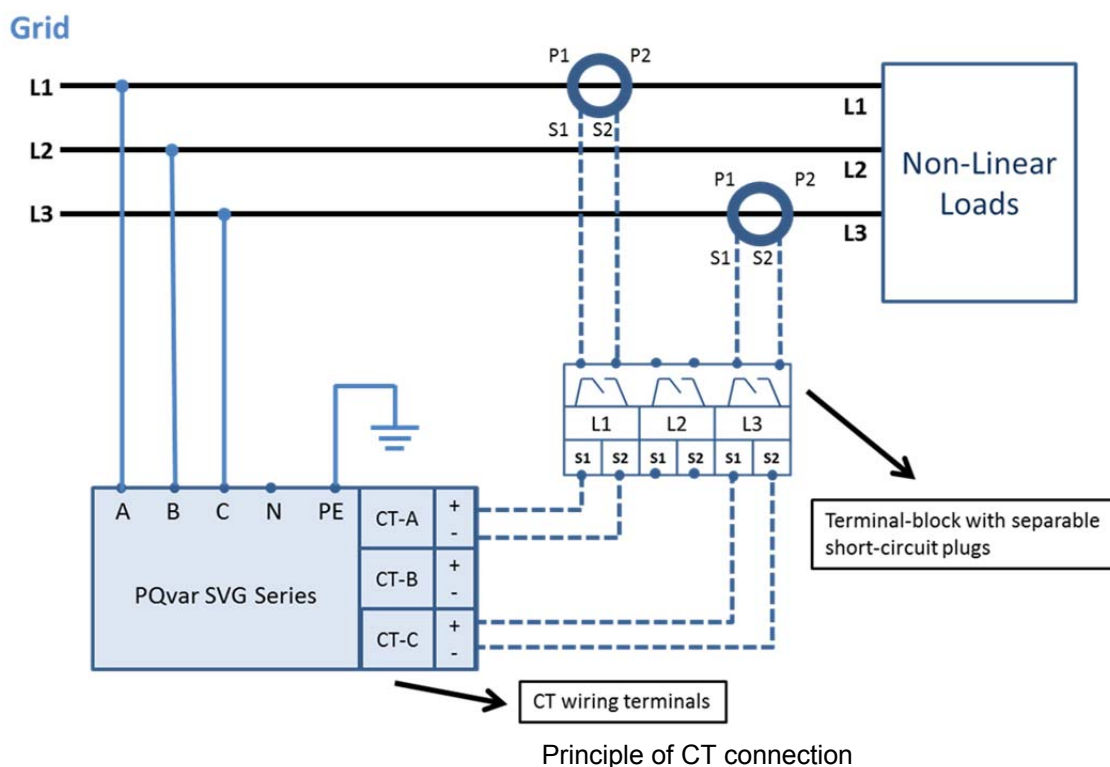


Installation of ground wire

Cabinet dimensional drawings



Connection diagram



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!

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Release 2018-06