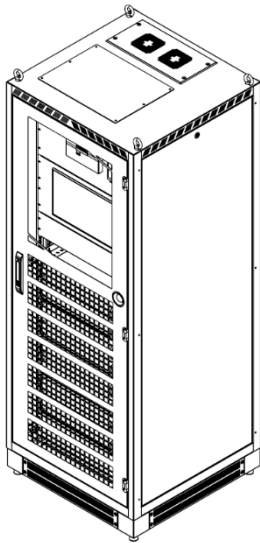




**DATASHEET OTSOSMART-RACK-100K**

**DESCRIPTION**



**KEY FEATURES:**

- SVG (STATIC VAR GENERATOR) INSIDE
- SiC MOSFET TECHNOLOGY
- SUITABLE FOR INDUCTIVE AND CAPACITIVE LOADS
- 15.6" ON BOARD PANEL PC
- REMOTE CONTROL BY ON BOARD SIM
- 4 POLES MTB
- A LOT OF SELECTABLE FUNCTIONS
- ULTRA-FAST RESPONSE TIME
- NOT INFLUENCED BY CURRENT HARMONICS
- GRID - OTSOSMART - LOAD PARAMETER READINGS
- WEB APP AND MOBILE APP
- REMOTE ALARM MONITORING
- AUTOMATIC REPORTS

**PRODUCT DESCRIPTION**

OTSOSMART is a smart Power Factor Corrector (PFC), that also allows the phase correction of capacitive loads, a function not possible with traditional capacitors. Compared to the traditional power factor correction systems, it works without problems or deratings even in the presence of systems with high harmonic contribution, eliminating the risk of resonance and reducing the risk of failure. The ultra-fast response time allows the device to follow the load profile, making the product suitable to manage highly variable loads.

The revolutionary SiC Mosfet technology has driven the design optimization of power quality products, delivering unparalleled improvements in performances and applications.

PQ-Vision management APP (part of the E-Farm platform) allows full reading and control of the device.

**MAIN DATA**

Rated Power	100 kvar
Rated current	150 A
Rated Voltage	400 V
On Board MTB Breaker	4 poles 400A
Breaking Capacity Icu	50KA
Voltage range	228-456V
Dimensions (W x D x H mm)	820 x 820 x 2150
Net weight	260 kg
Color	Black RAL9005 orange peel
On board HMI	15.6"
Data Connection	4G, with on-board SIM
Standards	EN 61349-1 EN 62477-1 EN 61000-6-4 EN 61000-6-2

**PERFORMACES**

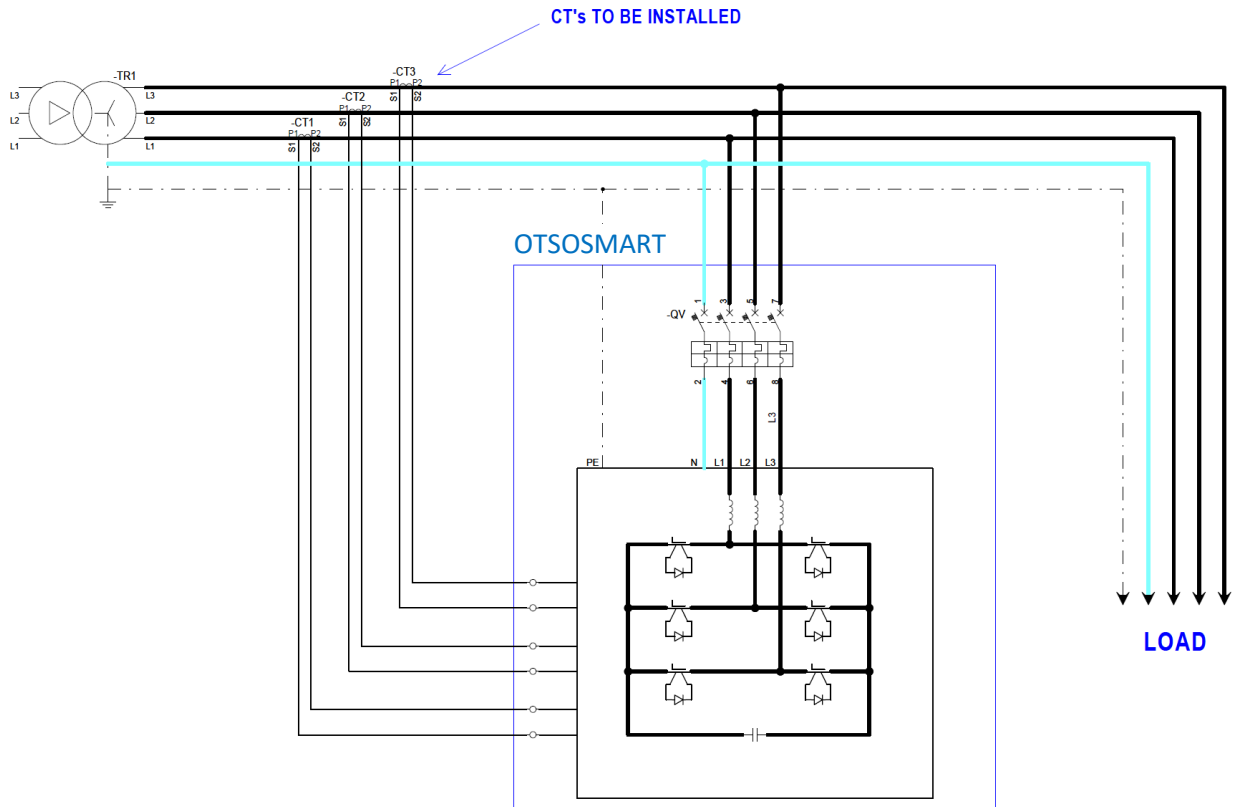
SVG Technology	SiC (Silicon carbide)
Rated frequency	50/60Hz, auto sensing (Range: 45Hz~62.5Hz)
Parallel quantities	Max 200kvar (2 modules 100K) - if over 200kvar breakers and bars must be changed
Efficiency	99% (max)
Connection type	3 ph + N
CT type	___/5 A (primary CT current depends on the plant current)
CT location	Grid side or Load side (Grid side is recommended)
Control algorithm	instantaneous reactive power
Fast response time	<50 $\mu$ s
Full response time	<15ms
Target cos phi	Adjustable from 0.7 capacitive to 0.7 inductive (from -0.7 to +0.7)
Switching frequency	Average 40kHz, up to 95kHz
Cooling air requirement	310CFM (Cubic Feet per Minute)
Noise level	<61dB (Full load)
Communications ports	Ethernet port (RJ45), WiFi
Communications protocols	Modbus TCP/IP, OPC/UA, MQTT, API REST
Protection functions	Over-voltage protection, under-voltage protection, Temperature protection, over-compensation protection
Remote management	VPN, FOTA remote update
Aux fans	230V, with internal thermostat (adjustable)
Storage temperature	-40°C~70°C
Operating Ambient temperature	-10°C~40°C (derating is necessary if ambient temperature exceeds 40°C)
Temperature derating	Automatic (by ambient temperature and by internal bridge temperature)
Relative humidity	5% to 95%, non-condensing
Altitude	$\leq$ 1500m, 1500-4000m, derating 1% for every 100m altitude increased
Protection class	IP21
MTBF	100.000 hrs.
Rogowski probes	Available on request, with /5A converter

**WORKING MODES**

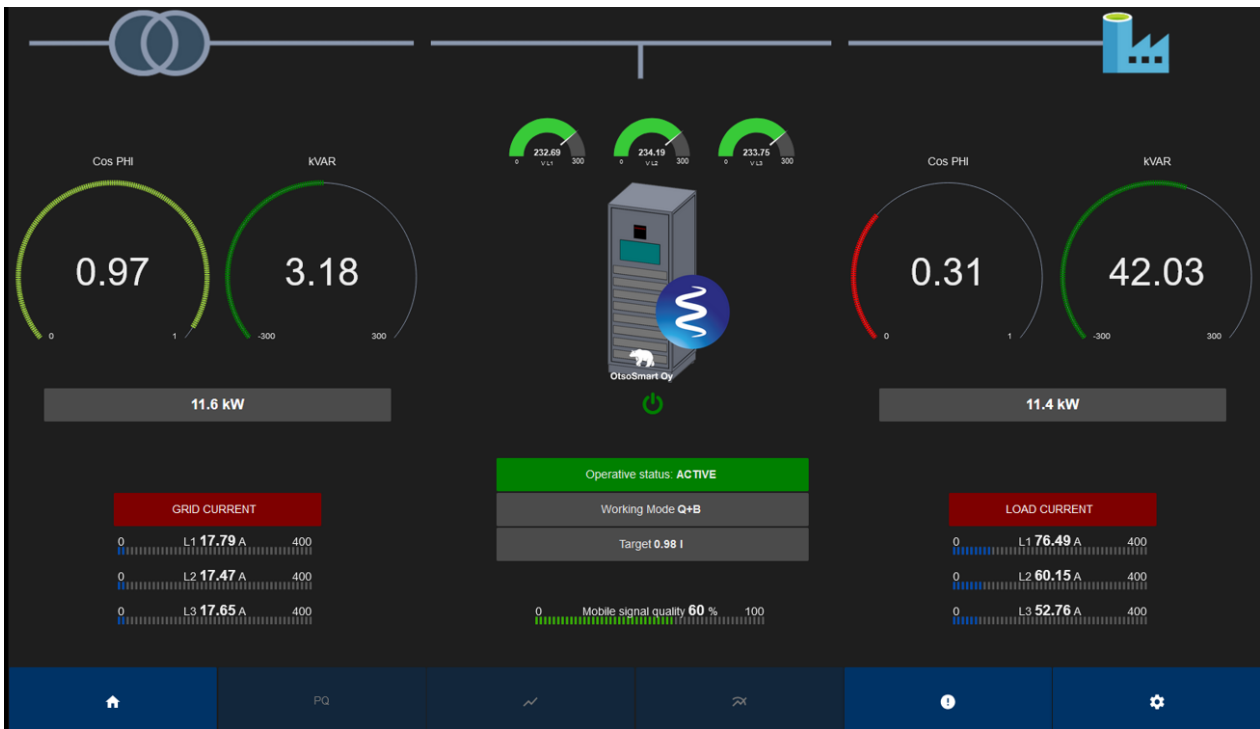
Q - Target cos phi	standard
Constant var	standard
Q - Target var	standard
B - Balancing	standard
Q+B	standard
B+Q	standard
H - Active Filter	Not available for this model
Q+H	Not available for this model
Q+B+H	Not available for this model
RGB lamp	It shows status and working mode of the device.



CONNECTION DIAGRAM



HMI DESCRIPTION



Grid Side Parameters

OTSOSMART

Load Side Parameters

