



Return-On-Invest

- Cost-efficient design
- High yield under various conditions

Safe

- Standard DC surge arrester (type II)
- Patented Riso and RCD protection

Flexible

- 3 MPPTs with up to 10 input strings
- Lightweight and flexible mounting angles 0° to 90°

Innovative

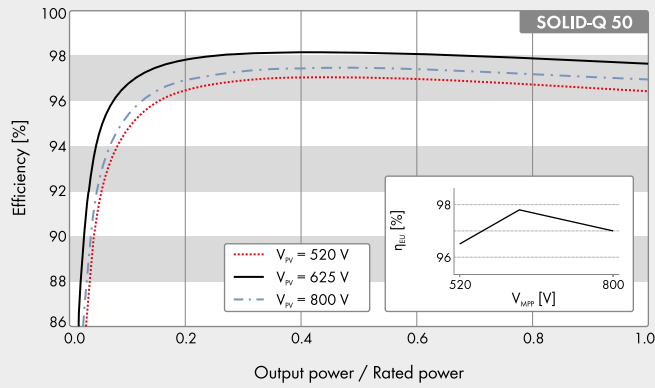
- Highly integrated grid support capability
- Smart String Monitoring

SOLID-Q 50

The ideal choice for commercial rooftop and ground mounted solar plants

The SMA SOLID-Q series offer you unmatched performance to price ratio. You will benefit from SMA reliability and high design flexibility in applications ranging from large rooftops to mountainous regions or shaded installations. The inverters are designed and tested to return high yield also under adverse environmental conditions.

Efficiency Curve



● Standard features ○ Optional – Not available

Data at nominal conditions

All information is preliminary - State: January 2018

Technical Data

Input (DC)

Max. generator power
DC rated power
Max. input voltage
MPP voltage range / rated input voltage
Min. input voltage / start input voltage
Max. input current input A / input B / input C
Max. short circuit current per MPP input
Max. input current per string
Number of independent MPP inputs / strings per MPP input

Output (AC)

Rated power
Max. AC apparent power
AC nominal voltage
AC voltage range
AC grid frequency / range
Rated power frequency / rated grid voltage
Max. output current / Rated output current
Power factor at rated power / Adjustable displacement power factor
THD
Feed-in phases / connection phases

Efficiency

Max. efficiency / European Efficiency

Protective devices

Input-side disconnection device
Ground fault monitoring / grid monitoring
DC surge arrester (Type II)
DC reverse polarity protection / AC short-circuit current capability / galvanically isolated
All-pole sensitive residual-current monitoring unit
Protection class (according to IEC 62109-1) / overvoltage category (according to IEC 62109-1)

General data

Dimensions (W / H / D)
Weight
Operating temperature range
Max. operating altitude / derating altitude
Noise emission (typical)
Self-consumption (at night)
Topology / cooling concept
Degree of protection (as per IEC 60529)
Climatic category (according to IEC 60721-3-4)
Maximum permissible value for relative humidity (non-condensing)

Features / Function / Accessories

DC connection / AC connection
Operation without Neutral line capability
Interface: 2 x RS485 / 2 x RS422
Data interface: Modbus
Smart String Monitoring
Display
Certifications and approvals

Type designation

SOLID-Q 50

62500 W _p (STC)
51020 W
1000 V
520 V to 800 V / 625 V
200 V / 300 V
30 A / 30 A / 40 A
45 A / 45 A / 60 A
12 A
3 / A:3; B:3; C:4

50000 W
55000 VA
3 / N / PE; 220 V / 380 V
3 / N / PE; 230 V / 400 V
160 V to 300 V (L-N)
50 Hz / 45 Hz to 55 Hz
50 Hz / 230 V
80 A / 75.8 A
1 / 0.8 overexcited to 0.8 underexcited
≤ 3 %
3 / 3

> 98.3% / > 98.0%

●
● / ●
●
● / ● / –
●
I / AC: III; DC: II

510 mm / 790 mm / 265 mm
63 kg
–25 °C to +60 °C
3000 m
60 dB(A)
1 W
Transformerless / forced convection
IP65
4K4H
100%

Sunclix / Terminal block

–
●
●
●

Graphic

NB/T32004, GB/T19964, EN50530, IEC 62109-1/2, IEC 61727, IEC 62116, IEC61683, IEC 60068-2-x (additional regional certifications available on request)

SOLID-Q 50