

SB100-1R5G-4-PV Solar Water Pump Controller

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1.5 kW SB100 Solar Pumping VFD

SB100 solar water pump controller with MPPT tracking efficiency up to 99%, automatic start and sleep, PV over-voltage and over-current protection, automatic over-temperature derating, optional GPRS app monitoring and an optional IP54 cabinet.



Rated Electrical Data

Rated values from the SB100 data sheet.

Rated Output Power	1.5 kW
Rated Input Current	5 A
Rated Output Current	4.2 A
Maximum DC Input Current	9 A

Recommended Solar Modules

Recommended module power and string configuration for modules with 37 ± 1 V or 45 ± 1 V open-circuit voltage.

37 V Module Power	250 Wp
37 V Modules per String	18
37 V Parallel Strings	1
45 V Module Power	300 Wp
45 V Modules per String	15
45 V Parallel Strings	1

Installation Dimensions

Controller dimensions and installation-hole diameter in millimetres.

W1	126 mm
W2	115 mm
H1	186 mm
H2	175 mm
D1	158 mm
D2	70.5 mm
Installation Hole Diameter	5 mm

Controller Configuration

Model code and controller configuration.

Model Configuration Code	4
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Features and Operating Notes

Shared SB100 features and configuration notes.

Maximum MPPT Tracking Efficiency	99 %
Protection Functions	PV over-voltage protection; over-current protection; automatic derating against over-temperature.
Remote Monitoring	Optional GPRS module for remote controller monitoring through the app.
Automatic Start and Sleep	Yes
Low-Voltage Boost Module	Models rated up to 2.2 kW can be configured with a boost module for low-voltage operation and fewer solar panels.
Cabinet Option	Optional cabinet product for IP54 protection level.
AC and DC Input Note	Simultaneous AC and DC access requires customization.
Pump Compatibility Note	Synchronous water pump configurations require customization. The factory default is DC input controlling an asynchronous water pump.

Solar Water Pumping System Diagram



SB100 Solar Water Pump Controller Wiring Diagram

