

## SolarEdge S650B-1DM4MBM

Product code: **OP.Solaredge.S650B-1DGM4MBM**



The SolarEdge S650B-1DM4MBM power optimizers are DC-DC devices designed to be directly connected to photovoltaic modules to maximize energy harvesting. They achieve this through independent Maximum Power Point Tracking (MPPT) at the level of individual modules. These devices effectively regulate the string voltage, regardless of the string length or environmental conditions. Additionally, the power optimizers feature a safe voltage function, automatically reducing the output voltage of each unit to 1 V DC in the event of a fault, disconnection from the inverter, or when the inverter switch is in the off position. Each optimizer also transmits information about the module's operation to the inverter via the DC power cable. There are two types of power optimizers available: additional power optimizers that can be connected to one or several modules, and intelligent modules in which the power optimizers are built directly into the module.

## Product variants

Index	Price
<b>SolarEdge S650B-1DM4MBM</b> <b>OP.Solaredge.S650B-1DGM4MBM</b>	Product prices only visible after login. If you do not have an account, please register.

## Product description

The SolarEdge S650B-1DM4MBM power optimizers are DC-DC devices designed to be directly connected to photovoltaic modules to maximize energy harvesting. They achieve this through independent Maximum Power Point Tracking (MPPT) at the level of individual modules.

These devices effectively regulate the string voltage, regardless of the string length or environmental conditions. Additionally, the power optimizers feature a safe voltage function, automatically reducing the output voltage of each unit to 1 V DC in the event of a fault, disconnection from the inverter, or when the inverter switch is in the off position.

Each optimizer also transmits information about the module's operation to the inverter via the DC power cable. There are two types of power optimizers available: additional power optimizers that can be connected to one or several modules, and intelligent modules in which the power optimizers are built directly into the module.

Advantages of the SolarEdge S650B-1DM4MBM power optimizer:

Specifically designed to work with SolarEdge inverters for residential buildings

Voltage shutdown at the module level for installer and emergency service safety

Highest efficiency (99.5%)

Quick installation using a single screw

Minimizes losses due to module inhomogeneity, from production tolerances to partial shading

Flexible system design for maximum space utilization

Compatibility with bifacial modules

Technical specifications of the SolarEdge S650B-1GM4MBM power optimizer:

Nominal DC input power: 650W

Absolute maximum input voltage (Voc): 85 Vdc

MPPT working range: 12.5 – 85 Vdc

Maximum short-circuit current (Isc): 15 Adc

Maximum efficiency: 99.5%

Weighted efficiency: 98.6%

Overvoltage category II

Maximum output current: 15 Adc

Maximum output voltage: 80 Vdc

Maximum allowable system voltage: 1000 Vdc

Dimensions (width x length x height): 129 x 165 x 45 mm

Weight: 790 g

Input connector: MC4

Ingress protection rating: IP68

SolarEdge S650B-1DM4MBM power optimizer comes with a 25-year warranty, which starts after the occurrence of either (i) 4 months from the date of shipment of the power optimizers by SolarEdge, or (ii) the installation of the power optimizers. This extended warranty provides protection and confidence in the durability and reliability of the product over a long period of operation.