



PSI-OP650

INDIVIDUAL OPTIMIZER

- Full compatibility with modules with up to 650W
- MPP Tracking of each individual panel, up to 5-25% more energy efficiency in case of shading or high mismatching between modules
- Secure PV system with centralized shutdown and zero Volt string voltage
- Optimizer compatible with different types of inverters and panels, for new or existing plants and with most inverters on the market
- Flexible PV system design for better use of available space
- Autonomous optimization, independent of communication
- Use of the optimizer only where necessary

Input

PSI-OP650

Maximum power at input	650 W
Maximum input voltage	75 V
Maximum current in input	15 A
Voltage range of MPPT	12 - 75 V

Output

Maximum power at output	650 W
Range of output voltage	0 - 75 V
Maximum current at output	15 A
System voltage	1500 Vcc
Communication (to PSI-OPSW receiver)	Wireless

Efficiency

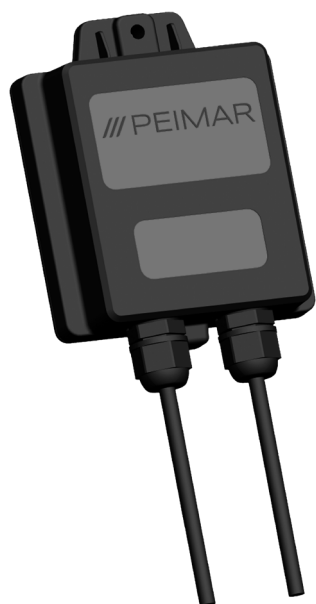
Maximum efficiency of conversion	99,6 %
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Mechanical Characteristics

Installation	Fixing to frame profile or panel frame by means of M5 screw (excluded from supply)
Dimensions	130,3 x 109,6 x 25 mm
Weight	588 g
Input / output connectors	MC4 or compatible connectors
Range of operation temperature	From -40°C to 85°C
Relative humidity	0 - 100%
Protection degree	IP67
Warranty	10 Years

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PSI-OPSW

DATA ACQUISITION UNIT

- Wireless receiver for communication with on-board photovoltaic panel optimizers
- RS485 and wireless communication method
- Secure and stable communication for up to 200 optimizers

Electrical Characteristics

PSI-OPSW

Operating voltage	12 Vcc (direct power supply from PSI-OPBE)
Working current	25 mA
Consumption	≤ 0.3 W
Connections	2 x RS485 (for connection to PSI-OPBE and PSI-OPSW) Cable gland type PG7 for cable with diameter from 4 to 8 mm
Wireless reception distance	(From PSI-OPSW to PSI-OP400/PSI-OP650) ≤ 10 m
Wireless transmission	915 MHz / 2.4 GHz
Number of optimizers supported	≤ 200 Pz

Mechanical Characteristics

Installation	Fixing to frame profile or panel frame by means of M5 screw (included in the package)
Dimensions	124 x 99 x 32 mm
Weight	155 g
Range of operation temperature	From -40°C to 85°C
Protection degree	IP65
Warranty	10 Years



PSI-OPBE

DATA COMMUNICATION UNIT

- Power monitoring and production of each individual optimizer
- Secure communication, real-time capture and monitoring data recovery function
- Local or remote shut-off command if necessary
- Wi-Fi or Ethernet communication methods

Electrical Characteristics

PSI-OPBE

Operating voltage	12 Vcc (230 Vca - 12 Vcc power supply included)
Working current	250 mA
Consumption	≤ 3 W
Input connection	RS485 (PSI-OPSW connection)
Outgoing connections	RS485 (Modbus connection to third-party components) - RJ45 (ethernet network connection) Satellite (included, for Wi-Fi connection) - USB 2.0 (for direct data download)
Connected optimizers	≤ 1000 pz (200 for each PSI-OPSW)
Connected PSI-OPSW	≤ 5 pz

Mechanical Characteristics

Installation	Wall mounting with 2 back holes (11 cm wheelbase)
Dimensions	158 x 113 x 36.8 mm
Weight	300 g
Range of operation temperature	From -20°C to 60°C
Protection degree	IP20
Warranty	10 Years