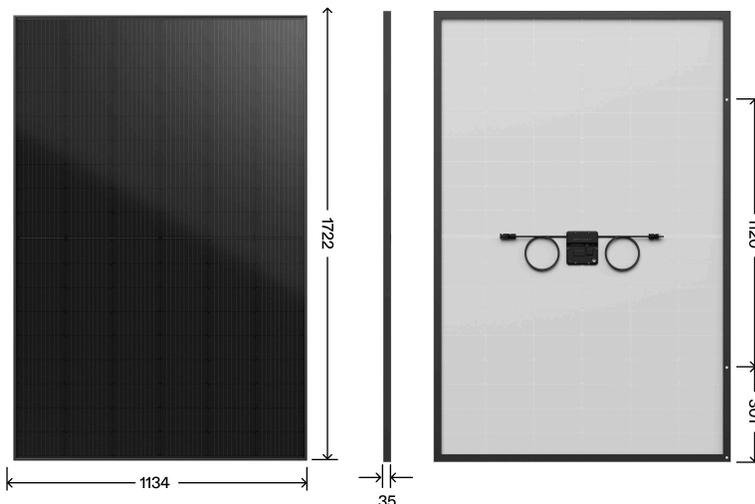


## Electrical tested at STC 1000 W/m<sup>2</sup> | 25°C | AM 1.50

		OPT10M450W	OPT10M445W	OPT10M440W	OPT10M435W
Rated Power +3%   -0%	P <sub>MP</sub>	450 W	445 W	440 W	435 W
Maximum Power Voltage	V <sub>MP</sub>	33.51 V	33.44 V	33.37 V	33.31 V
Maximum Power Current	I <sub>MP</sub>	13.44 A	13.31 A	13.19 A	13.07 A
Open Circuit Voltage	V <sub>OC</sub>	39.75 V	39.69 V	39.62 V	39.56 V
Short Circuit Current	I <sub>SC</sub>	14.14 A	14.02 A	13.90 A	13.79 A
Efficiency		23.1%	22.8%	22.5%	22.3%

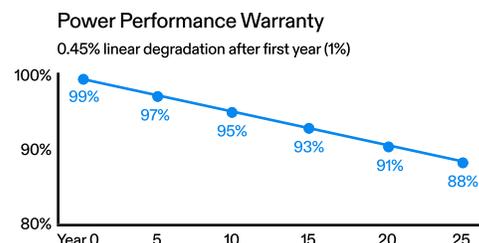
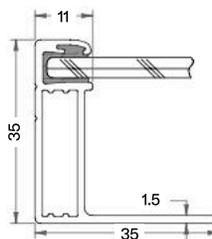
## Mechanical Characteristics

Dimensions	67 13/16 X 44 5/8 X 1 3/8 in 1722 X 1134 X 35 mm
Weight	47 lbs 21.3 kg
Frame	Black Anodized Aluminum
Glass	3.2mm Anti-Reflective
Backsheet	Black
Solar cells	108 N-type Mono M10 HC
Junction Box	IP68
Cable	60 in, Staubli MC4



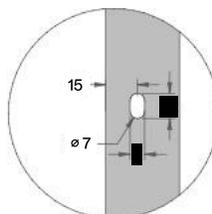
## Maximum Ratings

Max System Voltage	1500 VDC
Series Fuse Rating	20 A



## System Design

Temperature Range	-40-85°C
Mechanical Load Wind	5,400 Pa
Mechanical Load Snow	5,400 Pa
Certifications	UL61730 / UL1703
Module Fire Performance	Type 1



## Temperature Coefficients

NOCT	45°C
I <sub>SC</sub> / °C	+0.05%
V <sub>OC</sub> / °C	-0.25%
P <sub>MP</sub> / °C	-0.29%

## Packaging

Modules Per Pallet	34 Modules
Pallet Weight	1667 lbs 756 kg
Pallet Dimensions	72 1/2 X 48 1/16 X 51 7/8 in 1842 X 1236 X 1317 mm
Container	25 Pallets (850 Modules) per 53'

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## Input

Rated Input DC Power	450 W
Rated Module Power at STC Will Not Exceed	
Maximum Input Voltage	46 V
V <sub>OC</sub> at Lowest Temperature	
MPPT Operating Range	26–46 V
Maximum Short Circuit Current	15 A
Maximum Efficiency	99.6%
Weighted Efficiency	99.4%
Overvoltage Capacity	Class II

## Output

Maximum Output Current	13.75 A
Maximum Output Voltage	46 VDC
Safety Output Voltage	0 V
Disconnected from Inverter	



## Standard compliance

EMC	FCC Part 15 Class C
Safety	UL1741

## Install specs

Maximum Allowed System Voltage	1500 V
Dimensions	128 X 121 X 22 mm
Weight	400 g
Output Connector + Cable	MC4, 1.5m
Operating Temperature Range	-40–65°C
Protection Rating	NEMA4X
Relative Humidity	0–100%
Maximum String Length	25 Modules



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## Electrical

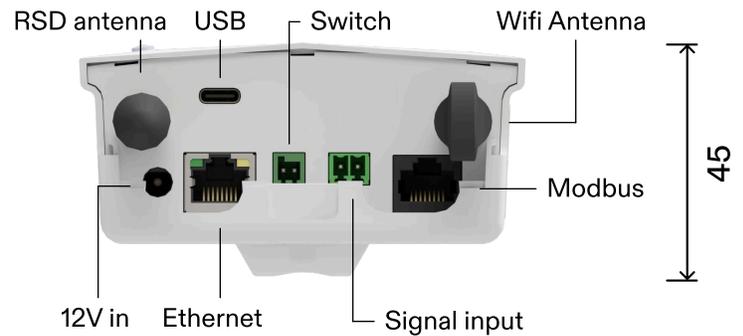
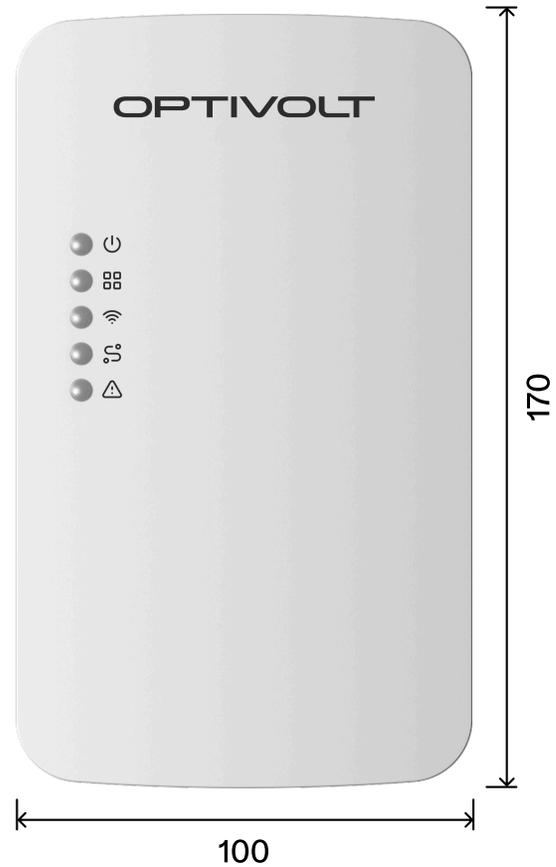
Input Voltage	12 VDC
Input Current	0.5 A
Power Consumption	2 W avg 5 W peak

## Mechanical characteristics

Operating Temperature Range	-20 – 65°C
	-4 – 149°F
Dimensions	100 X 170 X 45 mm
	4 X 5 1/16 X 1 13/16 in
Weight	675 g
Environmental Rating	NEMA 3R

## Communication

Protocols	BLUETOOTH® Low Energy
	Mesh
	Ethernet
	Wi-Fi 2.4 GHz 802.11b/g/n
Maximum Distance to Balancer	100 m 300 ft
	Maximum Capacity Supported
Configured Via	Optivolt Install App
LED Indicator	Hub Power
	Array Status
	Internet Connectivity Status
	Rapid Shutdown Status
	Fault Codes



## Compliance

EMC	FCC Part 15 Class C
Optivolt Bluetooth® Rapid Shutdown	NEC 2023
Safety	UL1741

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