Evolution TITAN 445

EVO-PLM-445OM10A-46B

All Black Monocrystalline Solar Module
WITH HIGH EFFICIENCY PERC TECHNOLOGY

Project Better Energy

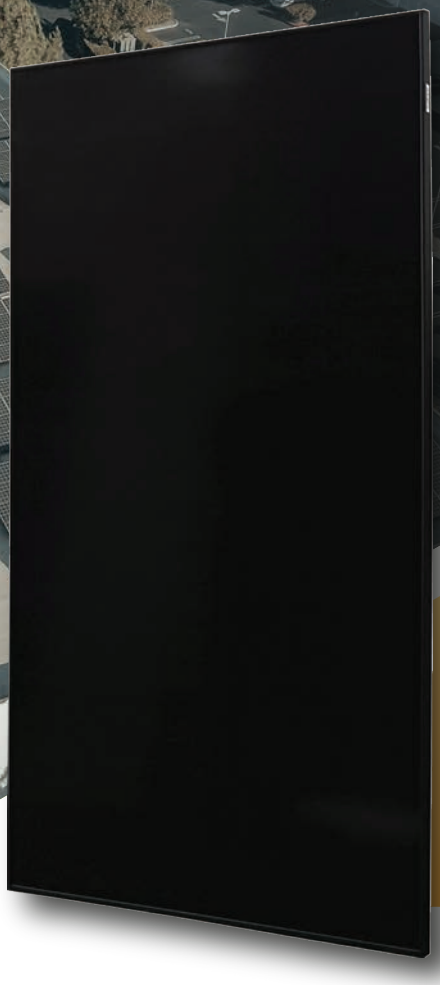
LIFETIME WARRANTY

SOLAR PANEL FEATURES

HIGH PANEL EFFICIENCY
Innovative structure, low-temperature adhesive bonding, high-density layout.

OPTIMUM PERFORMANCE
Fantastic panel performance, even in low light conditions.

ULTRA BLACK APPEARANCE
Fantastic aesthetic, with a fully black sleek appearance.



NEW 445W

EXCELLENT LOW LIGHT PERFORMANCE

MAXIMUM SAFETY & RELIABILITY
Low operating temperature, high pressure resistance, and no hidden welding crack.

ECO-FRIENDLY BUILD
Adhering to a green philosophy, we use no fluorine and very low lead materials.

PERC CELL TECHNOLOGY
By utilising PERC cell technology, our panels have increased energy conversion efficiency.

SMART-READY
Optional smart-ready design. Easy to upgrade into smart solar module solution.

CE UKCA MCS

INSURANCE PICC

TECHNICAL SPECIFICATION

Project Better Energy

Electrical Characteristics (STC)

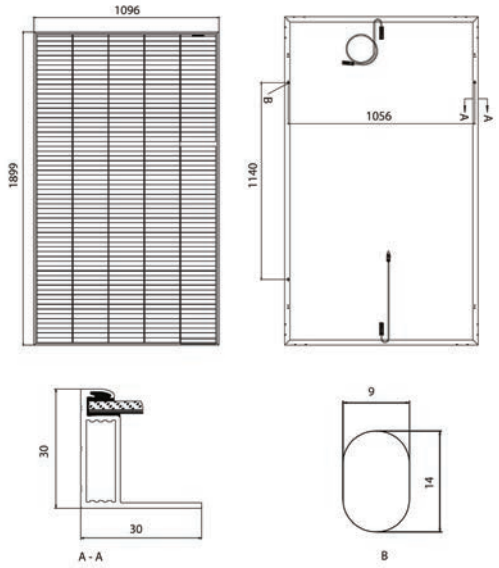
Module Type:	445	440	435	430	425	420
Maximum Power - Pm (W)	445	440	435	430	425	420
Open Circuit Voltage - Voe (V)	43.8	43.7	43.6	43.5	43.4	43.3
Short Circuit Current-Isc [A]	13.01	12.90	12.79	12.68	12.56	12.46
Maximum Power Voltage-Vm [V]	36.4	36.3	36.2	36.1	36.0	35.9
Maximum Power Current-Im [A]	12.23	12.13	12.02	11.92	11.81	11.71
Module Efficiency-n [%]	21.4	21.1	20.9	20.7	20.4	20.2

Electrical Characteristics at NMOT

Maximum Power-Pm [W]	335	331	328	324	320	316
Open Circuit Voltage-Voc [V]	41.8	41.7	41.6	41.5	41.4	41.3
Short Circuit Current-Isc [A]	10.50	10.41	10.32	10.23	10.14	10.05
Maximum Power Voltage-Vm [V]	34.7	34.6	34.5	34.4	34.3	34.2
Maximum Power Current-Im [A]	9.66	9.57	9.49	9.41	9.32	9.24

Note: 1. Standard Test Conditions [STC]: irradiance 1000 W/m²; AM 1.5; ambient temperature 25°C according to EN 60904-3;
2. Nominal Module Operating Temperature (NMOT): Irradiance 800W/ m²; wind speed 1m/s, ambient temperature 20°C.
3. Tolerance of Pm: -/+3%, Measuring uncertainty of power: -/+3%. Performance deviation of Voe [V], Isc [A], Vm [V] and Im [A]: - /+3%.

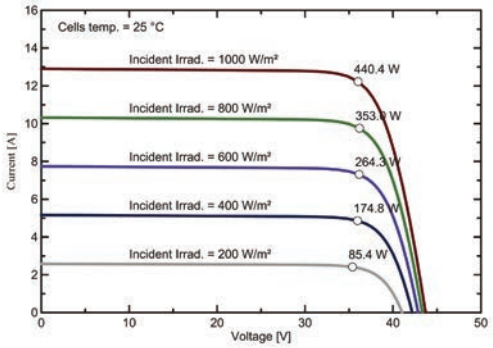
Drawings

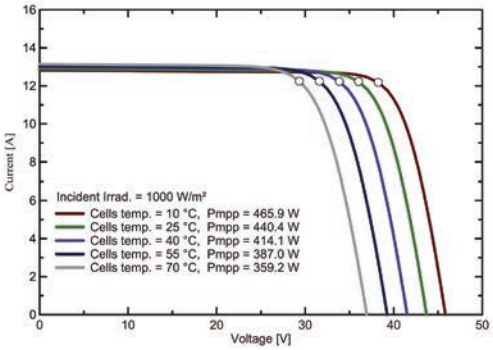


Mechanical Parameters

Dimensions	1899 x 1096 x 30 mm
Weight	21.8kg
Front glass	Tempered glass, 3.2mm
Frame	Anodized aluminium profile
Cells	Mono-crystalline solar cell
Cell Orientation	320 (64 X 5)
Junction Box	IP68, two diodes
Cable	4mm², 1200mm
Packaging	36pcs/box;864pcs/40'container; 1296pcs/flat car

I-V Curve





Temperature Parameters

NMOT	42.30 °C (±2°C)
Temperature Coefficient of Voc	-0.27%/°C
Temperature Coefficient of Isc	+0.04%/°C
Temperature Coefficient of Pm	-0.34%/°C

Maximum Ratings

Maximum System Voltage [V]	DC1500 (IEC)
Series Fuse Rating [A]	25
Maximum Surface Load Capacity [Pa]	Front 5400 / Back 2400
Temperature Range [°C]	-40 ~ + 85
Withstanding Hail	Maximum diameter of 25 mm with impact speed of 23 m/s

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