

Energreen 450 Wp Full BLK

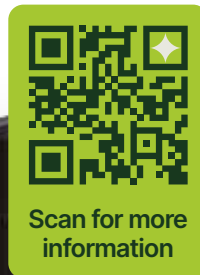
We know that each of our Energreen panels will deliver more energy and perfect reliability over the long term. With its N-type cells and Bi-glass structure, you'll benefit from a long-term guarantee for high efficiency production (22.8%) with complete peace of mind.

Premium design and superior performance

- ◆ **n-type cells**
Superior reliability and reduced LID/LETID loss
- ◆ **Dark monocrystallin cells**
Perfect integration on the roof
- ◆ **22.8% High Efficiency**
High conversion efficiency
- ◆ **Bifacial Double Glass**
Very high durability

Premium Warranty

- ◆ **30 YEARS** product warranty
- ◆ **30 YEARS** linear power output warranty (Max 0,42%/year)



Green & Durable Group
works! better together

Product certifications

IEC 62941: 2019 Terrestrial photovoltaic modules -Quality system for PV module manufacturing

ISO 45001: 2018 Occupational health and safety management systems

ISO 14001: 2015 Environmental management systems

ISO 9001: 2015 Quality management systems

IEC 61215, IEC 61730

Electrical parameters at STC

Rated maximum power (Pmax) [W]: 450

Open circuit voltage (Voc) [V]: 40.30

Maximum power voltage (Vmp) [V]: 32.99

Short circuit current (Isc) [A]: 14.41

Maximum power current (Imp) [A]: 13.64

Module efficiency [%]: 22.5

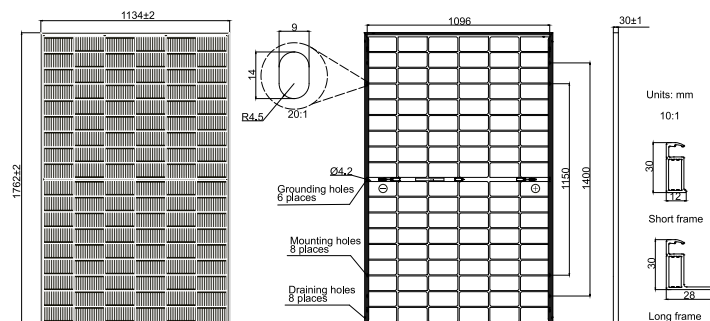
Power tolerance: 0-+3%

Temperature coefficient of Isc (α_{Isc}): +0.045%/°C

Temperature coefficient of Voc (β_{Voc}): -0.25%/°C

Temperature coefficient of Pma (γ_{Pmp}): -0.290%/°C

STC: Irradiance 1000W/m²,
cell temperature 25°C,
AM1.5G



Operating conditions

Maximum system voltage: 1500V DC

Operating temperature: -40°C - +85°C

Maximum series fuse rating: 30A

Maximum static load, front: 5400 Pa (112 lb/ft²)

Maximum static load, back: 2400 Pa (50 lb/ft²)

NOCT: 45±2°C

Bifaciality: 80% ±10%

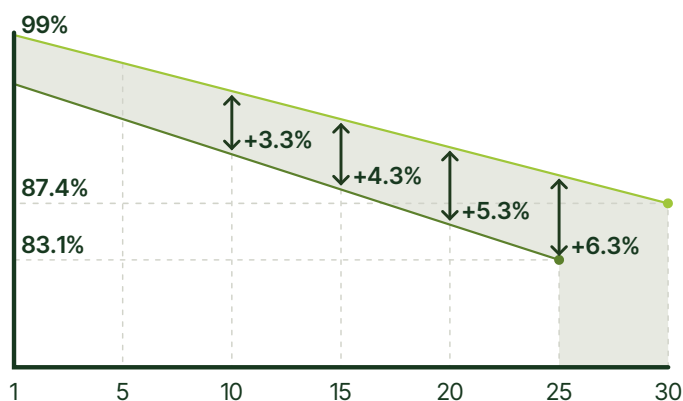
Safety Class: Class II

Fire performance: UL type 29/Class C

Superior warranty

1% 1st-year degradation

0.4% annual degradation over 30 years



● n-type bifacial double glass module linear performance warranty

● standard module linear performance warranty

Cell: Mono - 16BB

Weight: 22kg

Dimensions: 1762±2mm x 1134±2mm x 30±1mm

Cable cross section size: 108(6×18)

Junction box: IP68, 3diodes

Connector: QC 4.10-351 / MC4-EVO2A

Cable length:
(including connector) Portrait: 300mm(+) / 400mm(-);
Landscape: 200mm(+) / 1200mm(-)

Front glass/Back glass: 1.6mm / 1.6mm