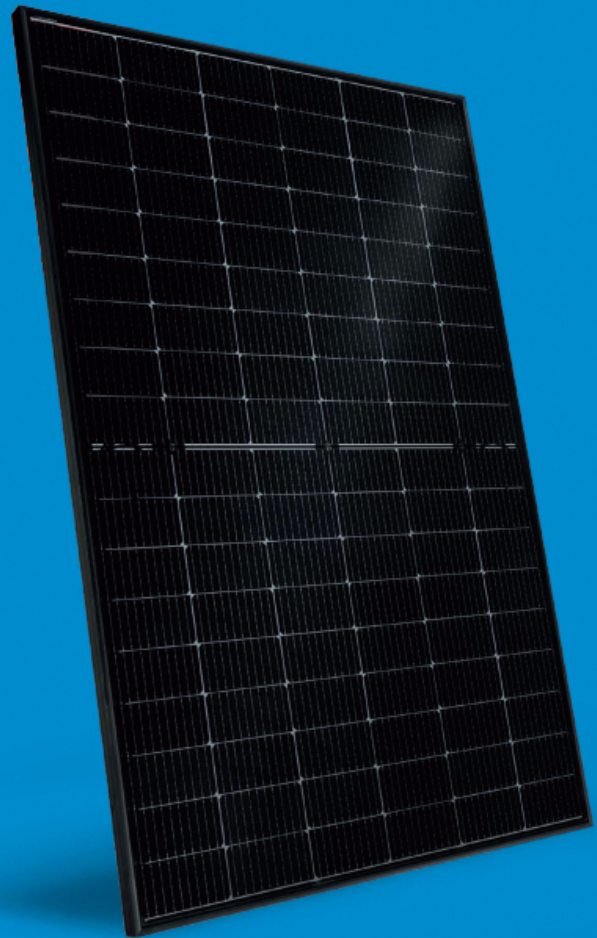


Shinemann Pro 415

Topcon Half-cut Bifacial Dual-Glass Module



N-type Topcon technology for lower LCOE

The lower temperature coefficient and better low irradiance performance of Topcon technology can effectively reduce LCOE.



Fire class A, harsh environment adaptability

The back of the dual-glass module adopts high transparent glass, which can adapt to all kinds of harsh environment, and the fire rating can reach Class A.



30-year power warranty

The average life of dual-glass modules is 30 years, 5 years longer than that of single-glass modules.



Double-sided power generation, higher income

The dual-glass module has a double-sided ratio of up to 80% and a power generation gain of 7%-25% on the back side.

engineered & designed in
GERMANY

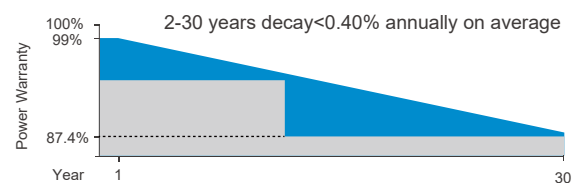
LINEAR PERFORMANCE WARRANTY

15 years

Product warranty on materials and workmanship

30 years

Linear power output warranty



MECHANICAL PARAMETERS

Cell Type	Topcon 182x91mm
Number of Cells	108pcs(6x18)
Dimensions (L*W*H)	1722x1134x30mm
Weight	24.5kg
Frame	Anodised Aluminum
Junction Box	IP68, 3 bypass diodes
Cable, Length	4.0mm ² , 300mm

ELECTRICAL PARAMETERS @ STC

Max. Power Output Pmax (W)	415
Power Tolerance	0~+3%
Max. Power Voltage Vmp (V)	31.49
Max. Power Current Imp (A)	13.18
Open Circuit Voltage Voc (V)	38.11
Short Circuit Current Isc (A)	13.92
Module Efficiency (%)	21.25

*STC (Standard Test Condition): Irradiance 1000W/m², cell Temperature 25 °C, Air Mass 1.5
 *Measurement Tolerance (±13.0%)

PACKAGE INFORMATION

Container 40'HQ	936pcs
Quantity / Pallet	36pcs
Package size: 1750×1120×1254mm;	Net weight: 882kg; Gross weight: 924kg

TEMPERATURE COEFFICIENTS

Temperature Coefficients of Pmp	-0.30%/ °C
Temperature Coefficients of Voc	-0.25%/ °C
Temperature Coefficients of Isc	+0.046%/ °C

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