

PERC590

570-590W

MWT Mono PERC Half-Cut Module

21.2%
Module efficiency up to 21.2%

Features

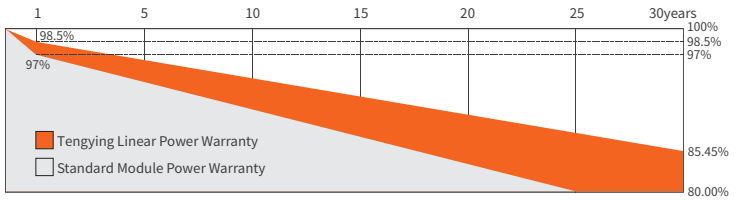
- Lower Voc, Higher Power**
Unique three-parallel circuits design combined with high density encapsulation technology reduces module's Voc, achieving higher power output
- High Efficiency and Reliability**
Busbar-free design increases cell conversion efficiency, more power output can be achieved at low irradiance conditions
- High Safety**
Unique layout design reduces working current, heat loss and hot spot effect, decreases operational risks
- Aesthetic Design**
The design of busbar and tapping ribbon free makes module more aesthetic
- High ROI**
Lower Voc design reduces the BOS costs, Single-glass modules with global 30-year performance warranty bring higher return on investment
- Lead Free**
Eco-friendly PV design achieves lead-free MWT module without soldering materials

Reinsurance Coverage for 30 Years

15year
Quality
Warranty

30year
Performance
Warranty

Insured by PAIC and LLOYD'S
PING AN LLOYD'S



※1st year degradation less than 1.5%, 30 years linear power output 85.45% guaranteed.

Comprehensive Qualifications & Certifications

- ★TUV NORD Certification
- ★ISO 14001:2015 Environment Management System
- ★ISO 9001:2015 Quality Management System
- ★ISO 45001: 2018 Occupation Health Safety Management System



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Electrical Characteristics at Standard Test Conditions(STC)

Spec/Model	Unit	PERC570	PERC575	PERC580	PERC585	PERC590
Max-Power(Pm)	W	570	575	580	585	590
Power Tolerance	W			0~+5		
Max-Power Voltage(Vm)	V	35.5	35.7	35.9	36.1	36.3
Max-Power Current(I _m)	A	16.06	16.11	16.16	16.21	16.25
Open-Circuit Voltage(Voc)	V	42.5	42.74	42.9	43.1	43.3
Short-Circuit Current(I _{sc})	A	17.10	17.14	17.18	17.21	17.25
Module Efficiency(η _m)	%	20.5	20.7	20.9	21.1	21.2

STC: AM=1.5, Irradiation 1000W/m², Module Temperature 25°C Power Tolerance ±3%

Electrical Characteristics at Nominal Module Operating Temperature (NMOT)

Spec/Model	Unit	PERC570	PERC575	PERC580	PERC585	PERC590
Max-Power(Pm)	W	424	428	432	436	440
Max-Power Voltage(Vm)	V	33.0	33.2	33.4	33.6	33.8
Max-Power Current(I _m)	A	12.85	12.89	12.93	12.97	13.01
Open-Circuit Voltage(Voc)	V	39.9	40.1	40.3	40.5	40.7
Short-Circuit Current(I _{sc})	A	13.77	13.81	13.85	13.89	13.93

NMOT: Irradiation 800W/m², Ambient temperature 20°C, Wind Speed 1m/s

Temperature Coefficient

Nominal Module Operating Temperature	43±2°C
Temperature coefficient of P _{max}	-0.36%/°C
Temperature coefficient of Voc	-0.28%/°C
Temperature coefficient of I _{sc}	0.06%/°C

Mechanical Characteristics

Dimension(L×W×H)	2309mmx1203mmx35mm
Weight	29.5 kg
Glass Type	High Transmittance Anti-reflective Coated Tempered Glass /3.2mm
Solar Cell	189(27x7) / Mono / Half-cell
Encapsulant	EVA
Frame	Anodized Aluminum Alloy / Silver
Junction Box	IP68
Cable	4mm ² , 350mm (+) / 150mm (-); Customizable
Connector	MC4 Compatible

Operating Conditions

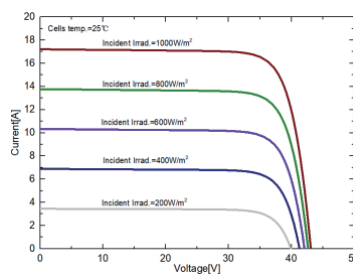
Max System Voltage	DC1500V(IEC)
Max Fuse Rated Current	25A
Operating Temperature Range	-40°C~+85°C
Mechanical Load	5400Pa (front) /2400Pa (rear)
Max Allowable Hail Load	φ25mm hail, from 1m of distance at 23 m/s
Application Class	Class A

Package

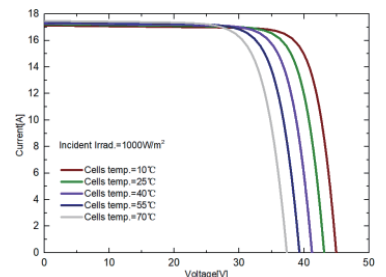
Transportation	Container Size	Quantity(pcs)	Quantity(per pallet)
Container	40' HQ	558	31

I-V Curve

I-V Curve at different irradiation (PERC585)



I-V Curve at different temperature (PERC585)



Module Size

