Headquarter · Shanghai
Tel +86 17717537975
info@cotechsolar.com

Cotech · Hong Kong
Tel +852 5791 3679
hk@cotechsolar.com

Europe · Rotterdam
Tel +49 152223110991
eu@cotechsolar.com

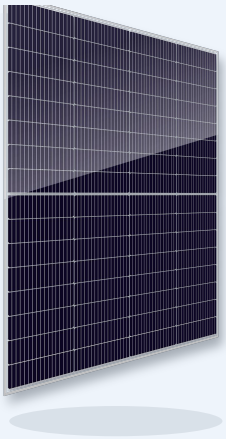
COTECH SOLAR · HJT

CSHJ72-590~620

N-Type 182mm Heterojunction Bifacial Dual-Glass Module · 144 half-cells

620 Wp MAXIMUM POWER OUTPUT

24.0 % MAXIMUM EFFICIENCY



- **HJT Cell** — heterojunction
- **Bifacial** — 85 ± 5%
- **Low Temp-Co** — better hot-climate yield
- **Glass · Glass** — symmetric bifacial

High efficiency & power

- Symmetrical HJT cells reach up to 24.0%
- Thin-film passivation for high open-circuit voltage
- Excellent low-irradiance performance

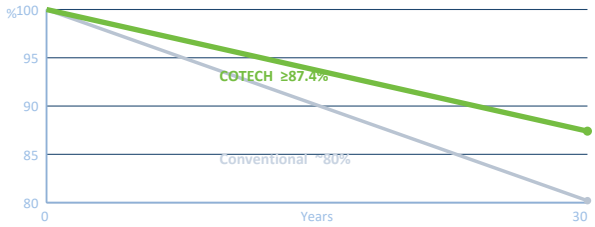
Best-in-class energy yield

- Lowest temperature coefficient −0.24 %/°C
- Up to 85 ± 5% bifaciality — high rear-side gain
- Near-zero LID and minimal annual degradation

High reliability

- 15-year product & 30-year linear power; ≥90% at year 30
- Dual-glass; PID / salt-mist / ammonia resistant
- Stable output in hot and humid climates

PERFORMANCE WARRANTY



15-yr product | 30-yr power

Key specifications

Maximum power	**590 – 620 Wp**
Module efficiency	**up to 24.0 %**
Open-circuit voltage	**53.00 – 54.00 V**
Cell type	**N-type heterojunction (HJT), 182mm**
No. of cells	**144 (6×24) half-cut**
Dimensions (mm)	**2278 × 1134 × 30**
Weight	**32.0 kg**
Bifaciality	**85 ± 5%**

QUALITY ASSURANCE

EL & flash tested
100% inspected, binned & traceable

APPLICATIONS

Residential | C & I | Utility | Off-grid

QUALITY SYSTEM

ISO 9001 | ISO 14001 | ISO 45001

Engineered for 30 years of bankable energy

Top-50 global supplier · 20 GW shipped to 120+ countries since 2005

CERTIFICATION & QUALIFICATION

IEC 61215 | IEC 61730 | IEC 61701 | IEC 62716 | UL 61730 | CE | TÜV | ISO 9001/14001/45001

TESTED ✓ Damp heat ✓ Thermal cycling ✓ Humidity-freeze ✓ PID ✓ Salt mist ✓ Ammonia ✓ Mechanical load ✓ Hail

Electrical characteristics at STC

Parameter	590	595	600	605	610	615	620
Maximum power Pmax (W)	590	595	600	605	610	615	620
Open-circuit voltage Voc (V)	53.00	53.17	53.33	53.50	53.67	53.83	54.00
Short-circuit current Isc (A)	13.90	13.97	14.03	14.10	14.17	14.23	14.30
Voltage at Pmax Vmp (V)	44.20	44.37	44.53	44.70	44.87	45.03	45.20
Current at Pmax Imp (A)	13.35	13.41	13.47	13.53	13.59	13.66	13.72
Module efficiency ηm (%)	22.84	23.03	23.23	23.42	23.61	23.81	24.00

Electrical characteristics at NMOT

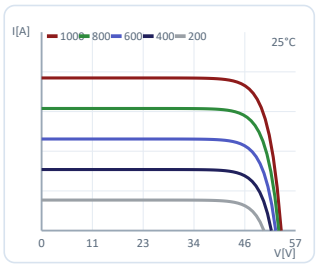
Parameter	590	595	600	605	610	615	620
Maximum power Pmax (W)	445.4	449.2	453.0	456.8	460.6	464.3	468.1
Open-circuit voltage Voc (V)	49.40	49.55	49.70	49.86	50.02	50.17	50.33
Short-circuit current Isc (A)	11.15	11.20	11.25	11.31	11.36	11.41	11.47
Voltage at Pmax Vmp (V)	41.02	41.18	41.32	41.48	41.64	41.79	41.95
Current at Pmax Imp (A)	10.59	10.63	10.68	10.73	10.78	10.83	10.88

STC 1000 W/m² · 25 °C · AM1.5 NMOT 800 W/m² · 20 °C · AM1.5 · 1 m/s Power tolerance 0 ~ +3 %

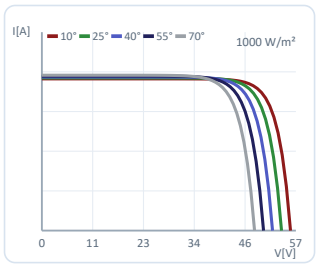
Parameter	Value
Solar cell	N-type heterojunction (HJT), 182mm
Cell size	182 × 91 mm
No. of cells	144 (6×24) half-cut
Busbar	0BB · SMBB
Dimensions	2278 × 1134 × 30 mm
Weight	32.0 kg
Front / back glass	2.0 mm / 2.0 mm tempered, AR coated
Encapsulant	POE
Frame	Anodized aluminium alloy, 30 mm
Junction box	IP68, 3 bypass diodes
Connector	MC4-compatible · EVO2
Output cable	4 mm², 400/200 mm

Parameter	Value
NMOT	43 ± 2 °C
Temp. coeff. of Pmax	−0.24 %/°C
Temp. coeff. of Voc	−0.21 %/°C
Temp. coeff. of Isc	+0.044 %/°C
Operating temperature	−40 °C ~ +85 °C

I-V curve · irradiance



I-V curve · temperature



Bifacial gain & coefficients

ϕVoc 98 ± 5% ϕIsc 85 ± 5% ϕPmax 85 ± 5%

Rear gain	+0%	+10%	+20%	+25%
Pmax (W)	620	682	744	775
Isc (A)	14.30	15.73	17.16	17.88

Maximum ratings

Parameter	Value
Max system voltage	1500 V DC (IEC/UL)
Max series fuse	30 A
Max test load (front / back)	5400 Pa / 2400 Pa
Application / safety class	Class A / Class II
Fire rating	Class C

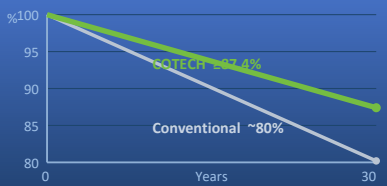
Mechanical drawing (mm)

Linear power warranty

15 yr product warranty

30 yr linear power output warranty

1st-year ≤1% · annual ≤0.4% · ≥87.4% at year 30



Packaging

Pieces / pallet	36
Pieces / 20'GP	144
Pieces / 40'HC	720
Pallet size	2300 × 1150 × 1180 mm