

OFF-GRID MODULE

Off-Grid 182 mm · 240–320 W

Large 182 mm off-grid modules, 240–320 W — 24 V systems, solar pumps & hybrid off-grid plants

320 W | UP TO
POWER

21.9 % | UP TO
MODULE EFF.

Matched to off-grid batteries

- Voltage matched to charge 12 V / 24 V / 48 V banks directly via PWM or MPPT
- Ideal for RV, caravan, boat, cabin, solar pump & off-grid lighting
- Every wattage self-consistent — no over-rated specs

High-efficiency half-cut mono

- Monocrystalline half-cut cells — up to 21.9% module efficiency
- Low $-0.29\%/^{\circ}\text{C}$ temperature loss; strong morning / evening yield
- Better long-term reliability (low LID / LeTID)

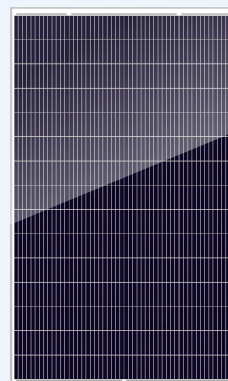
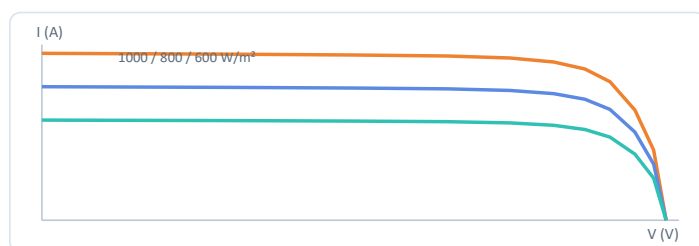
Rugged & weatherproof

- Anodised aluminium frame, anti-reflective tempered glass
- IP67 junction box, 5400 Pa front load, $-40\sim+85\text{ }^{\circ}\text{C}$
- EL & flash-tested, power-binned, 25-year linear power warranty

Key specifications

Power range	240 – 320 W
Cell	Half-cut mono
Voc class	$\approx 22 - 28\text{ V}$
Module efficiency	up to 21.9%
Max system voltage	700 / 1000 V
Operating temp	$-40\sim+85\text{ }^{\circ}\text{C}$
Connector	MC4-compatible
Warranty	12 yr / 25 yr

MODULE I-V CURVE



Half-cut mono
up to 21.9% eff.

24 V systems
string-ready

More W per panel
fewer panels & cabling

1000 V · IP67
system-ready

WHY COTECH



EL & flash tested

100% inspected, power-binned & traceable

IDEAL FOR

Off-grid home

Solar pump

Hybrid plant

Telecom

Agriculture

C & I backup

APPLICATIONS



Off-grid home



Pump

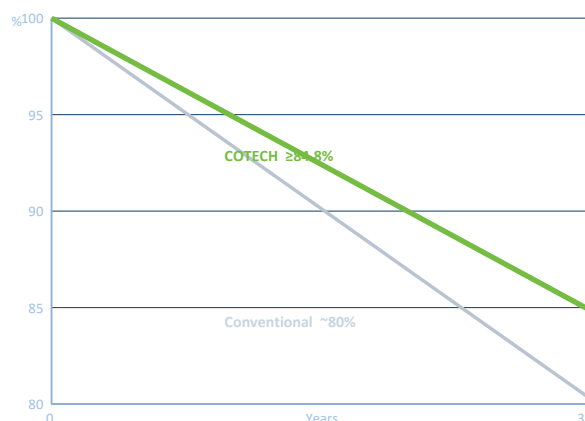


C & I



Hybrid

PERFORMANCE WARRANTY



12-yr product

25-yr power

CERTIFICATION & QUALIFICATION

IEC 61215

IEC 61730

CE

RoHS

ISO 9001

STC: 1000 W/m², 25 °C, AM1.5. Electricals per COTECH source datasheets; every bin self-consistent. Specs subject to change.

Off-Grid 182 mm · 240–320 W — specifications

Rating	240–250 W	260–290 W	300–320 W
Electrical characteristics (STC)			
Module code	CS-240~250M10	CS-260~290M10	CS-300~320M10
Maximum power P_{max} (W)	240–250	260–290	300–320
Open-circuit voltage V_{oc} (V)	22.2–22.3	24.5–25.4	27.5–28.2
Short-circuit current I_{sc} (A)	13.64–13.65	12.99–13.76	13.19–13.70
Voltage at P_{max} V_{mp} (V)	18.7–19.4	21.0–22.2	23.8–24.7
Current at P_{max} I_{mp} (A)	12.84–12.89	12.32–13.06	12.59–12.97
Module efficiency η_m (%)	20.4–21.2	19.7–22.0	20.5–21.9
Power tolerance		0 / +5 W	
Max. system voltage (V)	1000	1000	1000
Max. series fuse (A)	20	20	20
Temperature characteristics			
Temp. coefficient of P_{max}		−0.29 %/°C	
Temp. coefficient of V_{oc}		−0.25 %/°C	
Temp. coefficient of I_{sc}		+0.045 %/°C	
NOCT		45 ± 2 °C	
Operating temperature		−40 ~ +85 °C	
Mechanical characteristics			
Cell type		Monocrystalline half-cut	
Cell size	182mm · 64 cells	182mm · 72 cells	182mm · 80 cells
Dimensions (mm)	1540×765×30mm	1722×765×30mm	1909×765×30mm
Weight (kg)	12.7	14.2	15.2
Front glass		2.0–3.2 mm tempered, anti-reflective	
Frame		Anodised aluminium alloy	
Junction box		IP67, bypass diodes	
Cable / connector		50–90 cm (cust.) · MC4-compatible	
Mechanical load		5400 Pa front / 2400 Pa rear	

MECHANICAL & SYSTEM

Mechanical	Data
Cell	Monocrystalline, half-cut
Front glass	2.0–3.2 mm tempered · anti-reflective
Frame	Anodised aluminium alloy
Junction box / diodes	IP67 · bypass diodes
Connector	MC4-compatible · 50–90 cm cable
Product / power warranty	12 years / 25 years (linear)


20 GW

shipped

120+

countries

IEC · CE

certified

IDEAL FOR

Off-grid home

Solar pump

Hybrid plant

Telecom

Agriculture

C & I backup

Power your off-grid life — at any size.

26 half-cut mono off-grid modules, 40–380 W, EL & flash-tested, from a Top-50 vertically-integrated maker.

Get a quote — info@cotechsolar.com
www.cotechsolar.com · +86 17717537975