

OFF-GRID MODULE

Off-Grid 182 mm · 40–90 W

Compact 182 mm off-grid modules, 40–90 W — 12 V battery charging for RV, marine, gates & small kits

40–90 W | POWER RANGE

19.1 % | 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 19.1% module efficiency
- Low $-0.29\%/^{\circ}\text{C}$ temperature loss; strong morning / evening yield
- Better long-term reliability (low LID / LeTID)

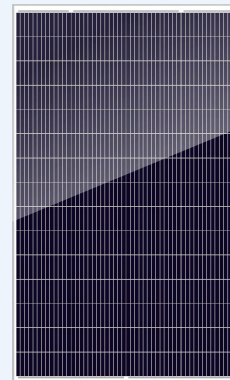
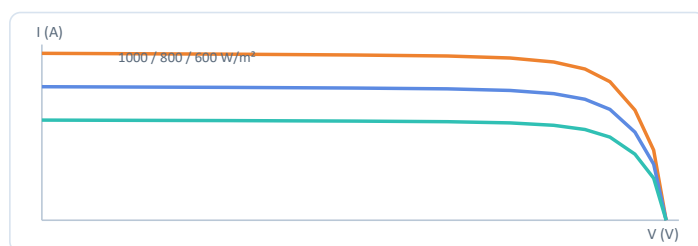
Rugged & weatherproof

- 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	40 – 90 W
Cell	Half-cut mono
Voc class	$\approx 22 - 25\text{ V}$
Module efficiency	up to 19.1%
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
high-efficiency cells

12 V-ready
PWM / MPPT charging

Compact & light
from just 3.0 kg

IP67 · 5400 Pa
weatherproof

WHY COTECH



EL & flash tested

100% inspected, power-binned & traceable

IDEAL FOR

RV / caravan

Marine / boat

Gate & barrier

Small DC kits

Solar lighting

Telecom sensors

APPLICATIONS



RV / marine



Cabin

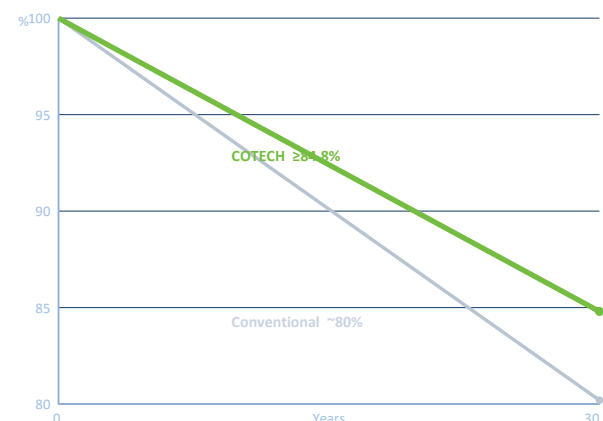


Lighting



Telecom

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 · 40–90 W — specifications

Rating	40 W	50 W	60 W	70 W	80 W	90 W
Electrical characteristics (STC)						
Module code	CS-40M10	CS-50M10	CS-60M10	CS-70M10	CS-80M10	CS-90M10
Maximum power Pmax (W)	40	50	60	70	80	90
Open-circuit voltage Voc (V)	22.2	22.3	22.2	25.0	22.2	24.9
Short-circuit current Isc (A)	2.27	2.73	3.41	3.41	4.55	4.55
Voltage at Pmax Vmp (V)	18.7	19.4	18.7	21.7	18.7	21.0
Current at Pmax Imp (A)	2.14	2.58	3.21	3.22	4.28	4.28
Module efficiency ηm (%)	17.9	19.0	18.2	19.1	18.8	19.1
Power tolerance	0 / +5 W					
Max. system voltage (V)	700	700	700	700	700	700
Max. series fuse (A)	10	10	10	10	10	10
Temperature characteristics						
Temp. coefficient of Pmax	−0.29 %/°C					
Temp. coefficient of Voc	−0.25 %/°C					
Temp. coefficient of Isc	+0.045 %/°C					
NOCT	45 ± 2 °C					
Operating temperature	−40 ~ +85 °C					
Mechanical characteristics						
Cell type	Monocrystalline half-cut					
Cell size	182mm · 32 cells	182mm · 32 cells	182mm · 32 cells	182mm · 32 cells	182mm · 32 cells	182mm · 36 cells
Dimensions (mm)	565×395×25mm	665×395×25mm	430×765×25mm	480×765×25mm	555×765×25mm	615×765×25mm
Weight (kg)	3.0	3.2	3.6	4.0	4.6	5.1
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

RV / caravan

Marine / boat

Gate & barrier

Small DC kits

Solar lighting

Telecom sensors

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