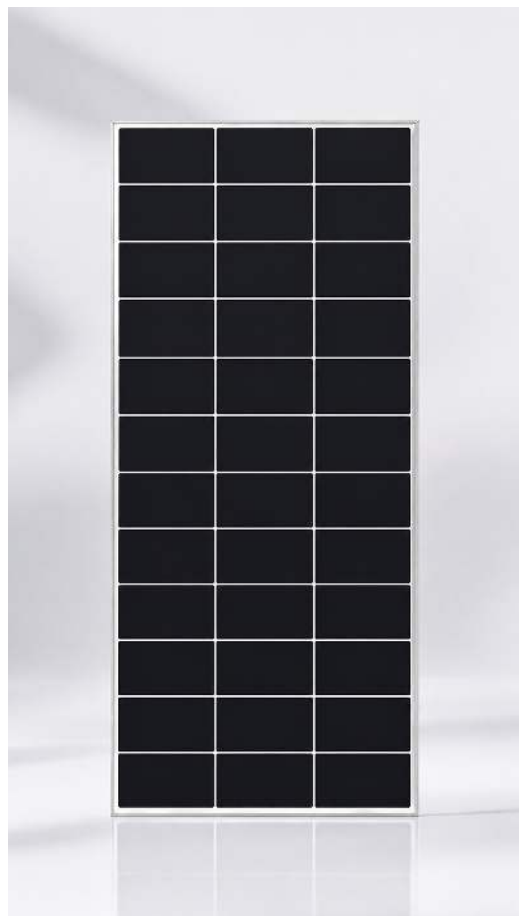


CLR175BC — Infinite Technology

High-density rigid-glass Back Contact (BC) mono-facial module engineered for space-constrained off-grid systems

HPBC standard • ABC / TBC optional | OEM / ODM ready



KEY FEATURES — BC TECHNOLOGY

- Partial Shading Optimisation**
BC cells break down softly under reverse bias. In TÜV NORD testing one shaded BC cell cost ~13% of output, versus ~34% for TOPCon.
- Better Temperature Coefficient**
Low P_{max} coefficient ($-0.26\%/^{\circ}\text{C}$) retains more rated power as cell temperature rises.
- High Temperature Restriction**
Limits power loss under sustained heat; rated for continuous operation to $+70^{\circ}\text{C}$.
- Micro-crack Resistance**
Busbar-free rear interconnection cuts stress points, improving transport and cycling durability.
- Higher Power Density**
A contact-free front surface improves light capture, yielding more watts per square metre.
- More Aesthetic Value**
A clean, uniform all-black surface with no visible front grid lines.

Purpose-built for off-grid 12 V power

For RVs, caravans, boats, agricultural equipment, remote monitoring and off-grid battery charging — where space and weight are at a premium.

Electrical Characteristics — STC

Maximum Power (P_{max})	175 W
Power Tolerance	0 to +3%
Max Power Voltage (V_{mp})	23.01 V
Max Power Current (I_{mp})	7.61 A
Open Circuit Voltage (V_{oc})	26.24 V
Short Circuit Current (I_{sc})	8.04 A
Module Efficiency	22.9%
Max System Voltage	1000 V DC
Max Series Fuse Rating	15 A

STC: irradiance 1000 W/m², AM1.5 spectrum, cell temperature 25°C.

Temperature

Operating Temp.	-40 to +85°C
Coeff. P_{max}	-0.26%/°C
Coeff. V_{oc}	-0.22%/°C
Coeff. I_{sc}	+0.05%/°C

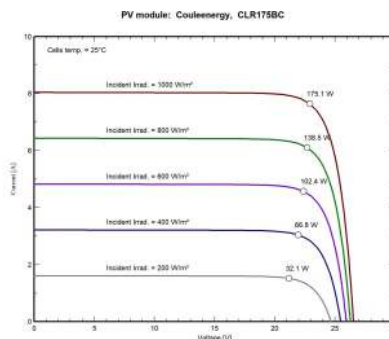
Safety

Protection Class	Class II
Junction Box	IP67
Fire Rating	Class C
Max Static Load	+5400 / -2400 Pa

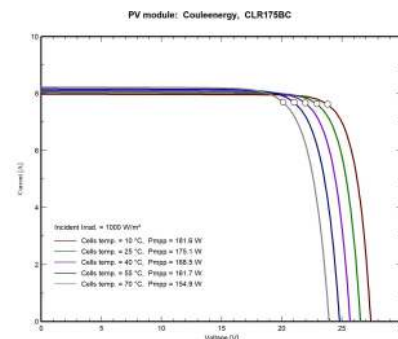
Mechanical

Cell Type	Back Contact Mono
Cell Size	182.2 × 105 mm
Cell Array	3 × 12 (36 cells)
Dimensions (L×W×H)	1320 × 580 × 30 mm
Net Weight	8.0 kg
Frame	Silver / black anodized aluminium
Glass / Backsheet	Tempered front glass / white or black
Cable & Connector	4.0 mm ² · 90 cm or customizable · MC4
Hail Resistance	35 mm @ 27.2 m/s (enhanced tier)
Loading (Pallet / 20' GP / 40' HQ)	36 / 864 / 1836 pcs

I-V Performance Curves



I-V at varying irradiance (25°C)



I-V at varying cell temperature (1000 W/m²)

OEM / ODM: cell layout • size • voltage • frame colour
private-label • low-MOQ trials

Email info@couleenergy.com • Tel +1 737 702 0119
<https://couleenergy.com>

IEC
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QUAL.

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QUAL.

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