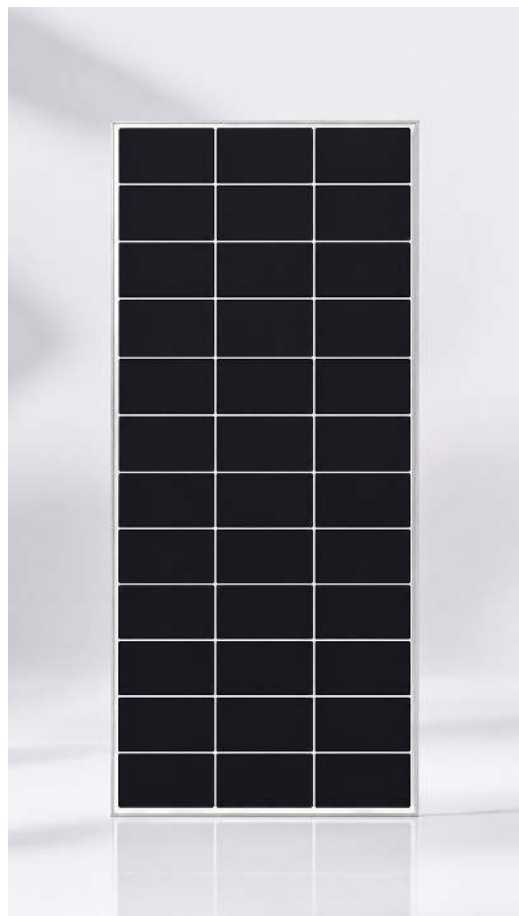


# CLR175BC — Infinite Technology

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/m<sup>2</sup>, 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    |

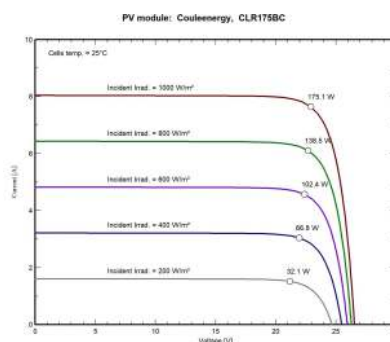
## Safety

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

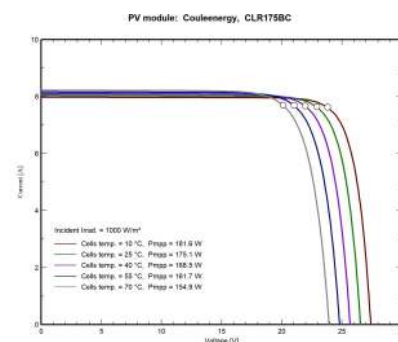
## Mechanical

|                                    |                                                   |
|------------------------------------|---------------------------------------------------|
| 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 <sup>2</sup> · 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/m<sup>2</sup>)

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

Email [info@couleenergy.com](mailto:info@couleenergy.com) • Tel +1 737 702 0119  
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