

CLM-080ME — Infinite Technology

Lightweight ETFE semi-rigid modules built for boat decks, van roofs, balcony rails, and other demanding surfaces

HPBC standard · ABC optional | OEM / ODM ready

Electrical Characteristics — STC

Maximum Power (Pmax)	80 W
Power Tolerance	0 to +3%
Max Power Voltage (Vmp)	25.2 V
Max Power Current (Imp)	3.18 A
Open Circuit Voltage (Voc)	28.8 V
Short Circuit Current (Isc)	3.38 A
Module Efficiency	19.9%
Max System Voltage	600 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 +70°C
Coeff. Pmax	−0.26%/°C
Coeff. Voc	−0.22%/°C
Coeff. Isc	+0.05%/°C

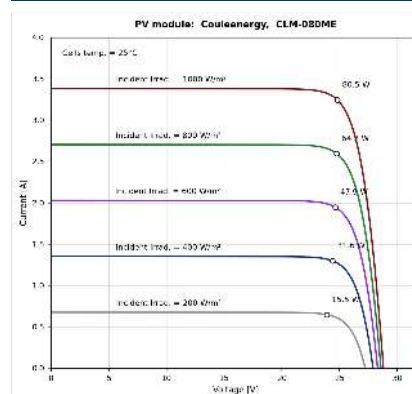
Safety

Protection Class	Class II
Bypass Diodes	1 or 2 opt.
Junction Box	≥IP67
Fire Rating	Class C

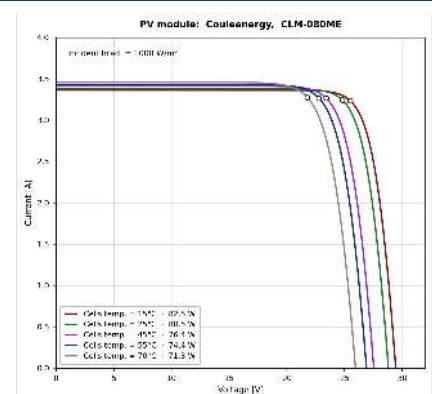
Mechanical

Cell Type	Back Contact Mono · HPBC std / ABC opt.
Cell Array	2 × 20 · quarter-cut (40 cells)
Dimensions (L×W×H)	990 × 407 × 4 mm
Net Weight	2.4 kg
Construction	Frameless semi-rigid laminate
Backing Plate	Fiberglass std · carbon fibre / alu. / composite opt.
Walkability	Foot traffic when fully supported on a rigid substrate
Front Sheet	Textured ETFE, self-cleaning, anti-slip
Cable & Connector	90 cm or customizable · MC4
Mounting	Corner grommets / adhesive / bracket & rail

I-V PERFORMANCE CURVES



I-V at varying irradiance (25°C)



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

KEY FEATURES — WALKABLE BC



Walkable Construction

A structural backing plate spreads foot loads across the laminate instead of into a single cell.



Fits Narrow Spaces

Only 407 mm wide at ~198 W/m². Reaches sidedecks and roof strips a framed panel cannot.



Partial Shading Optimisation

A single shaded BC cell loses only ~13% of power, versus ~34% for comparable TOPCon.¹



Better Temperature Coefficient

Low Pmax coefficient (−0.26%/°C) retains more rated power as cell temperature rises.



Micro-crack Resistance

Busbar-free rear interconnection reduces front-side stress, improving durability under load and transport.



More Aesthetic Values

A clean, uniform all-black surface with no visible grid lines, plus a textured anti-slip finish.

Purpose-Built for Walkable, Space-Constrained Power

Designed for yacht coachroofs and sidedecks, campervan roofs, balcony rails, service vehicles and OEM equipment — wherever rigid glass panels are too heavy, too large or simply don't fit.

System Note

With a Vmp of 25.2 V, an MPPT controller is required. A PWM controller would limit the module to battery voltage and significantly reduce its output.

OEM / ODM: cell layout · size · voltage · backing plate · private-label · low-MOQ trials
Email info@couleenergy.com · Tel +1 737 702 0119
<https://couleenergy.com>

IEC
61215
DESIGN
QUAL.

IEC
61730
SAFETY
QUAL.

ISO
9001:2015
QUALITY SYS.

Request a Quote

¹ TÜV NORD partial-shading simulation, reported by pv magazine (Jul 2026). The BC advantage applies under mild shading (≤3 shaded cells) and narrows toward parity under heavier shading. I-V curves are single-diode model projections from rated STC parameters, not flash-test measurements. Walkable load capacity depends on backing plate and substrate — confirm per configuration. Values at STC; specifications subject to change — confirm at time of order.