

CLM-540M-60 Series — Infinite Possibilities

Premium n-type back-contact dual-glass modules for residential rooftops and commercial projects
HPBC 2.0 standard · ABC / TBC optional | OEM / ODM ready

530~555 W

120 half-cut BC cells · Bifacial

24.6%

MAX MODULE EFFICIENCY

0~3%

POWER TOLERANCE

1%

FIRST-YEAR POWER DEGRADATION

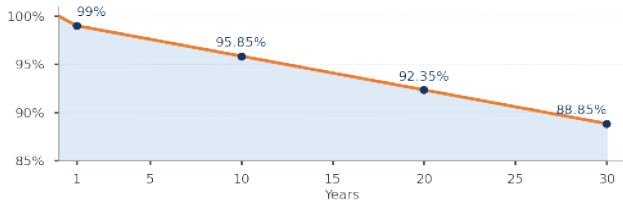
0.35%

YEAR 2-30 POWER DEGRADATION

BC-CELL

LOWER OPERATING TEMPERATURE

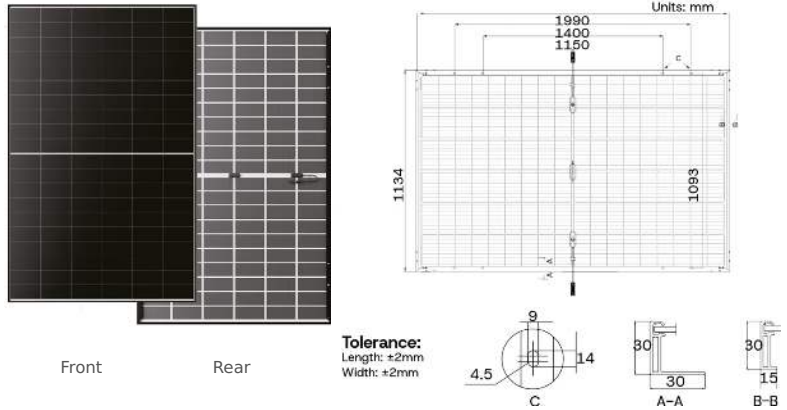
30-Year Power Warranty



Mechanical Parameters

Cell Type	N-type Back Contact (HPBC 2.0)
Cell Orientation	120 (6 × 20)
Junction Box	IP68, three diodes
Output Cable	4 mm ² , +400 / -200 mm (±1400 mm), customizable
Glass	Dual glass, 2.0 + 2.0 mm semi-tempered
Frame	Black anodized aluminum alloy frame
Weight	28 kg
Dimensions (L × W × H)	1990 × 1134 × 30 mm
Packaging	36 pcs / pallet 360 pcs / 20' GP · 792 pcs / 40' HC

Module Views & Dimensions



Advanced: N-TaiRay + HPBC 2.0 + OBB

Higher Output: Up to 25% Bifacial Power Gain + Enhanced Shade Tolerance

Aesthetic: Zero Front Gridlines + Seamless Integration

Safer: Lower Hot-Spot & Micro-Crack

Electrical Characteristics

STC: AM1.5, 1000 W/m², 25 °C · NOCT: AM1.5, 800 W/m², 20 °C, 1 m/s · Test uncertainty for P_{max} ±3%

Module Type	CLM-530M-60		CLM-535M-60		CLM-540M-60		CLM-545M-60		CLM-550M-60		CLM-555M-60	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (P _{max} / W)	530	403	535	407	540	411	545	415	550	419	555	422
Open Circuit Voltage (V _{oc} / V)	44.95	42.72	45.05	42.82	45.15	42.91	45.25	43.01	45.35	43.10	45.45	43.20
Short Circuit Current (I _{sc} / A)	14.90	11.97	15.00	12.05	15.10	12.13	15.20	12.21	15.30	12.29	15.40	12.37
Voltage at Max. Power (V _{mp} / V)	37.17	35.32	37.27	35.41	37.37	35.51	37.47	35.60	37.57	35.70	37.67	35.79
Current at Max. Power (I _{mp} / A)	14.26	11.42	14.36	11.50	14.45	11.58	14.55	11.65	14.64	11.73	14.73	11.80
Module Efficiency (%)	23.5		23.7		23.9		24.2		24.4		24.6	

Electrical Characteristics with Different Rear-Side Power Gain

Reference bin: CLM-535M-60

P _{max} / W	V _{oc} / V	I _{sc} / A	V _{mp} / V	I _{mp} / A	P _{max} gain
535	45.05	15.00	37.27	14.36	0%
562	45.05	15.75	37.27	15.07	5%
589	45.05	16.50	37.27	15.79	10%
615	45.15	17.25	37.37	16.47	15%
642	45.15	18.00	37.37	17.18	20%
669	45.15	18.75	37.37	17.90	25%

Operating Parameters

Operational Temperature	-40 °C ~ +85 °C
Power Output Tolerance	0 ~ +3%
Maximum System Voltage	DC 1500 V (IEC)
Maximum Series Fuse Rating	30 A
Nominal Operating Cell Temperature	45 ± 2 °C
Protection Class	Class II
Fire Rating	IEC Class C

Mechanical Loading

Front Side Maximum Static Loading	5400 Pa
Rear Side Maximum Static Loading	2400 Pa
Hailstone Test	25 mm hailstone at 23 m/s

Temperature Ratings (STC)

Temperature Coefficient of I _{sc}	+0.050 %/°C
Temperature Coefficient of V _{oc}	-0.200 %/°C
Temperature Coefficient of P _{max}	-0.260 %/°C

OEM / ODM: cell layout · size · voltage · frame colour · private-label · low MOQ
 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.

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