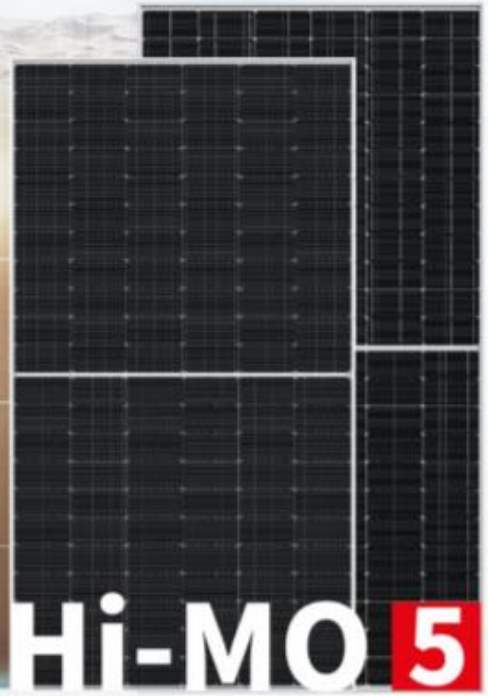
「Hi-MO5」Product Introduction

LONGi

LONGi

Shaping the future.
Once again.

Delivering true value | Higher power, lower LCOE



HIMO 5 Series

Propelling the transformation

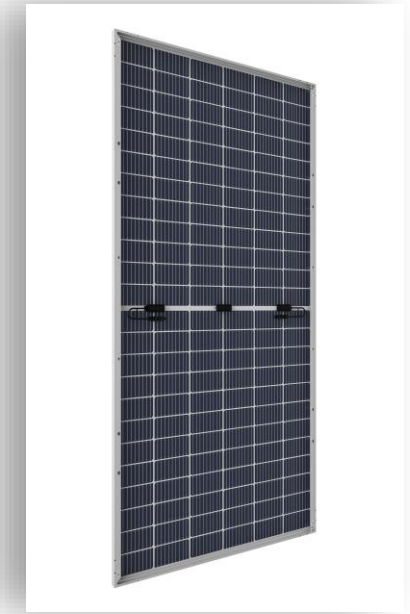
Hi-MO5
66 cells

495W

2073×1133

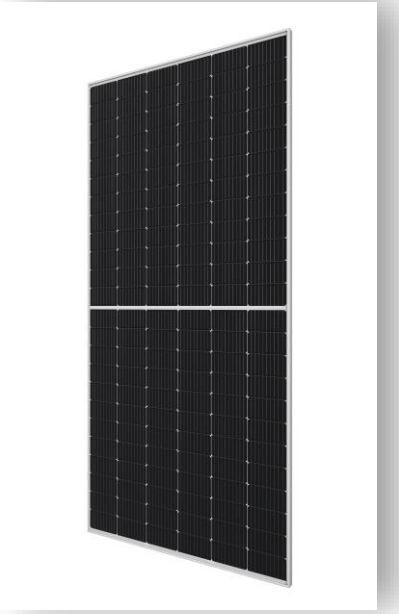
Hi-MO5
72 cells

540W



2256×1133

Hi-MO5
Bifacial



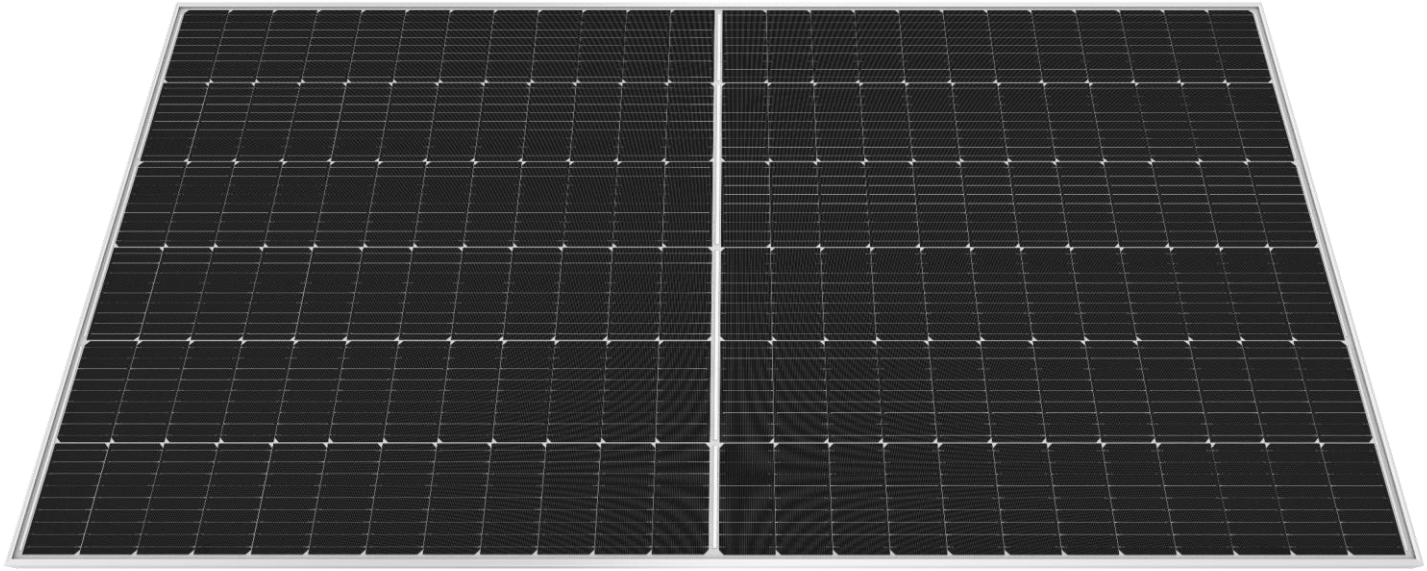
Hi-MO5

Outstanding Design
Reliable Real-World Applications

Propelling the transformation

Technology Integration

- M10 Gallium doped mono wafer
- P-type PERC cell
- 9BB Half-cut technology
- Normal 6 rows 72C / 66 C module design
- 21.1% efficiency
- Power temperature coefficient -0.35%/°C



*M10 Mono wafer: 182mm side length

Product Parameters

Propelling the transformation

HIMO 5 Series

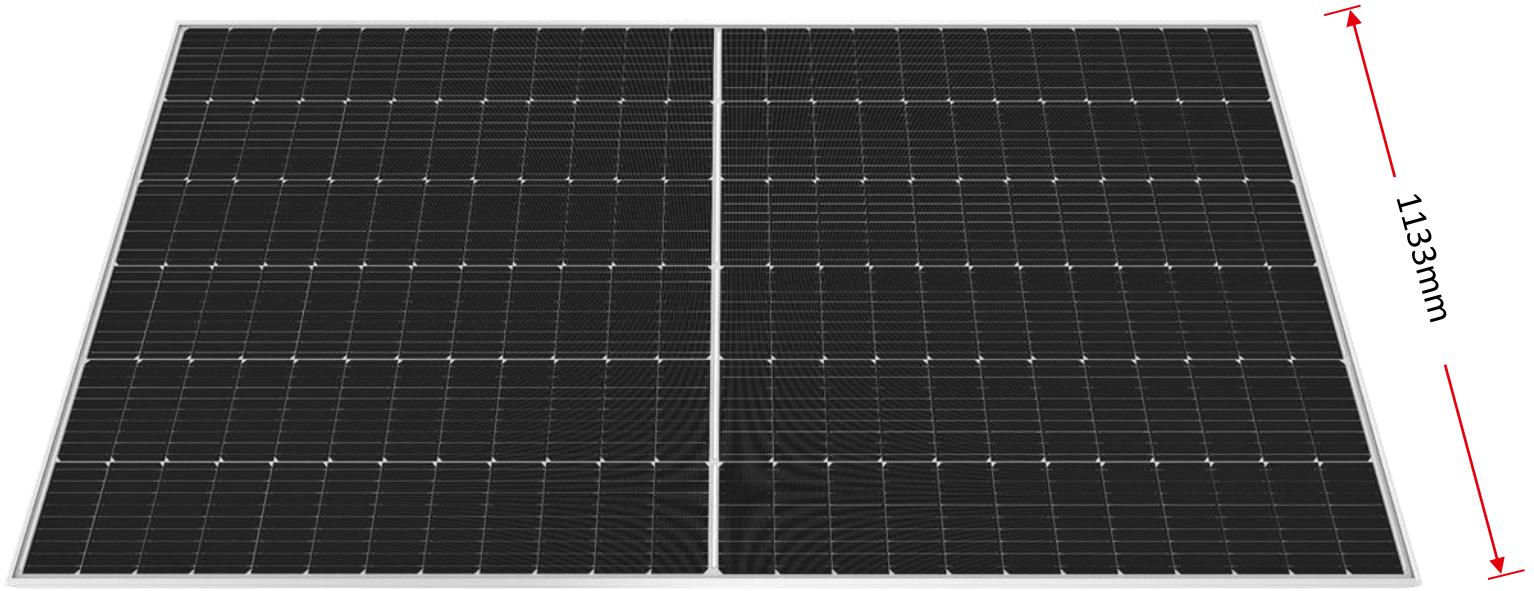
72 cells

Pmp 540W

Voc 49.5V

Weight 32.3 Kg

Imp 13.0A



66 cells

Pmp 495W

Voc 45.4V

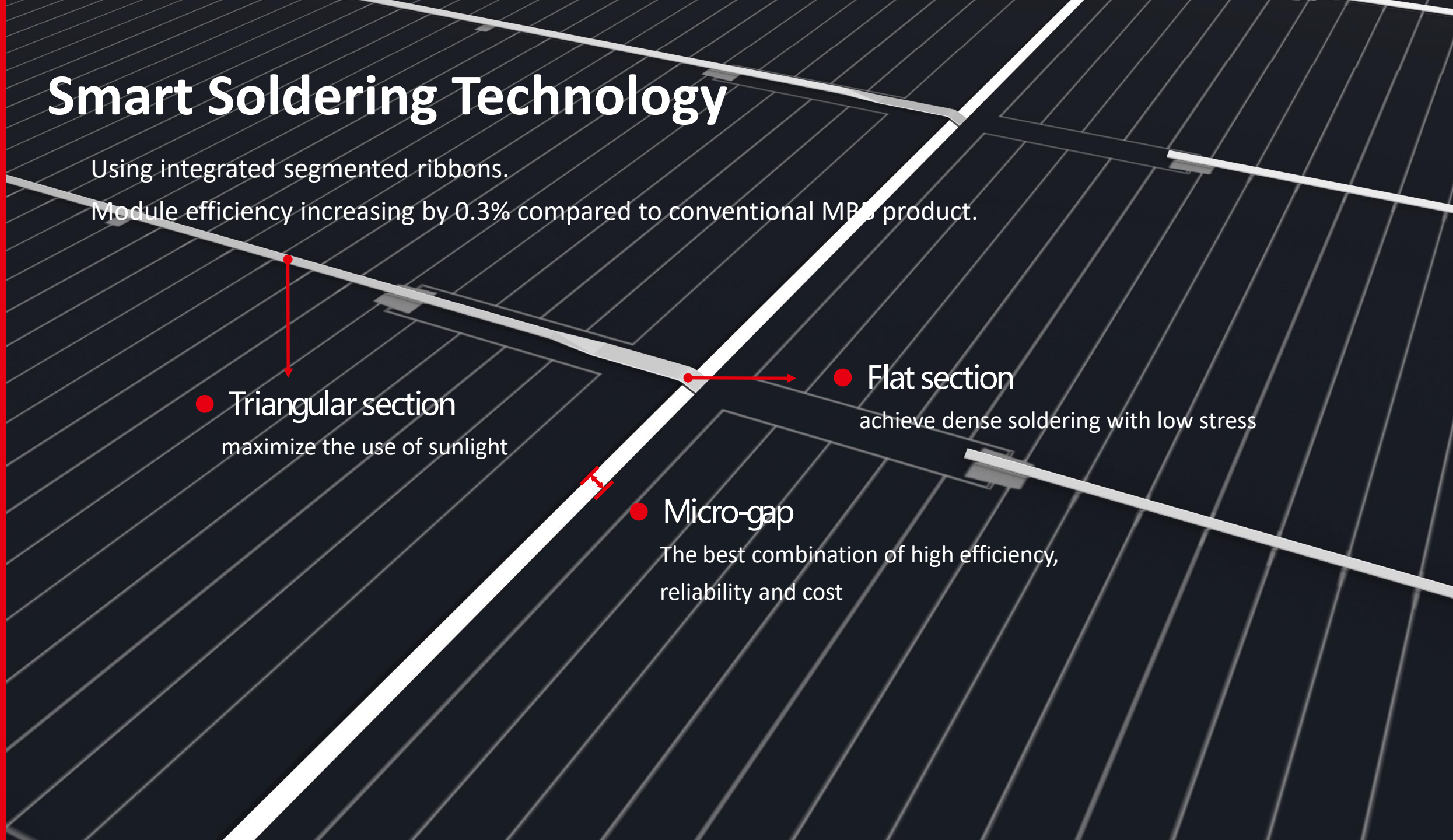
Weight 30.1 Kg

Imp 12.95 A

Smart Soldering Technology

Using integrated segmented ribbons.

Module efficiency increasing by 0.3% compared to conventional MBB product.



- **Triangular section**
  maximize the use of sunlight
- **Flat section**
  achieve dense soldering with low stress
- **Micro-gap**
  The best combination of high efficiency, reliability and cost

Propelling the transformation

LONGi

Hi-MO 5

Smart soldering

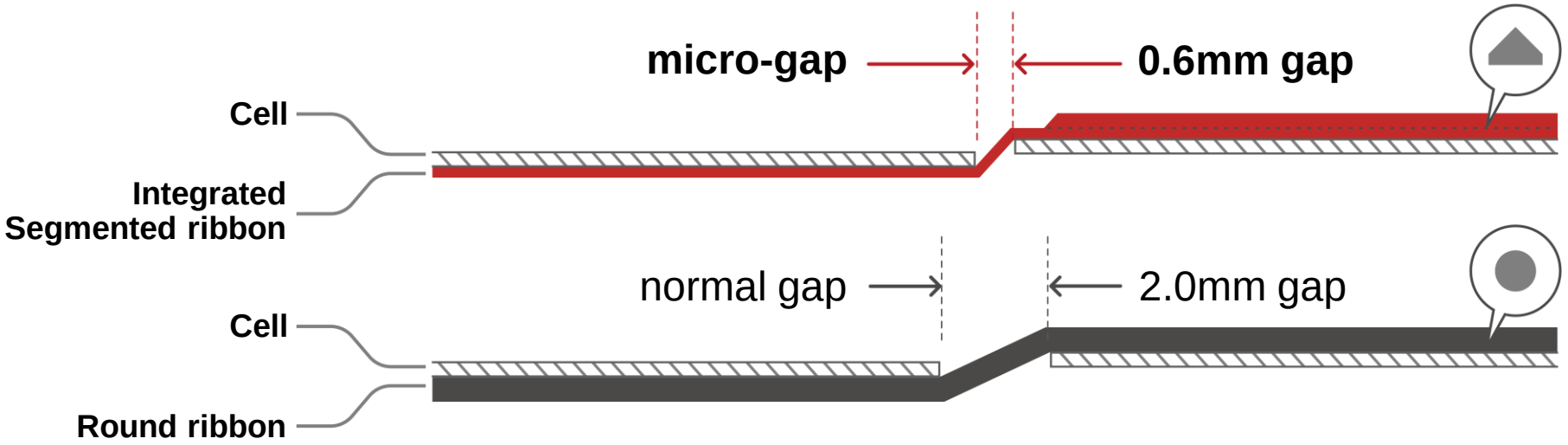
Improved packing density, reliability and conversion efficiency

LONGi's smart soldering technology uses integrated segmented ribbons. The triangular section maximizes light capturing while the flat section reliably connects cell with reduced gap. Smart soldering technology reduces the tensile stress of the cell by 20%, enabling higher reliability.

Cell gap reduction 2/3

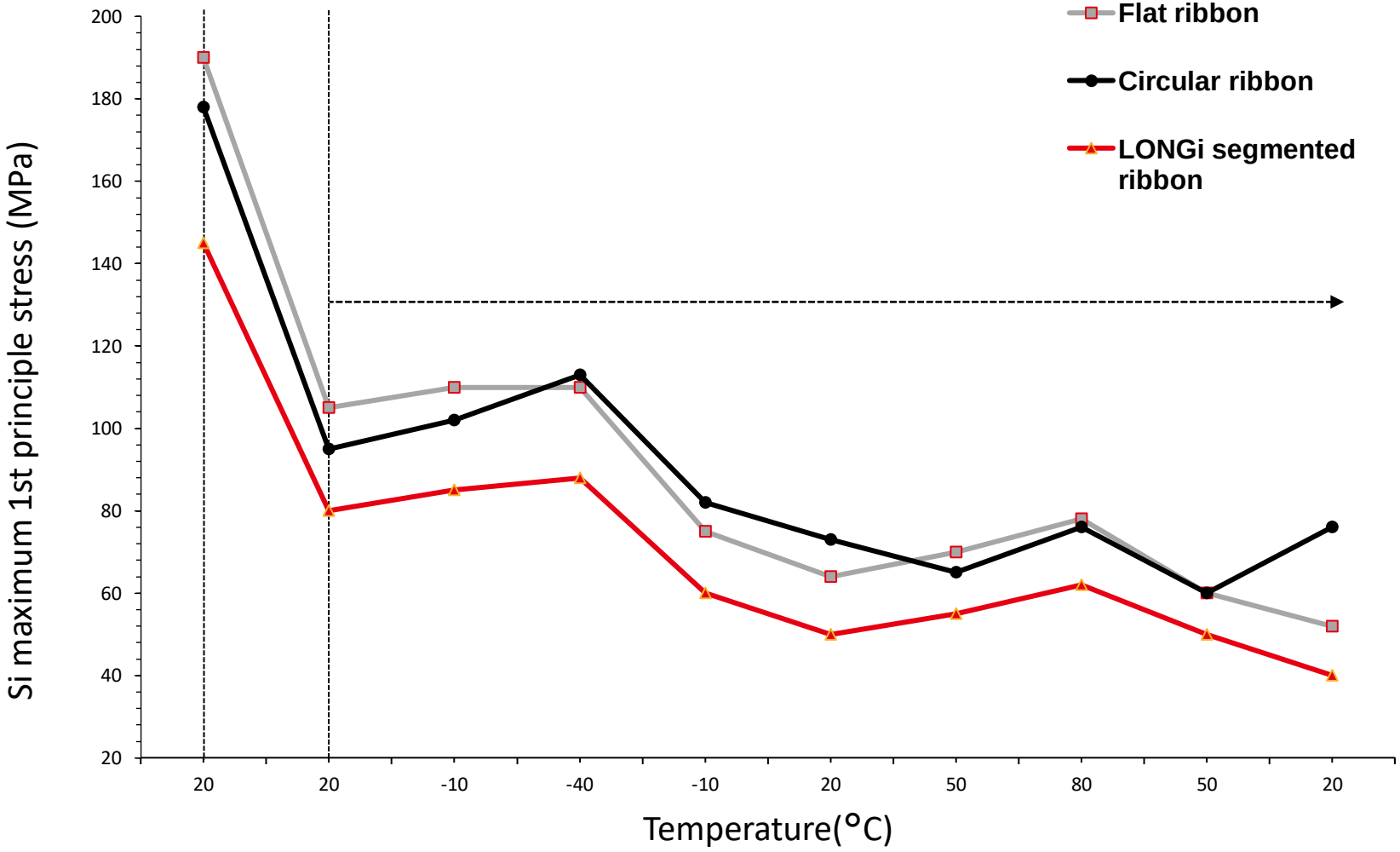
Cell stress reduction 20%

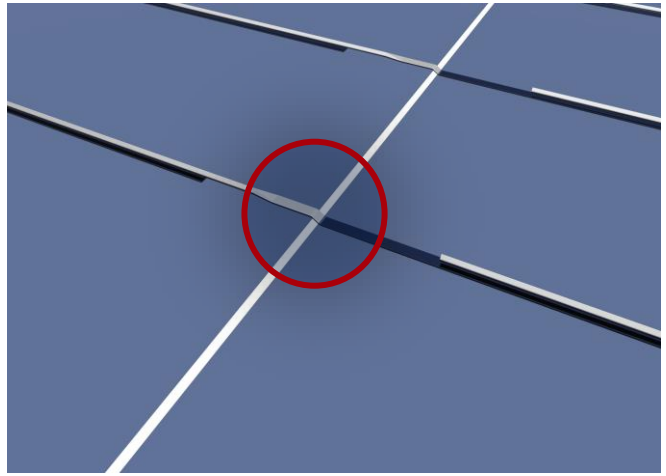
Gain in module efficiency 0.3%



Smart Soldering Technology

Smart soldering technology reduces the tensile stress of cells by 20%, enabling higher reliability.





Hi-MO5

The strongest bifacial in the market

Reliable Bifacial Gain

- LONGi's bifacial modules have shipped over 5GW worldwide.
- The bifacial has been verified by pilot projects and large-scale power station.

10.0% - Sand
Saudi Arabia

19.2% - White gravel
Chennai

10.1% - Grass
14.5% - Gement
15.8% - Sand
20.6% - White coating
Hainan, China

4.4% - Black fabric
10.6% - Asphalt
15.7% - White fabric
Fremont, USA

8.3% - Gravel
Livermore,USA
(Tracker)

10.9% - Light gravel
Pahrump, USA

Thuwal, Saudi Arabia	Chennai, India	Ding' an, Hainan	Fremont, USA	利菲摩尔 Livermore	帕伦普 Pahrump
					

Baseline: Monofacial PERC module

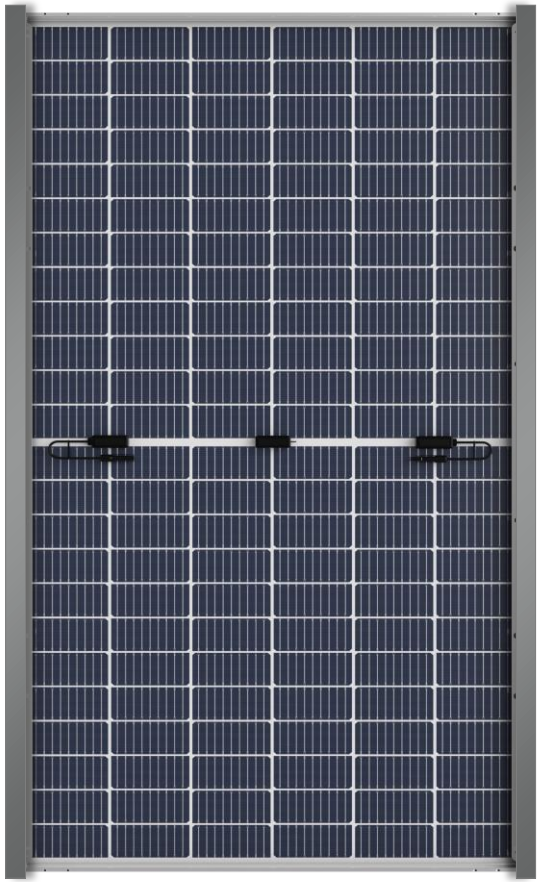
Bifacial Module with Excellent Mechanical Property

2/2mm glass + Frame

LONGi double glass module

Pass 5400Pa ML test

When mount without shading

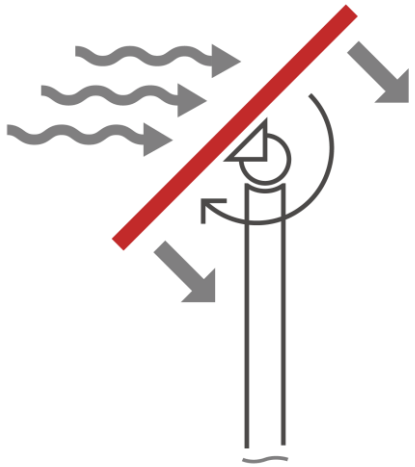


Hi-MO 5

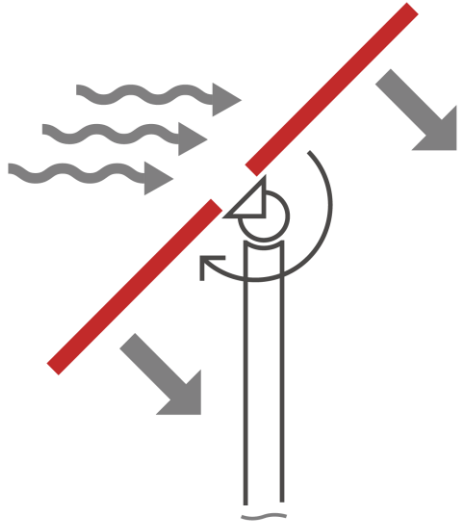
Optimized module size

Perfectly matched with tracking systems

A Hi-MO 5 module length is about 2.25 meters.
Compatible with mainstream 1P and 2P horizontal single axis tracking system.
Bifacial module with tracking system can achieve the lowest LCOE in low latitude areas.



1P
Horizontal single axis tracker



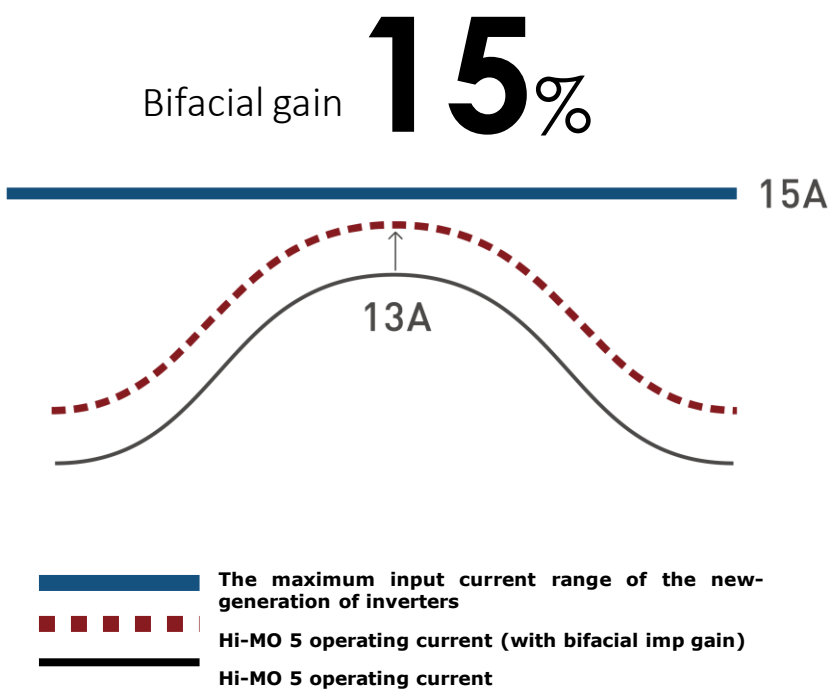
2P
Horizontal single axis tracker

Hi-MO 5

Optimized electrical parameters

Fully compatible with inverters

The operating current of LONGi Hi-MO 5 module is about 13A. Including bifacial gain, the operating current remains within the maximum input current range of advanced inverters, hence there is no power generation loss.



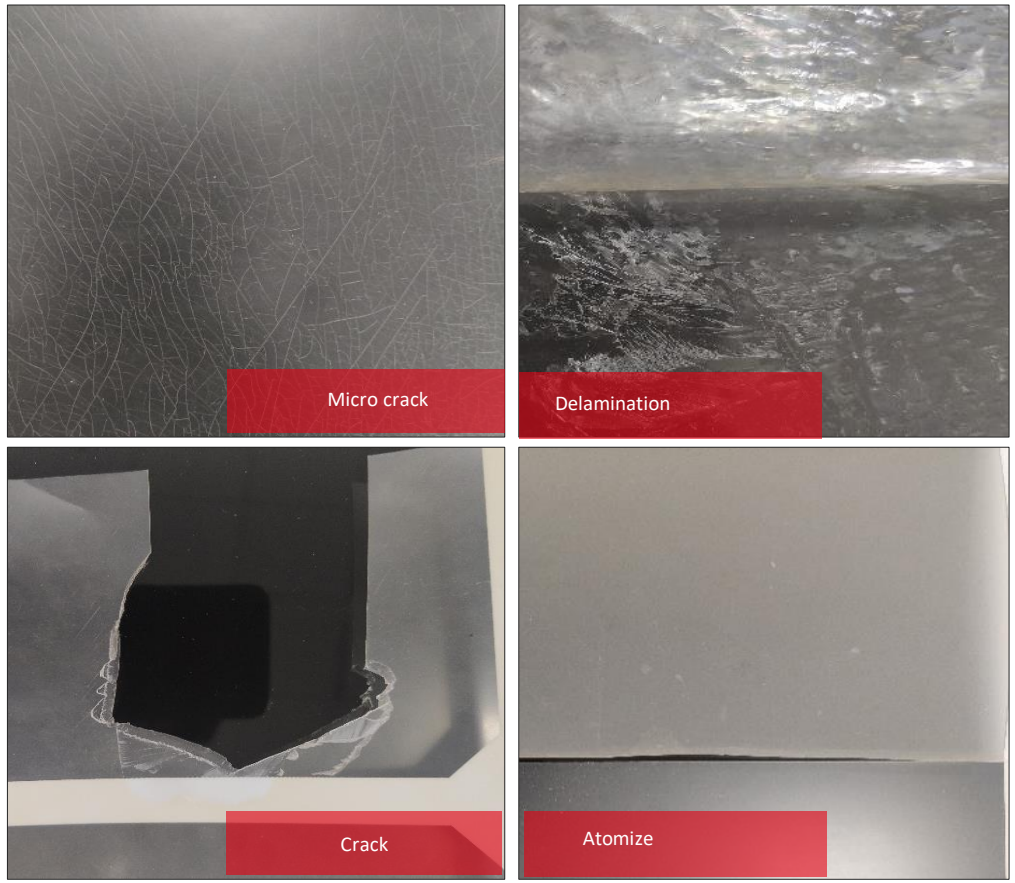
Albedo and expected Yield Gain

Surface	Albedo	Expected yield gain
Water	5-8%	4-6%
Bare soil	10-20%	6-8%
Green grassland, gravel	15-25%	7-9%
Concrete ground / white gravel	25-35%	8-10%
Dry / dune sand	35-45%	10-15%
Reflective roof coatings	80-90%	23-25%
Fresh snow	80-95%	25-30%

ALBEDO and expected yield gain table.
Source: TUV Rheinland Group

Reliable Bifacial Gain

Glass backsheet vs Transparent backsheet



01. Material

Glass is inorganic material ; transparent backsheet is polymer composite containing various organic additives.

02. Reliability

The transparent backsheet exhibits yellowing, delamination, cracking, embrittlement and other failures in DH, UV, PCT and other tests.

03. Mechanical loading property

Symmetrical structure of double glass makes its mechanical loading property better than glass-backsheet structure.

04. Cost

Double glass module: 2mm+2mm glas.

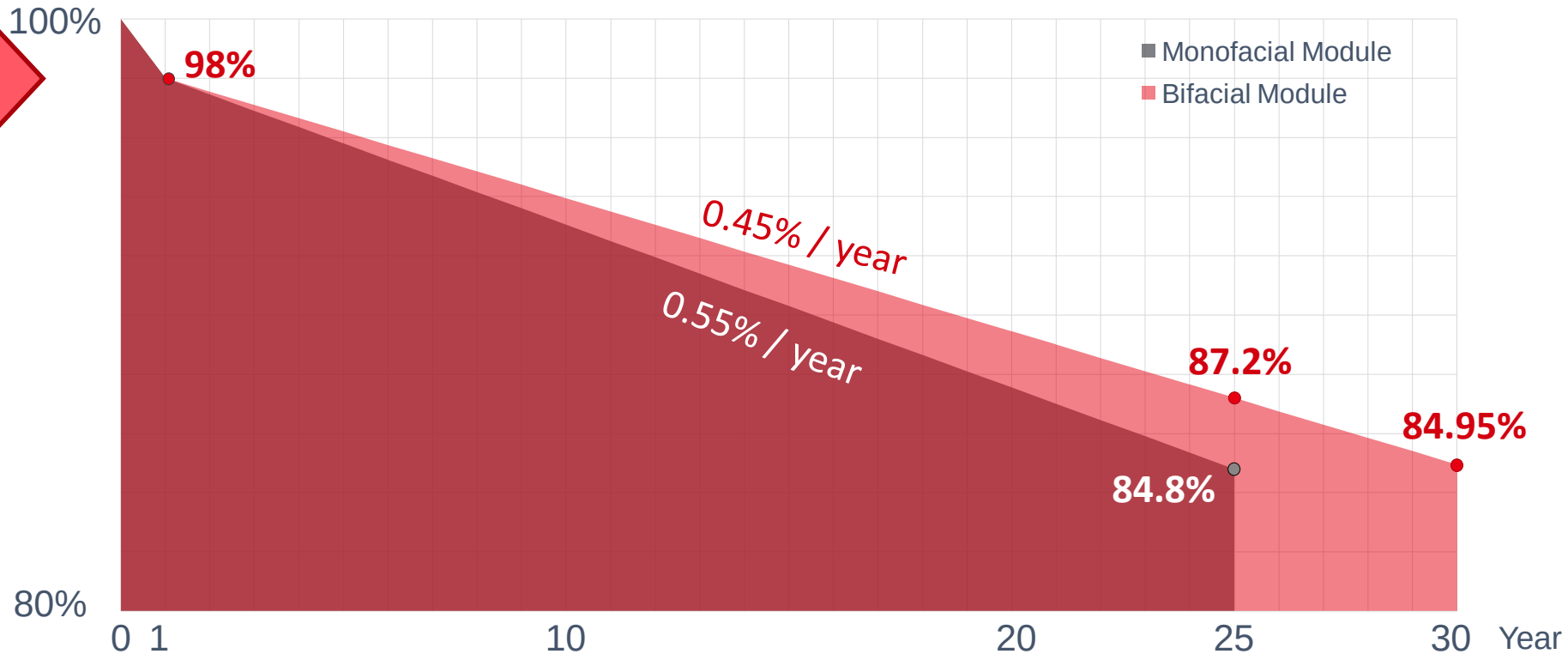
Transparent backsheet module: 3.2mm glass + transparent backsheet.

Leading Power Warranty

1st year degradation≤ 2%

Linear annual degradation of bifacial module ≤ 0.45%

BEST IN CLASS
First year degradation
≤ 2%



LID (Light Induced Degradation) refers to the initial degradation that all Crystalline PV modules suffer when first contact with light, this phenomenon is intrinsic to the photoelectric effect.

Hi-MO5

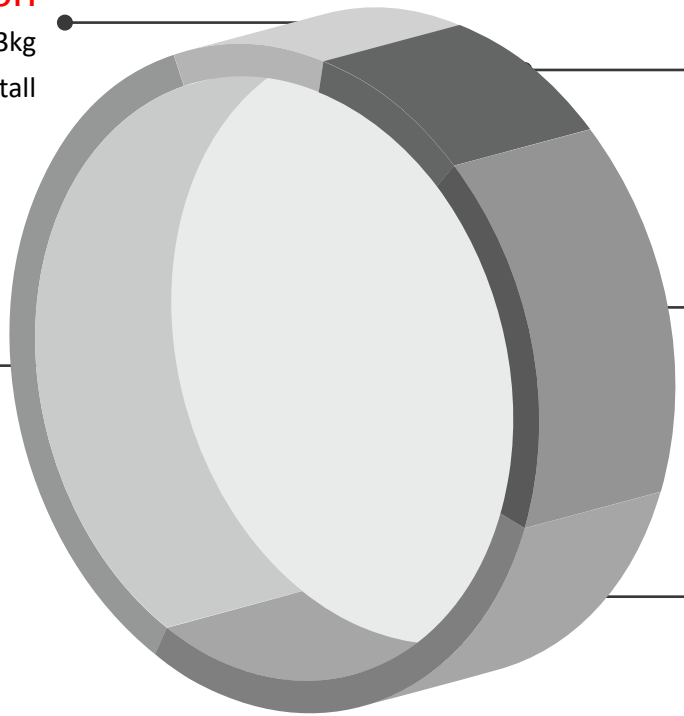
The Optimal Module Size
Determine the Size of M10 Wafer

Propelling the transformation

Boundary Conditions Analysis

Confirm that there are no unsolvable obstacles in other aspects.

- M10 Wafers



5. Module installation

2.56m2， 32.3kg

No difficulty for two people to install

4. Module transportation

Fit for 40-foot container

Low impact on transportation cost

3. System compatibility

15A inverter easily realized

72Cell module compatible with tracker

1. Production feasibility & cost

High cell manufacturing yield

Supported by the new glass production capacity

2. Reliability

Lower LID in the market

Low linear degradation

Mechanical Load

Performance warranty

Hi-MO5

Lowest LCOE Solutions for Ultra-large Power Plants

Propelling the transformation

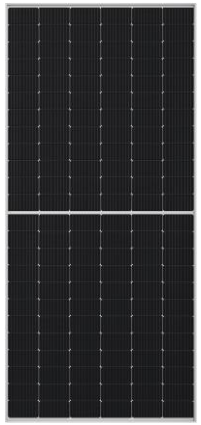
BOS Saving

Hi-MO5

Hi-MO5 can save BOS cost more than 1.2$/W

Jiuquan, China; 4L fix mounts

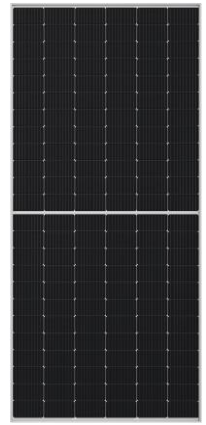
158.75,72 Cells



540W

	Cost saving ratio	
	Mounts and foundation	-8.1%
	Combiner box	-26.9%
	Cables	-8.2%
	Manual	-20.6%
	Land	-4.6%

410W



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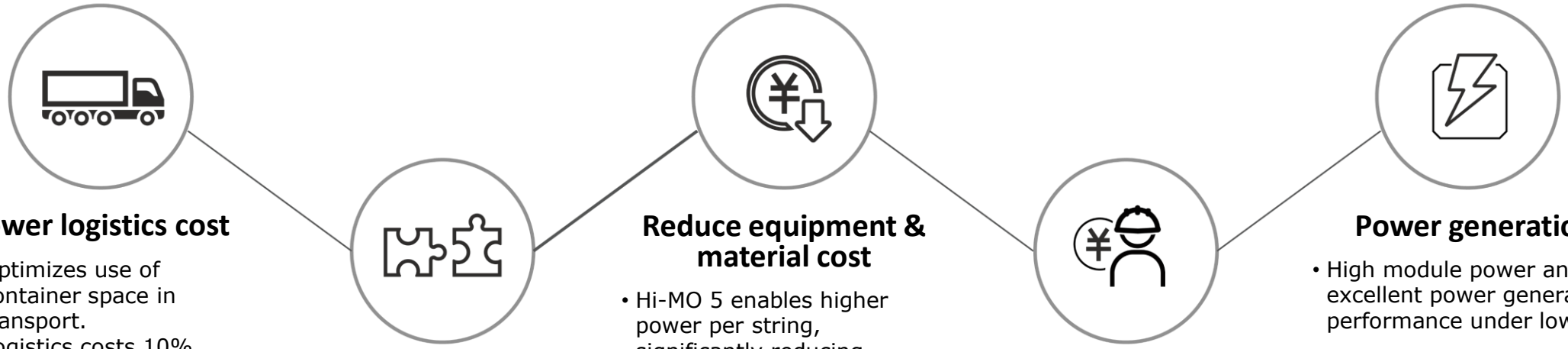
BOS Saving

Module Type	G1-72C	163.75-78C	166-72C	210-50C	Hi-MO5 72C	Hi-MO5 66C
Power（W）	**410**	**465**	**445**	**495**	**540**	**495**
Module efficiency（%）	**20.0**	**20.4**	**20.5**	**20.5**	**21.1**	**21.1**
Typical size（mm）	2037*1005	2205*1032	2094*1038	2187*1102	2256*1133	2073*1133
Voc（V）	50.1	52.2	49.4	51.3	49.4	45.4
Typical string length	28	26	28	27	28	30
Imp（A）	9.64	10.55	10.80	11.49	13	12.95
BOS cost ($/W)	Baseline	-0.63	-0.66	-0.97	-1.34	-1.21

Hi-MO 5

Lowest LCOE solutions for ultra-large power plants



Lower logistics cost

- Optimizes use of container space in transport.
- Logistics costs 10% lower than mainstream products.

Improved system capacity ratio

- Matched with string inverters, cost per watt on the AC side in reduced.

Reduce equipment & material cost

- Hi-MO 5 enables higher power per string, significantly reducing racking, pile foundation, cable, combiner box and land cost.

Save labor cost

- Reduce installation costs for modules, cables, etc.

Power generation

- High module power and excellent power generation performance under low light.
- Low power temperature coefficient.
- Reliable bifacial module power generation gain.
- Industry-leading power warranty.

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Propelling the transformation