

SunPower

Performance 7

SUNPOWER

FROM MAXEON
SOLAR TECHNOLOGIES



We develop and produce the leading technology solutions for solar energy

#1

We define standards for high-performance solar systems.



We are improving every day to produce particularly durable solar modules.

SUNPOWER

FROM MAXEON
SOLAR TECHNOLOGIES



maxeon

SUNPOWER

FROM MAXEON SOLAR TECHNOLOGIES

Maxeon can look back

39 years

**Of experience in the
global market**

maxeon

# customers	+1.000.000
Global	In more than >100 countries
Experience	Over 48 million solar modules installed
Segments	Residential applications
	Commercial applications
	Solar power plants
Channels	~1.700 partners worldwide
Production	IBC ¹ : 1 GW P-Serie: 1,8 GW ²
	12 GW durch Joint Venture ³
Colleague	> 5.000

¹ IBC: Interdigitated Back Contact (IBC), Rückkontaktzellen-Technologie.

² Zielkapazität 1,8 GW, größtenteils umgesetzt mit Stand 1. Januar 2023.

³ Joint Venture: Huansheng Photovoltaic (Jiangsu) Co., Ltd. (HSPV).

Who we are



We are clean!

- **1985 SunPower is founded by Dr Richard Swanson**
- **2014 The billionth SunPower solar cell rolls off the production line**
- **2020 Involvement in the Global Impact Initiative of the United Nations**

Maxeon is one of the

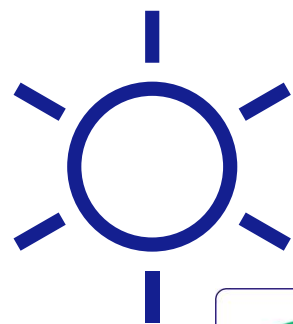
**50 sustainable
companies**

in the world



Erfahre mehr unter:
corporateknights.com

Who we are



We are clean

- **2022 Launch of Maxeon Gives & ESG report is confirmed externally**
- **2024 Market launch of the SunPower total solution system**
- **2024 SunPower confirms its role as a technology leader in solar modules with the new Performance7 and Maxeon7 product lines**



**SunPower
Solarpanels
+ Batterysystem
+ Wallbox**

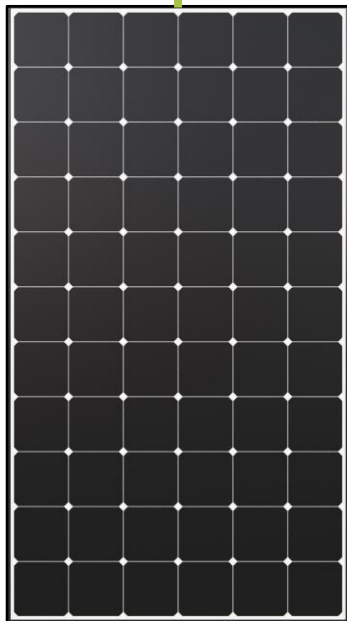
A dashed yellow line with green circular endpoints connects the solar panels on the roof to the battery system and wallbox in the carport, illustrating the energy flow.

**Solar can
be so simple**

SUNPOWER

FROM MAXEON
SOLAR TECHNOLOGIES

All components in the SunPower system are linked together



SunPower Maxeon
SunPower Performance



SunPower Reserve



SunPower Drive



SunPower Performance 7

PERFORMANCE

Efficiency

P3

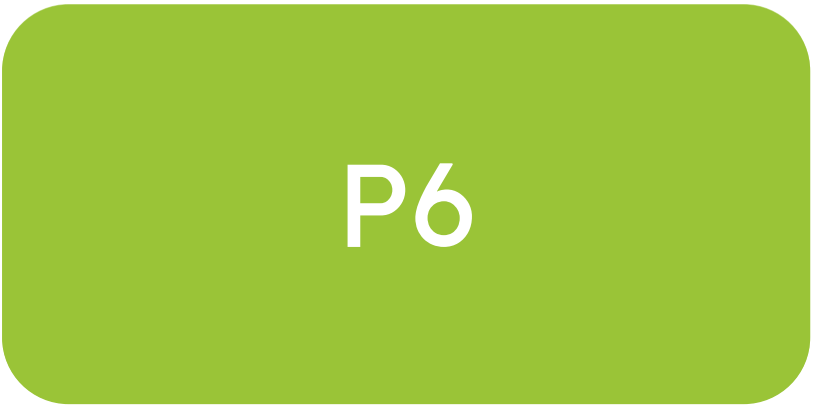
P6

P7

¹ SunPower internal study, 2020..

PERFORMANCE

Efficiency



¹ SunPower internal study, 2020..

PERFORMANCE

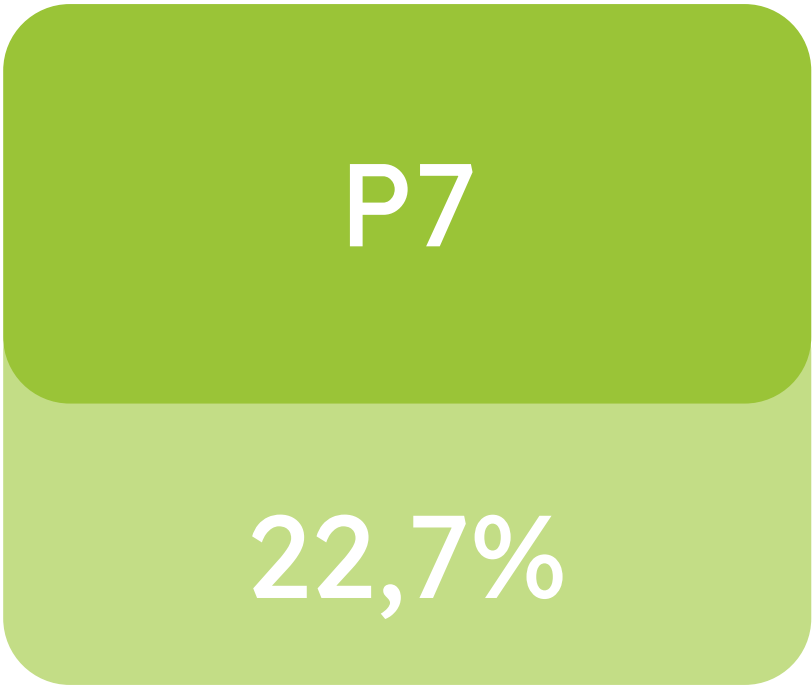
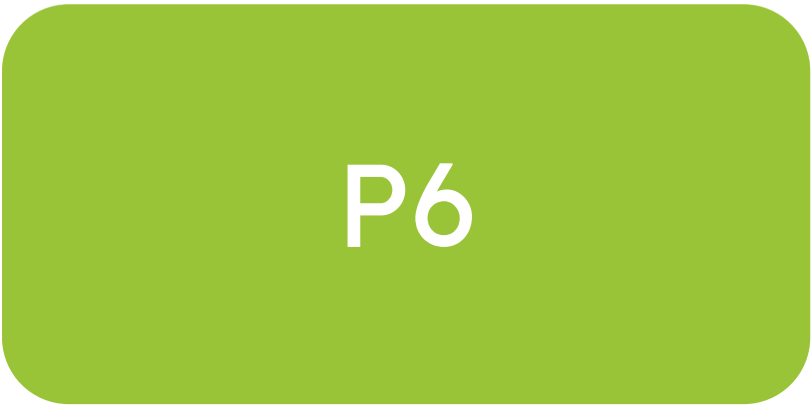
Efficiency



¹ SunPower internal study, 2020..

PERFORMANCE

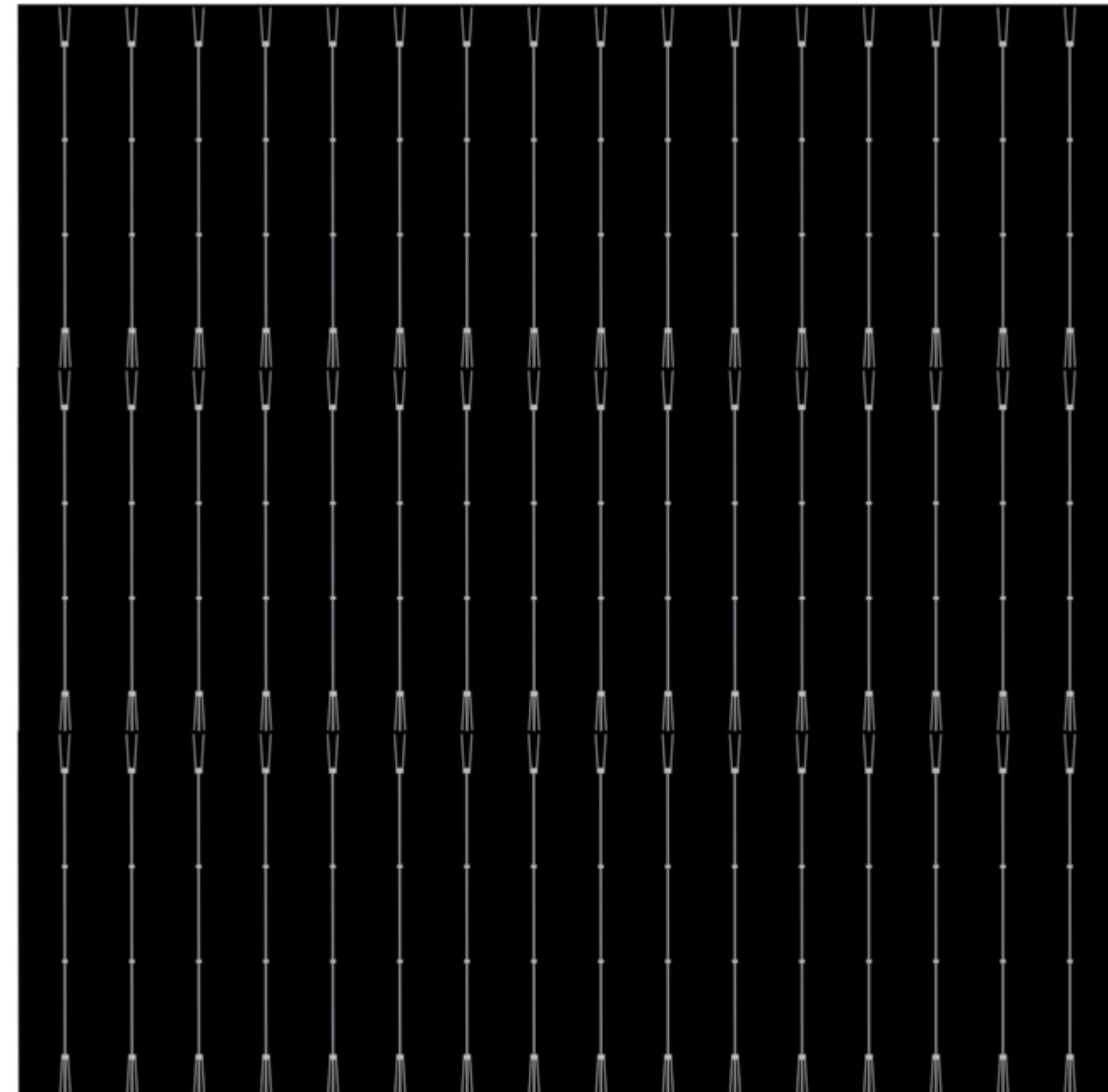
Efficiency



¹ SunPower internal study, 2020..

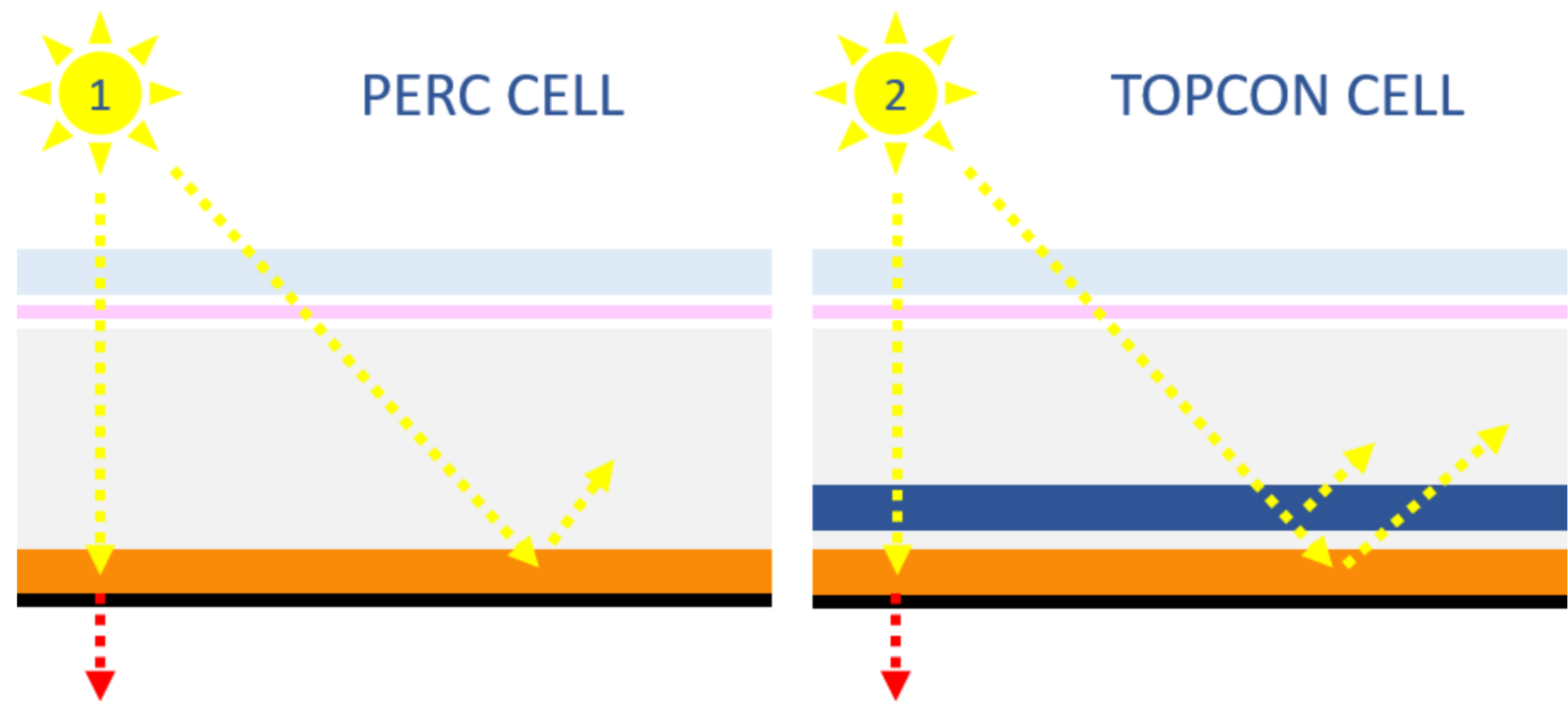
Tunnel Oxide Passivated Contact

TOPCon Cell Technology



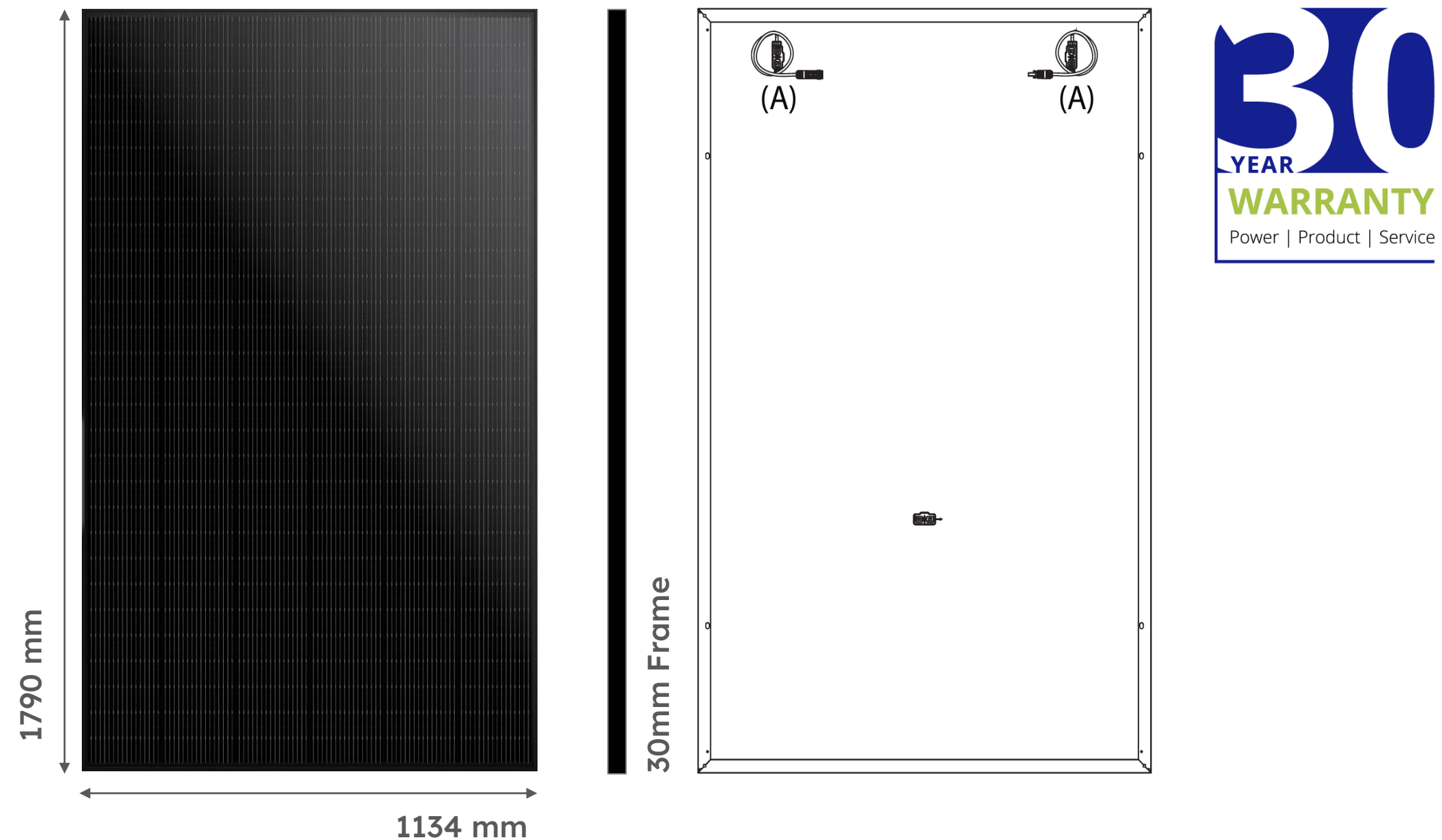
PERFORMANCE

Perc vs TopCon



PERFORMANCE PANEL PORTFOLIO - residential

SunPower Performance 7 BLK



SPR-P7-xxx-BLK

Up to 455W | Up to 22.4%

Efficient



Ideal for
residential
applications



Bifacial
Generation

FEATURES

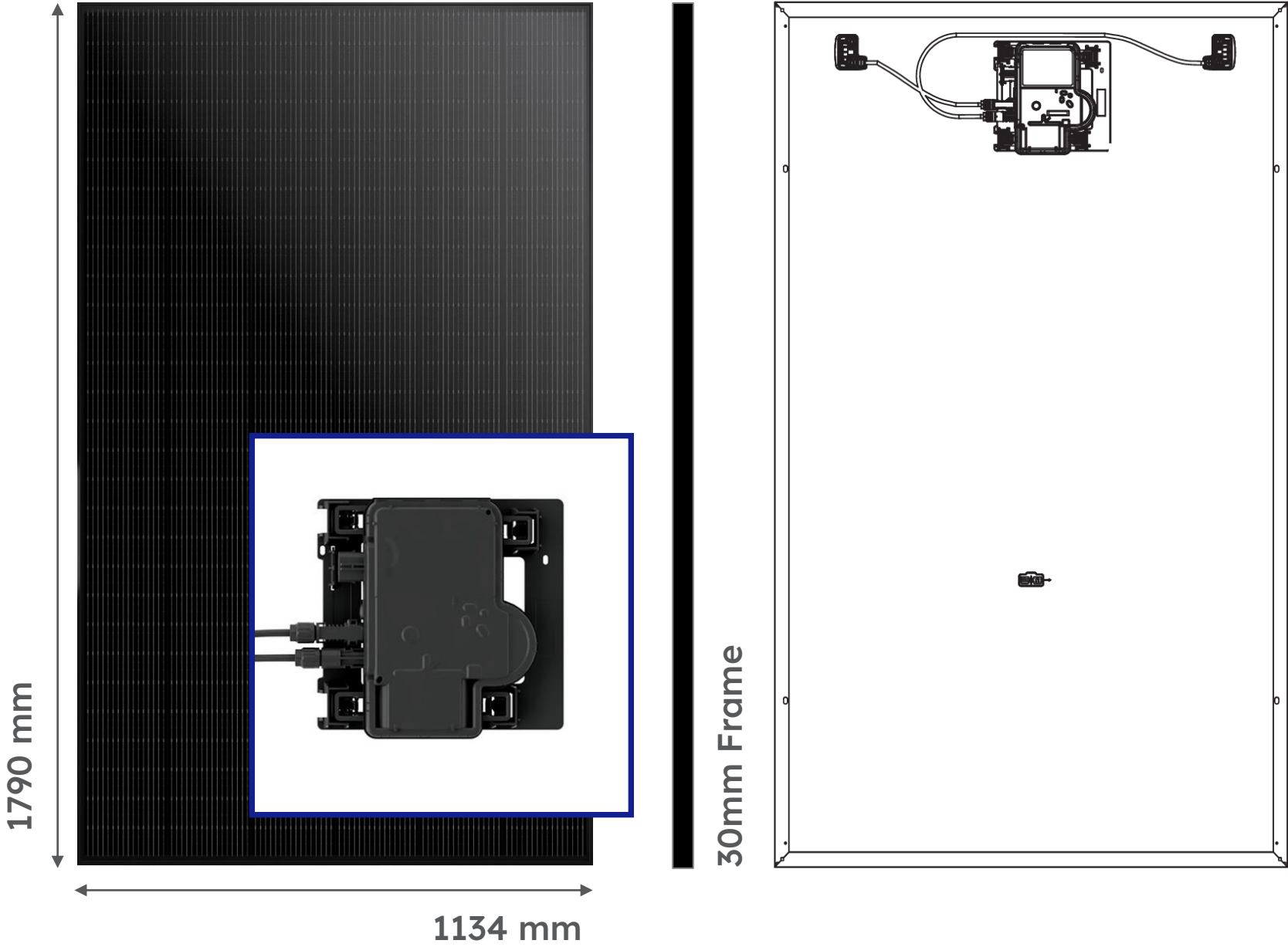
- Bifacial power generation
- Glass-Glass construction, black frame
- Full square 182mm (G10) solar cells
- 30 mm frame
- 3 Junction boxes, 3 Diodes (1 each)
- Cables: (-) 1200 mm / (+) 1200 mm
- MC4 Connectors

WARRANTY

Power, Product, Service	30/30/30
Year 1 min warranted output	99.0%
Maximum annual degradation	0.40%

PERFORMANCE PANEL PORTFOLIO - residential

SunPower Performance 7 BLK AC



SPR-P7-XXX-BLK-XX-
AC

Up to 450W | Up to 22.4%
Efficient



Ideal for
residential
applications



Factory-
integrated
microinverter

FEATURES

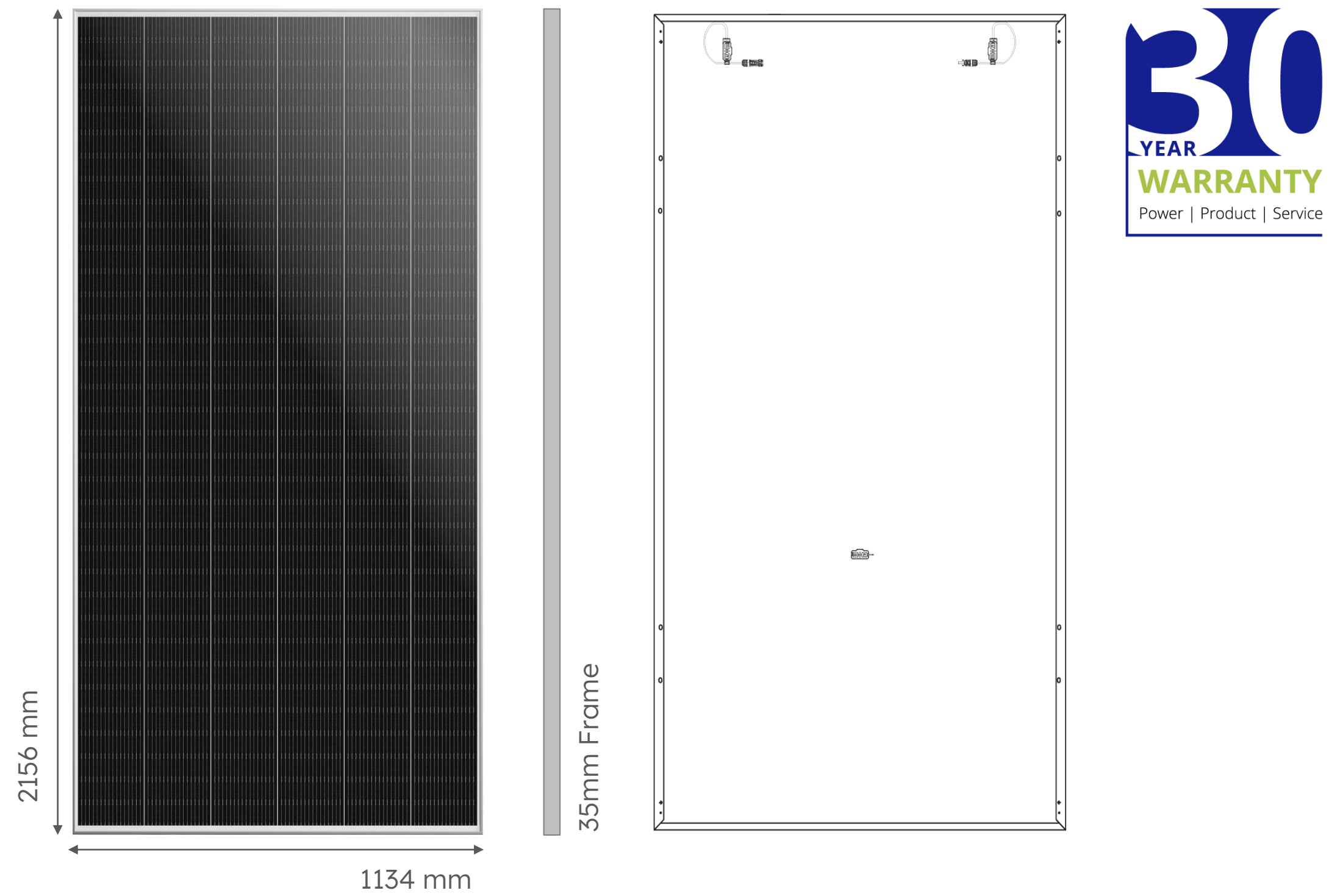
- Bifacial power generation
- Glass-Glass construction, black frame
- Full square 182mm (G10) solar cells
- 30 mm frame
- Enphase factory-integrated microinverter
- Cables: (-) 800 mm / (+) 400 mm
- MC4 Connectors

WARRANTY

Power, Product, Service	30/30/30
Year 1 min warranted output	99.0%
Maximum annual degradation	0.40%
EU microinverter warranty	25 years
AU microinverter warranty	15 years

PERFORMANCE PANEL PORTFOLIO - COM

SunPower Performance 7 COM-S



SPR-P7-xxx-COM-S

Up to 555W | Up to 22.7% Efficient



Ideal for
Commercial
Applications



Bifacial
Generation

FEATURES

- Bifacial power generation
- Framed glass-glass construction
- Full square 182mm (G10) solar cells
- 35 mm frame
- 3 Junction boxes, 3 Diodes (1 each)
- Cables: (-) 1500 mm / (+) 1500 mm
- Connectors: EVO2

WARRANTY

Power, Product, Service	30/30/30
Year 1 min warranted output	99.0%
Maximum annual degradation	0.40%

ZELL TECHNOLOGIE

TOPCon Solar Zellen: When integrated with Performance modules

**Up to
22.7%**

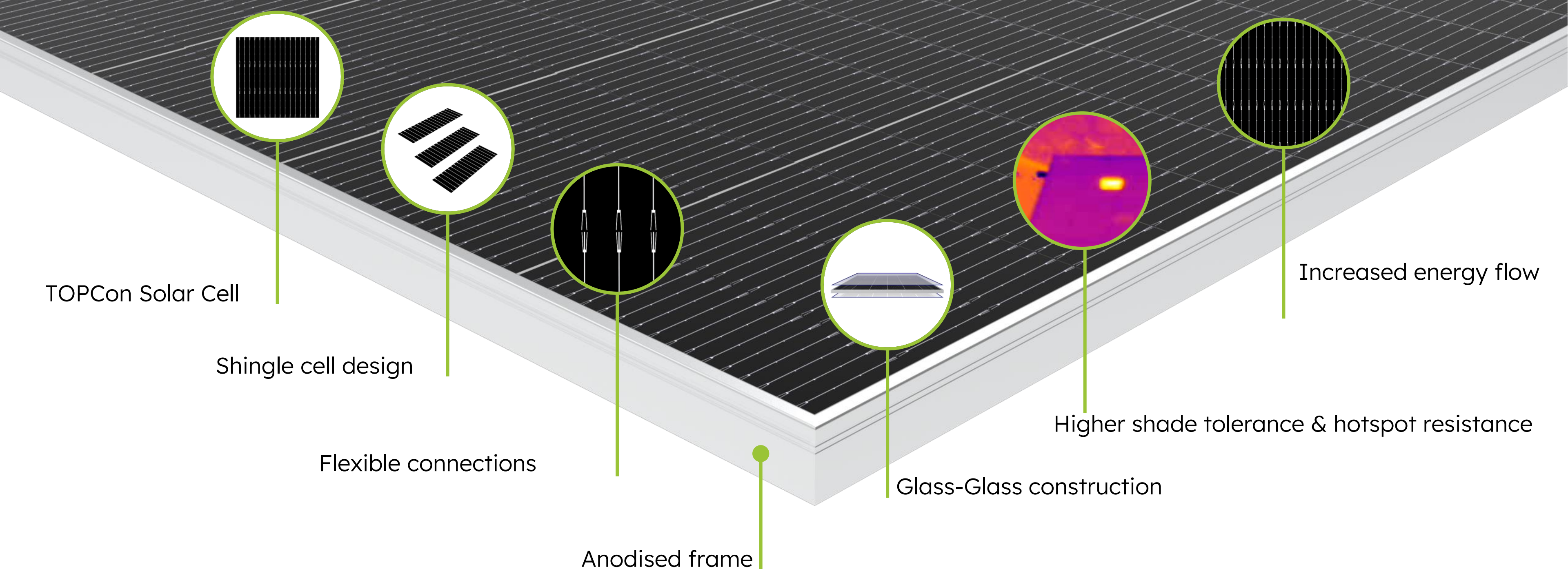
Modules Efficiency ¹

87.4%

Output after 30 years²

80.0%

Bifacial Factor³



TOPCon Solar Cell

Shingle cell design

Flexible connections

Anodised frame

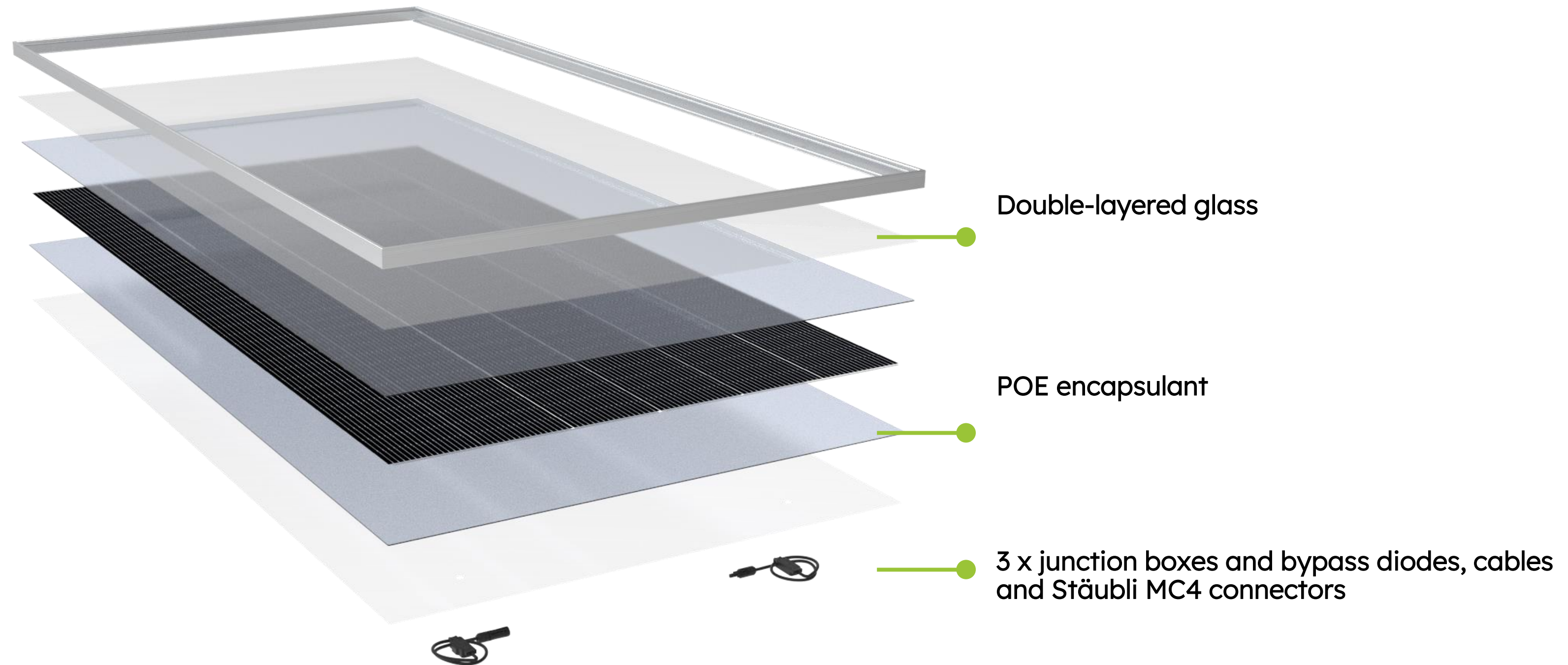
Glass-Glass construction

Higher shade tolerance & hotspot resistance

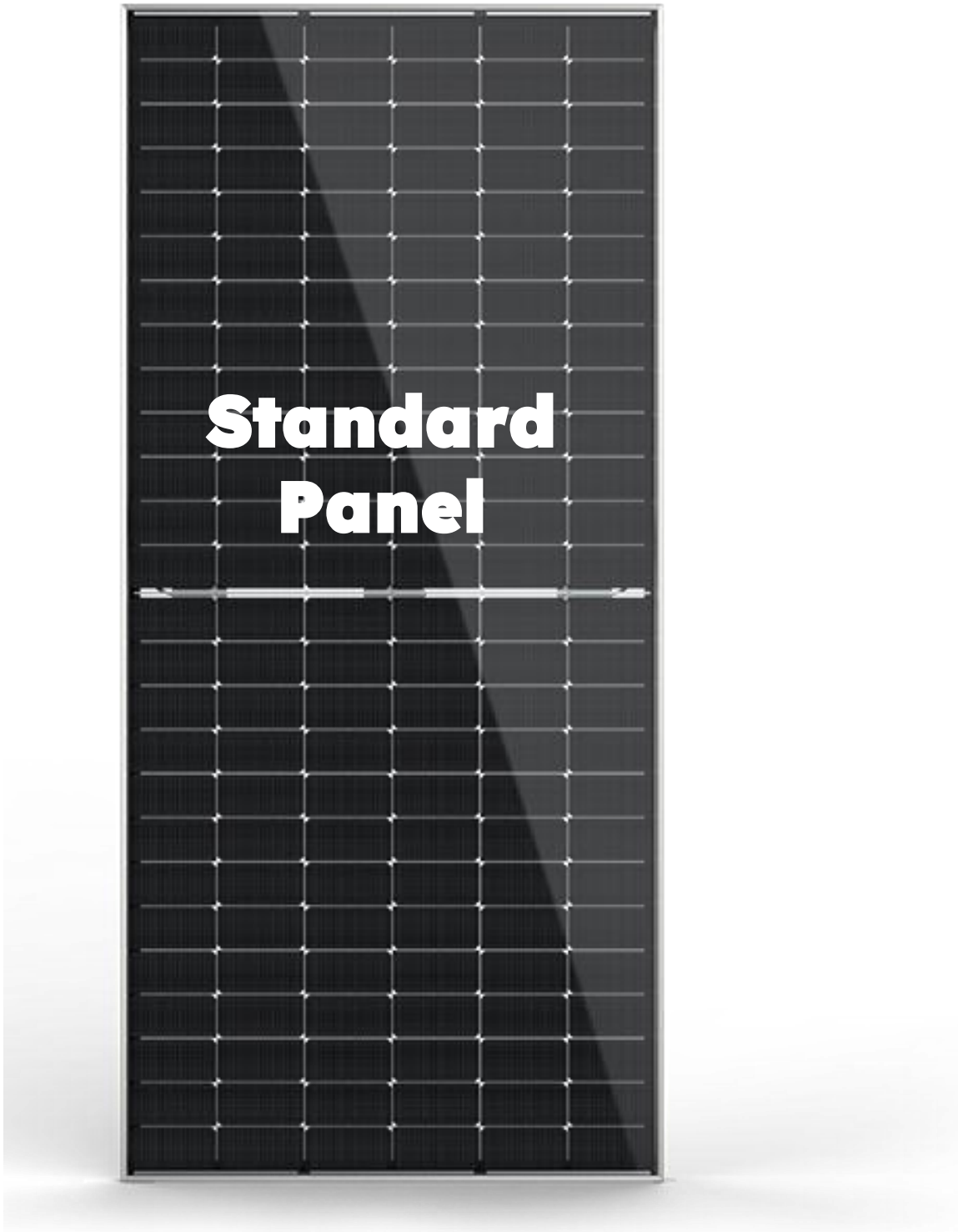
Increased energy flow

Die nächste Evolution der Performance Module

PREMIUM PANEL CONSTRUCTION



Design & Technology



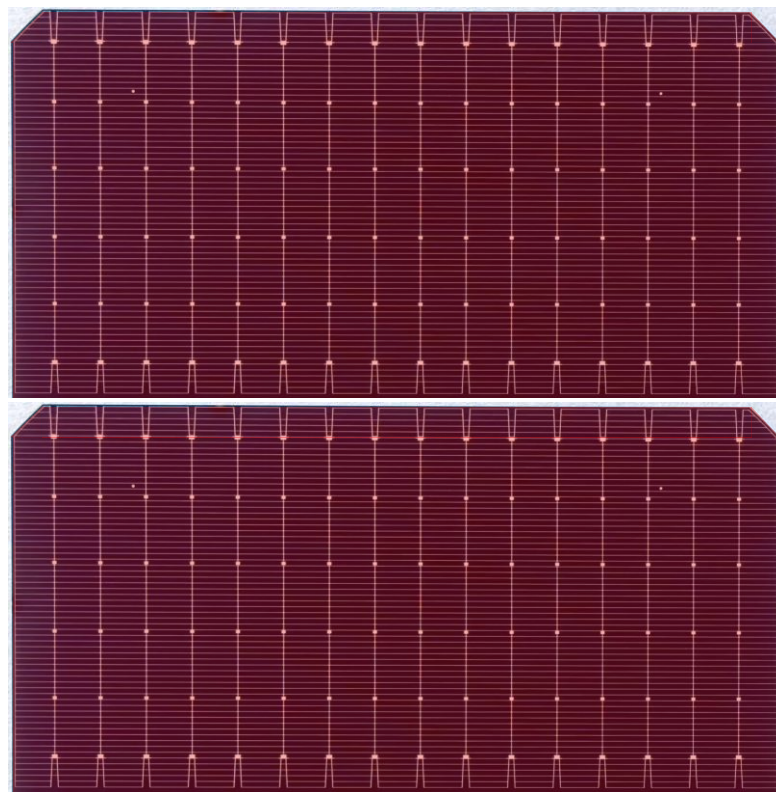
vs



PERFORMANCE 7 - CELL DESIGN

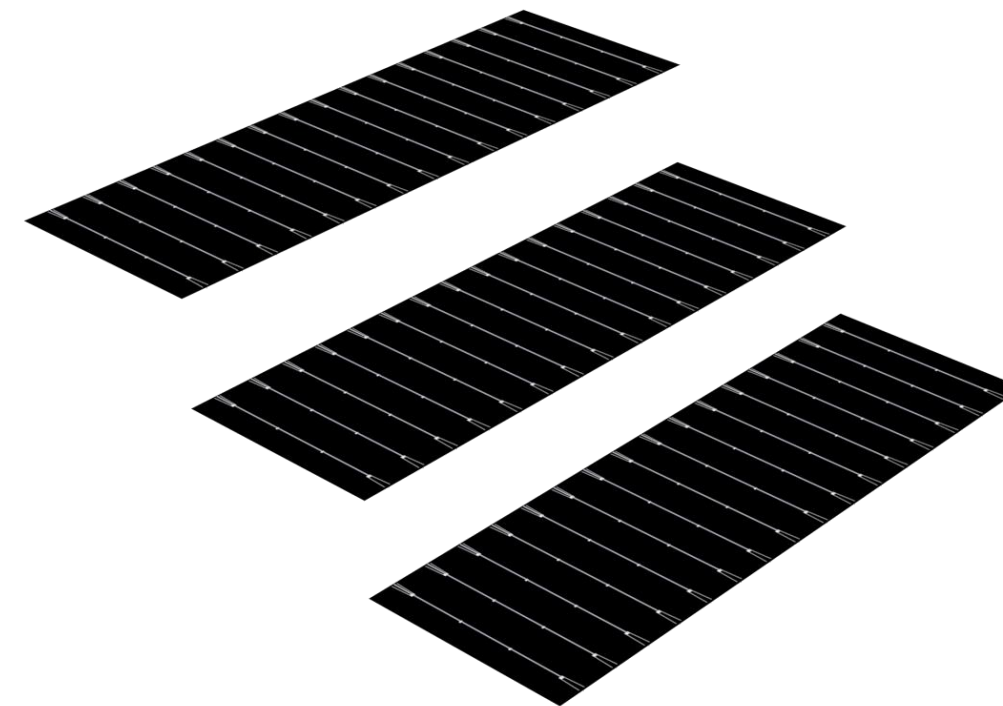
Cells cut into thirds

Standard TOPCon



Temperatures of up to **192°C** were reached in hotspot tests.¹

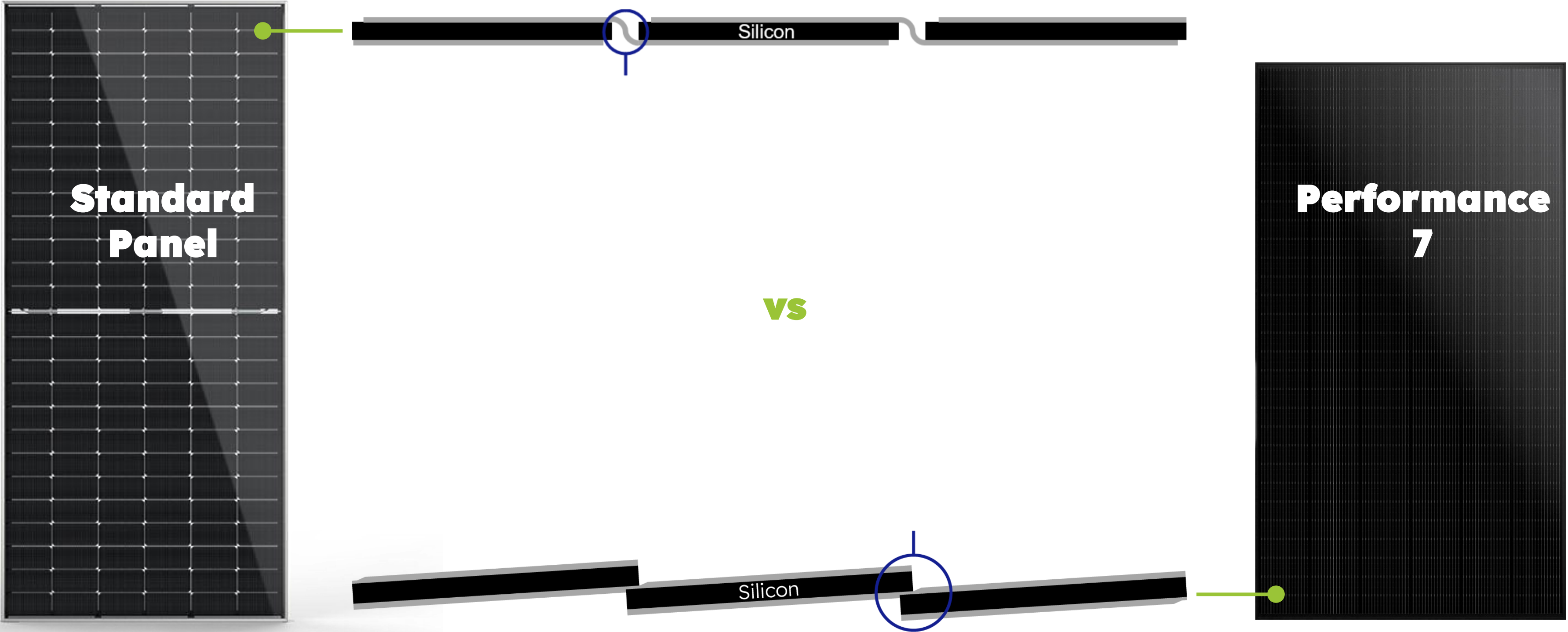
Performance 7 - TOPCon



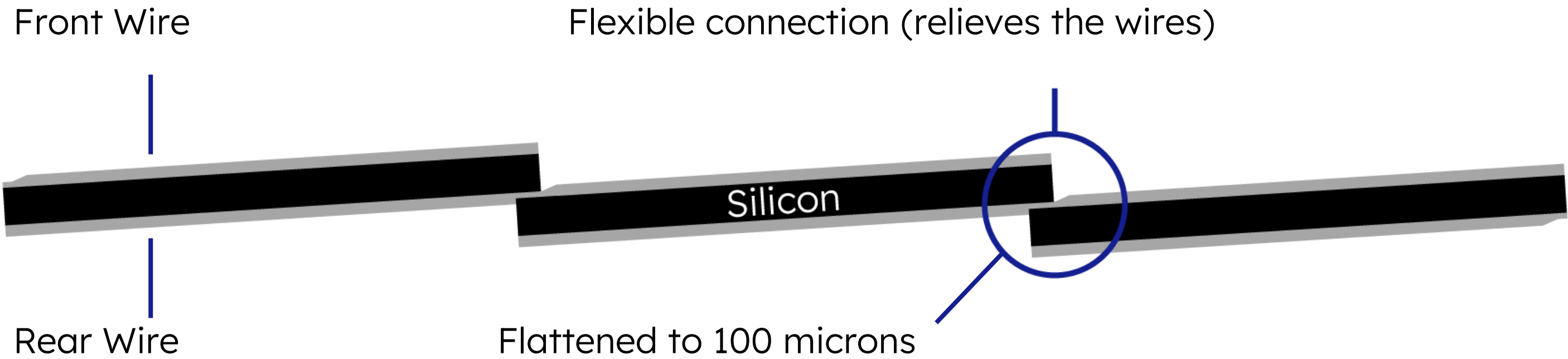
Operating temperatures were up to **40°C** cooler in the same hotspot tests.¹

¹ SunPower internal study, 2020.. Performance 7 arbeitet im Schatten 20-40°C kühler als Standardpaneele¹.

Performance 7 – Cell design

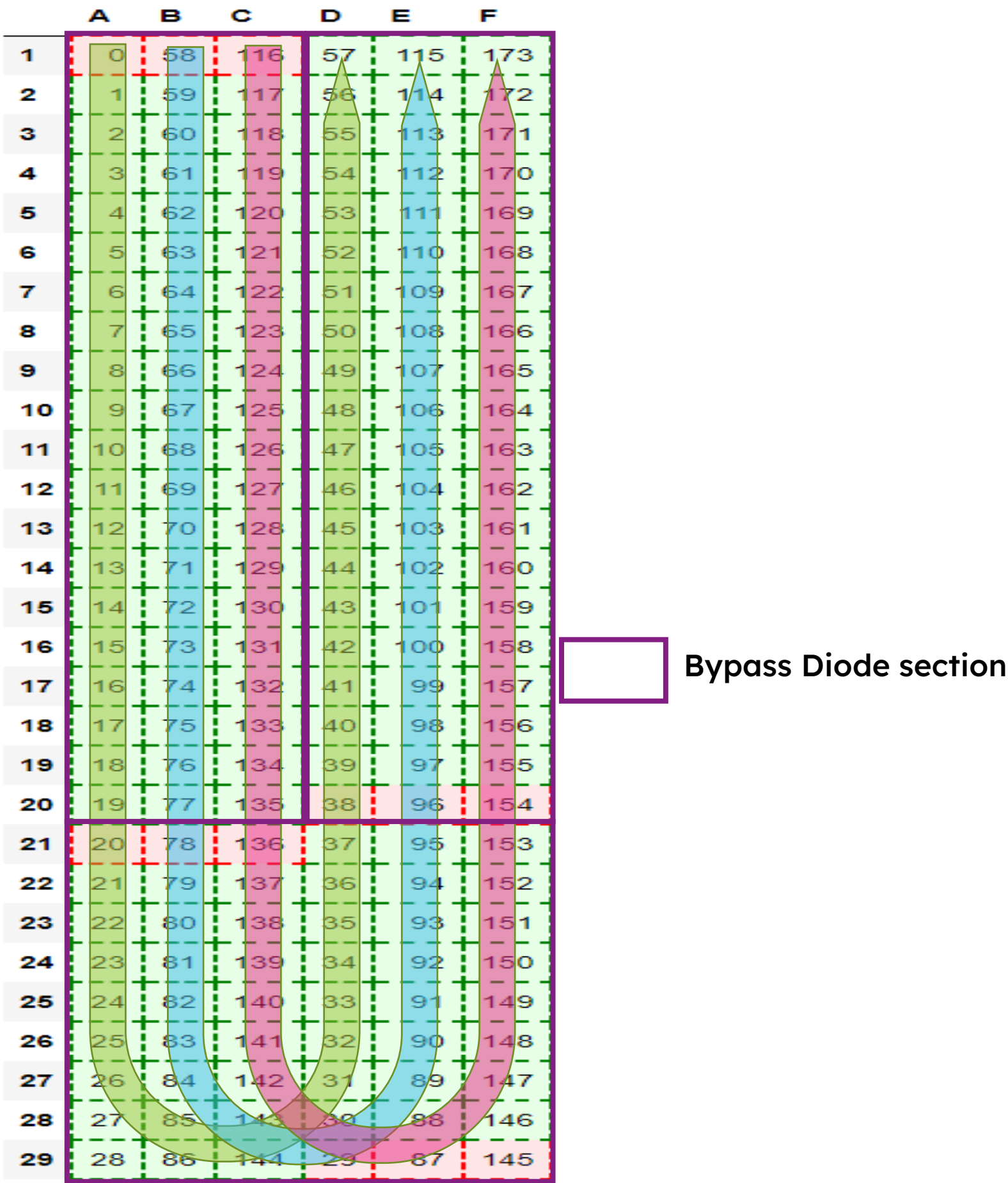


Performance 7 – Cell design



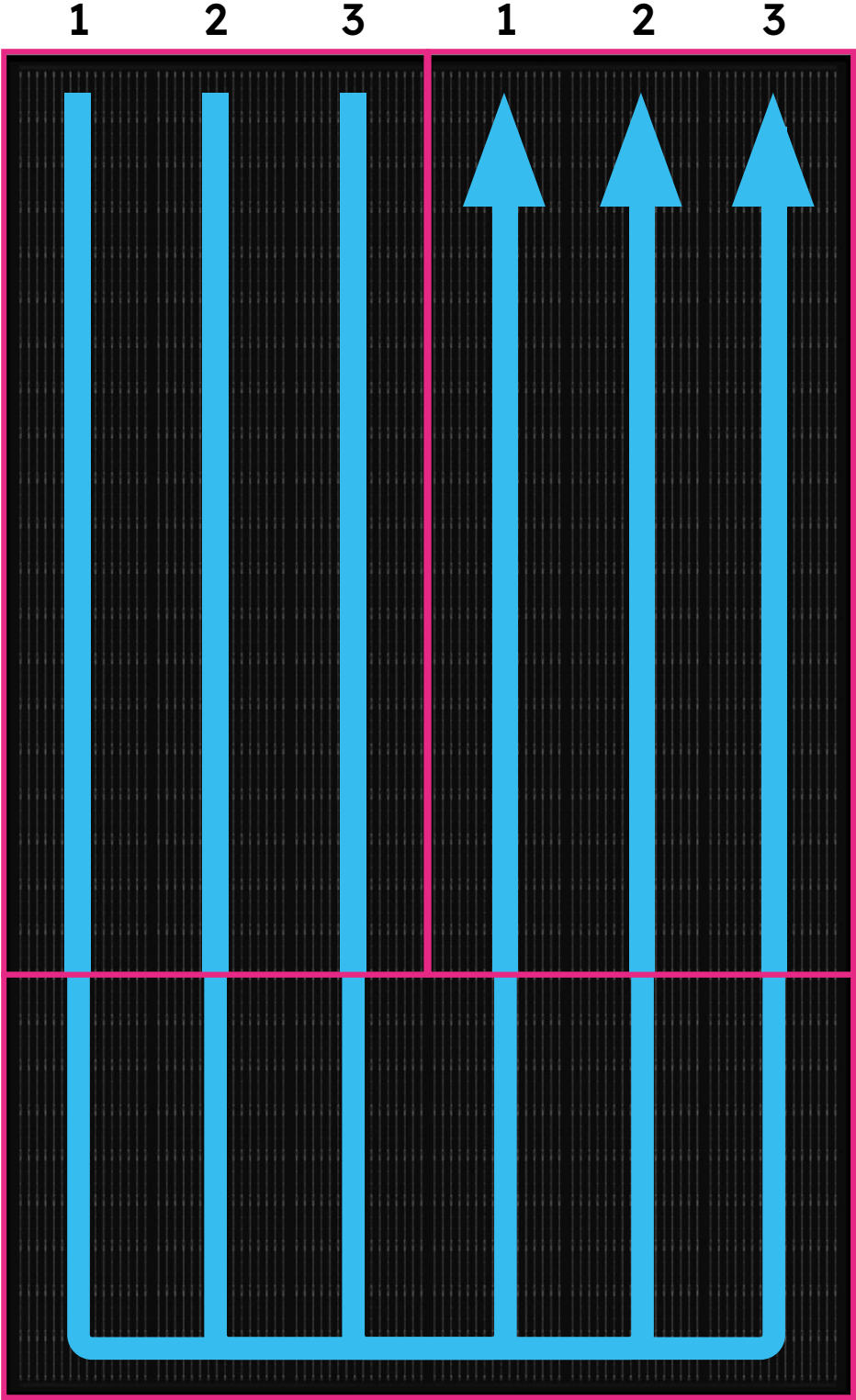
Energy flow of a P7 module

- M10 cell size cut into 3 parts
- 3 bypass diode sections
- 3 parallel substrings
- Module size (long and short edge): 1134 and 1790 mm
- Edge distance (long and short edge): 16 and 17.75 mm



PERFORMANCE 7

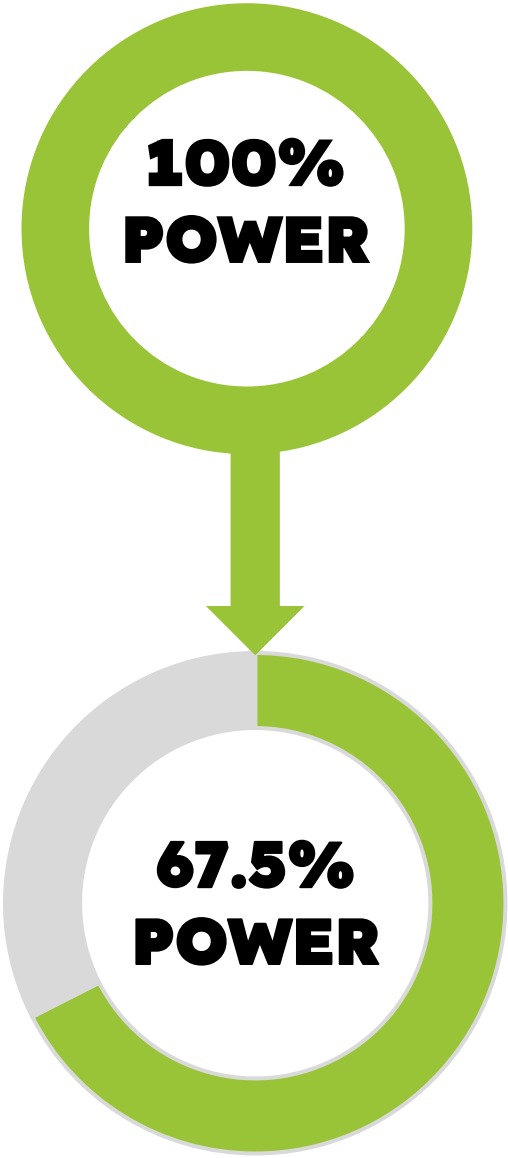
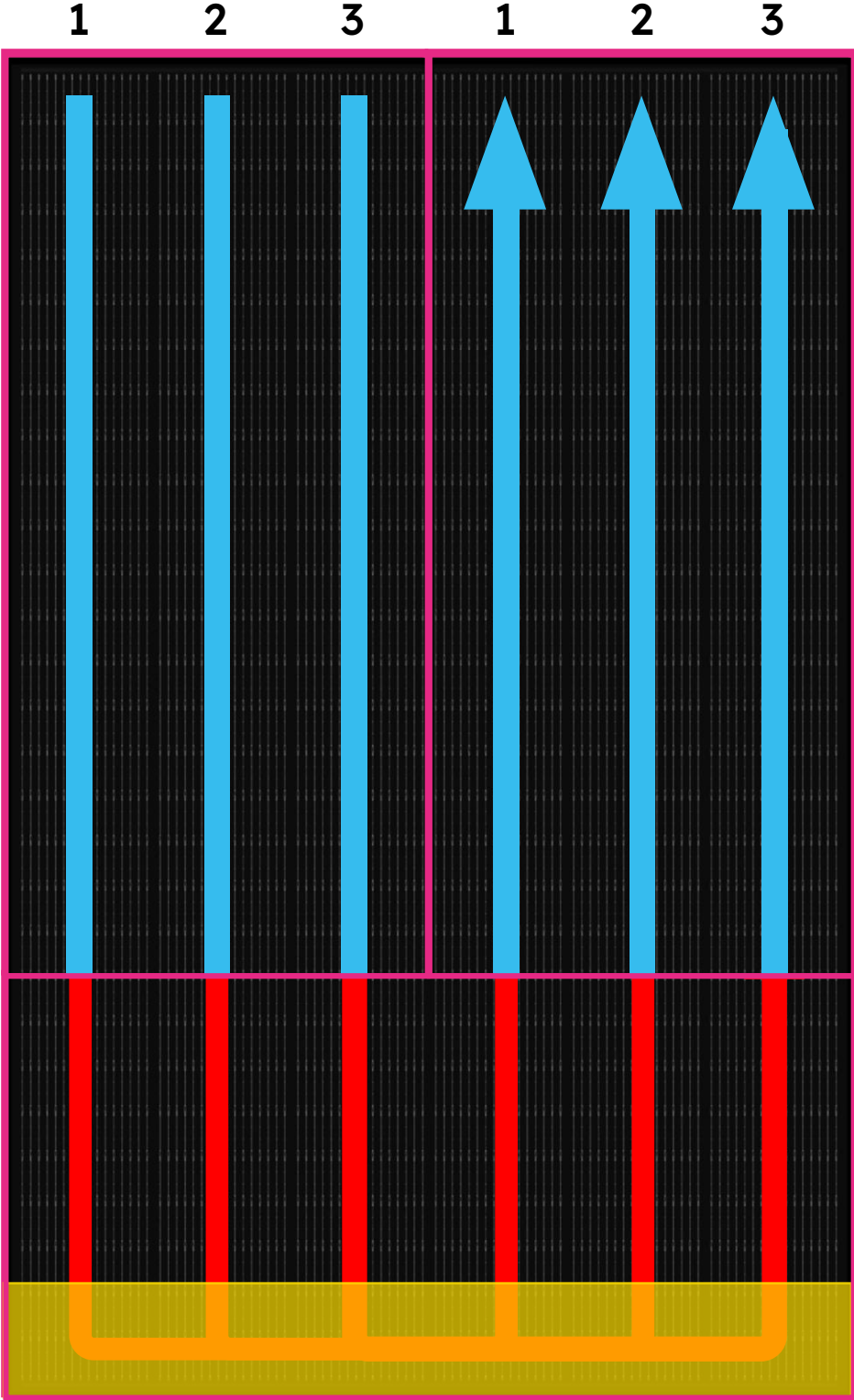
Shading



¹ SunPower internal study, 2020..
Performance 7 arbeitet im Schatten 20-40°C kühler als Standardpaneele¹.

PERFORMANCE 7

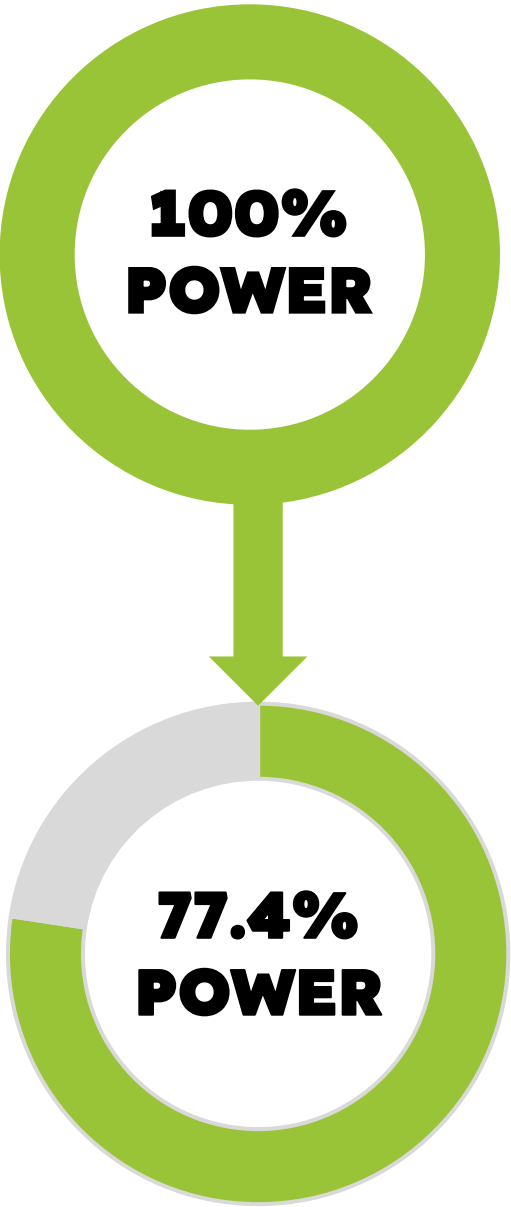
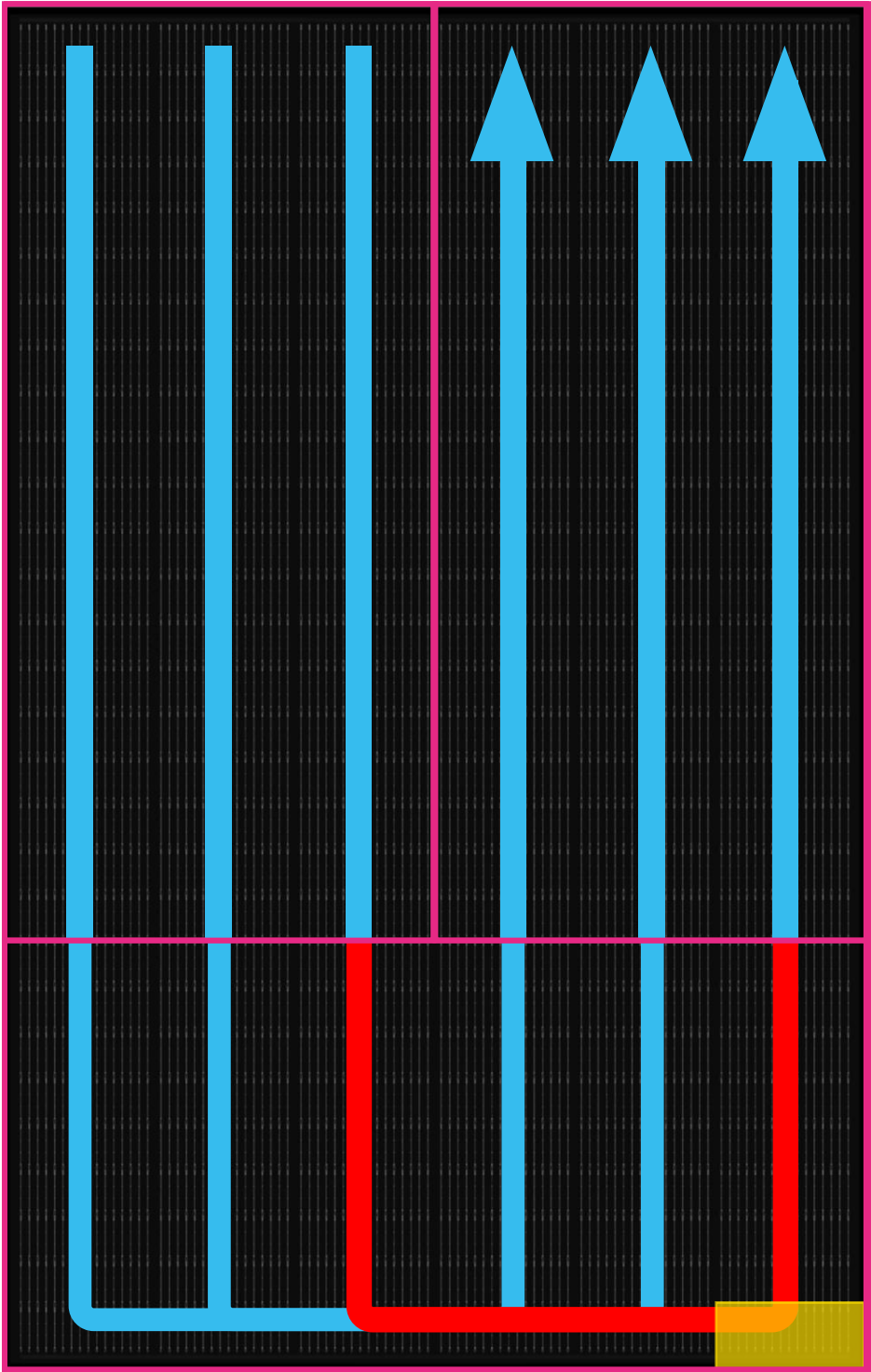
Schading



¹ SunPower internal study, 2020..
Performance 7 arbeitet im Schatten 20-40°C kühler als Standardpaneele¹.

PERFORMANCE 7

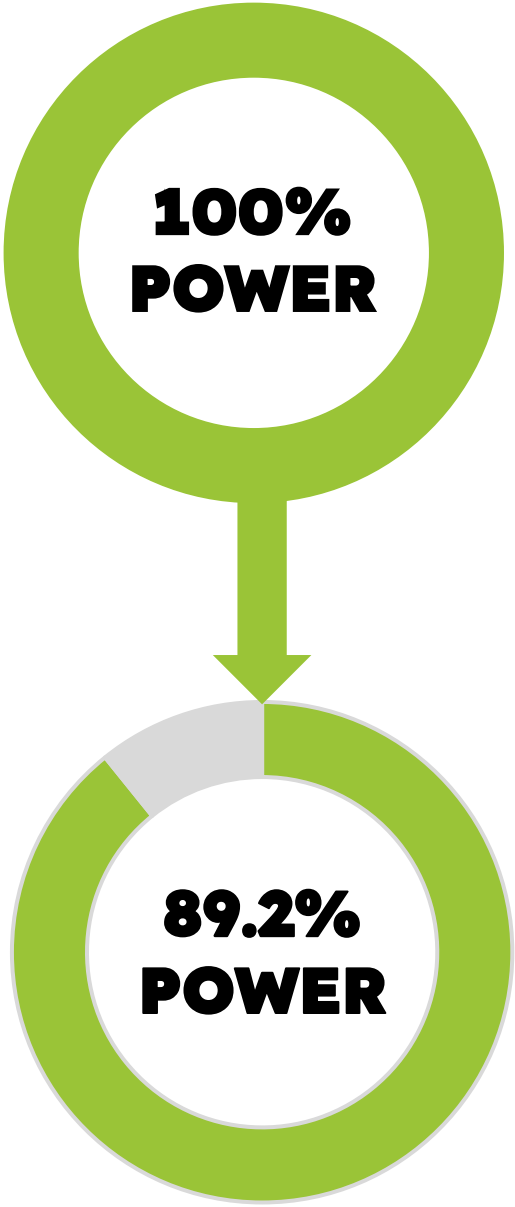
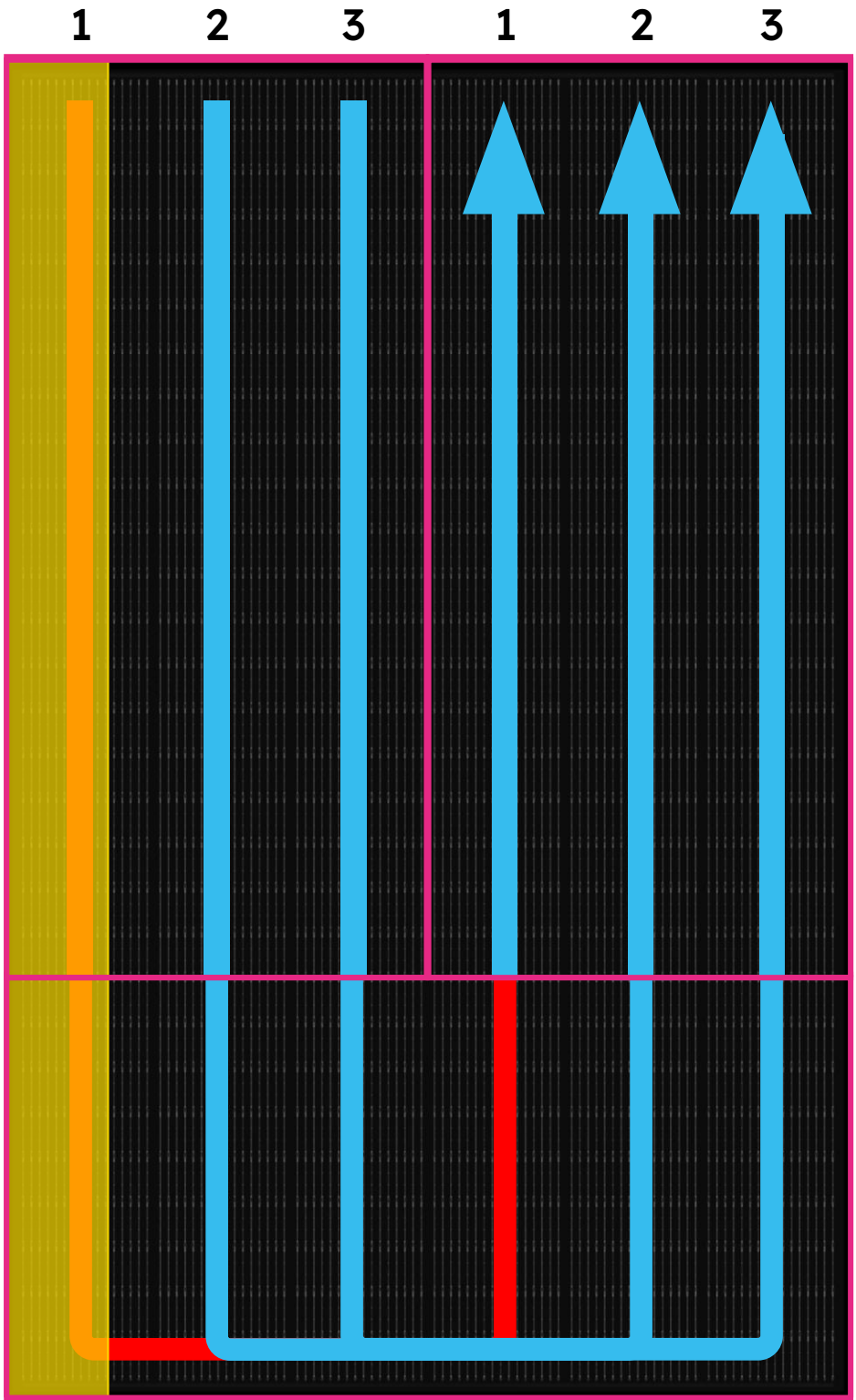
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¹ SunPower internal study, 2020..
Performance 7 arbeitet im Schatten 20-40°C kühler als Standardpaneele¹.

PERFORMANCE 7

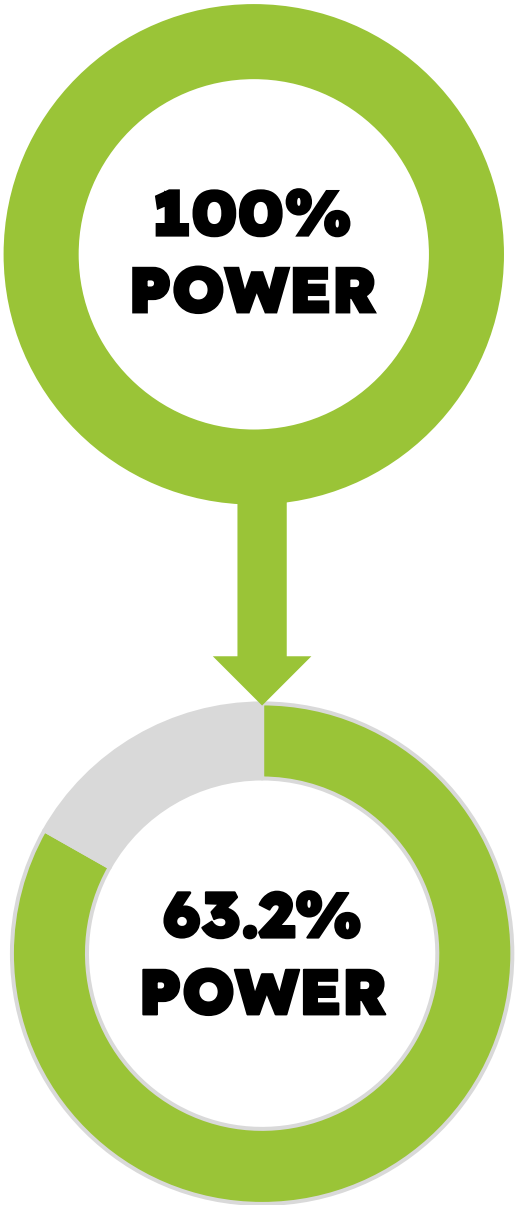
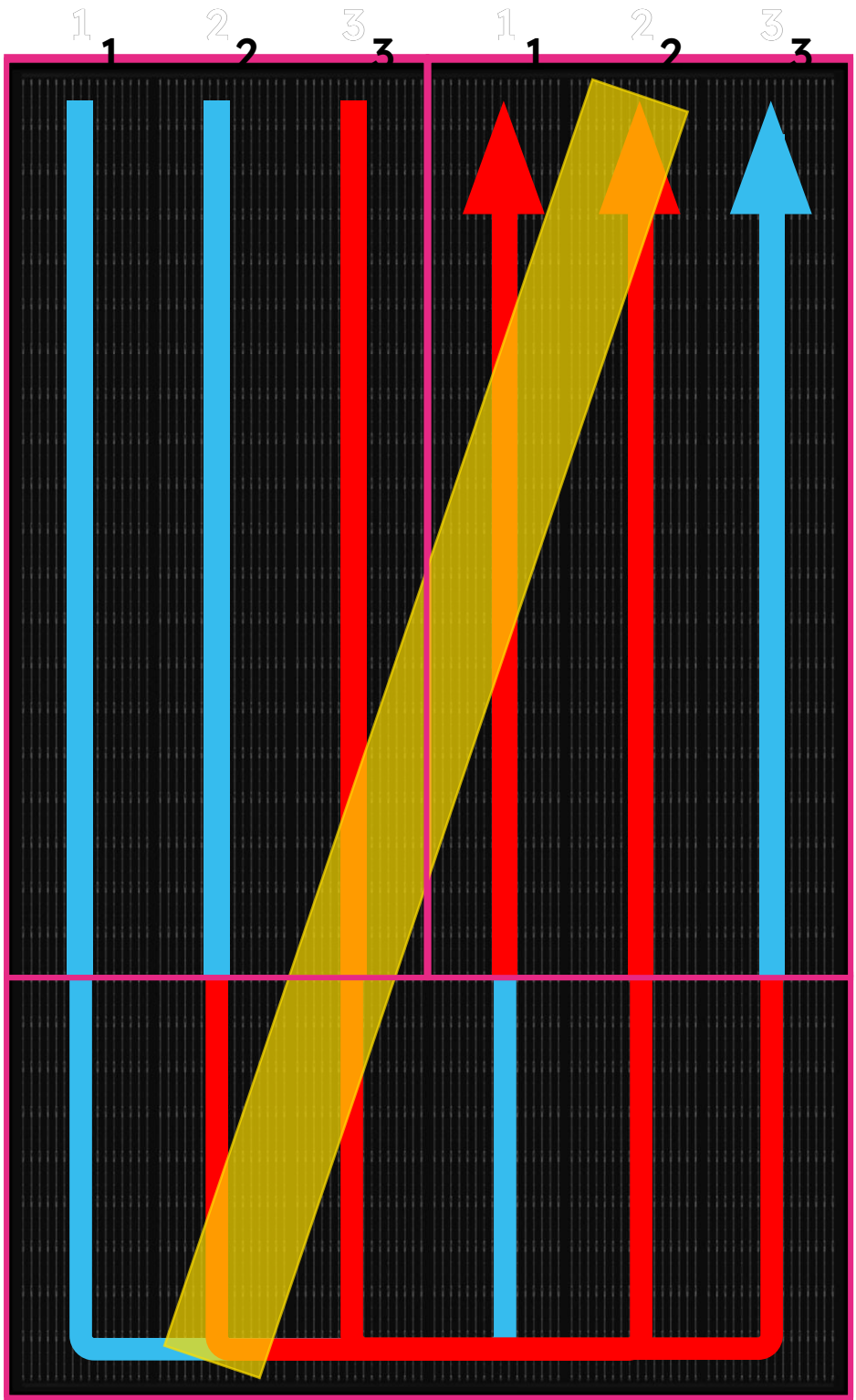
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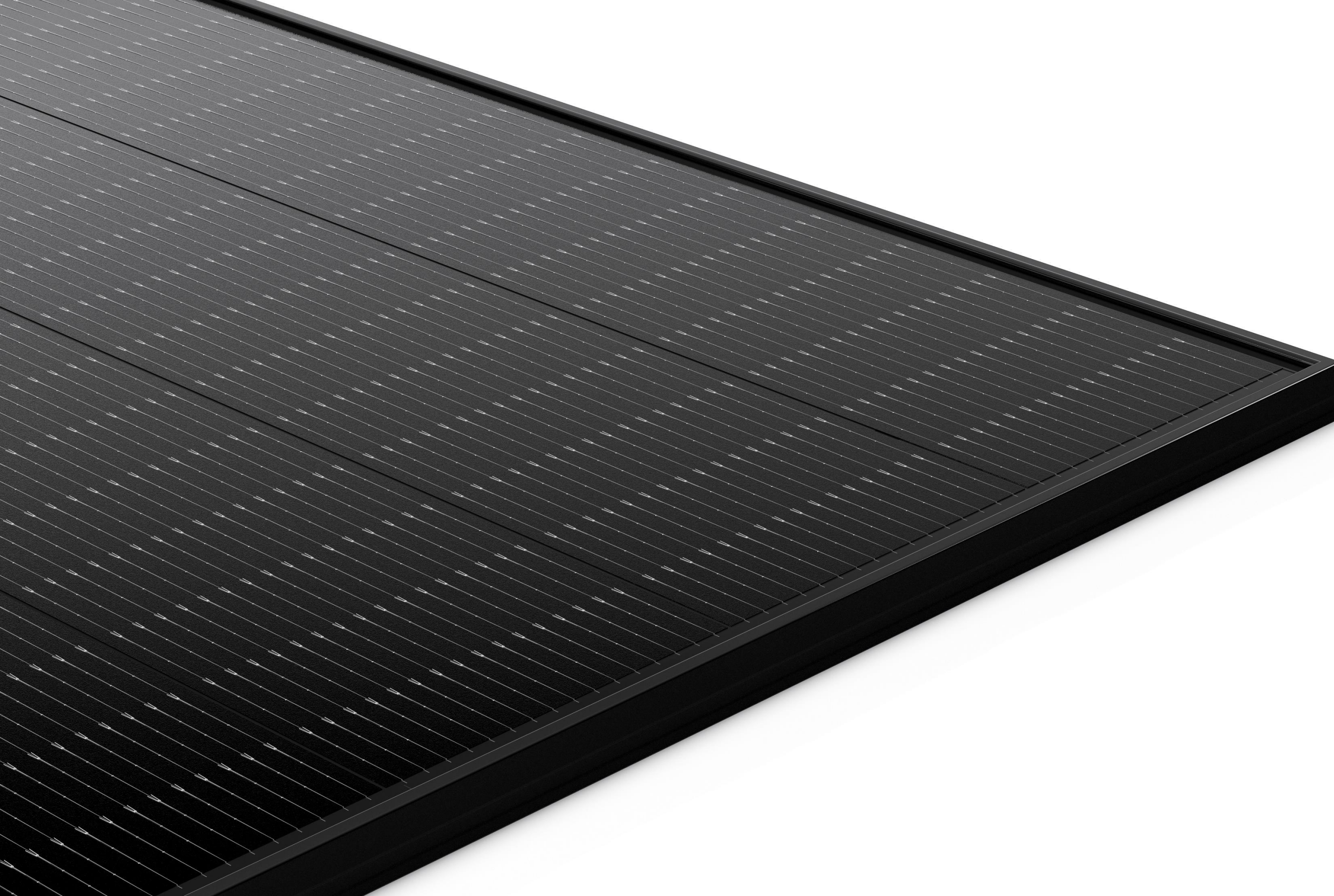
¹ SunPower internal study, 2020..
Performance 7 arbeitet im Schatten 20-40°C kühler als Standardpaneele¹.

PERFORMANCE 7

Shading



¹ SunPower internal study, 2020..
Performance 7 arbeitet im Schatten 20-40°C kühler als Standardpaneele¹.



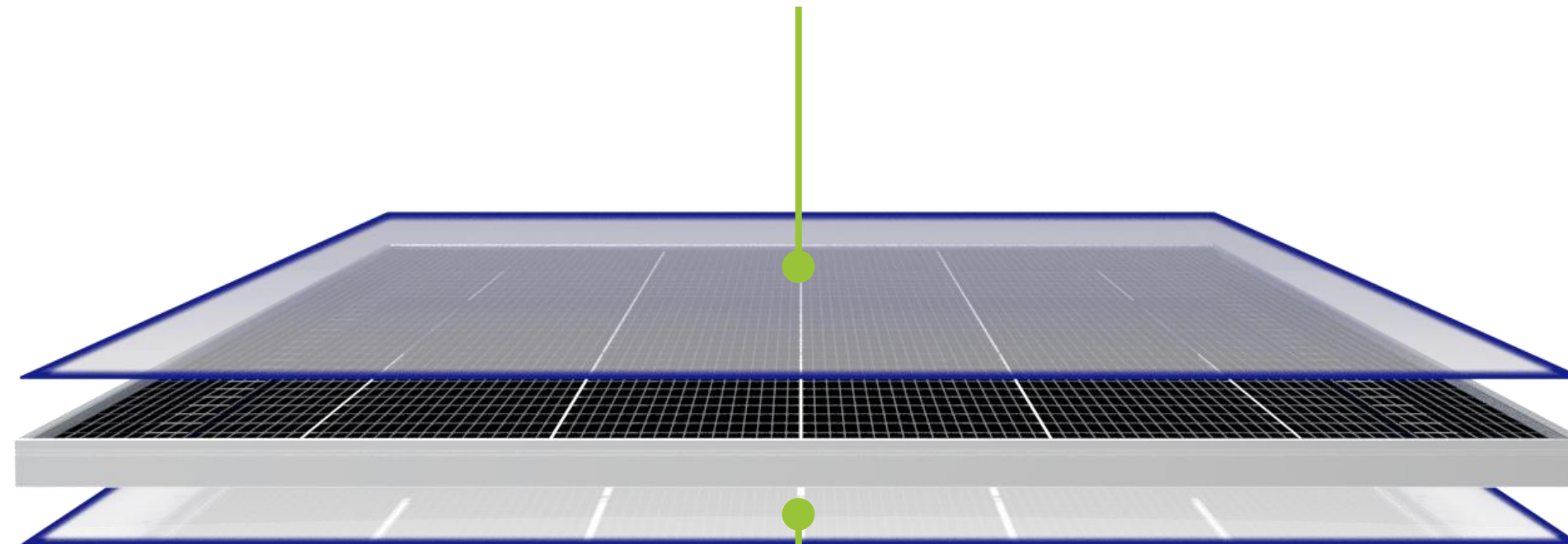
Performance 7

Bifacial panels

PERFORMANCE 7

Bifacial

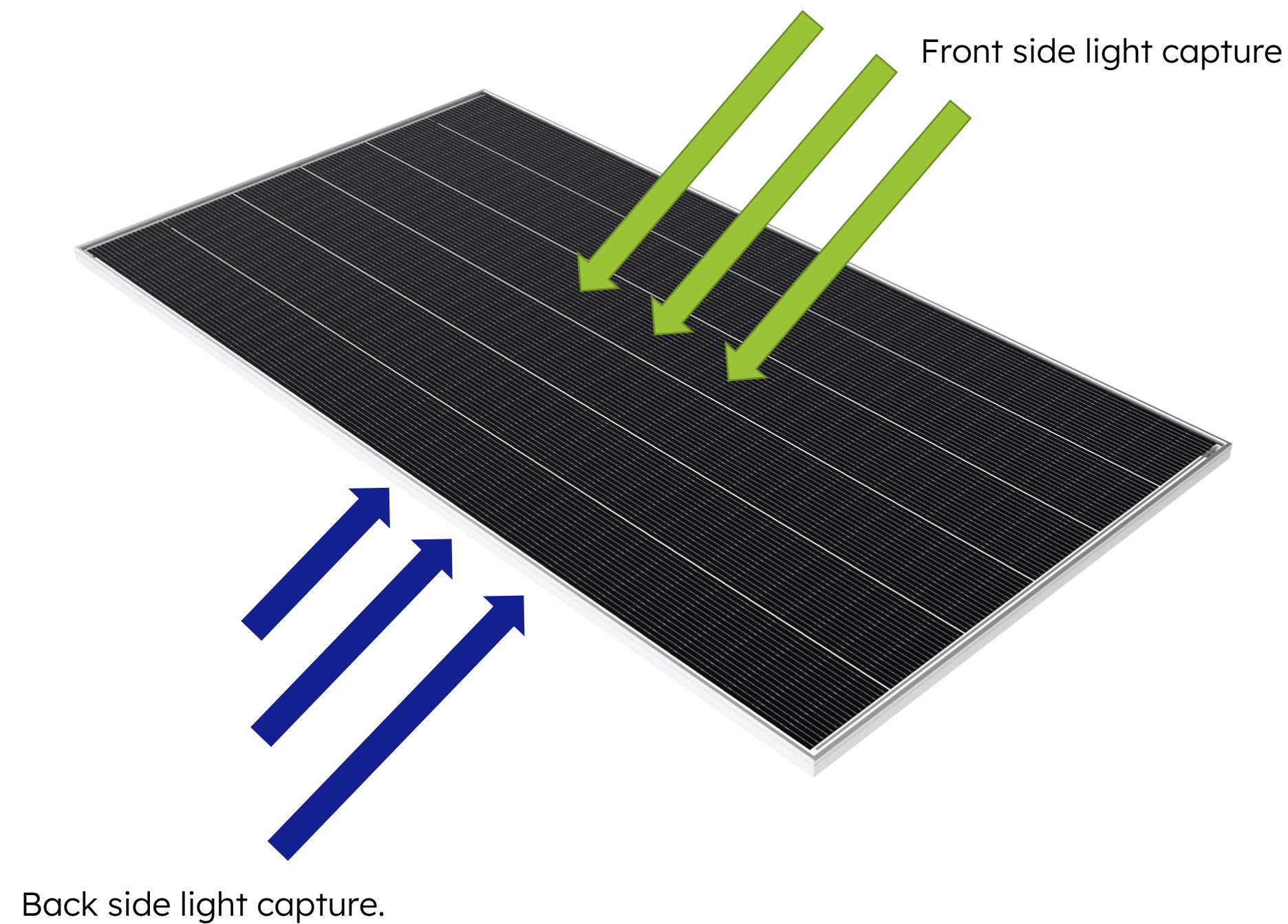
2.0 mm, high-transmission tempered anti-reflective glass



2.0 mm, high-transmission tempered anti-reflective glass

PERFORMANCE 7

Bifacial

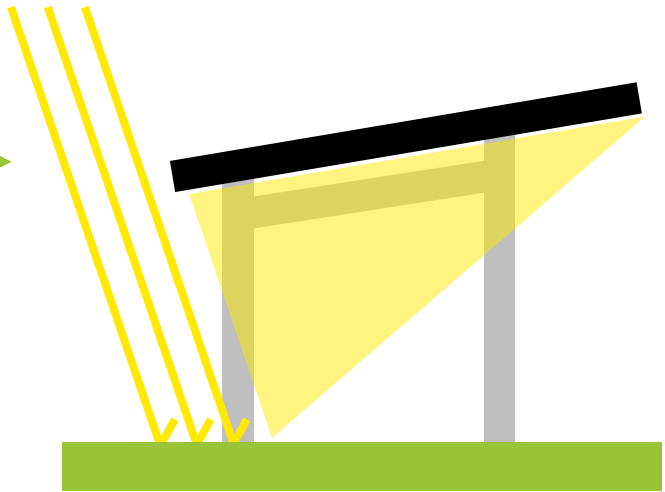


PERFORMANCE 7

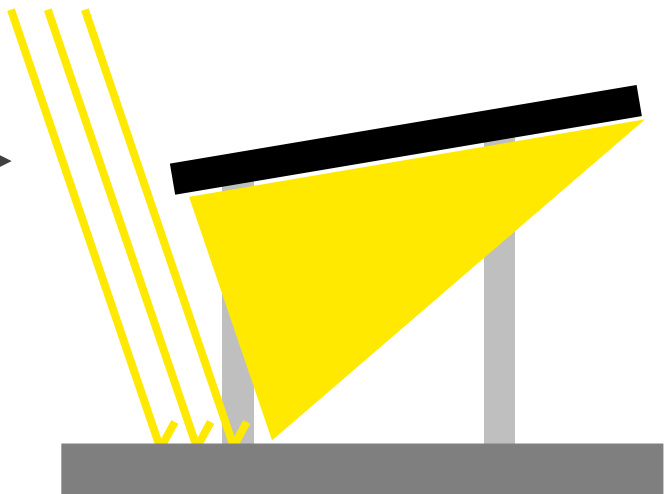
Rooftop and ground-mounted installations

Surface	Albedo
Grass	0.15 – 0.25
Fresh snow	0.82
Wet snow	0.55 – 0.75
Dry asphalt	0.09 – 0.15
Concrete	0.25 – 0.35
Aluminium	0.85
New galvanised steel	0.35
Very dirty galvanized steel	0.08

Source: PVSYST



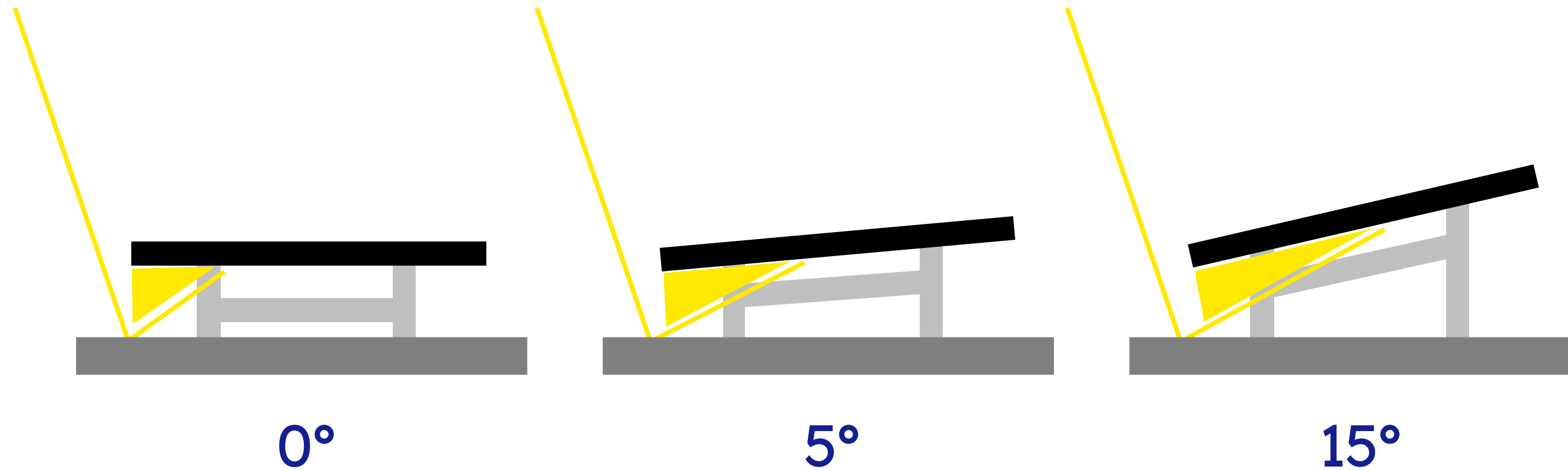
~20% Reflectivity



~85% Reflectivity

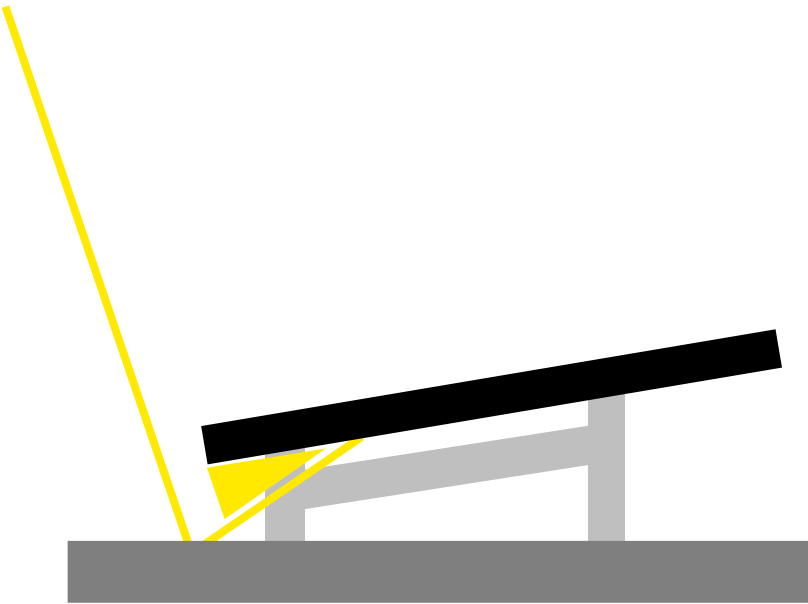
OPTIMISING BIFACIAL INSTALLATIONS

Rooftop and ground-mounted installations

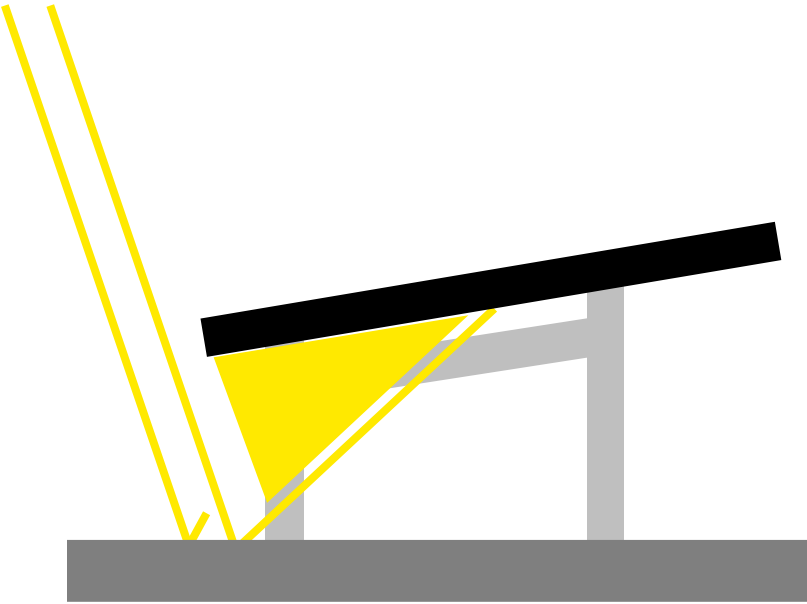


OPTIMISING BIFACIAL INSTALLATIONS

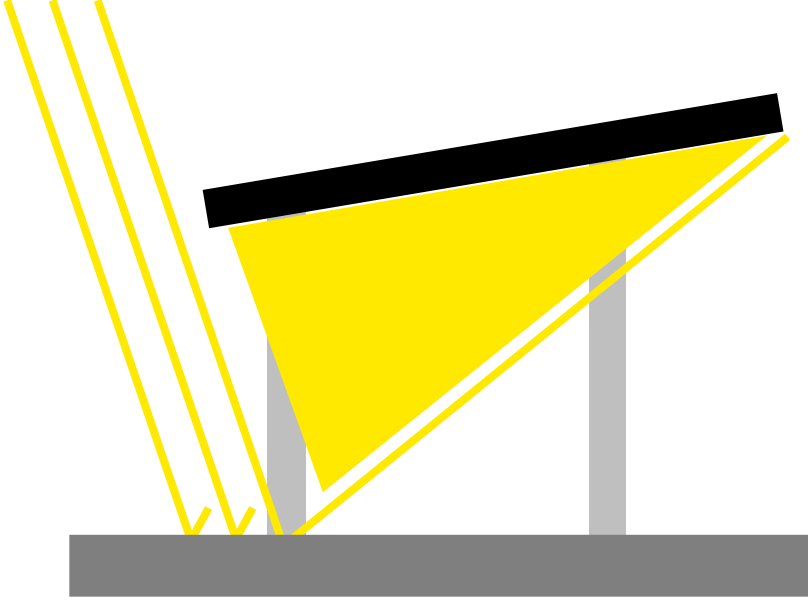
Rooftop and ground-mounted installations



0.5m



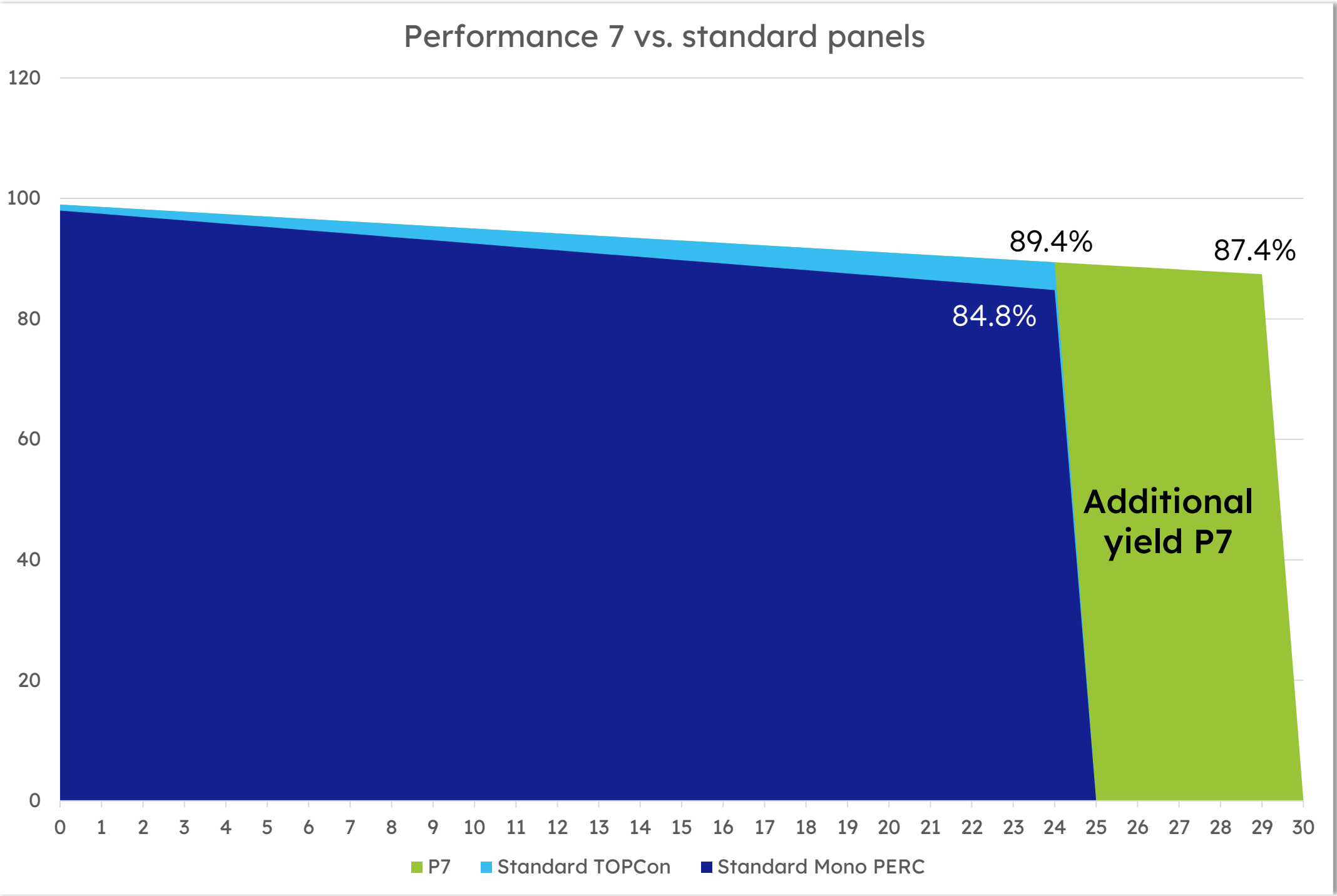
1.5m



3.0m

Warranty

Low degradation rates of the modules 0.40%/y



¹ Comparisons are drawn over 'Warranted Product Life'. P7 = 30/30. CT1 TOPCon = 25/30. CT1 Mono Perc = 25/25. 'Annual Power Attenuation' taken from CT1 competitor datasheets.

Warranty

Better product with longer warranty

**Comprehensive performance,
product and service
guarantee for 30 years**





SunPower
Solarpanels
+ Batterysystem
+ Wallbox

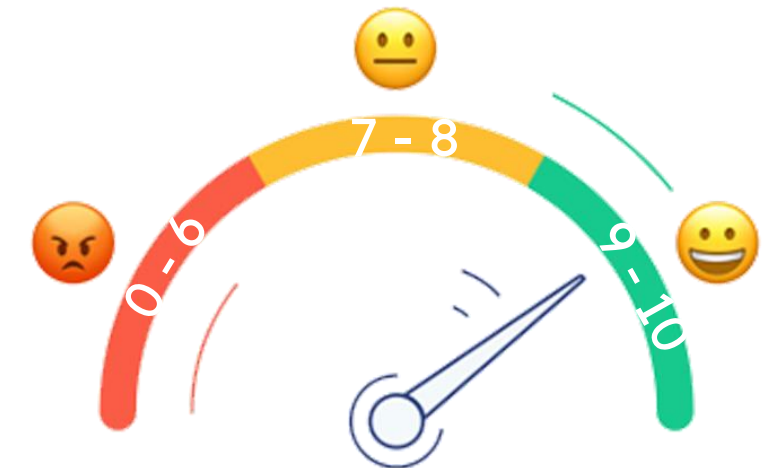
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SOLAR TECHNOLOGIES

Plase rate me

Via the QR-Code or Link



<https://access.maxeon.com/trainingsurvey-en>



Thank you,

Until next time !