

Product Information Sheet SNG 435-455 Watt TOPCon Technology

HC MONO 435-455 Watt

Highest quality with our cells
16 MBB TOPCon Technology

- ✓ **30 years**
Product Material & Workmanship
- ✓ **30 years**
Linear Performance Warranty
- ✓ **1 %**
1st-year Degradation
- ✓ **0.4 %**
Annual Degradation

Quality and Safety

① Industry-leading power output warranty
25 years / 89.4 %
30 years / 87.4 %

30-year warranty on materials & workmanship

Fire Test: Class 1

- ✓ **Anti-PID Guarantee**
Minimizes the risk of degradation caused by PID phenomena by optimizing cell production technology and material control.
- ✓ **Multi-busbar Technology**
Higher performance, higher reliability, and greater (electrical) resilience.



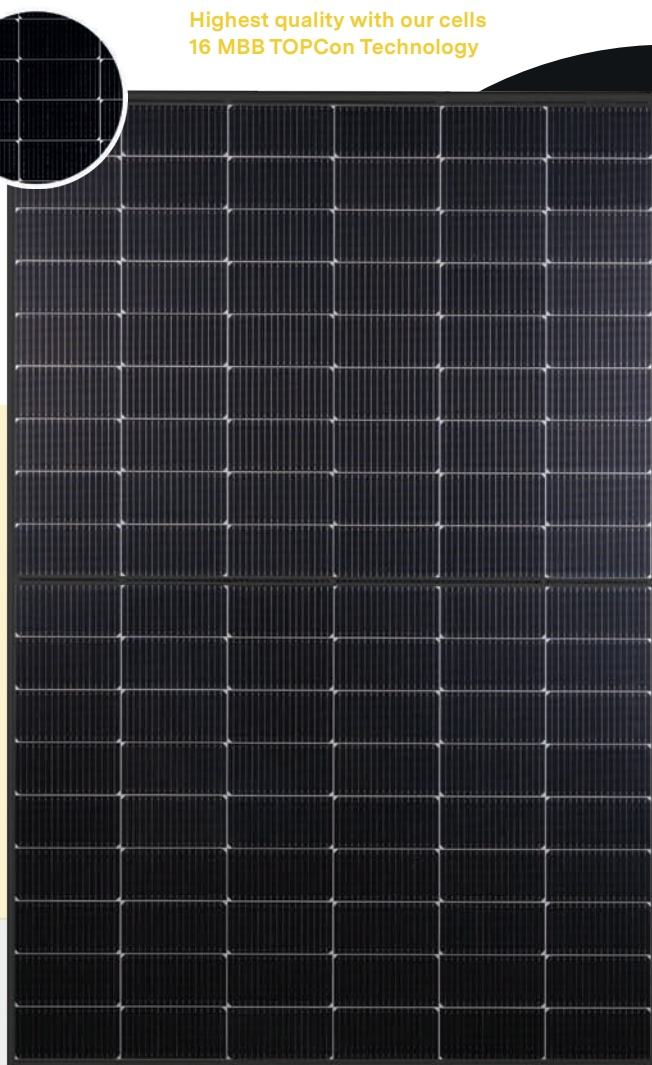
On-grid residential roof-tops



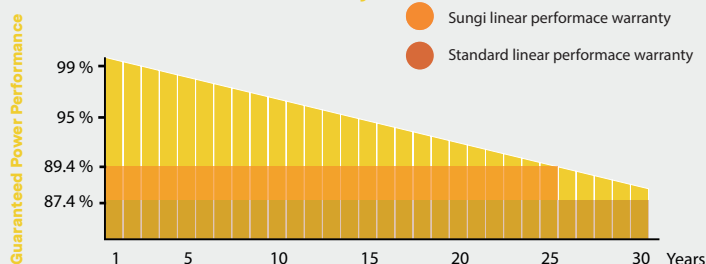
On-grid commercial Industrial roof-tops

Complete System and Product Certifications

IEC 61215 (2021), IEC 61730 (2023), IEC 61701, IEC 62716
ISO 9001:2015: Quality Management System
ISO 14001:2015: Environmental Management System
ISO 45001:2018: Occupational Health and Safety Management System
IEC 62941:2019: Quality System for PV Module Manufacturing



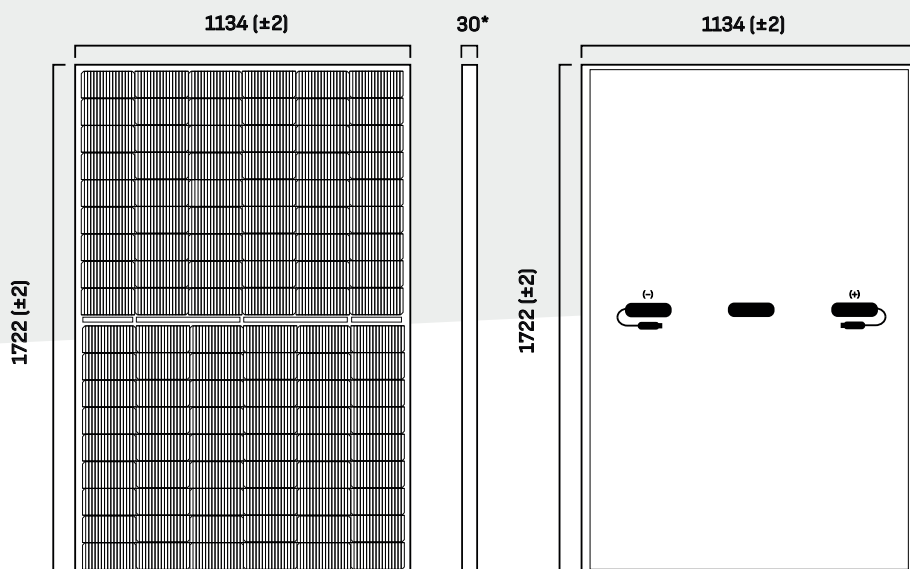
Premium Performance Warranty



23.30 %
Max Module Efficiency

30 Y Warranty
on materials & workmanship

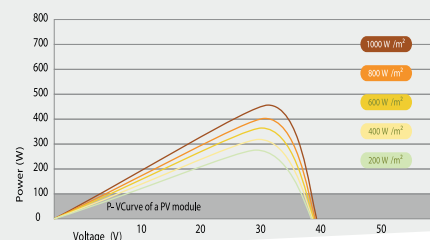
ENGINEERING DRAWINGS (mm)



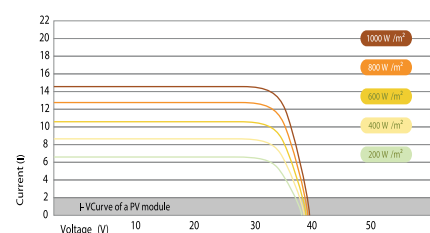
ELECTRICAL PERFORMANCE & TEMPERATURE

DEPENDENCE | SNG - 455

Power-Voltage Curves



Current-Voltage Curves



MODULE TYPE	SNG-435 W	SNG-440 W	SNG-445 W	SNG-450 W	SNG-455 W
Testing Conditions	STC ⁽²⁾ / NMOT ⁽³⁾	STC ⁽²⁾ / NMOT ⁽³⁾	STC ⁽²⁾ / NMOT ⁽³⁾	STC ⁽²⁾ / NMOT ⁽³⁾	STC ⁽²⁾ / NMOT ⁽³⁾
Maximum Power at STC (Pmax)	435 Wp	440 Wp	445 Wp	450 Wp	455 Wp
Maximum Power Voltage (Vmp)	32.96 V / 30.34 V	33.20 V / 30.57 V	33.44 V / 30.79 V	33.66 V / 31.02 V	33.90 V / 32.24 V
Maximum Power Current (Imp)	13.21 A / 10.78 A	13.27 A / 10.83 A	13.33 A / 10.88 A	13.39 A / 10.93 A	13.45 A / 10.98 A
Open-Circuit Voltage (Voc)	38.86 V / 37.20 V	39.00 V / 37.40 V	39.14 V / 37.60 V	39.28 V / 37.80 V	39.42 V / 38.00 V
Short-Circuit Current (Isc)	13.96 A / 11.14 A	14.02 A / 11.19 A	14.08 A / 11.24 A	14.14 A / 11.29 A	14.20 A / 11.34 A
Module Efficiency (%)	22.27 %	22.53 %	22.78 %	23.04 %	23.30 %

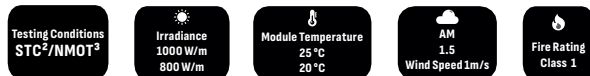
ALL MODULES DATA

Operating Temperature (DC)	- 40 °C to + 85 °C
Maximum System Voltage	1500 VDC
Maximum Series Fuse Rating	25 A
Power Output Tolerance ⁽¹⁾	± 3 %
Temperature Coefficients of Pmax	- 0.29 % / °C
Temperature Coefficients of Voc	- 0.25 % / °C
Temperature Coefficients of Isc	+0.045 % / °C
Nominal Operating Cell Temperature (NOCT)	45 ± 2 °C

TECHNICAL SPECIFICATION

Cell type	TOPCon Technology (182x91 mm)
Number of cells	108 (2×54)
Dimensions	1722x1134x30* mm
Weight	18.9 kg
Front Glass	3.2 mm anti-reflection
Frame	Anodized Aluminum Alloy Black Frame*
Junction Box	IP68 Rated
Output Cables	TUV 1x4.0 mm² / UL 12 AWG*
Output Cables Length	1200 mm*
Connectors	MC 4

PACKAGING CONFIGURATION



⁽¹⁾ Measurement Tolerances : Pmax (± 3 %), Isc & Voc (± 3 %)

⁽²⁾ STC (Standard Testing Condition) : Irradiance : 1000 W/m², Cell Temperature: 25 °C, AM : 1.5

⁽³⁾ NMOT (Nominal Operating Module Temperature) : Irradiance : 800 W/m², NMOT Ambient Temperature: 20/25 °C, AM : 1.5, Wind Speed : 1 m/s

*or customized

Not applicable for installations in transition 5.0/ feed in tariff for italian market

Specifications included in this datasheet are subject to change without notice. SUNGI SOLAR reserves all the rights to final integrations.

40' Container

- 36 pcs per pallet
- 26 pallets
- 936 total pcs



20' Container

- 36 pcs per pallet
- 10 pallets
- 360 total pcs



Product Information Sheet SNG 435-455 Watt TOPCon Technology

HC MONO 435-455 Watt

Highest quality with our cells
16 MBB TOPCon Technology

- ✓ **30 years**
Product Material & Workmanship
- ✓ **30 years**
Linear Performance Warranty
- ✓ **1 %**
1st-year Degradation
- ✓ **0.4 %**
Annual Degradation

Quality and Safety

- ① **Industry-leading power output warranty**
25 years / 89.4 %
30 years / 87.4 %

- ✓ **30-year warranty on materials & workmanship**

- ✓ **Fire Test: Class 1**

- ✓ **Anti-PID Guarantee**
Minimizes the risk of degradation caused by PID phenomena by optimizing cell production technology and material control.
- ✓ **Multi-busbar Technology**
Higher performance, higher reliability, and greater (electrical) resilience.



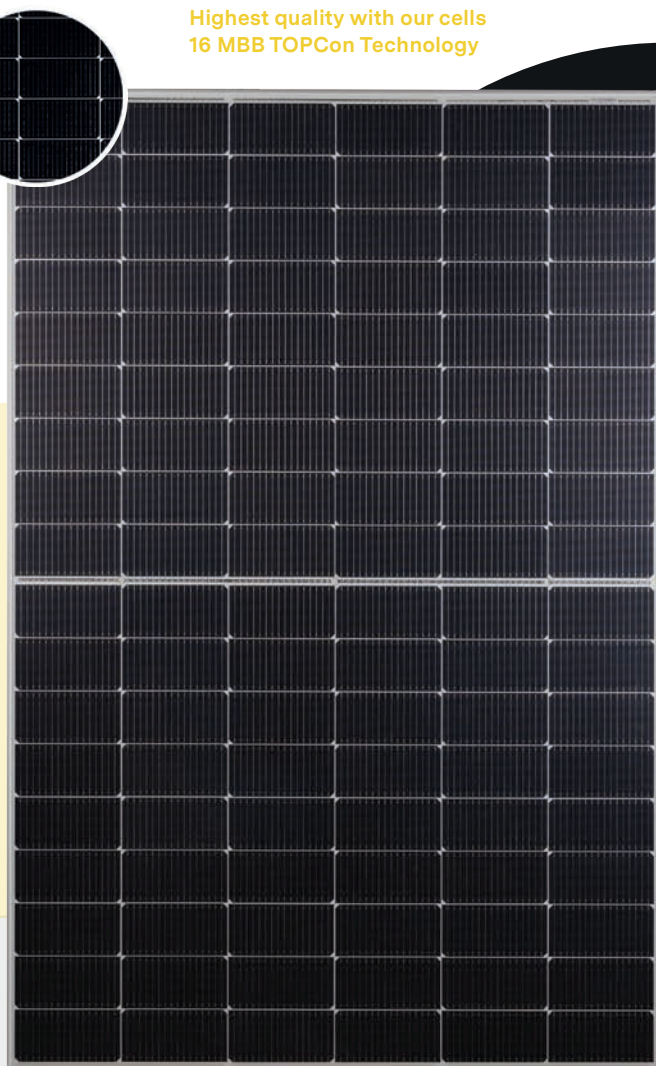
On-grid residential roof-tops



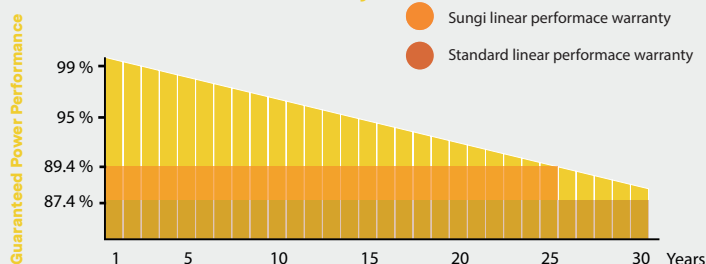
On-grid commercial Industrial roof-tops

Complete System and Product Certifications

IEC 61215 (2021), IEC 61730 (2023), IEC 61701, IEC 62716
ISO 9001:2015: Quality Management System
ISO 14001:2015: Environmental Management System
ISO 45001:2018: Occupational Health and Safety Management System
IEC 62941:2019: Quality System for PV Module Manufacturing



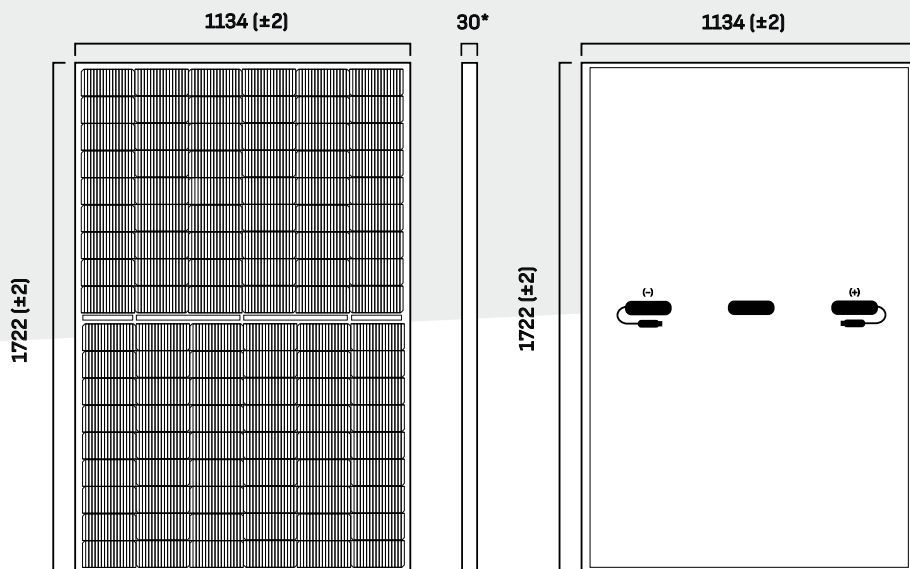
Premium Performance Warranty



23.30 %
Max Module Efficiency

30 Y Warranty
on materials & workmanship

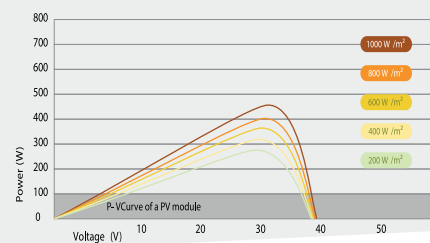
ENGINEERING DRAWINGS (mm)



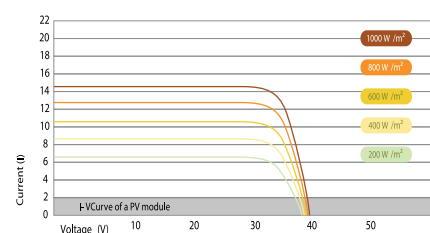
ELECTRICAL PERFORMANCE & TEMPERATURE

DEPENDENCE | SNG - 455

Power-Voltage Curves



Current-Voltage Curves



MODULE TYPE	SNG-435 W	SNG-440 W	SNG-445 W	SNG-450 W	SNG-455 W
Testing Conditions	STC ⁽²⁾ / NMOT ⁽³⁾	STC ⁽²⁾ / NMOT ⁽³⁾	STC ⁽²⁾ / NMOT ⁽³⁾	STC ⁽²⁾ / NMOT ⁽³⁾	STC ⁽²⁾ / NMOT ⁽³⁾
Maximum Power at STC (Pmax)	435 Wp	440 Wp	445 Wp	450 Wp	455 Wp
Maximum Power Voltage (Vmp)	32.96 V / 30.34 V	33.20 V / 30.57 V	33.44 V / 30.79 V	33.66 V / 31.02 V	33.90 V / 32.24 V
Maximum Power Current (Imp)	13.21 A / 10.78 A	13.27 A / 10.83 A	13.33 A / 10.88 A	13.39 A / 10.93 A	13.45 A / 10.98 A
Open-Circuit Voltage (Voc)	38.86 V / 37.20 V	39.00 V / 37.40 V	39.14 V / 37.60 V	39.28 V / 37.80 V	39.42 V / 38.00 V
Short-Circuit Current (Isc)	13.96 A / 11.14 A	14.02 A / 11.19 A	14.08 A / 11.24 A	14.14 A / 11.29 A	14.20 A / 11.34 A
Module Efficiency (%)	22.27 %	22.53 %	22.78 %	23.04 %	23.30 %

ALL MODULES DATA

Operating Temperature (DC)	- 40 °C to + 85 °C
Maximum System Voltage	1500 VDC
Maximum Series Fuse Rating	25 A
Power Output Tolerance ⁽¹⁾	± 3 %
Temperature Coefficients of Pmax	- 0.29 % / °C
Temperature Coefficients of Voc	- 0.25 % / °C
Temperature Coefficients of Isc	+0.045 % / °C
Nominal Operating Cell Temperature (NOCT)	45 ± 2 °C

TECHNICAL SPECIFICATION

Cell type	TOPCon Technology (182x91 mm)
Number of cells	108 (2×54)
Dimensions	1722x1134x30* mm
Weight	18.9 kg
Front Glass	3.2 mm anti-reflection
Frame	Anodized Aluminum Alloy Silver Frame*
Junction Box	IP68 Rated
Output Cables	TUV 1x4.0 mm² / UL 12 AWG*
Output Cables Length	1200 mm*
Connectors	MC 4

PACKAGING CONFIGURATION

Testing Conditions
STC²/NMOT³

Irradiance
1000 W/m
800 W/m

Module Temperature
25 °C
20 °C

AM
1.5
Wind Speed 1m/s

Fire Rating
Class 1

⁽¹⁾ Measurement Tolerances : Pmax (± 3 %), Isc & Voc (± 3 %)

⁽²⁾ STC (Standard Testing Condition) : Irradiance : 1000 W/m², Cell Temperature: 25 °C, AM : 1.5

⁽³⁾ NMOT (Nominal Operating Module Temperature) : Irradiance : 800 W/m², NMOT Ambient Temperature: 20/25 °C, AM : 1.5, Wind Speed : 1 m/s

*or customized

Not applicable for installations in transition 5.0/ feed in tariff for italian market

Specifications included in this datasheet are subject to change without notice. SUNGI SOLAR reserves all the rights to final integrations.

40' Container

- 36 pcs per pallet
- 26 pallets
- 936 total pcs



20' Container

- 36 pcs per pallet
- 10 pallets
- 360 total pcs



Product Information Sheet SNG 435-455 Watt TOPCon Technology

HC MONO 435-455 Watt

Highest quality with our cells
16 MBB TOPCon Technology

- ✓ **30 years**
Product Material & Workmanship
- ✓ **30 years**
Linear Performance Warranty
- ✓ **1 %**
1st-year Degradation
- ✓ **0.4 %**
Annual Degradation

Quality and Safety

- ① **Industry-leading power output warranty**
25 years / 89.4 %
30 years / 87.4 %

- ✓ **30-year warranty on materials & workmanship**

- ✓ **Fire Test: Class 1**

- ✓ **Anti-PID Guarantee**
Minimizes the risk of degradation caused by PID phenomena by optimizing cell production technology and material control.
- ✓ **Multi-busbar Technology**
Higher performance, higher reliability, and greater (electrical) resilience.



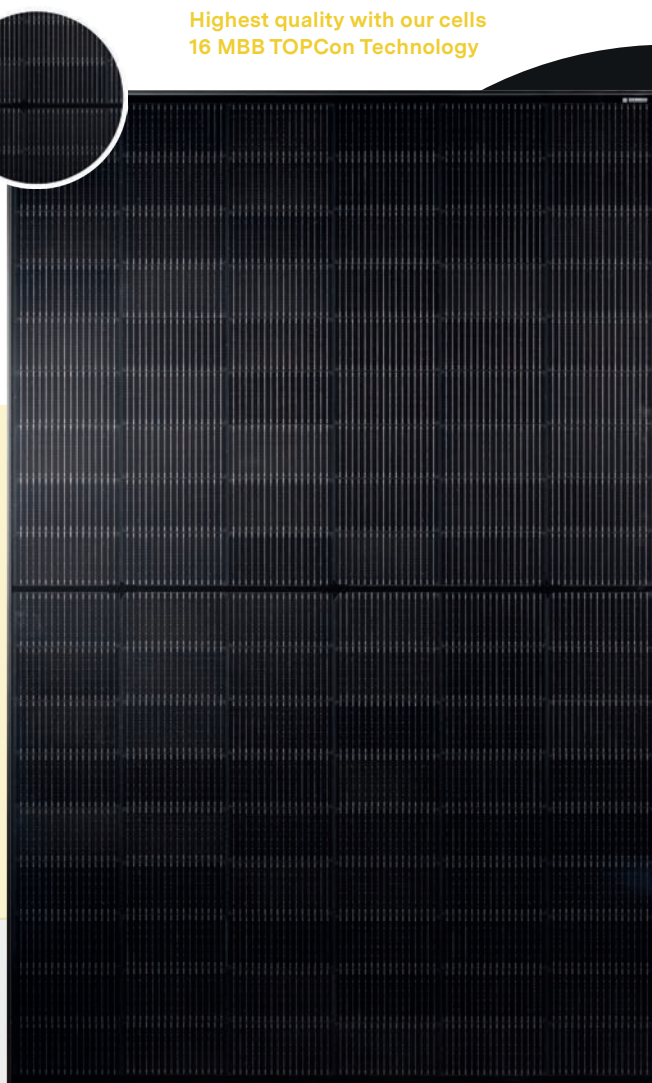
On-grid residential roof-tops



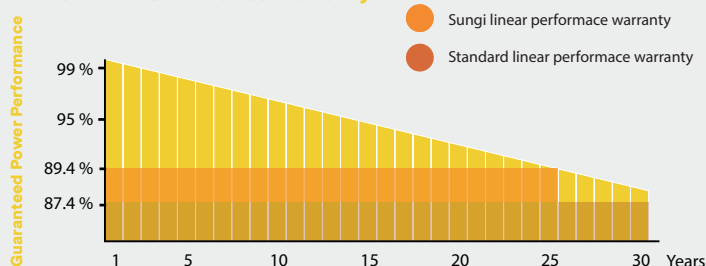
On-grid commercial Industrial roof-tops

Complete System and Product Certifications

IEC 61215 (2021), IEC 61730 (2023), IEC 61701, IEC 62716
ISO 9001:2015: Quality Management System
ISO 14001:2015: Environmental Management System
ISO 45001:2018: Occupational Health and Safety Management System
IEC 62941:2019: Quality System for PV Module Manufacturing



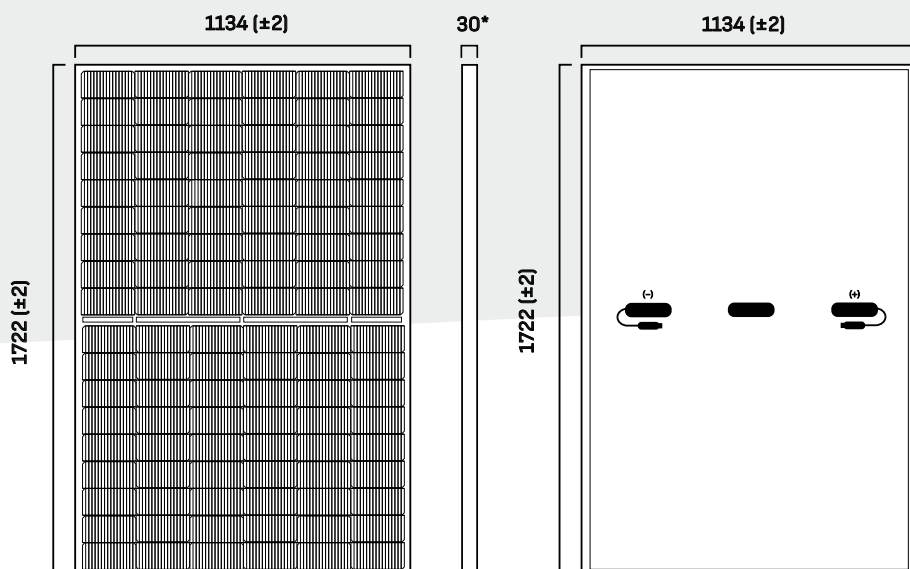
Premium Performance Warranty



23.30 %
Max Module Efficiency

30 Y Warranty
on materials & workmanship

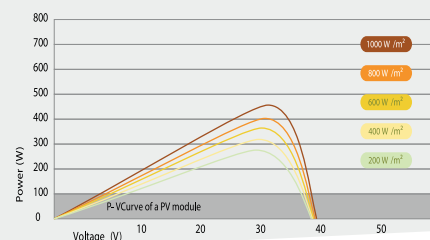
ENGINEERING DRAWINGS (mm)



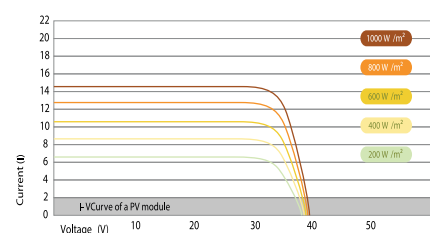
ELECTRICAL PERFORMANCE & TEMPERATURE

DEPENDENCE | SNG - 455

Power-Voltage Curves



Current-Voltage Curves



MODULE TYPE	SNG-435 W	SNG-440 W	SNG-445 W	SNG-450 W	SNG-455 W
Testing Conditions	STC ⁽²⁾ / NMOT ⁽³⁾	STC ⁽²⁾ / NMOT ⁽³⁾	STC ⁽²⁾ / NMOT ⁽³⁾	STC ⁽²⁾ / NMOT ⁽³⁾	STC ⁽²⁾ / NMOT ⁽³⁾
Maximum Power at STC (Pmax)	435 Wp	440 Wp	445 Wp	450 Wp	455 Wp
Maximum Power Voltage (Vmp)	32.96 V / 30.34 V	33.20 V / 30.57 V	33.44 V / 30.79 V	33.66 V / 31.02 V	33.90 V / 32.24 V
Maximum Power Current (Imp)	13.21 A / 10.78 A	13.27 A / 10.83 A	13.33 A / 10.88 A	13.39 A / 10.93 A	13.45 A / 10.98 A
Open-Circuit Voltage (Voc)	38.86 V / 37.20 V	39.00 V / 37.40 V	39.14 V / 37.60 V	39.28 V / 37.80 V	39.42 V / 38.00 V
Short-Circuit Current (Isc)	13.96 A / 11.14 A	14.02 A / 11.19 A	14.08 A / 11.24 A	14.14 A / 11.29 A	14.20 A / 11.34 A
Module Efficiency (%)	22.27 %	22.53 %	22.78 %	23.04 %	23.30 %

ALL MODULES DATA

Operating Temperature (DC)	- 40 °C to + 85 °C
Maximum System Voltage	1500 VDC
Maximum Series Fuse Rating	25 A
Power Output Tolerance ⁽¹⁾	± 3 %
Temperature Coefficients of Pmax	- 0.29 % / °C
Temperature Coefficients of Voc	- 0.25 % / °C
Temperature Coefficients of Isc	+0.045 % / °C
Nominal Operating Cell Temperature (NOCT)	45 ± 2 °C

TECHNICAL SPECIFICATION

Cell type	TOPCon Technology (182x91 mm)
Number of cells	108 (2×54)
Dimensions	1722x1134x30* mm
Weight	18.9 kg
Front Glass	3.2 mm anti-reflection
Frame	Anodized Aluminum Alloy Black Frame*
Junction Box	IP68 Rated
Output Cables	TUV 1x4.0 mm² / UL 12 AWG*
Output Cables Length	1200 mm*
Connectors	MC 4

PACKAGING CONFIGURATION

Testing Conditions
STC²/NMOT³

Irradiance
1000 W/m
800 W/m

Module Temperature
25 °C
20 °C

AM
1.5
Wind Speed 1m/s

Fire Rating
Class 1

⁽¹⁾ Measurement Tolerances : Pmax (± 3 %), Isc & Voc (± 3 %)

⁽²⁾ STC (Standard Testing Condition) : Irradiance : 1000 W/m², Cell Temperature: 25 °C, AM : 1.5

⁽³⁾ NMOT (Nominal Operating Module Temperature) : Irradiance : 800 W/m², NMOT Ambient Temperature: 20/25 °C, AM : 1.5, Wind Speed : 1 m/s

*or customized

Not applicable for installations in transition 5.0/ feed in tariff for italian market

Specifications included in this datasheet are subject to change without notice. SUNGI SOLAR reserves all the rights to final integrations.

40' Container

- 36 pcs per pallet
- 26 pallets
- 936 total pcs



20' Container

- 36 pcs per pallet
- 10 pallets
- 360 total pcs

