

MODULE DATASHEETS · 2026

Residential & small systems

Homes, PM Surya Ghar rooftops, solar pumps and small standalone systems, where module size and weight decide what is practical.

FAMILY	POWER RANGE	BINS	DIMENSIONS	PLATFORM
SS96GTG-480	450–480 W	7	1762 × 1134 mm	96 cells · G12R
SS84GTG-480	445–480 W	8	1544 × 1303 mm	84 cells · G12
SS84GTG-420	395–420 W	6	1544 × 1134 mm	84 cells · G12R

n-Type TOPCon bifacial

Glass-glass dual glass

Up to 24.12% efficiency

1500 V DC

BIS R-93049670

ALMM List-I

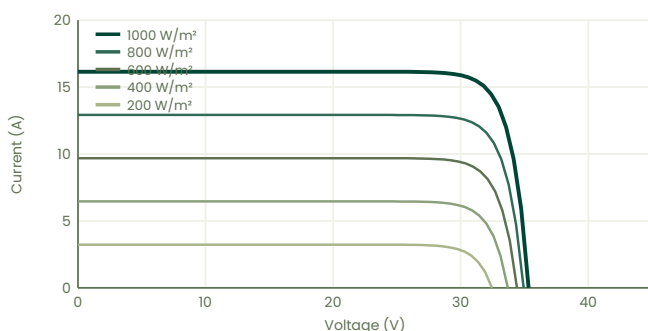
12-yr product · 30-yr performance

Electrical data — STC & BNPI

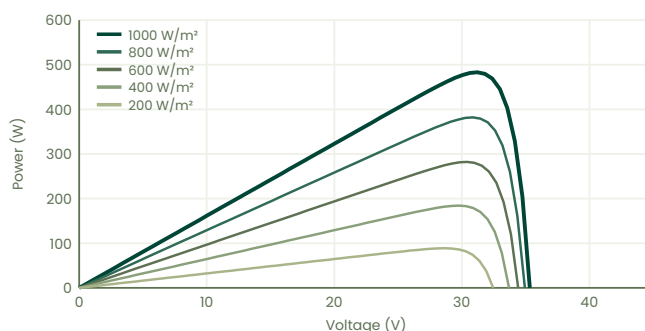
Rated power P_{max} (W)	480	475	470	465	460	455	450
Voltage at P_{max} V_{mp} (V)	30.43	30.33	30.14	30.05	29.90	29.81	29.64
Current at P_{max} I_{mp} (A)	15.78	15.67	15.60	15.49	15.38	15.27	15.21
Open-circuit voltage V_{oc} (V)	35.33	35.10	35.09	34.94	34.80	34.66	34.61
Short-circuit current I_{sc} (A)	16.15	16.10	16.07	16.00	15.95	15.89	15.84
Module efficiency (%)	24.12	23.86	23.61	23.36	23.11	22.86	22.61
P_{max} at BNPI (W)	528	523	517	512	506	501	496

STC: 1000 W/m², cell temperature 25 °C, AM 1.5 · Power tolerance 0 / +5 W · V_{oc} and I_{sc} tolerance ±5% · BNPI: front 1000 W/m² + rear 135 W/m² · Efficiency per BIS-declared nameplate.

I-V curves



P-V curves



Bifacial output & packaging

480 W front +5% 504 · +10% 528 · +15% 552 · +25% 600 W

36 pcs/pallet

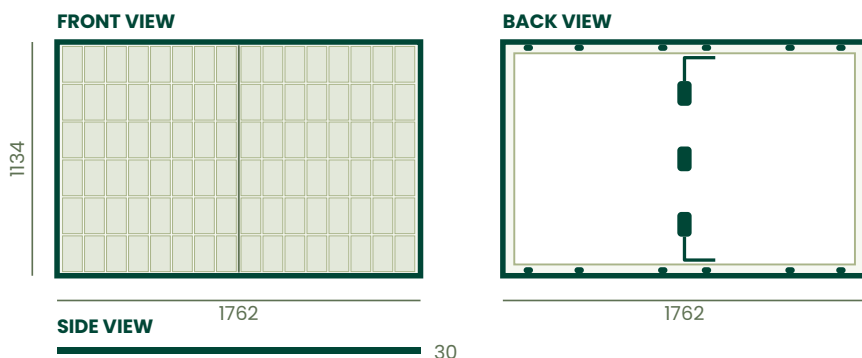
Mechanical characteristics

Cell type	n-Type TOPCon bifacial · G12R 182 × 105 mm half-cut · 16BB
Cells / arrangement	96 half-cut cells · (8×6)×2
Dimensions (L × W × H)	1762 × 1134 × 30 mm
Weight	24.5 kg
Front / rear glass	2.0 mm AR-coated tempered / 2.0 mm tempered
Frame	Anodised aluminium alloy
Junction box	IP68 · 3 bypass diodes
Connectors	MC4-compatible · IP68
Cable	4 mm ² PV cable

Ratings & temperature characteristics

Temp. coefficient of P _{max}	-0.300 %/°C
Temp. coefficient of V _{oc}	-0.255 %/°C
Temp. coefficient of I _{sc}	+0.044 %/°C
Power bifaciality	70% ± 10%
Operating temperature	-40 °C to +85 °C
Max. system voltage	1500 V DC
Max. series fuse	35 A
Static load, front / rear	5400 Pa / 2400 Pa
Class ratings	Safety Class II · Fire Class C
Warranty	12-yr product · 30-yr linear performance

Engineering drawings



Certification · IS 14286 (Part 1/Sec 1) : 2023 · IEC 61215-1-1 : 2021 · IS/IEC 61730-1 : 2023 · IS/IEC 61730-2 : 2023 · BIS licence R-93049670, valid to 13 September 2031 · ALMM List-I · Tested at NABL-accredited laboratory

Warranty · 12-year product warranty · 30-year linear performance warranty: ≤1% first-year degradation, ≤0.4% per year thereafter, ≥87.4% of nominal at year 30

Quality · 100% electroluminescence inspection pre- and post-lamination · Individual flash-test report shipped with every module · Serialised modules with per-unit test data

Specifications subject to change without notice. All electrical data at STC per BIS-declared nameplate values; refer to the individual module flash report for measured values. I-V and P-V curves are representative, modelled from nameplate parameters. Packaging figures are for standard export packing and may vary with order configuration.

n-Type TOPCon bifacial

Glass-glass dual glass

Up to 23.89% efficiency

1500 V DC

BIS R-93049670

ALMM List-I

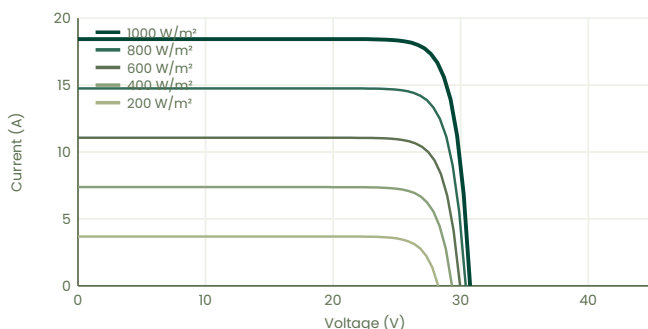
12-yr product · 30-yr performance

Electrical data — STC & BNPI

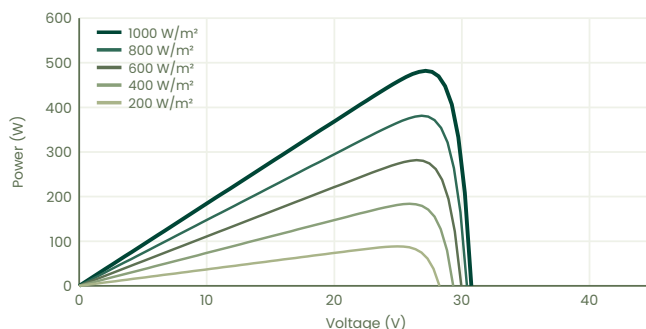
Rated power $P_{\max}$ (W)	480	475	470	465	460	455	450	445
Voltage at $P_{\max}$ V_{mp} (V)	27.53	27.28	26.99	26.73	26.51	26.23	25.97	25.78
Current at $P_{\max}$ I_{mp} (A)	17.46	17.43	17.42	17.41	17.38	17.36	17.34	17.29
Open-circuit voltage V_{oc} (V)	30.74	30.70	30.62	30.49	30.41	30.32	30.24	30.16
Short-circuit current I_{sc} (A)	18.44	18.35	18.32	18.30	18.26	18.25	18.22	18.19
Module efficiency (%)	23.89	23.63	23.37	23.13	22.90	22.63	22.38	22.16
$P_{\max}$ at BNPI (W)	529	523	517	512	507	501	495	490

STC: 1000 W/m², cell temperature 25 °C, AM 1.5 · Power tolerance 0 / +5 W · V_{oc} and I_{sc} tolerance ±5% · BNPI: front 1000 W/m² + rear 135 W/m² · Efficiency per BIS-declared nameplate.

I-V curves



P-V curves



Bifacial output & packaging

480 W front +5% 504 · +10% 528 · +15% 552 · +25% 600 W

33 pcs/pallet

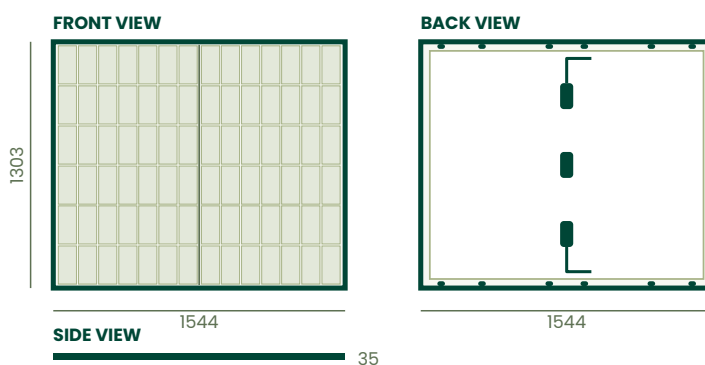
Mechanical characteristics

Cell type	n-Type TOPCon bifacial · G12 210 × 105 mm half-cut · 18BB
Cells / arrangement	84 half-cut cells · (7×6)×2
Dimensions (L × W × H)	1544 × 1303 × 35 mm
Weight	25.0 kg
Front / rear glass	2.0 mm AR-coated tempered / 2.0 mm tempered
Frame	Anodised aluminium alloy
Junction box	IP68 · 3 bypass diodes
Connectors	MC4-compatible · IP68
Cable	4 mm ² PV cable

Ratings & temperature characteristics

Temp. coefficient of P _{max}	-0.327 %/°C
Temp. coefficient of V _{oc}	-0.269 %/°C
Temp. coefficient of I _{sc}	+0.045 %/°C
Power bifaciality	70% ± 10%
Operating temperature	-40 °C to +85 °C
Max. system voltage	1500 V DC
Max. series fuse	35 A
Static load, front / rear	5400 Pa / 2400 Pa
Class ratings	Safety Class II · Fire Class C
Warranty	12-yr product · 30-yr linear performance

Engineering drawings



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n-Type TOPCon bifacial

Glass-glass dual glass

Up to 24.00% efficiency

1500 V DC

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ALMM List-I

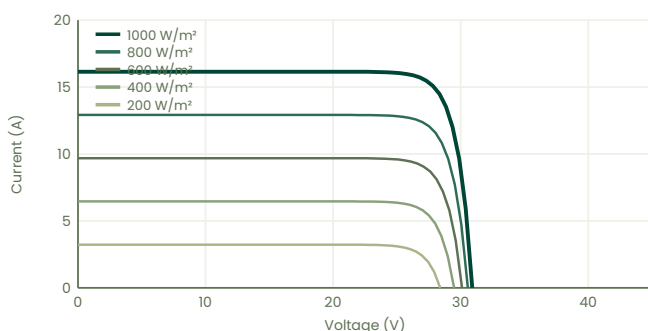
12-yr product · 30-yr performance

Electrical data — STC & BNPI

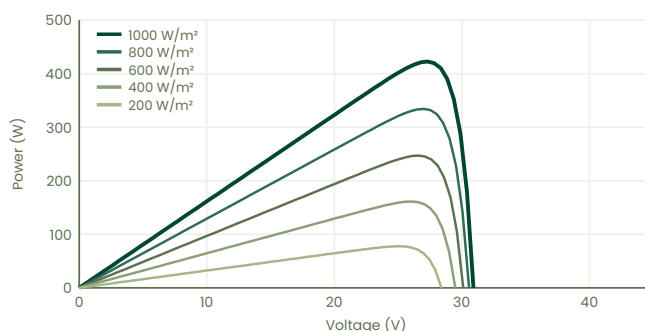
Rated power $P_{\max}$ (W)	420	415	410	405	400	395
Voltage at $P_{\max}$ V_{mp} (V)	26.63	26.50	26.38	26.25	26.15	26.10
Current at $P_{\max}$ I_{mp} (A)	15.78	15.67	15.57	15.46	15.31	15.16
Open-circuit voltage V_{oc} (V)	30.91	30.79	30.66	30.53	30.37	30.32
Short-circuit current I_{sc} (A)	16.15	16.10	16.05	15.98	15.90	15.88
Module efficiency (%)	24.00	23.71	23.42	23.14	22.85	22.57
$P_{\max}$ at BNPI (W)	462	457	452	446	440	435

STC: 1000 W/m², cell temperature 25 °C, AM 1.5 · Power tolerance 0 / +5 W · V_{oc} and I_{sc} tolerance ±5% · BNPI: front 1000 W/m² + rear 135 W/m² · Efficiency per BIS-declared nameplate.

I-V curves



P-V curves



Bifacial output & packaging

420 W front +5% 441 · +10% 462 · +15% 483 · +25% 525 W

40 pcs/pallet

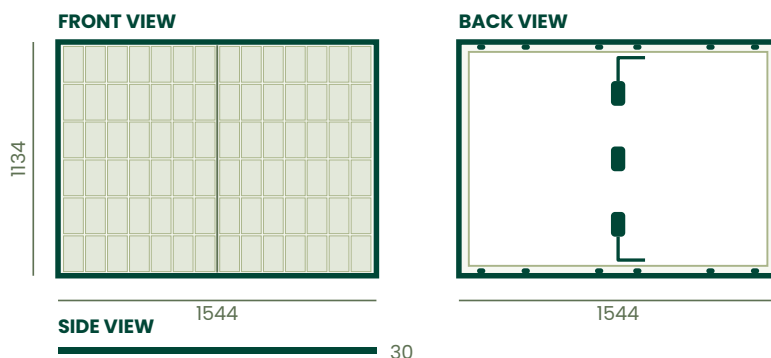
Mechanical characteristics

Cell type	n-Type TOPCon bifacial · G12R 182 × 105 mm half-cut · 16BB
Cells / arrangement	84 half-cut cells · (7×6)×2
Dimensions (L × W × H)	1544 × 1134 × 30 mm
Weight	21.5 kg
Front / rear glass	2.0 mm AR-coated tempered / 2.0 mm tempered
Frame	Anodised aluminium alloy
Junction box	IP68 · 3 bypass diodes
Connectors	MC4-compatible · IP68
Cable	4 mm ² PV cable

Ratings & temperature characteristics

Temp. coefficient of P_{max}	-0.300 %/°C
Temp. coefficient of V_{oc}	-0.255 %/°C
Temp. coefficient of I_{sc}	+0.044 %/°C
Power bifaciality	70% ± 10%
Operating temperature	-40 °C to +85 °C
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