ANTI-GLARE DESIGN

Solar Panel

SP-640 to SP-670

640-670 W

- Designed for glare-sensitive locations: airports, highways and residential areas
- High-transmission, low-reflectance glass for enhanced glare control
- High efficiency for strong energy output
- TaiRay silicon wafers and back-contact (BC) technology for improved reliability



QUALITY MANAGEMENT & PRODUCT STANDARDS

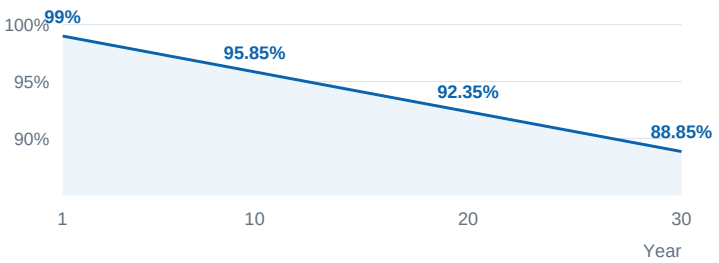
IEC 61215 / IEC 61730
ISO 9001:2015 - Quality management
ISO 14001:2015 - Environmental management
ISO 45001:2018 - Occupational health and safety

SOLAR PANEL

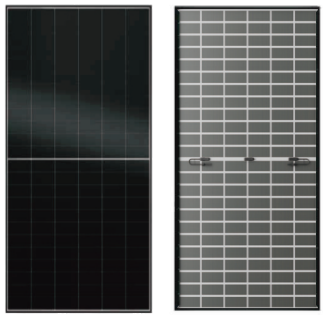
SP-640 to SP-670

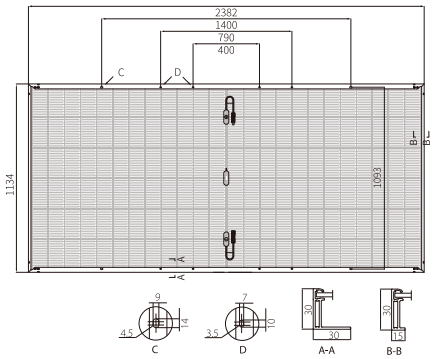
24.80%	0 to +3%	1%	0.35% / year	BC
Max. efficiency	Power tolerance	Year 1 degradation	Years 2-30	Low temp. coefficient

30-YEAR LINEAR POWER OUTPUT WARRANTY



FRONT / REAR VIEW





Dimensions in mm | Length/width tolerance: ±2 mm

MECHANICAL SPECIFICATIONS

Cell arrangement	144 (6 x 24)
Junction box	Split junction box, IP68
Output cable	4 mm²; +400/-200 mm or ±1400 mm Custom cable lengths available
Glass	2.0 mm anti-glare coated front glass + 2.0 mm rear glass; heat-strengthened
Frame	Anodized aluminium alloy
Weight / dimensions	32.5 kg / 2382 x 1134 x 30 mm
Packing	36/pallet; 144/20-ft GP; 720/40-ft HC 720/13 m flatbed; 864/17.5 m flatbed*

*17.5 m flatbed: 30-ton payload; actual load varies by vehicle.

ELECTRICAL CHARACTERISTICS

STC: AM1.5, 1000 W/m², 25°C | Pmax measurement uncertainty: ±3%

Model	SP-640	SP-645	SP-650	SP-655	SP-660	SP-665	SP-670
Pmax (W)	640	645	650	655	660	665	670
Voc (V)	54.02	54.12	54.22	54.32	54.42	54.52	54.62
Isc (A)	14.98	15.06	15.14	15.22	15.30	15.38	15.46
Vmp (V)	44.67	44.77	44.87	44.97	45.07	45.17	45.27
Imp (A)	14.33	14.41	14.49	14.57	14.65	14.72	14.80
Module efficiency (%)	23.69	23.88	24.06	24.25	24.43	24.62	24.80

REAR-SIDE POWER GAIN - SP-655 EXAMPLE

Pmax (W)	Voc (V)	Isc (A)	Vmp (V)	Imp (A)	Power gain
688	54.32	15.98	44.97	15.30	5%
721	54.32	16.74	44.97	16.03	10%
755	54.42	17.50	45.07	16.76	15%
788	54.42	18.26	45.07	17.48	20%
821	54.42	19.03	45.07	18.21	25%

OPERATING SPECIFICATIONS

Operating temperature	-40°C to +85°C
Power tolerance	0 to +3%
Maximum system voltage	DC 1500 V (IEC/UL)
Maximum series fuse rating	30 A
Nominal operating cell temp.	45 ±2°C
Protection class	Class II
Bifaciality	70 ±5%
Module fire rating	IEC Class C

MECHANICAL LOAD

Front / rear static load	5400 Pa / 2400 Pa
Hail test	25 mm diameter at 23 m/s

TEMPERATURE COEFFICIENTS (STC)

Isc	+0.050%/°C
Voc	-0.200%/°C
Pmax	-0.260%/°C