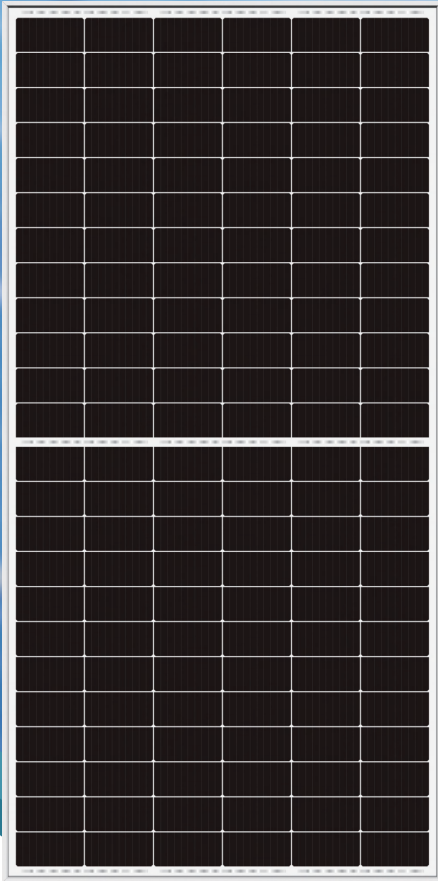




SpolarPV
Easy Invest, More Returns



22.85 %

Module efficiency

590 W

Highest power output



Product warranty



Linear power warranty

SPV590-TM10-144

565-590Watt



High Efficiency

Higher power conversion efficiency benefited from advanced Tunnel Oxide Passivating Contacts (TOPCon) technology.



Anti-reflection

Less than 20% reflectivity with minimum glare.



Low-light Performance

Certified to withstand: wind load (2400 Pa), snow load (5400 Pa) and hail strike.



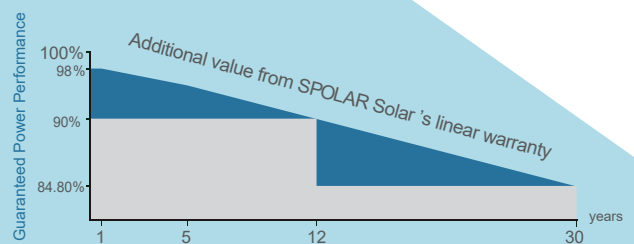
Severe Weather Resilience

Advanced glass and cell surface texture designs ensure excellent performance in low environment.



Durability against extreme environmental conditions

High salt mist resistance certified by IEC 61701, suitable for coastal areas.



■ Linear performance warranty ■ Standard performance warranty



ISO9001:2016 ISO14001:2016
OHSAS18001:2011 certified factory.
IEC61215 IEC61730 certified products.

Electrical Characteristics at Standard Test Conditions (STC)

| Module Type | SPV565-TM10-144 | SPV570-TM10-144 | SPV575-TM10-144 | SPV580-TM10-144 | SPV585-TM10-144 | SPV590-TM10-144 |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Maximum Power - Pmax (W) | 565 | 570 | 575 | 580 | 585 | 590 |
| Maximum Power Voltage - Vmp (V) | 42.55 | 42.71 | 42.87 | 43.03 | 43.17 | 43.38 |
| Maximum Power Current - Imp (A) | 13.29 | 13.35 | 13.42 | 13.50 | 13.55 | 13.60 |
| Open-circuit Voltage - Voc (V) | 50.39 | 50.55 | 50.68 | 50.86 | 51.02 | 52.27 |
| Short-circuit Current - Isc (A) | 14.20 | 14.26 | 14.33 | 14.40 | 14.47 | 14.53 |
| Module Efficiency STC (%) | 21.89 % | 22.08 % | 22.28 % | 22.47 % | 22.66 % | 22.85 % |

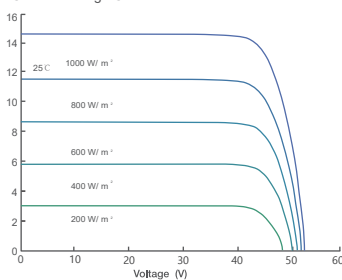
Electrical Characteristics at Normal Operating Cell Temperature (NOCT)

| Module Type | SPV565-TM10-144 | SPV570-TM10-144 | SPV575-TM10-144 | SPV580-TM10-144 | SPV585-TM10-144 | SPV590-TM10-144 |
|----------------------------------|-----------------|-----------------|------------------------------------|-----------------|-----------------|-----------------|
| Maximum Power - Pmax (W) | 430 | 434 | 437 | 440 | 444 | 447 |
| Maximum Power Voltage - Vmp (V) | 39.48 | 39.69 | 39.78 | 39.89 | 40.10 | 40.22 |
| Maximum Power Current - Imp (A) | 10.90 | 10.95 | 11.00 | 11.05 | 11.07 | 11.12 |
| Open-circuit Voltage - Voc (V) | 47.69 | 47.80 | 48.00 | 48.20 | 48.43 | 48.63 |
| Short-circuit Current - Isc (A) | 11.46 | 11.50 | 11.55 | 11.60 | 11.84 | 11.89 |
| Power Tolerance | 0 ~ +3W | | Operating Temperature (°C) | | -40 °C ~ +85 °C | |
| Temperature Coefficients of Pmax | -0.30% / °C | | Maximum System Voltage | | 1500 V | |
| Temperature Coefficients of Voc | -0.275% / °C | | Maximum Series Fuse Rating | | 25 A | |
| Temperature Coefficients of Isc | 0.045% / °C | | Nominal Operating Cell Temperature | | 45 ± 2 °C | |

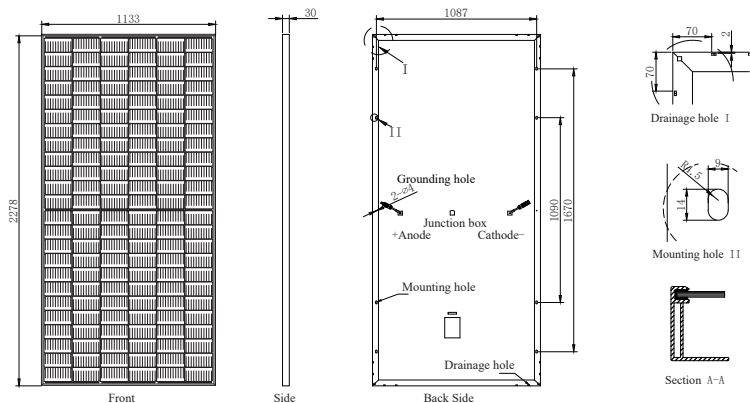
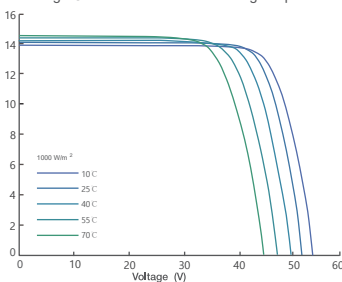
Mechanical Characteristics

| | |
|-------------------------|--|
| Cell Type | Mono-crystalline TOPCon 182x91 mm |
| No. of Cells | 144 (6x24) |
| Dimensions | 2278x1133x30 mm |
| Weight | 26.5 kg |
| Glass | 3.2mm, High Transmission, Low Iron, Tempered Glass |
| Frame | Anodized Aluminium Alloy |
| Junction Box | IP68, MC4 Compatible, 3 Bypass Diode |
| Output Cables | 1x4.0 mm ² , Length: 300 mm or Customized Length |
| Packaging Configuration | 72pcs/stack, 720pcs/40'HQContainer (Two pallets=One stack) |

Current-Voltage Curve under different irradiance



Current-Voltage Curve under different working temperatures



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