



SR-M660 Series 280W~310W Mono Module

Module Type

- SR-M660280 SR-M660300 (PERC)
- SR-M660285 SR-M660305 (PERC)
- SR-M660290 SR-M660310 (PERC)



WARRANTY

- 12years Defect warranty
- 25years Leading linear performance warranty

Established in 2006, Sunrise Energy Co., Ltd specializes in research, development, and sales of solar PV modules in early stage, and is one of the first PV companies which involved in solar project investment and solar system integration. Our business scope covers solar project investment, EPC, project design, installation, operation and maintenance, solar products manufacturing and sales as well.

Sunrise has 35,000m² automatic workshops with 600MW annual capacity which strongly support its exploring business abroad. Sunrise has 8 offices worldwide. Sunrise has been built up long term business relationship with many well-known companies. We have been invested and built over 600MW solar projects worldwide and supplied high efficient and green solar power solution over 50 countries, such as German, Italy, Australia, Japan, India, America and China.

- 0~3% Positive tolerance
- Better PID-free
- 3.2mm high transmission, low iron tempered AR glass
- Better performance under low light environment
- Withstand wind loads up to 2400Pa and snow loads up to 5400Pa.
- 25 year leading linear performance warranty



IEC 61215/IEC 61730
ISO 9001: 2008

ISO14001: 2004
OHSAS 18001: 2007

60 Cells Mono Module

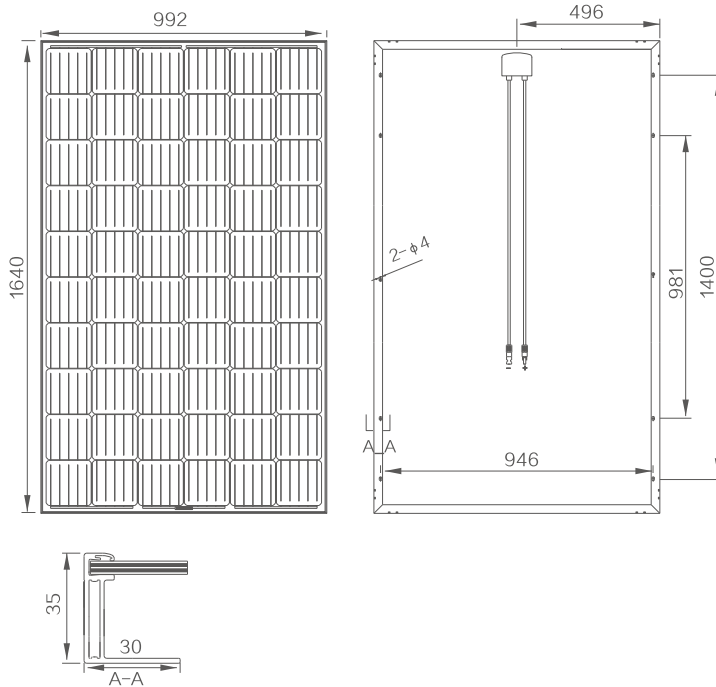


| Module Type | | SR-M660280 | | SR-M660285 | | SR-M660290 | | SR-M660300 (PERC) | | SR-M660305 (PERC) | | SR-M660310 (PERC) | |
|--|--------------|------------------------------------|-------|------------|-------|------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|
| Test Environment | | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT |
| Tolerance | (%) | 0~+3 | | 0~+3 | | 0~+3 | | 0~+3 | | 0~+3 | | 0~+3 | |
| Module Efficiency | (%) | 17.1 | | 17.4 | | 17.7 | | 18.3 | | 18.7 | | 19.1 | |
| Maximum Power | $P_{max}(W)$ | 280 | 205.8 | 285 | 209.5 | 290 | 213.2 | 300 | 220.5 | 305 | 224.2 | 310 | 228.5 |
| Open Circuit Voltage | $V_{oc}(V)$ | 38.76 | 35.6 | 38.86 | 35.7 | 38.96 | 35.9 | 39.13 | 37.2 | 39.24 | 37.2 | 39.36 | 41.43 |
| Short Circuit Current | $I_{sc}(A)$ | 9.47 | 7.61 | 9.59 | 7.73 | 9.73 | 7.82 | 10.02 | 7.93 | 10.16 | 8.02 | 10.29 | 8.11 |
| Maximum Power Voltage | $V_m(V)$ | 31.34 | 28.8 | 31.42 | 28.9 | 31.5 | 29.1 | 31.64 | 30.1 | 31.73 | 30.2 | 31.83 | 30.4 |
| Maximum Power Current | $I_m(A)$ | 8.94 | 7.17 | 9.08 | 7.24 | 9.21 | 7.32 | 9.49 | 7.31 | 9.62 | 7.38 | 9.74 | 7.45 |
| Cell Type | (mm) | 156 × 156 Mono-Crystalline Silicon | | | | | | | | | | | |
| Number of Cells | (Pcs) | 60(6×10) | | | | | | | | | | | |
| Maximum System Voltage | (V) | DC1000 | | | | | | | | | | | |
| Temp.Coeff.of V_{oc} | (%/°C) | -0.35 | | | | | | | | | | | |
| Temp.Coeff.of I_{sc} | (%/°C) | 0.05 | | | | | | | | | | | |
| Temp.Coeff.of P_m | (%/°C) | -0.45 | | | | | | | | | | | |
| Operating Temperature | (°C) | -40 to 85 | | | | | | | | | | | |
| Nominal Operating Cell Temperature(NOCT) | (°C) | 45±2 | | | | | | | | | | | |
| Max.Series Fuse | (A) | 15 | | | | | | | | | | | |
| Pressure Bearing | (Pa) | 5400 | | | | | | | | | | | |
| Wind Bearing | (Pa) | 2400 | | | | | | | | | | | |

STC: Irradiance 1000W/m², Cell temperature 25°C, AM1.5

NOCT: Irradiance 800W/m², Ambient temperature 20°C, Wind Speed 1 m/s

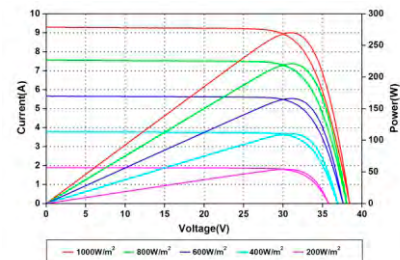
ENGINEERING DRAWINGS



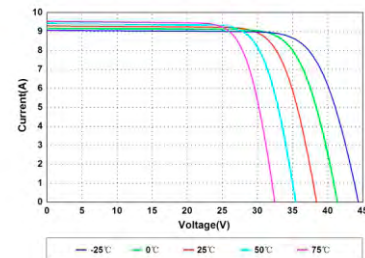
MATERIAL DETAILS

| | |
|-----------------|---|
| Frame | Anodized aluminum(Silver/Black optional) |
| Glass | 3.2mm high transmission tempered AR glass |
| Cell | 6×10 pcs 156.75mm mono solar cell |
| Junction Box | Rated Current≥13A, IP≥67, TUV&UL |
| Cable&Connector | 4mm ² , MC4 or MC4 compatible |

IV CURVES



Current-Voltage and Power-Voltage Curves at Different Irradiances



Current-Voltage Curves at Different Temperatures

PACKING DETAILS

| | | |
|------------------|------------|-------------------------------|
| Dimension | (mm) | 1640×992×35 |
| Weight | (kg) | 18.2 |
| Loading Capacity | | 324 pcs/20' GP 840 pcs/40' HC |
| Packing | pcs/pallet | 30 |