

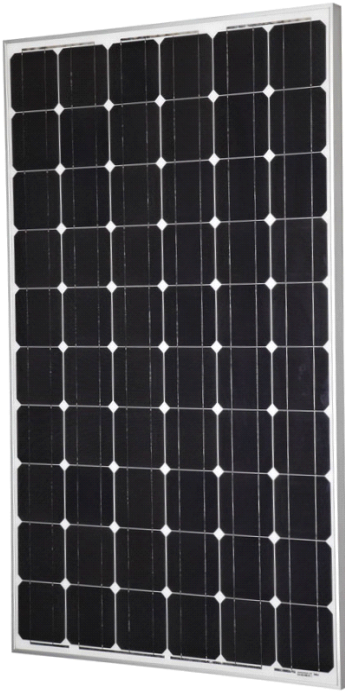


SUNTAS SOLAR ENGINEERS

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M60PCS-230W 225W 220W 215W Product Specification



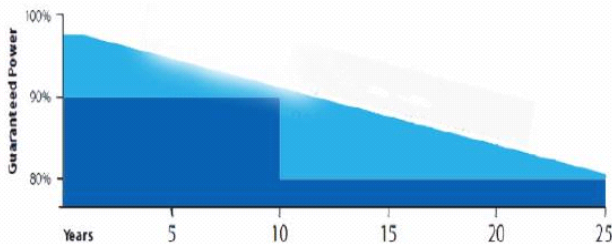
- Industry leading module power output warranty
- International quality, safety and performance certifications
- Manufacturing facility certified to ISO9001 Quality Management System standards
- Beautiful appearance, good durability & easy installation
- Special design in accordance with requirements of customers

CERTIFICATES

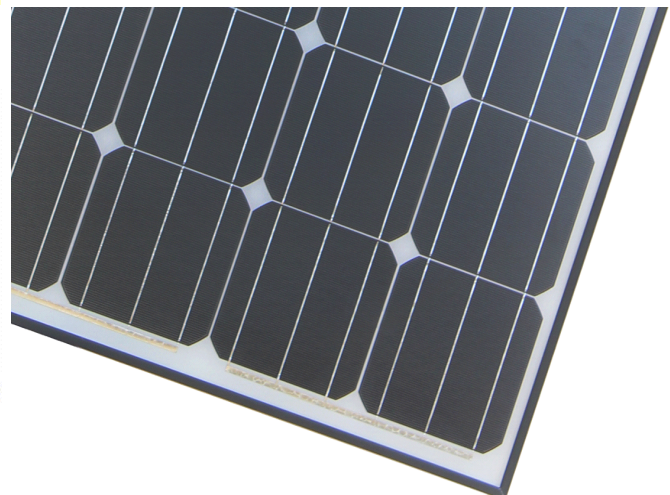


WARRANTIES

- 10 years for product defects in materials & workmanship
- 10 years for 90% of warranted minimum power output
- 25 years for 80% of warranted minimum power output



25 years linear warranty

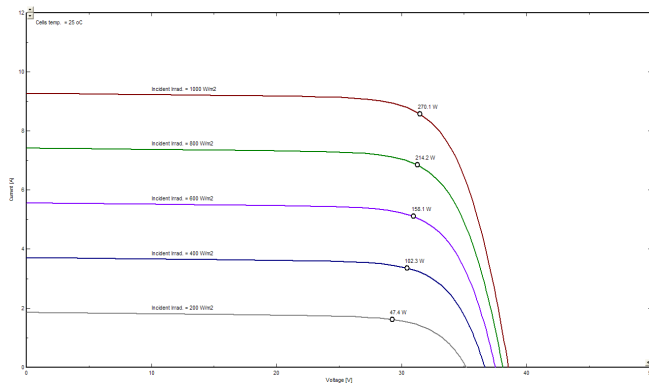


Electrical parameters at Standard Test Conditions

(STC:AM=1.5, 1000W/m², cells Temperature 25 °C)

I-V CURVE

| | | | | |
|-----------------------------|---------|-------|-------|-------|
| Typical Type | 230W | 225W | 220W | 215W |
| Max-Power (Pmax) w | 230W | 225W | 220W | 215W |
| Max-Power Voltage (Vmp) | 30.13 | 29.95 | 29.77 | 29.58 |
| Max-Power Current (Imp) | 7.63 | 7.51 | 7.39 | 7.27 |
| Open-Circuit Voltage (Voc) | 36.9 | 36.68 | 36.46 | 36.23 |
| Short-Circuit Current (Isc) | 8.37 | 8.24 | 8.1 | 7.97 |
| Max-System Voltage | DC1000V | | | |
| Cell efficiency (%) | 16.5 | 16.1 | 15.8 | 15.4 |



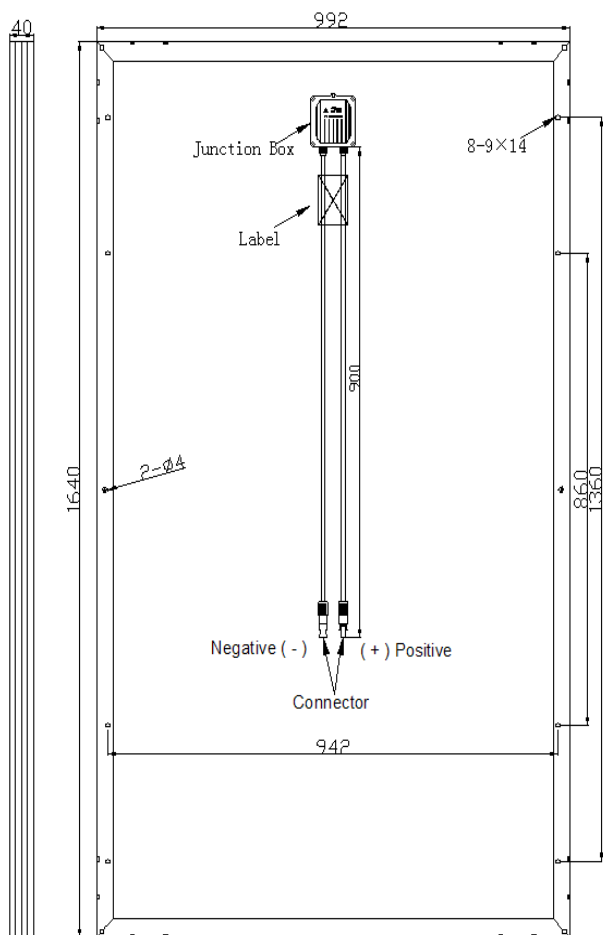
MECHANICAL DATA

| | |
|------------------|---|
| Dimensions | 1640*992*40mm |
| Weight | 18kgs |
| Front Glass | 3.2 mm tempered glass |
| | TUV (2Pfg1169:2007) |
| Output Cables: | 4mm ² (0.006 inches ²), symmetrical lengths 900 mm |
| Connectors: | MC4 compatible IP67 |
| cell type: | Mono Crystalline silicon, 156mmx156mm |
| Number of cells: | 60 cells in series |

TEMPERATURE CHARACTERISTICS

| | |
|------------------------------------|---------------|
| Temp.Coeff.of Isc(TK Isc) | 0.037% / °C |
| Temp.Coeff.of Voc(TK Voc) | (-0.34%) / °C |
| Temp.Coeff of Pmax(TK Pmax) | (-0.48%) / °C |
| Operating Temperature | (-40~+85)°C |
| Nominal Operating Cell Temperature | 45 ±2 °C |

DIMENSIONS AND STRUCTURE



PACKING CONFIGURATION

| | | | |
|-----------------------|-------|-------|-------|
| Container | 20'GP | 40'GP | 40'HQ |
| Pieces per Pallet | 46 | 46 | 56 |
| Pallets per Container | 6 | 14 | 14 |
| Pieces per Container | 276 | 644 | 784 |

TESTS, CERTIFICATIONS AND WARRANTIES

| | |
|-------------------------------------|---|
| Standard tests | IEC 61215, IEC 61730 |
| System certs | ISO 9001, ISO 14001 |
| Certifications | TUV, CE, MCS, PV CYCLE, CEC, CHUBB |
| Extreme wind and snow loads testing | withstand extreme wind (3800 Pascal) and snow loads (5400 Pascal) |
| Positive tolerance | 0~+3% |
| Junction Box | ≥IP65 Rated |
| Warranties | 10-year material and workmanship and 25-year output at least 80%. |