

TOPSUN solar mono modules are specifically designed for both roof-top and ground-mounted applications. This ensures the highest system efficiency and the highest performance output.

## 400Watt MONO-CRYSTALLINE SOLAR MODULE

## 380Watt POLY-CRYSTALLINE SOLAR MODULE



### High Quality

- \* High-performance modules with excellent efficiency, up to 16.77%
- \* High-resistance to mechanical loads(5,400Pa/m<sup>2</sup>)
- \* Increased resistance to reverse current
- \* Optimal heat dissipation technology
- \* Made in South Korea

### Installation Benefits

- \* More modules in an array, less installation and cable costs - lower transmission losses - higher yield
- \* Reducing installation period and cost more than 5% compared with normal size(225watt)
- \* Installation and repair friendly connection socket and aluminum frame - easy to installation

### Mechanical Characteristics

Solar cells	96 monocrystalline 6"silicon cells [156mm(6,14in) x 156mm(6,14in)]
Front cover	Low iron tempered glass 4,0mm(0,15in)
Back cover	White polyester
Frame	Silver anodized aluminum
Output cables	4mm <sup>2</sup> (0,15in) cables with polarized weatherproof connectors, IEC certified, Length 1,25m(49,21in)
Junction box	4 bypass diodes
Dimensions (HxWxT)	1,960(77,16in) x 1,308(51,50in) x 40mm(1,57in)
Weight	35,5kg(78,26lbs)

### Electrical Specification

Monocrystalline 3busbars(96cells)	TS-S390	TS-S395	TS-S400	TS-S405	TS-S410	TS-S415	TS-S420	TS-S425	TS-S430
Nominal power [Wp]	Pmpp 390	395	400	405	410	415	420	425	430
Voltage at nominal power [V]	Vmpp 49,38	49,53	49,80	50,06	50,32	50,58	50,82	51,05	51,35
Current at nominal power [A]	Impp 7,92	7,98	8,04	8,10	8,15	8,21	8,27	8,33	8,38
Open-circuit voltage [V]	Voc 59,62	59,71	60,00	60,38	61,06	61,25	61,44	61,63	61,82
Short-circuit current [A]	Isc 8,42	8,49	8,56	8,66	8,77	8,84	8,92	8,99	9,07
Module efficiency level [%]	15,25	15,41	15,60	15,80	15,99	16,19	16,38	16,58	16,77
Output tolerance [%]	±2	±2	±2	±2	±2	±2	±2	±2	±2

Performance under standard test conditions (STC) : 1000W/m<sup>2</sup>, 25°C, AM 1.5  
Mechanical load at 5400 Pa/m<sup>2</sup> has been performed.

Polycrystalline 3busbars(96cells)	TS-M360	TS-M365	TS-M370	TS-M375	TS-M380	TS-M385	TS-M390	TS-M395
Nominal power [Wp]	Pmpp 360	365	370	375	380	385	390	395
Voltage at nominal power [V]	Vmpp 47,91	48,21	48,49	48,78	49,05	49,33	49,6	49,87
Current at nominal power [A]	Impp 7,51	7,57	7,63	7,69	7,75	7,81	7,86	7,92
Open-circuit voltage [V]	Voc 58,37	58,56	58,75	58,94	59,14	59,42	59,62	59,81
Short-circuit current [A]	Isc 7,92	7,99	8,05	8,12	8,19	8,25	8,32	8,39
Module efficiency level [%]	14,04	14,24	14,43	14,63	14,82	15,02	15,21	15,41
Output tolerance [%]	±2	±2	±2	±2	±2	±2	±2	±2

Performance under standard test conditions (STC) : 1000W/m<sup>2</sup>, 25°C, AM 1.5  
Mechanical load at 5400 Pa/m<sup>2</sup> has been performed.

### Thermal Characteristics

Temperature coefficients of Isc	0,05% / K
Temperature coefficients of Voc	-0,40% / K
Temperature coefficients of Pm[%]	-0,49% / K
NOCT	47°C ±2

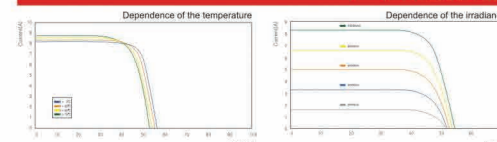
### Limits

Operating Temperature	-40 F to +194 F (-40°C to +90°C)
Storage Temperature	-40 F to +194 F (-40°C to +90°C)
Maximum System Voltage	DC 1,000V

### Warranty

- ▶ 10years for product defect
- ▶ 10years for 90% power output
- ▶ 25years for 80% power output

### I-V CURVE



### Technical Drawings

