

Special benefits based on SMART DC Module

SMART DC Module

Smart Module

Suntech SMART DC modules use TS4 universal JBox platform from Tigo Energy. It enables plug- and- play functionality to any solar modules. The TS4 open platform currently offers five different functions. Choose the TS4 platform for your next PV module to streamline operations and hedge against the future.

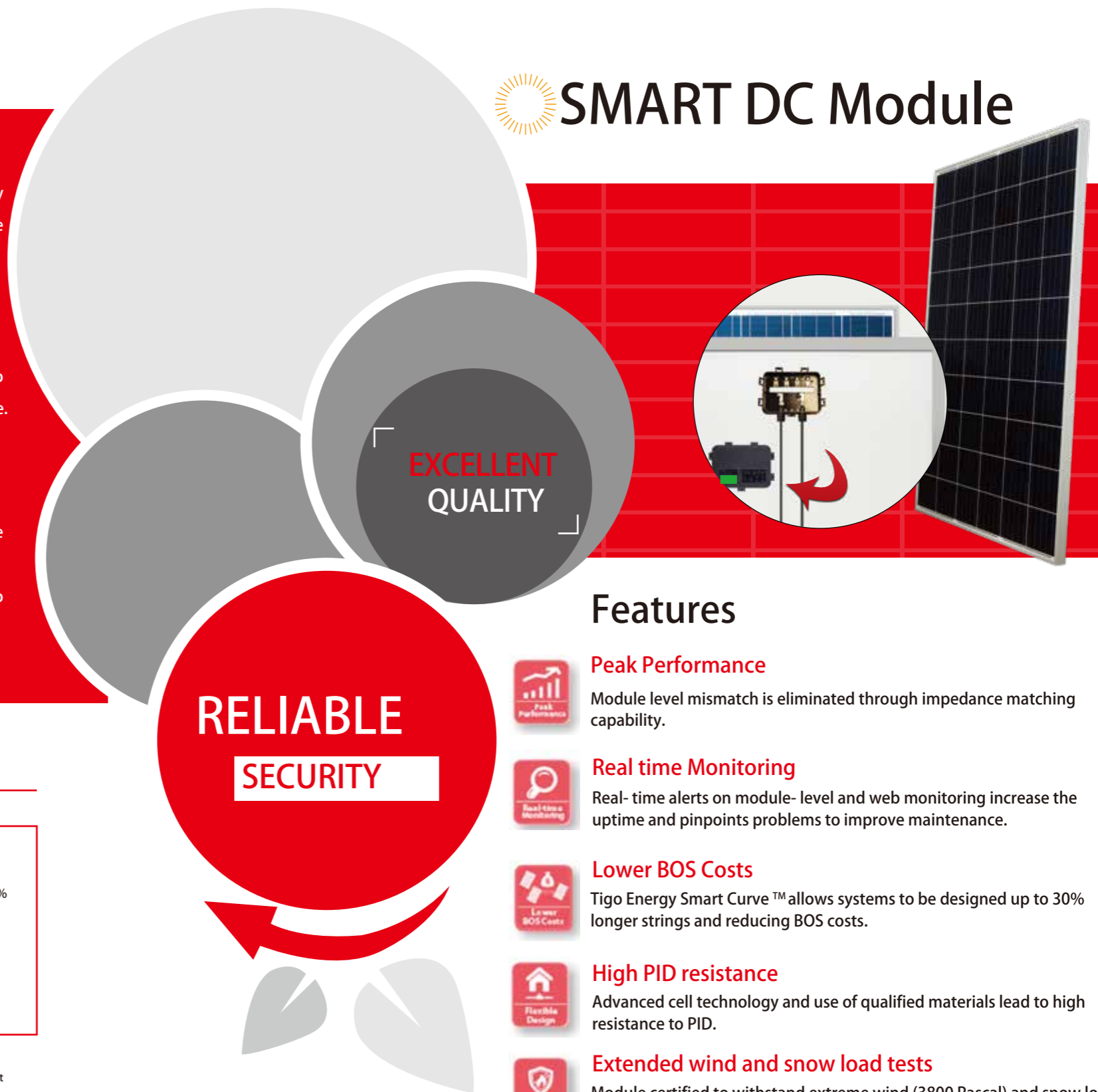
System Architecture

Suntech SMART system components work together with any inverter to maximize energy harvest and to communicate wirelessly through the gateway, allowing users to monitor system performance in real- time.

Greener Future

Deploying the SUNTECH Smart Module onto (commercial) rooftops maximize the customer value by more power yield generation and by less carbon emission.

The brilliant TIGO Smart solution offers advanced Safety, Monitoring and Optimization functionality to follow the development paces of distributed smart power grid for better future.



Features



Peak Performance

Module level mismatch is eliminated through impedance matching capability.



Real time Monitoring

Real- time alerts on module- level and web monitoring increase the uptime and pinpoints problems to improve maintenance.



Lower BOS Costs

Tigo Energy Smart Curve™ allows systems to be designed up to 30% longer strings and reducing BOS costs.



High PID resistance

Advanced cell technology and use of qualified materials lead to high resistance to PID.

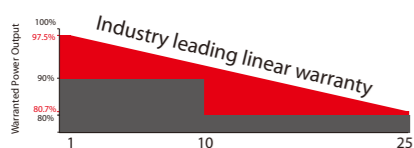


Extended wind and snow load tests

Module certified to withstand extreme wind (3800 Pascal) and snow loads (5400 Pascal).

Warranty

Industry-leading Warranty based on nominal power



- 97.5% in the first year, thereafter, for years two (2) through twenty-five (25), 0.7% maximum decrease from MODULE' s nominal power output per year, ending with the 80.7% in the 25th year after the defined WARRANTY STARTING DATE.

- 12- year product warranty
- 25- year linear performance warranty

Information on how to install and operate this product is available in the installation instruction. All values indicated in this data sheet are subject to change without prior announcement. The specifications may vary slightly. All specifications are in accordance with standard EN 50380. Color differences of the modules relative to the figures as well as discolorations of/in the modules which do not impair their proper functioning are possible and do not constitute a deviation from the specification.

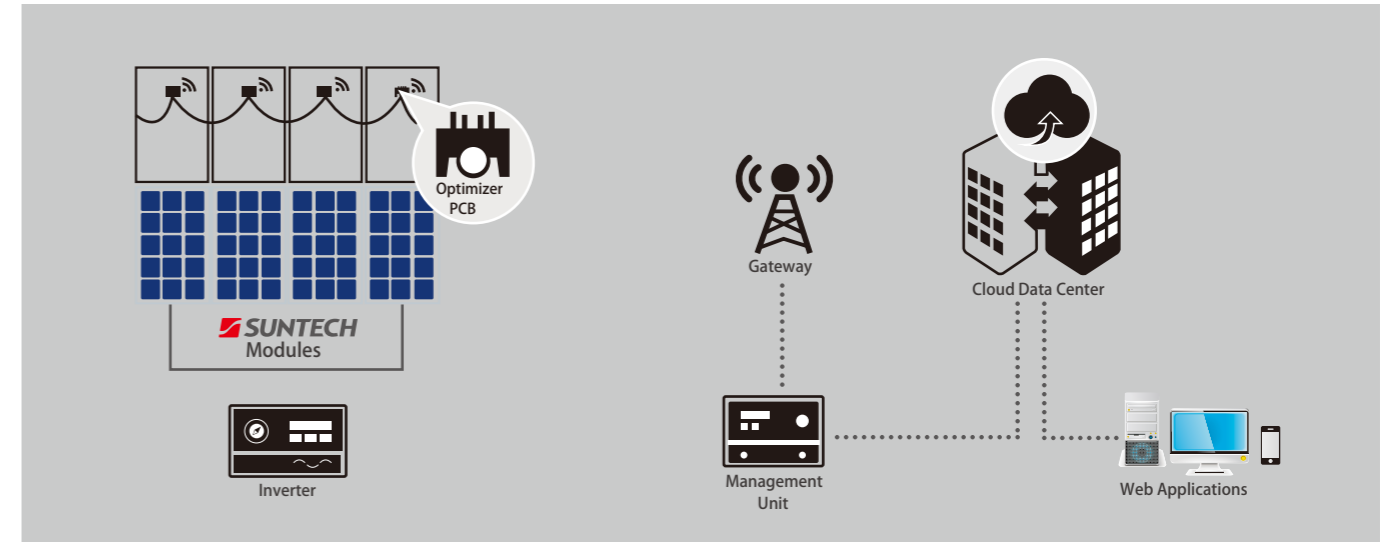
Longer Strings TS4-L

- String length increased by up to 30%
- Fewer BOS components
- Faster installation
- Inverter optimization
- Lower wire- losses
- Plus all the benefits of Optimization



Optimization TS4-O

- Shading and aging tolerance
- Enhanced energy yield
- Higher design flexibility
- Maximized roof usage
- Plus all the benefits of Safety



Electrical Data

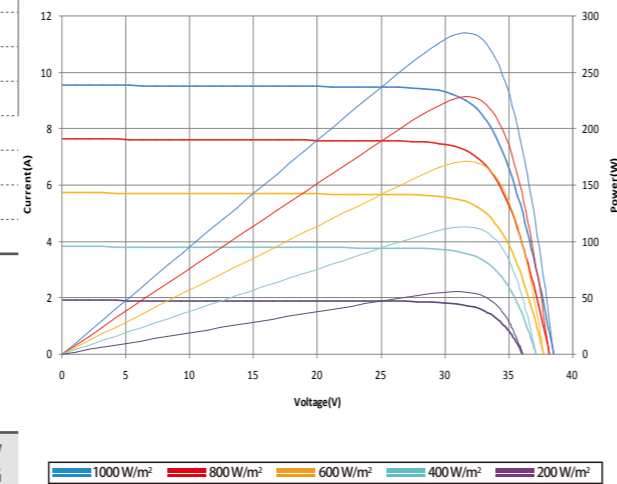
Superpoly STP285-20/Wfw-TG

Electrical Characteristics

STC	STP285-20/ Wfw-TG	STP280-20/ Wfw-TG	STP275-20/ Wfw-TG
Maximum Power at STC (Pmax)	285 W	280 W	275 W
Optimum Operating Voltage (Vmp)	31.4 V	31.3 V	31.2 V
Optimum Operating Current (Imp)	9.08 A	8.95 A	8.82 A
Open Circuit Voltage (Voc)	38.5 V	38.3 V	38.1 V
Short Circuit Current (Isc)	9.55 A	9.41 A	9.27 A
Module Efficiency	17.4%	17.1%	16.8%
Operating Module Temperature	-40 °C to +85 °C		
Maximum System Voltage	1000 V DC (IEC)		
Maximum Series Fuse Rating	20 A		
Power Tolerance	0/+5 W		

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5;
Best in Class AAA solar simulator (IEC 60904-9) used, power measurement uncertainty is within +/- 3%.

Current- Voltage & Power- Voltage Curve (285)



NOCT	STP285-20/ Wfw-TG	STP280-20/ Wfw-TG	STP275-20/ Wfw-TG
Maximum Power at NOCT (Pmax)	210.0 W	206.3 W	202.6 W
Optimum Operating Voltage (Vmp)	28.9V	28.8 V	28.7V
Optimum Operating Current (Imp)	7.27 A	7.17 A	7.06 A
Open Circuit Voltage (Voc)	35.4 V	35.2 V	35.0 V
Short Circuit Current (Isc)	7.74 A	7.63 A	7.52 A

NOCT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s;
Best in Class AAA solar simulator (IEC 60904-9) used, power measurement uncertainty is within +/- 3%.

Electrical Data

Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	45±2°C
Temperature Coefficient of Pmax	-0.41 %/°C
Temperature Coefficient of Voc	-0.33 %/°C
Temperature Coefficient of Isc	0.067 %/°C

Mechanical Characteristics

Solar Cell	Polycrystalline silicon 6 inches
No. of Cells	60 (6 x 10)
Dimensions	1650 x 992 x 35mm (64.96 x 39.1 x 1.4 inches)
Weight	18.3 kgs (40.3 lbs.)
Front Glass	3.2 mm (0.13 inches) tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP68 rated (3 bypass diodes)
Output Cables	4.0 mm ² (0.006 inches ²), symmetrical lengths (-) 1000mm (39.4 inches) and (+) 1000 mm (39.4 inches)
Connectors	MC4 compatible

Packing Configuration

Container	20' GP	40' HC
Pieces per pallet	30	30
Pallets per container	6	28
Pieces per container	180	840

Dealer information

