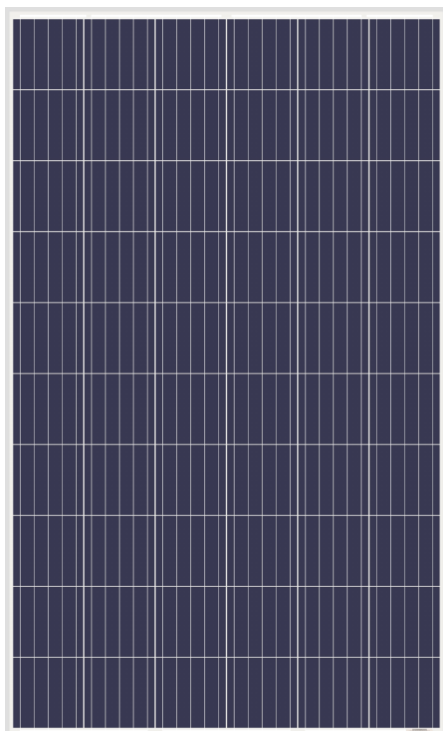




# AS-6P30 SMART

## POLYCRYSTALLINE MODULE



### ADVANCED PERFORMANCE & PROVEN ADVANTAGES

- ☑ High module conversion efficiency up to 17.52% by using high efficient solar cells and advanced manufacturing technology.
- ☑ Harvest of up to 25% more energy from each module by the integrated power optimizer.
- ☑ All types of modules mismatch loss from manufacturing tolerance to partial shading are mitigated greatly.
- ☑ Automatic module DC voltage shut-down for maximum safety of the system.
- ☑ The MPPT per module allows for flexible installation design with multiple orientations, tilts, module types and longer strings and strings of different lengths.
- ☑ Real-time performance monitoring for each module.
- ☑ Positive power tolerance of 0 ~ +3 %.

### CERTIFICATIONS

- ☑ IEC61215, IEC61730, IEC62716, IEC61701, CE, CQC, CGC, ETL(USA), JET(Japan), J-PEC(Japan), Kemco(South Korea), KS(South Korea), MCS(UK), CEC(Australia), FSEC(FL-USA), CSI Eligible(CA-USA), Israel Electric(Israel), InMetro(Brazil), TSE(Turkey)
- ☑ ISO9001:2008: Quality management system
- ☑ ISO14001:2004: Environmental management system
- ☑ OHSAS18001:2007: Occupational health and safety management system

### SPECIAL WARRANTY

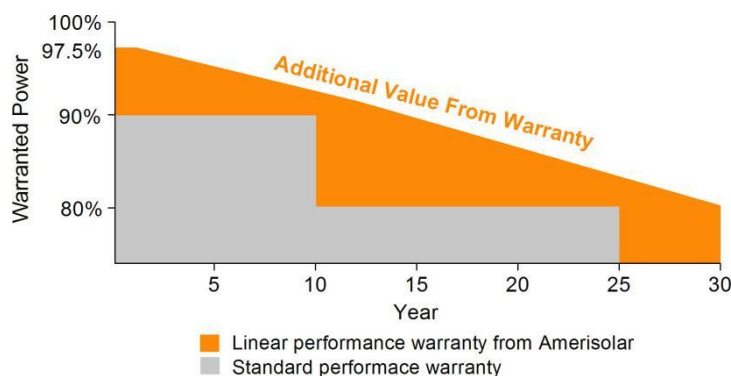
- ☑ 12 years limited product warranty.
- ☑ Limited linear power warranty: 12 years 91.2% of the nominal power output, 30 years 80.6% of the nominal power output.

Passionately

committed to

delivering innovative

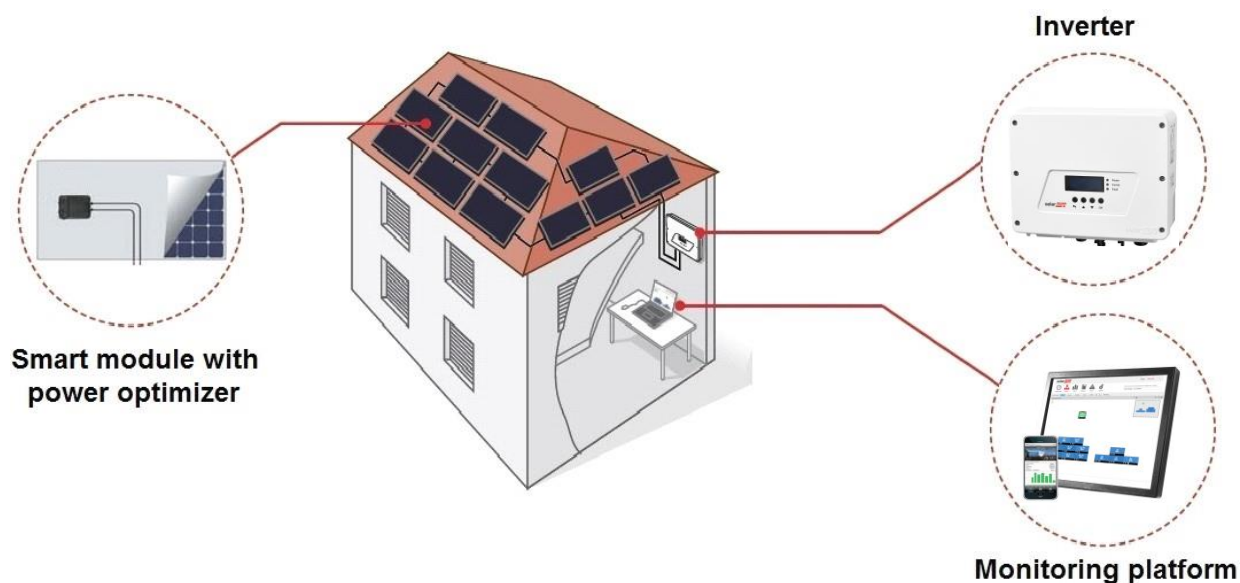
energy solution



## Amerisolar Smart Module

Amerisolar smart modules optimized by SolarEdge come with module-level power electronics that provide optimized power harvesting, safety, and module-level monitoring. The integrated power optimizers increase up to 25% more energy output from PV systems by constantly tracking the maximum power point (MPPT) of each module individually, and monitor the performance of each module and communicate performance data to the SolarEdge monitoring portal for enhanced, cost-effective module-level maintenance.

### PV System with Smart Module



### Datasheet of SolarEdge Power Optimizer (Type: OPJ300-LV)

	Power Optimizer Connected to a SolarEdge Inverter	Power Optimizer Connected to a Non-SolarEdge Inverter
Input		
Rated Input DC Power	330W	
Absolute Maximum Input Voltage (V <sub>OC</sub> )	55Vdc	
MPPT Operating Range	5~55Vdc	
Maximum Short Circuit (I <sub>SC</sub> ) of connected Module	10A	
Maximum DC Input Current	12.5A	
Maximum Efficiency	99.5%	
Weighted Efficiency	98.9%	
Overvoltage Category	II	
Output During Operation		
Maximum Output Current	15A	10A
Maximum Output Voltage	60Vdc	V <sub>OC</sub> of Connected Module
Output During Standby (Power Optimizer Disconnected from Inverter or Inverter Off)		
Safety Output Voltage per Power Optimizer	1Vdc	1Vdc
Standard Compliance		
EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3	
Safety	IEC62109-1 (Class II safety, TUV SUD), UL1741 (TUV Rheinland & CSA)	
PV Junction Box	EN50438 (TUV SUD), UL3730 (TUV Rheinland & CSA)	
Material	UL-94 (5-VA), UV Resistant	
RoHS	Yes	

## ELECTRICAL CHARACTERISTICS AT STC

Nominal Power ( $P_{max}$ )	250W	255W	260W	265W	270W	275W	280W	285W
Open Circuit Voltage ( $V_{OC}$ )	38.0V	38.1V	38.2V	38.3V	38.4V	38.5V	38.6V	38.7V
Short Circuit Current ( $I_{SC}$ )	8.75A	8.83A	8.90A	8.98A	9.09A	9.20A	9.31A	9.42A
Voltage at Nominal Power ( $V_{mp}$ )	30.3V	30.5V	30.7V	30.9V	31.1V	31.3V	31.5V	31.7V
Current at Nominal Power ( $I_{mp}$ )	8.26A	8.37A	8.47A	8.58A	8.69A	8.79A	8.89A	9.00A
Module Efficiency (%)	15.37	15.67	15.98	16.29	16.60	16.90	17.21	17.52
Operating Temperature	-40°C to +85°C							
Maximum System Voltage	1000V DC							
Fire Resistance Rating	Type 1(in accordance with UL1703)/Class C(IEC61730)							
Maximum Series Fuse Rating	15A							

STC: Irradiance 1000W/m<sup>2</sup>, Cell temperature 25°C, AM1.5

## ELECTRICAL CHARACTERISTICS AT NOCT

Nominal Power ( $P_{max}$ )	184W	188W	191W	195W	199W	202W	206W	210W
Open Circuit Voltage ( $V_{OC}$ )	35.0V	35.1V	35.2V	35.3V	35.4V	35.5V	35.6V	35.7V
Short Circuit Current ( $I_{SC}$ )	7.09A	7.15A	7.21A	7.27A	7.36A	7.45A	7.54A	7.63A
Voltage at Nominal Power ( $V_{mp}$ )	27.6V	27.8V	27.9V	28.1V	28.3V	28.5V	28.7V	28.9V
Current at Nominal Power ( $I_{mp}$ )	6.67A	6.77A	6.85A	6.94A	7.04A	7.09A	7.18A	7.27A

NOCT: Irradiance 800W/m<sup>2</sup>, Ambient temperature 20°C, Wind Speed 1 m/s

## MECHANICAL CHARACTERISTICS

Cell type	Polycrystalline 156x156mm (6x6inches)
Number of cells	60 (6x10)
Module dimensions	1640x992x40mm (64.57x39.06x1.57inches)
Weight	19kg (41.9lbs)
Front cover	3.2mm (0.13inches) tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	IP67 (SolarEdge OPJ300-LV)
Cable	6mm <sup>2</sup> (0.009inches <sup>2</sup> ), 1000mm (39.37inches)
Connector	MC4

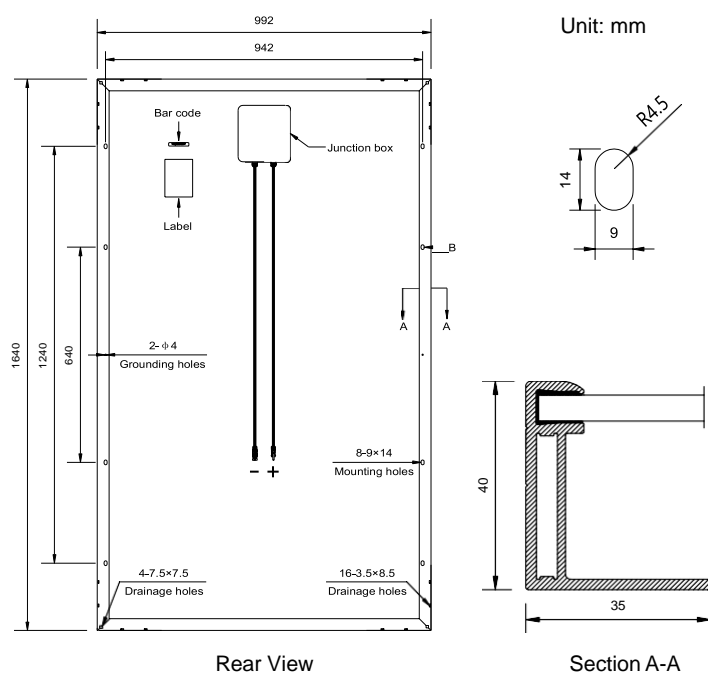
## TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	45°C±2°C
Temperature Coefficients of $P_{max}$	-0.41%/°C
Temperature Coefficients of $V_{OC}$	-0.31%/°C
Temperature Coefficients of $I_{SC}$	0.05%/°C

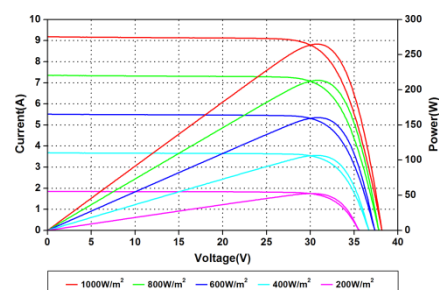
## PACKAGING

Standard packaging	26pcs/pallet
Module quantity per 20' container	312pcs
Module quantity per 40' container	728pcs(GP)/784pcs(HQ)

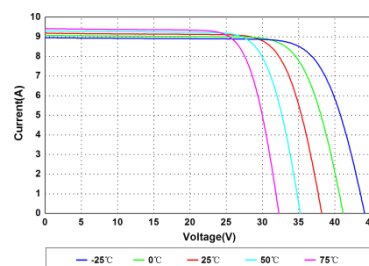
## ENGINEERING DRAWINGS



## IV CURVES



Current-Voltage and Power-Voltage Curves at Different Irradiances



Current-Voltage Curves at Different Temperatures

Specifications in this datasheet are subject to change without prior notice.