

Smart Module

255-320 Watt

POWER OUTPUT RANGE

Positive power tolerance of 0/+3%

JinkoSolar introduces a brand new line of highly intelligent modules for a wide range of applications.
IEC61215, IEC61730 certified product



KEY FEATURES



Safer Installations

Module level disconnects allow instant shutdown while the monitoring function provides real-time data for additional safety precautions



Lower O&M Costs

Monitoring allows operation and maintenance to be done efficiently by focusing on real-time data



Maximize Roof Space

Allows systems to be installed tighter and in systems with uneven string lengths



Boost Power Production

Module level mismatch is eliminated through impedance matching capability



Lower BOS Costs

Tigo Energy® Smart-Curve™ allows systems to be designed more efficiently reducing BOS costs and allowing longer strings

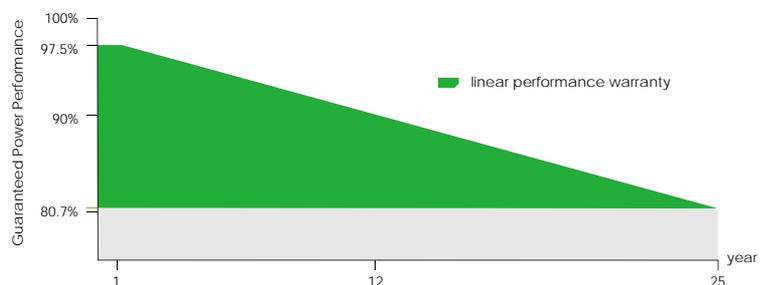


Inverter Compatibility

Fully integrated design allows use of any inverter and does not require extra hardware

LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty • 25 Year Linear Power Warranty



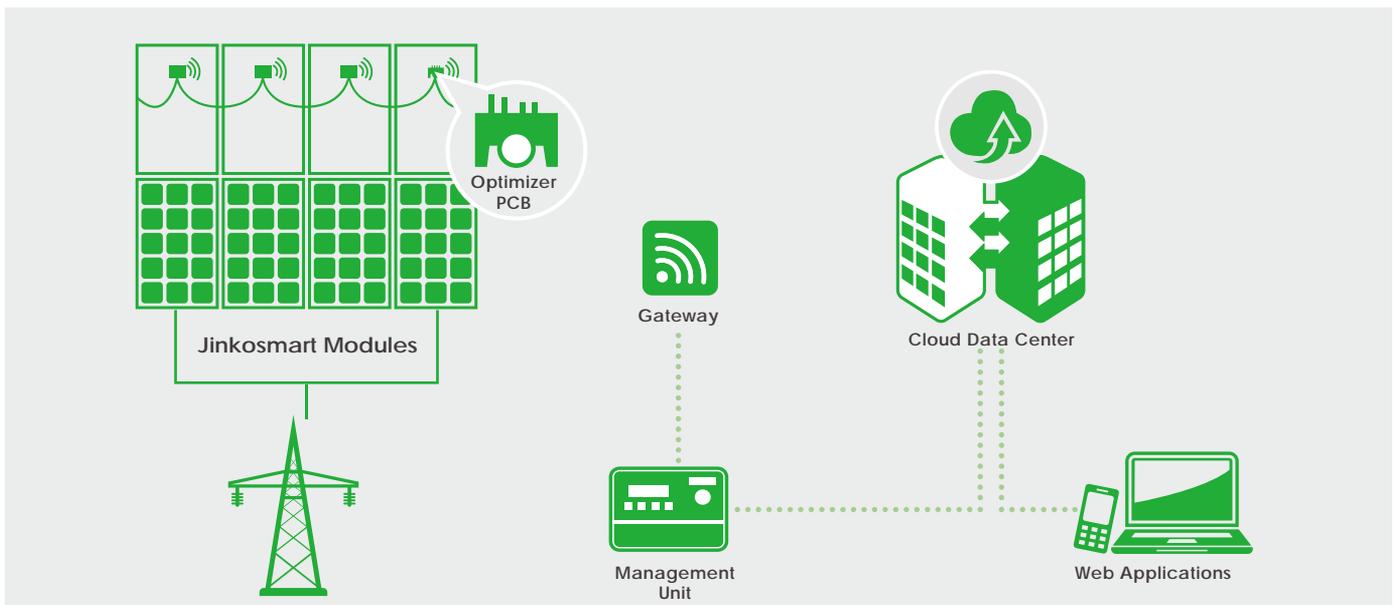
Smart Module

Jinkosmart modules incorporate innovative power electronics from Tigo Energy to achieve module-level diagnostics and maximum energy harvest through DC power optimization in addition to the safety features.

Integration of the module optimizer into the junction-box enables patented Smart Curve technology, which allows up to 30% longer strings and significant balance-of-system(BOS) cost savings.

SYSTEM ARCHITECTURE

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

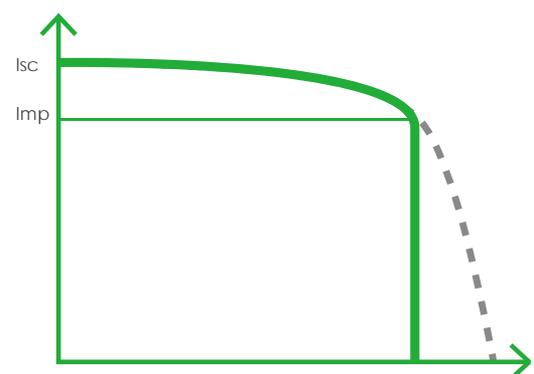


SMART CURVE TECHNOLOGY

Module-integrated Jinkosmart technology reduces the open circuit voltage range for each module and allows longer strings to be designed. The maximum voltage is programmed by Jinko Solar in the factory.

- Hardware voltage clamp prevents over-voltage
- Design up to 30% longer strings
- Fewer combiner boxes, fuses and wiring
- Smaller resistance losses

■ With Smart-Curve ■ Without Smart-Curve



MODULE MANAGEMENT UNIT (MMU)

The management unit controls processes in real time and sends data to a remote server for monitoring.

SPECIFICATIONS ONE UNIT SUPPORTS UP TO 360 JINKOSMART MODULES		
Communication	Data Backhaul	Ethernet (MMU to Data Center)
	On-Screen Prompts	Module (power, voltage, signal), Internet Check, basic troubleshooting
	PV-Safe	Button deactivates the array (at the module-level)
	Accessories	Pull data from most meters that speak Modbus (i.e. AC Meters)
	Inverter Data	Can pull data from most inverters (SMA, Power One, Fronius, Kaco)
Power	Compatibility	110 / 230V compatible converter (comes with international plugs)
	Mechanical Specifications	
Mechanical Specifications	Dimensions (L x W x H)	225.5 x 226 x 125 mm
	Weight	1 kg
	Environmental Rating	NEMA 3R
	Operating Temperature	0° to +70° C



Module Management Unit (MMU)

GATEWAY

The Gateway provides wireless communication with up to 120 Jinkosmart modules and the MMU. Up to seven Gateways can be connected to a single MMU.

GATEWAY SPECIFICATIONS		
MMU Communications	Wireless (802.15)	
	RS-485 cable connection; in series with other Gateways	
Mounting Location	Center of array	
Mounting Method	Mounted to module frame or rack	Clips included for frame mounting
Wireless Range	15m line-of-sight	
	120	
modules per Gateway		
Mechanical Specifications	Dimensions	141.3 x 48.5x 33.3mm (with bracket)
	Weight	0.9kg
	Operating temperature range	-30°C +70°C
	Enclosure environmental rating	IP 65



Gateway

An internet connection and a gateway are required for full system functionality. The wireless communications system is FCC and CE Class 2 certified. Fixing hole comes with a M3.5X6 SST pan head screw.

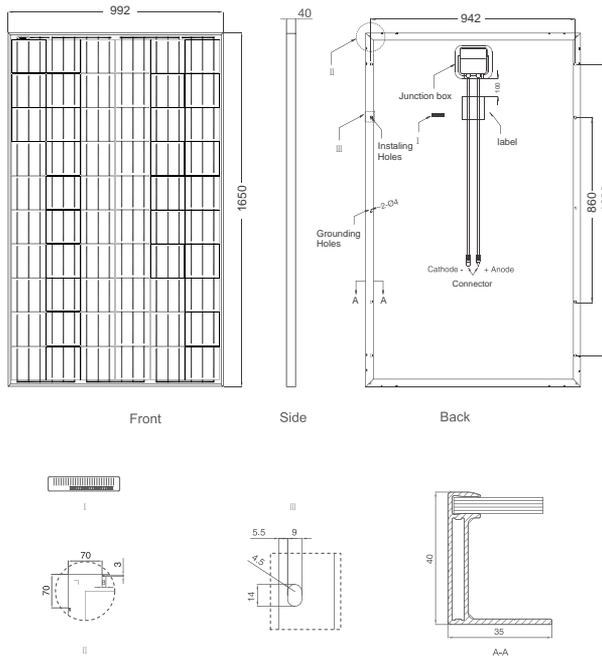
MONITORING SERVICE

Jinkosmart monitoring provides total insight into the performance of any system. You can choose to upgrade online once your system is installed.



	FREE	PREMIUM
Reports	Monthly	Daily
1-min data granularity	30 - days	Full history
Full History	•	•
Safety Alerts	•	•
Dashboard showing environmental impact	•	•
Performance Analytics		•
Trending data charts		•
Ability to download		•
Device Integration		•
Performance alerts		•
API access		•

Engineering Drawings



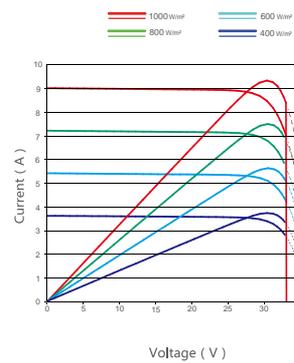
Packaging Configuration

(Two boxes=One pallet)

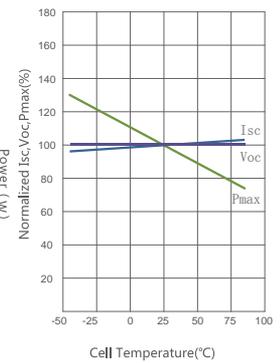
25pcs/ box, 50pcs/pallet, 700 pcs/40'HQ Container

Electrical Performance

Current-Voltage & Power-Voltage Curves (260W)



Temperature Dependence of Isc, Voc, Pmax



Mechanical Characteristics

Cell Type	Poly-crystalline 156x156mm (6 inch)
No. of cells	60 (6x10)
Dimensions	1650x992x40mm (65.00x39.05x1.57 inch)
Weight	19.2 kg (42.3 lbs)
Front Glass	3.2mm, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP67 Rated (MMJ-ES50)
Output Cables	TÜV 1x4.0mm ² , Length:1000mm

SPECIFICATIONS

Module Type	JKMS255P		JKMS260P		JKMS265P		JKMS270P	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	255Wp	190Wp	260Wp	194Wp	265Wp	198Wp	270Wp	202Wp
Maximum Power Voltage (Vmp)	30.8V	28.1V	31.1V	28.3V	31.4V	28.7V	31.7V	29.0V
Maximum Power Current (Imp)	8.28A	6.75A	8.37A	6.84A	8.44A	6.91A	8.52A	6.97A
Open-circuit Voltage (Voc)	33.6V	33.6V	33.6V	33.6V	33.6V	33.6V	33.6V	33.6V
Short-circuit Current (Isc)	8.92A	7.22A	8.98A	7.26A	9.03A	7.31A	9.09A	7.35A
Module Efficiency STC (%)	15.58%		15.89%		16.19%		16.50%	
Operating Temperature(°C)	-40°C~+85°C							
Maximum system voltage	1000VDC (IEC)							
Maximum series fuse rating	15A							
Power tolerance	0~+3%							
Temperature coefficients of Pmax	-0.40%/°C							
Temperature coefficients of Voc	-0.30%/°C							
Temperature coefficients of Isc	0.06%/°C							
Nominal operating cell temperature (NOCT)	45±2°C							

STC: Irradiance 1000W/m²

Cell Temperature 25°C

AM=1.5

NOCT: Irradiance 800W/m²

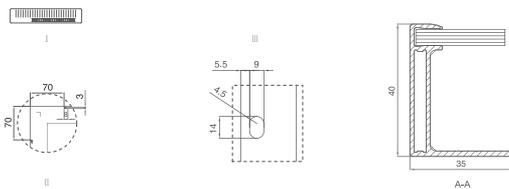
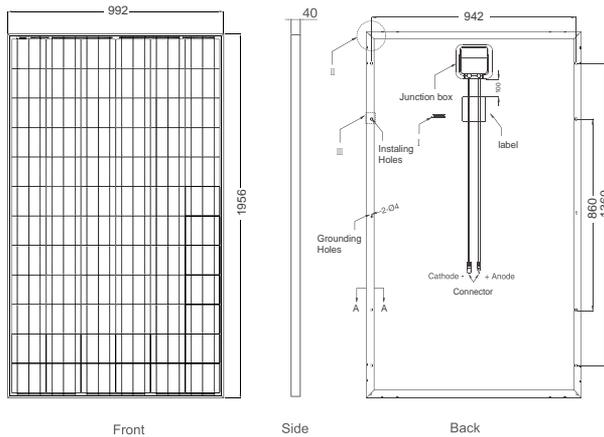
Ambient Temperature 20°C

AM=1.5

Wind Speed 1m/s

* Power measurement tolerance: ± 3%

Engineering Drawings

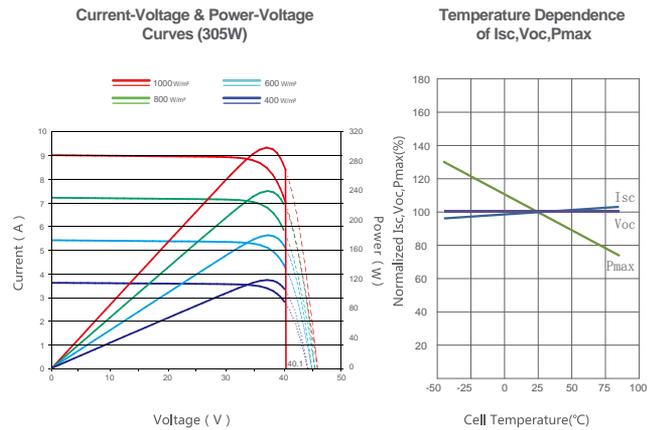


Packaging Configuration

(Two boxes=One pallet)

25pcs/ box, 50pcs/pallet, 550 pcs/40'HQ Container

Electrical Performance



Mechanical Characteristics

Cell Type	Poly-crystalline 156×156mm (6 inch)
No. of cells	72 (6×12)
Dimensions	1956×992×40mm (77.01×39.05×1.57 inch)
Weight	26.5 kg (58.4 lbs.)
Front Glass	4.0mm, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP67 Rated (MMJ-E550)
Output Cables	TÜV 1×4.0mm ² , Length:1000mm

SPECIFICATIONS

Module Type	JKMS305P		JKMS310P		JKMS315P		JKMS320P	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	305Wp	226Wp	310Wp	231Wp	315Wp	235Wp	320Wp	238Wp
Maximum Power Voltage (Vmp)	36.8V	33.6V	37.0V	33.9V	37.2V	34.3V	37.4V	34.7V
Maximum Power Current (Imp)	8.30A	6.72A	8.38A	6.81A	8.48A	6.84A	8.56A	6.86A
Open-circuit Voltage (Voc)	40.1V	40.1V	40.1V	40.1V	40.1V	40.1V	40.1V	40.1V
Short-circuit Current (Isc)	8.91A	7.22A	8.96A	7.26A	9.01A	7.29A	9.05A	7.30A
Module Efficiency STC (%)	15.72%		15.98%		16.23%		16.49%	
Operating Temperature(°C)	-40°C~+85°C							
Maximum system voltage	1000VDC (IEC)							
Maximum series fuse rating	15A							
Power tolerance	0~+3%							
Temperature coefficients of Pmax	-0.40%/°C							
Temperature coefficients of Voc	-0.30%/°C							
Temperature coefficients of Isc	0.06%/°C							
Nominal operating cell temperature (NOCT)	45±2°C							

STC: Irradiance 1000W/m²

Cell Temperature 25°C

AM=1.5

NOCT: Irradiance 800W/m²

Ambient Temperature 20°C

AM=1.5

Wind Speed 1m/s

* Power measurement tolerance: ± 3%

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