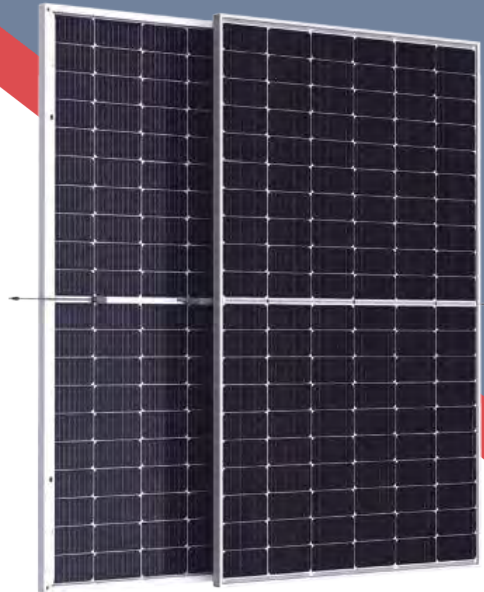




Bifacial Module

470W ~ 490W



TOPCon
Bifacial Module

22.71%
Max Efficiency

12 Years
Product Warranty



Higher power output

The use of high-efficiency multi-gate and cell half-chip design significantly increases the output power of the product.



Excellent temp coefficient

The product's excellent temperature coefficient characteristics result in superior outdoor power generation performance and longer service life.



Reduce hot spots

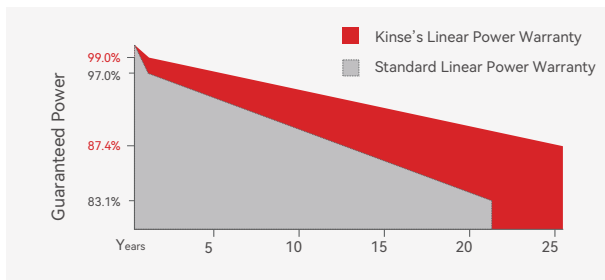
Reduced operating current through better product design, thus reducing the risk of hot spots.



Long-term reliability

Reduce the attenuation caused by PID with production technology optimization and material control.

Linear Performance Warranty



12-Year product warranty



25-Year linear power output warranty

Product and system certifications



IEC61215 (2016), IEC61730 (2016)

ISO9001:2015 Quality Management System

ISO14001:2015 Environmental Management System

ISO45001:2018 Occupational Health and Safety Management System

* Specifications subject to technical changes and tests. Kinse Solar reserves the right of interpretation.

Electrical Characteristics

Module Type	KS470-120-M182		KS475-120-M182		KS480-120-M182		KS485-120-M182		KS490-120-M182	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power(Pmax)[W]	470	360	475	364	480	368	485	372	490	376
Maximum Power Voltage(Vmp)[V]	35.50	32.95	35.70	33.15	35.90	33.35	36.10	33.55	36.30	33.75
Maximum Power Current (Imp)[A]	13.24	10.95	13.31	11.00	13.38	11.05	13.44	11.09	13.51	11.15
Open-circuit Voltage (Voc)[V]	42.40	39.85	42.60	40.05	42.80	40.25	43.00	40.45	43.20	40.65
Short-circuit Current (Isc)[A]	14.06	11.60	14.12	11.66	14.18	11.71	14.24	11.75	14.30	11.81
Module Efficiency STC(%)	21.78%		22.01%		22.24%		22.47%		22.71%	

* STC : Irradiance at 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5

* NMOT: Irradiance at 800W/m². Ambient Temperature 20°C , Wind Speed 1 m/s

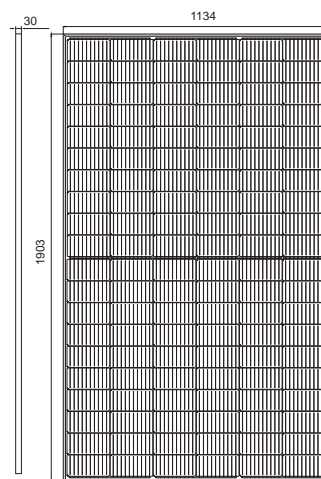
Note: The electrical performance parameters in the catalog are used to compare different components and do not represent specific performance commitments for individual components.

Electrical Characteristics with 10% Solar Irradiation Ratio

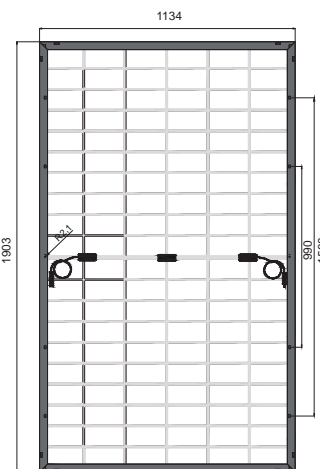
Module Type	KS470-120-M182	KS475-120-M182	KS480-120-M182	KS485-120-M182	KS490-120-M182
Maximum Power (Pmax)	517	523	528	534	540
Maximum Power Voltage (Vmp)	35.50	35.70	35.90	36.10	36.30
Maximum Power Current (Imp)	14.56	14.64	14.72	14.78	14.84
Open-circuit Voltage (Voc)	42.40	42.60	42.80	43.00	43.20
Short-circuit Current (Isc)	15.47	15.53	15.60	15.66	15.72

Dimensions

Unit: mm



Front View



Back View

Mechanical Parameters

Cell Type	Monocrystalline (182mm)	No. of Cells	120 [2 x (10 x 6)]
Dimensions	1903*1134*30mm	Weight	27.0kg
Glass	2mm-2mm	Encapsulant Material	EVA/POE
Frame	Anodized Aluminium Alloy	Fire safety class	Class C
Output Cable	4.0mm ² , 300/300mm	Connector	MC4 Compatible

Temperature Ratings

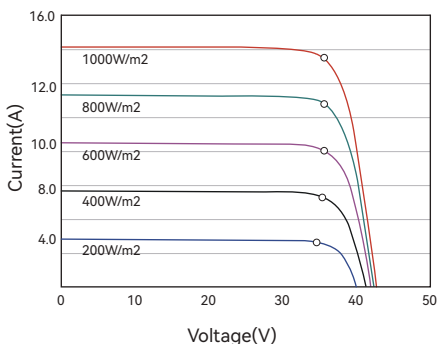
Nominal operating cell temperature (NOCT)	42°C ± 2°C
Temperature Coefficient of Pmax	-0.28%/°C
Temperature Coefficient of Voc	-0.23%/°C
Temperature Coefficient of Isc	+0.045%/°C

Operating Parameters

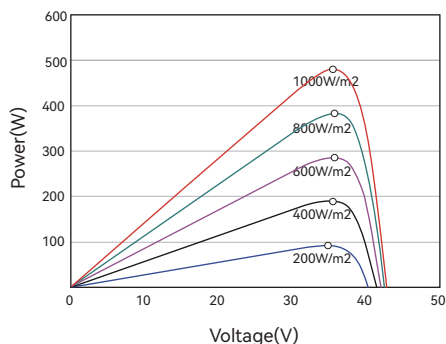
Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500V DC (IEC)
Maximum Series Fuse Rating	30A
Bifaciality	80%-85%

Electrical Performance

I-V Curves of PV Module (480W)



P-V Curves of PV Module (480W)



Packaging

Pcs per Pallet: 37

Pcs per 40' HC: 888

