10 YEARS EXPERIENCE

KAYAM

NEXT GENERATION 5 BUS BAR MODULE



the way to **ENERGY**

Kayam Solar Corporation Pvt Ltd.,

An ISO 9001 : 2015 & ISO 14001 : 2015 Certified Company



Fully Automatic
Solar PV Module
Manufacturing Unit

Corporate Profile

Kayam Solar , a state of the art manufacturing facility specializing in high efficiency PV Module located in Jaipur.

We develop India's best utility scale solar PV Module. We strive to provide one of the best solutions for sustainable solar electric power. Our aim is to provide clean and green electricity at affordable price to one and all .

Kayam Solar has been formed by the combined efforts of senior industrialists Mr. Saleem Khan and Mr. Surendra Prjapati having experience of more than 10 year in various sectors like Steel, Industrial Solutions, Real Estates ,Health & Fitness and Independent Solar Power Producer business etc.

Equipment & Setup

We have installed one of the most advanced fully automatic 60MW SPV Module with manufacturing line from JINCHEN with least manual intervention and continuous automatic process, automatic stringers, Pre & Post inline EL Tester, Automatic Framing Machine for Seamless Framing and AAA Class inline Sun Simulator.

Best quality raw material conforming to latest standards is procured for manufacturing of modules. Testing is done at each stage so that module performs well throughout its life span.

Why Solar Energy

Energy from sun is free and the sun will continue to shine for billions of years to come. Moreover the solar energy is inexhaustible, renewable and its irradiance is environment-friendly. The solar power system does not emit CO_2 which is environmentally damaging. In addition, silicon, the raw material in making solar cells, is the second most abundant element in the earth's crust. Since the solar industry has been developing and the technology is maturing, the PV power systems are getting more efficient for both commercial and residential use. The price of PV systems is also more affordable now due to recent price cuts.

In contrast, fossil fuels, as our main sources of energy are exhaustible and very fast. Our high dependence on fossil fuels is inevitably going to push up their prices continuously until they are used up. Fossil fuels are nonrenewable and environmentally damaging. Recent climate change is in part a consequence from the increased CO_2 concentrations in the atmosphere caused by burning fossil fuels.

Therefore, it is essential for us to seek alternative renewable energy resources for guaranteed energy supply and environmental protection. Solar is the answer.

Sapphire Series 72 Poly Crystalline

TECHNICAL DATA

Electrical Data : All Data r efers to STC (1000W/m ², AM1.5G , 25°C)

Type	300P	305P	310P	315P	320P	325P
Peak Power Pmax (Wp)	300	305	310	315	320	325
Maximum Voltage Vmpp(V)	37.28	37.82	38.11	38.33	37.70	37.80
MaximumCurrent Impp(A)	8.05	8.08	8.14	8.22	8.50	8.60
Open Circuit Voltage Voc (V)	45.10	45.45	45.72	46.04	46.00	46.20
Short Circuit Current Isc (A)	8.74	8.79	8.81	8.85	9.03	9.13
Module Eefciency (%)	15.41	15.67	15.93	16.18	16.44	16.70

STC : 1000W/m² irradiance, 25°C cell temperature, AM1.5G spectrum according to EN 60904-3
Average relative eeciency reduction of < 5% at 200W/m ² according to EN 60904-1

Temperature Coeficients (T c) permissib le operating conditions	
Tc of Open Circuit Voltage (ß)	-0.31%/°c ± 0.02
Tc of Short Circuit Voltage (?)	0.057%/°c ± 0.01
Tc of Power (?)	-0.41%/°c ± 0.02
NOCT	45±2°c
Maximum Series Fuse Ratings	15 A
Temerature Range	-40°c to +85 °c
Maximum System Voltage	1000 V DC
Limiting Reverse Current (Ir)	15.0 A

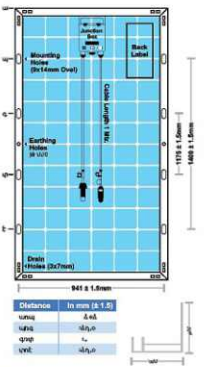
MECHANICAL DATA	
Length x Width x Height(in mm)	1964mm x 991mm x 40mm (± 1.5 mm)
Weight	22.50 Kg
Junction Box	IP 67 rated with 3 Bypass diodes
Cable & Connectors	4 sqm (12AWG) solar cable 1000mmx2 nos black MC4 compatible connectors
Application Class	Class A (Safety class II)
Substrate (Glass)	3.2 mm High transmission low iron tempered glass AR coated
Solar cells & Orientation	72 No's (12x6) polycrystalline solar cells -3BB & 4BB (156.75x156.75mm)
Cells Encapsulant	EVA (Ethylene Vinyl Acetate)- FC/UFC
Back Sheet	Composite film - White : (Black & Transparent optional)
Frame	Silver Anodized aluminum fr ame with twin wall profile (Black Optional)
Mechanical Load Test	Sustain Heavy wind & snow loads (2400 Pa & 5400 Pa or 550 Kg/m² Maximum diameter of 24 mm with Hail impact of 83 Km/h

WARRANTY AND CERTIFICATIONS	
Performance Warranty**	Linear Power Warranty for 25 years, 90% for 10 years and 80% for 25 years
Approvals and certificates	Products : IEC 61215:2005 - Ed 2, IEC 61730- Ed. 1 & Ed.2 IEC 61701, IEC 62804, MNRE, UL, CE

⚠ CAUTION: READ SAFETY AND INSTALLATION MANUAL BEFORE USING THE PRODUCT.

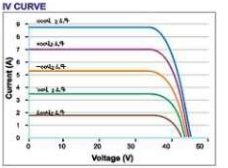
PACKAGING INFORMATION			
Container	20'GP	40'GP	40"HC
Pallets / Container	10	22	22
Pieces / Container	260	572	572



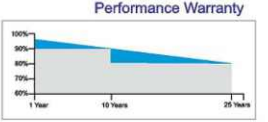


Distance	In mm (± 1.5)
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IV CURVE



Performance Warranty



** Refer to Kayam Solar warranty documents for terms and conditions.
**Specifications included in this datasheet ar e subject to change without notice, Electrical data without guarantee. Please confirm your requirement with the compan y representative while placing your order.

Sapphire Series 60 Poly Crystalline

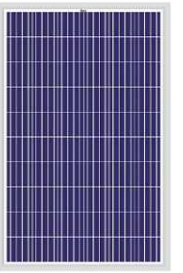
TECHNICAL DATA

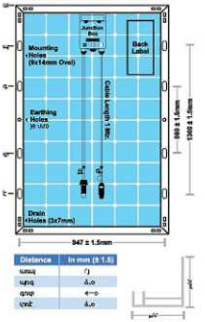
Electrical Data : All Data r efers to STC (1000W/m ², AM1.5G , 25°C)

Type	245P	250P	255P	260P	285P	270P
Peak Power Pmax (Wp)	245	250	255	260	265	270
Maximum Voltage Vmpp(V)	30.38	30.58	30.78	30.98	31.18	31.40
MaximumCurrent Impp(A)	8.08	8.18	8.29	8.40	8.50	8.61
Open Circuit Voltage Voc (V)	37.30	37.45	37.60	37.75	37.99	38.20
Short Circuit Current Isc (A)	8.60	8.70	8.82	8.95	9.00	9.08
Module Effciency (%)	15.01	15.32	15.62	15.93	16.24	16.54

STC : 1000W/m² irradiance, 25°C cell temperature, AM1.5G spectrum according to EN 60904-3
Average relative eficiency reduction of < 5% at 200W/m ² according to EN 60904-1

Temperature Coefficients (T c) permissib le operating conditions	
Tc of Open Circuit Voltage (ß)	-0.31%/°c ± 0.02
Tc of Short Circuit Voltage (?)	0.057%/°c ± 0.01
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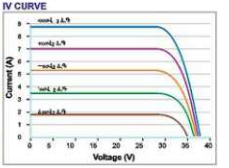


Distance	In mm (± 1.5)
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MECHANICAL DATA

Length x Width x Height(in mm)	1646mm x 991mm x 35mm (± 1.5 mm)
Weight	19.00 Kg
Junction Box	IP 67 rated with 3 Bypass diodes
Cable & Connectors	4 sqm (12AWG) solar cable 1000mmx2 nos black MC4 compatible connectors
Application Class	Class A (Safety class II)
Substrate (Glass)	3.2 mm High transmission low iron tempered glass AR coated
Solar cells & Orientation	60 No's (10x6) polycrystalline solar cells - 3BB & 4BB (156.75 x 156.75mm)
Cells Encapsulant	EVA (Ethylene Vinyl Acetate)- FC/UFC
Back Sheet	Composite film - White : (Black & Transparent optional)
Frame	Silver Anodized aluminum fr ame with twin wall profile (Black Optional)
Mechanical Load Test	Sustain Heavy wind & snow loads (2400 Pa & 5400 Pa or 550 Kg/m² Maximum diameter of 24 mm with Hail impact of 83 Km/h

IV CURVE



WARRANTY AND CERTIFICATIONS

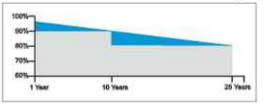
Performance Warranty**	Linear Power Warranty for 25 years, 90% for 10 years and 80% for 25 years
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PACKAGING INFORMATION

Container	40"HC
Pallets / Container	28
Pieces / Container	728

Performance Warranty



** Refer to Kayam Solar warranty documents for terms and conditions.
**Specifications included in this datasheet ar e subject to change without notice, Electrical data without guarantee .Please confirm your requirement with the compan y representative while placing your order.

Product Technical Data Sheet

SPV MODEL	18 P-5	36P-10	36P-20		36P-40		36P-50	36P-60
TYPE	P-5	P10	P18	P20	P 37	P-40	P-50	P 60
Power max in watts (Nominal)	5	10	18	20	37	40	50	60
open circuit voltage (Voc) V	10	21	21	21	21	21	22	22
Short circuit current (Isc) A	0.61	0.6	1.07	1.2	2.3	2.54	3.28	3.83
Voltage at maximum po wer (Vmp) V	8.83	17	17	17	17	17	18	18
Current at maximum po wer (Imp) A	0.57	0.59	1.06	1.18	2.18	2.36	2.78	3.33
Maximum system voltage	600V	600V	600V	600V	1000V	1000V	1000V	1000 V
Max.Rated Current Series (Fuse Rating)	N/A	N/A	N/A	N/A	6A		6A	6A
Solar cell size in mm	35*52	39*52	22*156.75		39*156.75	42*156.75	52*156.75	64*156.75
No's of Solar cell per module	18	36	36		36		36	36
Length x Width x Height (In mm)	382x147x22	260x358x22	485x347x22		466x666x35		541x666x35	641x666x35
Junction box t ype with cable and connectors	2 T w/o diode	2 T w/o diode	2 T w/o diode		3 T 2 diode		3 T 2 diode	3 T 2 diode
Junction box pr otection rating	IP-65	IP-65	IP-65		IP-65		IP-65	IP-65

WARRANTY AND CERTIFICATION	
Performance Warranty**	Linear Power Warranty for 25 years, 90% for 10 years and 80% for 25 years
Approvals and certificates	Products : IEC 61215 Ed 2 , IEC 61730 Ed. 1 & 2, IEC 61701, IEC 62804, MNRE, CE, ULISO 9001:2015

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Applications

- On-grid large scale utility systems
- On-grid rooftop residential and commercial systems
- Net metering solutions
- Off-grid residential systems
- Solar pumping applications
- Rural electrification
- Green telecom tower
- Solar street light
- Solar home lighting syst em (HLS)
- Solar Lantern
- Solar traffic signal
- Solar electric vehicle charging station etc....

Key Features

- Positive Power Tolerance up to 5Wp to reduce current mismatch loss in single string for ensuring better ROI.
- PID Resistant (85°C, 85% Relative Humidity, 168 Hours@-1000V).
- Salt Mist, Ammonia & Hail Resistance.
- Excellent low light & long wa velength response (> 1100 nm).
- UV Anti-glare Resistance and all weather load resistance glass.
- Best quality raw material.
- Highest area efficiency in it's class.
- Unique frame design with high mechanical str ength.
- 100% EL tested Pre & Post lamination, Higher reliability.
- 4 BB Multi PERC technology high efficiency cell impr oved module efficiency.
- More than 30 In-House testing for better quality product.
- Manufactured on Fully Automatic Production Line.
- Compact Design, Efficient Shipping, Easy Handling.
- Manufacturing facility from 5Wp & above.



*Specification are subject to change without an y prior notice.

36P-80		36P-100		36P-130			36P-160		48P-200	54P-235	
P-74	P-75	P-80	P-100	P-120	P-125	P-130	P-150	P-160	P-200	P-230	P-235
74	75	80	100	120	125	130	150	160	200	230	235
22	22	22	22	22	22	22.03	22.2	22.2	29.99	33.81	35.1
4.61	4.67	4.94	6.06	7.17	7.44	7.84	8.50	9.34	8.49	8.86	8.95
18	18	18	18	18	18	18	18.1	18.2	25.54	27.69	27.98
4.11	4.17	4.44	5.56	6.87	6.94	7.39	8.30	8.79	8.15	8.31	8.40
1000 V	1000 V	1000 V	1000 V	1000 V			1000 V		1000 V	1000 V	
6A	6A	6A	12 A	12 A			12 A		20 A	20 A	
78*156.75	78*156.75	82*156.75	104*156.75	122*156.75	130*156.75	134*156.75	156.75*156.75		156.75*156.75	156.75*156.75	
36	36	36	36	36			36		48	54	
775x666x35		1006x666x35		1278 x 666 x 35			1486x666x35		1324*991x35	1486x991x35	
3 T 2 diode		3 T 2 diode		3 T 2 diode			3 T 2 diode		4 T 3 D with 4sqm (12AWG) Solar Connectors		
IP-65		IP-65		IP-65			IP 65		IP 67	IP 67	

Certificates & Achievements

ISO NSIC MNRE Imp & Exp. DGS&D MNRE MSME IEC Green Energy

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