



Ever Green Power SOLUTIONS



"Light up
Your life "





"Light up
Your life "





EVER GREEN POWER

“Light up
Your life”

Ever

power. Armed with the necessary technology and extensive experience in the construction and operation of photovoltaic power plants, Ever Green Power offers its customers turnkey working systems. From viability studies and project development to engineering, construction, monitoring, commissioning and obtaining the necessary administrative permits, Ever Green Power does it all.

Ever Green Power offer innovative solar energy products that are easy on the wallet and the environment. Ever Green Power specializes in Off-Grid solar electric power system design and installation, offering the latest technology and state of the art equipment, from renowned manufacturers around the globe.

Ever Green Power have in the past and in the upcoming future is committed to support all Solar energy projects sponsored by the state and central governments by lending its expertise in system integration and marketing for the participants in such programs.

Company Description

Products and services

Our Photovoltaic Business Unit offers a range of inverters and turnkey solutions that are specifically designed for photovoltaic applications and ensure optimum productivity, adaptability and resistance even in challenging environmental conditions.

Turnkey solar solutions from Ever Green Power for the management of complete photovoltaic rooftop projects, designed, delivered cabled, installed and commissioned available in various versions to suit different regional and national standards and legislation.

Complete and innovative electronic solutions for the photovoltaic sector: everything from inverters for medium-large rooftop to parallel string connection boxes and plant monitoring systems for both Off grid and grid tied systems.

Products:

Ever Green Power does not manufacture solar cells and modules. Our core competency is downstream plant engineering, construction and operations. We are ideally positioned through mature supply agreements with industry-leading manufacturers and equipment suppliers.

Ever Green Power's technology-neutral approach drives the purchase of PV modules and components with the best price-to-performance ratio independent of the manufacturers. This independence allows our team to provide a customized and optimized solution for each and every Ever Green Power customer. Our approach also offers additional flexibility enabling rapid response to changing market trends

Safety

To ensure that products are completely safe, we don't rely just on manufacturers' quality assurances. A Ever Green Power team of engineers and technicians performs stress tests on all products. Random samples of products by all manufacturers are tested for reliability and performance.

Carefully selected services from a single source

Our team's knowledge and experience enables Ever Green Power to offer a diverse range of services to meet your needs. As an independent photovoltaic system integrator, we have the capability to react with proven technology solutions. Whatever the situation or project phase requires, we have the experience to maximize your investment.

300-295-290 Watt

PERC - MONOCRYSTALLINE SOLAR MODULE

AE6H300WB5B • AE6H295WB5B • AE6H290WB5B



Features



High module conversion efficiency

Module efficiency up to 18.3% achieved through advanced cell technology and manufacturing capabilities



High PID resistant

Advanced cell technology and qualified materials lead to high resistance to PID



Positive tolerance

Positive tolerance of up to 5W delivers higher output reliability



Anchor current sorting process

System output maximized by reducing mismatch losses up to 2% with modules sorted & packaged by amperage



Extended wind and snow load tests

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



Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline



DIN EN 61215 (VDE 0126 - 31)
DIN EN 61730 - 1 (VDE 0126 Teil)
DIN EN 61730 - 2 (VDE 0126 30 - 1 - 30 - 2)

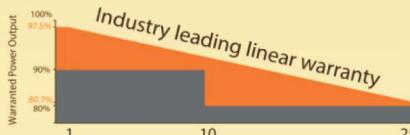
Certifications and standards:
IEC 61215, IEC 61730
IEC 62804 | IEC 62716 | IEC 61701



Trust Anchor to Deliver Reliable Performance Over Time

- World-class manufacturer of crystalline silicon photovoltaic modules
- Unrivaled manufacturing capacity and world-class technology
- Rigorous quality control meeting the highest international standards: ISO 9001: 2008, ISO 14001: 2004 and ISO17025: 2005
- Regular independently checked production process from international accredited institute/company
- Tested for harsh environments (salt mist, ammonia corrosion and sand blowing testing: IEC 61701, IEC 62716, DIN EN 60068-2-68)***
- Long-term reliability tests
- 2 x 100% EL inspection ensuring defect-free modules

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



Advanced PERC Technology

The cell uses back surface passivation and local BSF technology, which can improve cell efficiency by a large margin.

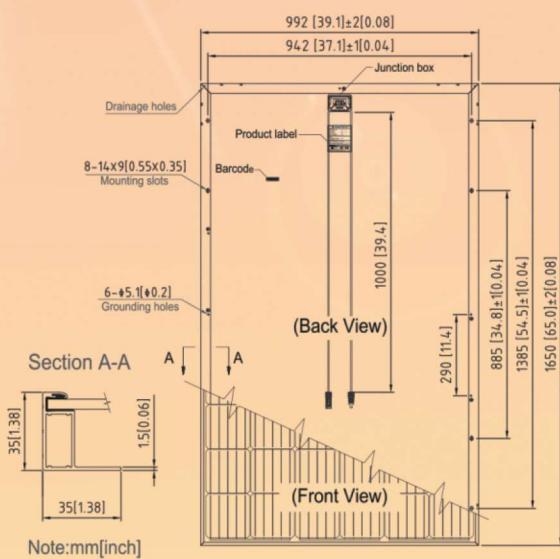
IP68

IP68 Rated Junction Box

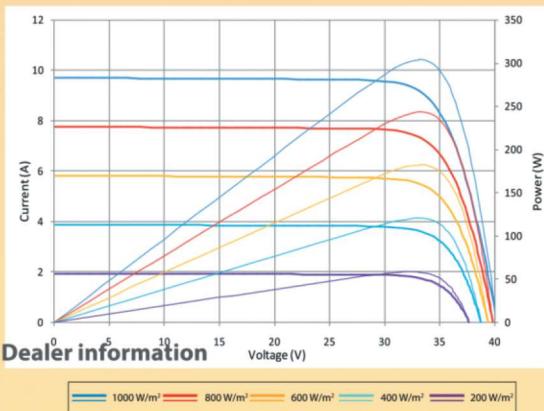
The Anchor IP68 rated junction box ensures an outstanding waterproof level, supports installations in all orientations and reduces stress on the cables. High reliable performance, low resistance connectors ensure maximum output for the highest energy production.

* Please refer to Anchor Standard Module Installation Manual for details. **WEEE only for EU market.

*** Please refer to Anchor Product Near-coast Installation Manual for details. **** Please refer to Anchor Product Warranty for details.



Current-Voltage & Power-Voltage Curve (300)



Electrical Characteristics

STC	AE6H300 WB5B	AE6H295 WB5B	AE6H290 WB5B
Maximum Power at STC (Pmax)	300 W	295 W	290 W
Optimum Operating Voltage (Vmp)	32.6 V	32.2 V	31.7 V
Optimum Operating Current (Imp)	9.21 A	9.17 A	9.15 A
Open Circuit Voltage (Voc)	39.9 V	39.8 V	39.8 V
Short Circuit Current (Isc)	9.65 A	9.59 A	9.55 A
Module Efficiency	18.3%	18.0%	17.7%
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%

NOCT	AE6H300 WB5B	AE6H295 WB5B	AE6H290 WB5B
Maximum Power at NOCT (Pmax)	223.9 W	219.3 W	214.7 W
Optimum Operating Voltage (Vmp)	30.4 V	30.1 V	29.6 V
Optimum Operating Current (Imp)	7.38 A	7.29 A	7.25 A
Open Circuit Voltage (Voc)	37.0 V	36.9 V	36.7 V
Short Circuit Current (Isc)	7.85 A	7.79 A	7.73 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%

Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	45±2°C
Temperature Coefficient of Pmax	-0.40 %/°C
Temperature Coefficient of Voc	-0.34 %/°C
Temperature Coefficient of Isc	0.060 %/°C

Mechanical Characteristics

Solar Cell	Monocrystalline silicon 6 inches
No. of Cells	60 (6 × 10)
Dimensions	1650 × 992 × 35mm (64.96 × 39.1 × 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	TUV (2Pfg1169:2007) 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

Anchor Electricals Pvt. Ltd.

3rd Floor, B wing, I-Think Techno Campus, Pokhran Road No 2,
Thane (west), Thane - 400607 Maharashtra
T: (9122) 30418888 | F: (9122) 30418884/5/6/7
Customer Care Cell: 1800-103-8606 / Email: solar@anchor-world.com
www.anchor-world.com

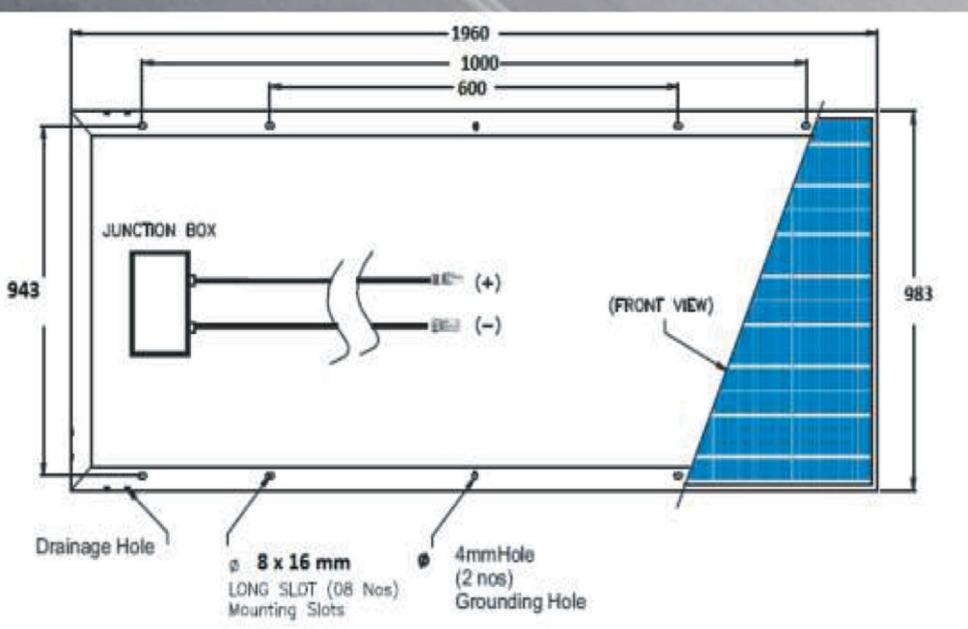
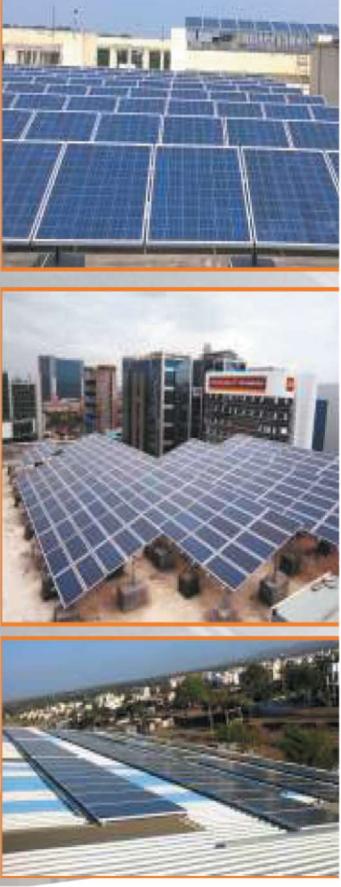
Information on how to install and operate this product is available in the installation instruction. All values indicated in this data sheet are subject to change without prior announcement. The specifications may vary slightly. All specifications are in accordance with standard EN 50380. Color differences 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.



Product Datasheet: 260-320 Wp Series

- High power module using Polycrystalline silicon solar cells with high conversion efficiency
- Better Cell to Module conversion efficiency
- Designed for optimum use in residential, commercial and utility scale installations
- High-transmissivity, tempered glass for enhanced stiffness and impact resistance
- Robust, anodized aluminium frame for extended outdoor use
- Nominal 24V DC output, for grid-connected systems

Technical Data		KS24Px Series							
Model Name	KS24P260	KS24P265	KS24P270	KS24P275	KS24P280	KS24P285	KS24P290	KS24P295	KS24P300
Power Rating (P_{max})	260	265	270	275	280	285	290	295	300
Open Circuit Voltage (V_{oc})	44	44	44	44	44	44	44	44	44
Short Circuit Current (I_{sc})	8.18	8.26	8.30	8.38	8.42	8.50	8.54	8.58	8.66
Maximum Power Voltage (V_{mp})	36	36	36	36	36	36	36	36	36
Maximum Power Current (I_{mp})	7.23	7.38	7.50	7.64	7.78	7.92	8.06	8.20	8.34
Module Efficiency (%)	13.45	13.71	13.97	14.22	14.50	14.75	15.00	15.26	15.52
Size of the Modules (mm)	1961 x 983 x 50								
Weight of the modules (kgs)	28.0								
Tolerance at P_{max} (%)	$\pm 3\%$								
Maximum System Voltage (V_{DC})	1000 Volts for IEC and 600 Volts for UL								
Output Cable & Connectors	1000 mm (+) / 1000 mm (-), MC-4 Compatible Connectors								
Temperature Coefficient of I_{sc} (%/ $^{\circ}C$)	0.05								
Temperature Coefficient of V_{oc} (%/ $^{\circ}C$)	-0.36								
Temperature Coefficient of P_{max} (%/ $^{\circ}C$)	-0.43								
Certifications	IEC 61215, IEC 61730-1 & 2								
Package Contents	20 in 1 Pallet (400 in One 40 ft. Container)								

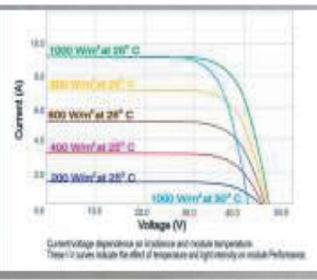



The Kirloskar Solar Warranty*

10 Years	90% Performance
25 Years	80% Performance
5 Years	Workmanship

* as per standard conditions mentioned in warranty document

Current-Voltage (I-V) Characteristic Curves:



Current-voltage dependence on Irradiance and Module Temperature
These curves indicate the effect of temperature and light intensity on module performance.

325 Wp SPV MODULE

Electrical Characteristics*

Nominal Maximum Power (P_m) in Watts	325
Power tolerance	0 / + 5 W
Open Circuit Voltage (V_{oc}) in Volts	45.35
Short Circuit Current (I_{sc}) in Amps	9.55
Voltage at Maximum Power (V_{mp}) in Volts	36.85
Current at Maximum Power (I_{mp}) in Amps	8.82
Maximum System Voltage in Volts	1000
Module Efficiency (%)	16.75
Maximum Series Fuse Rating (A)	15

*Under Standard Test Conditions (STC) of 1000 W/m² irradiance,
AM 1.5 spectrum and 25°C cell temperature.

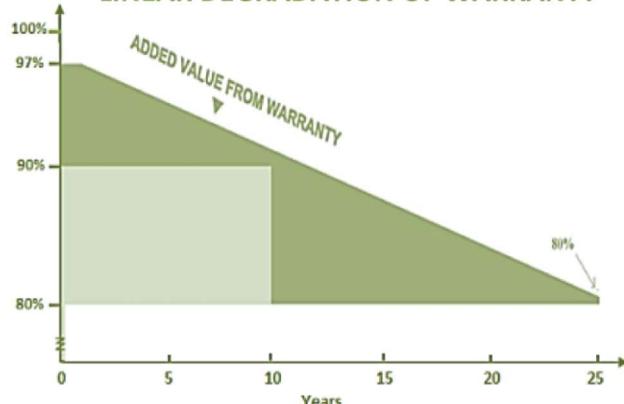
Mechanical Characteristics

Length x Width x Thickness (L x W x T) - mm	1960 x 990 x 40
Mounting Holes Pitch (Y) - mm	1060
Mounting Holes Pitch (X) - mm	942
Weight (kg)	22.50
Solar Cells per Module (Units) / Arrangement	72 / (12*6)
Solar Cell Type	Multi crystalline Silicon
Front Cover (Material / Thickness)	Tempered & Low Iron Glass / 3.2mm / 4mm
Encapsulate	Ethylene Vinyl Acetate
Frame Material	Anodized Aluminum Alloy
Junction Box (Material / Type)	Weatherproof PPO / IP65 /IP67 enclosure with bypass diodes
Connector (Protection degree / Type)	IP67 rated / MC4 compatible
Cable cross-section	4 mm ²

Warranty

- Positive tolerance Modules
- Excellent generation performance with reasonable cost
- Undergoes rigorous quality control and in-house testing
- 100% Electroluminescence test to ensure error free Modules
- Heavy duty anodized Aluminum frames with pre-drilled holes for quick installation
- Salt mist corrosion resistance and Ammonia corrosion resistance
- Long lasting and high efficiency modules
- Withstands hail, snow and ice storms

LINEAR DEGRADATION OF WARRANTY

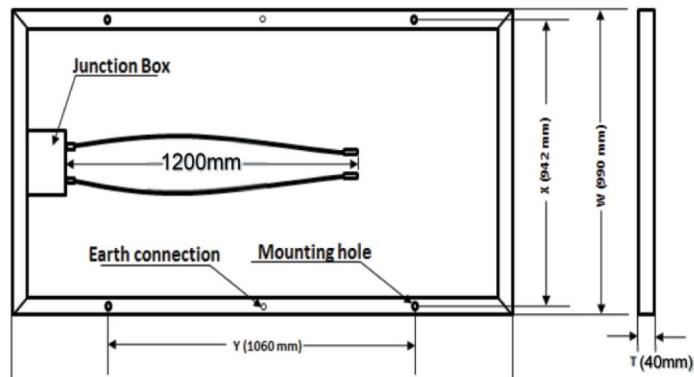


Certifications

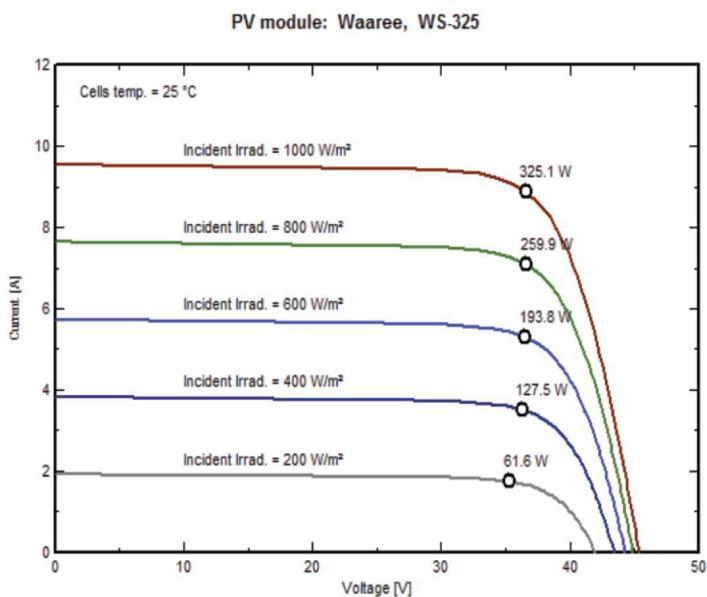


Design specifications

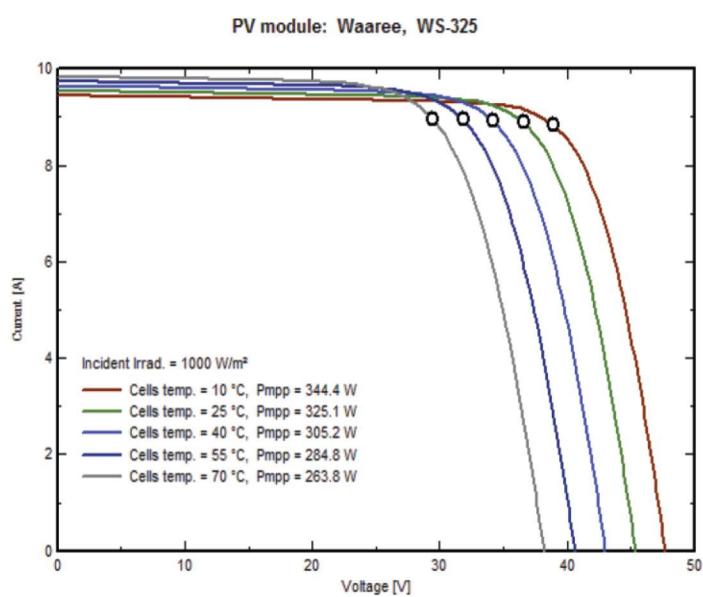
Thermal Characteristics	
Temperature coefficient of Current (I_{sc}), α (%/ $^{\circ}\text{C}$)	0.0718
Temperature coefficient of Voltage (V_{oc}), β (%/ $^{\circ}\text{C}$)	-0.3253
Temperature coefficient of Power (P_m), γ (%/ $^{\circ}\text{C}$)	-0.4106
NOCT ($^{\circ}\text{C}$)	46 ± 2
Operating temperature range ($^{\circ}\text{C}$)	-40 to 85



I-V Curve Variation with Irradiance



I-V Curve Variation with Temperature



- The specifications in this datasheet are subject to change without prior notice.



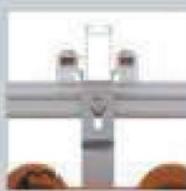
mounting systems for photovoltaics



Made in Germany

Aluminium structures

- ◆ Industrial roof system
- ◆ Multi-purpose mounting systems
- ◆ Pitched roof system
- ◆ Flat roof system
- ◆ Ground mounted system



We grow with our challenges.

Our professional experience and engineering expertise allow us to tackle even the most unusual projects and challenges.

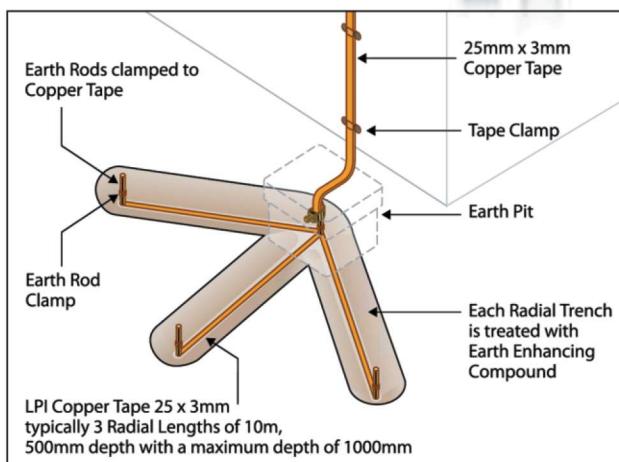
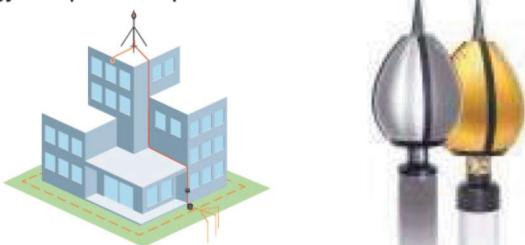
Please do not hesitate to contact us. We will be pleased to help you with any of your questions.

LIGHTNING PROTECTION
INTERNATIONAL PTY LTD



LPI's Stormaster ESE

The LPI Stormaster (Early Streamer Emission) range of terminals provides a safe and efficient system for the protection of your facility from direct lightning strikes. The LPI Stormaster ESE terminal captures the lightning energy at a preferred point.



h = height of Stormaster ESE terminal above the area to be protected (m)	PROTECTION RADIUS, Rp (m)										
	2	4	5	6	10	15	20	45	60	80	100
Protection Level I (Very High)											
Stormaster ESE 15	13	25	32	32	34	35	35	35	35	35	35
Stormaster ESE 30	19	38	48	48	49	50	50	50	50	50	50
Stormaster ESE 50	27	55	68	69	69	70	70	70	70	70	70
Stormaster ESE 60	31	63	79	79	79	80	80	80	80	80	80
Protection Level II (High)											
Stormaster ESE 15	15	30	37	38	40	42	44	44	44	44	44
Stormaster ESE 30	22	44	55	55	57	58	59	59	59	59	59
Stormaster ESE 50	30	61	76	76	77	79	79	79	79	79	79
Stormaster ESE 60	35	69	86	87	88	89	89	89	89	89	89
Protection Level III (Medium)											
Stormaster ESE 15	18	36	45	46	49	52	55	60	60	60	60
Stormaster ESE 30	25	51	63	64	66	69	71	75	75	75	75
Stormaster ESE 50	35	69	86	87	88	90	92	95	95	95	95
Stormaster ESE 60	39	78	97	97	99	101	102	105	105	105	105
Protection Level IV (Standard)											
Stormaster ESE 15	20	41	51	52	56	60	63	73	75	75	75
Stormaster ESE 30	29	57	71	72	75	78	81	89	90	90	90
Stormaster ESE 50	38	76	95	96	98	100	102	109	110	110	110
Stormaster ESE 60	43	85	107	107	109	111	113	119	120	120	120

Contact LPI for Protection Radius for Level I+ and Level I++



Ultimate direct strike lightning protection as installed across 65 countries around the world.

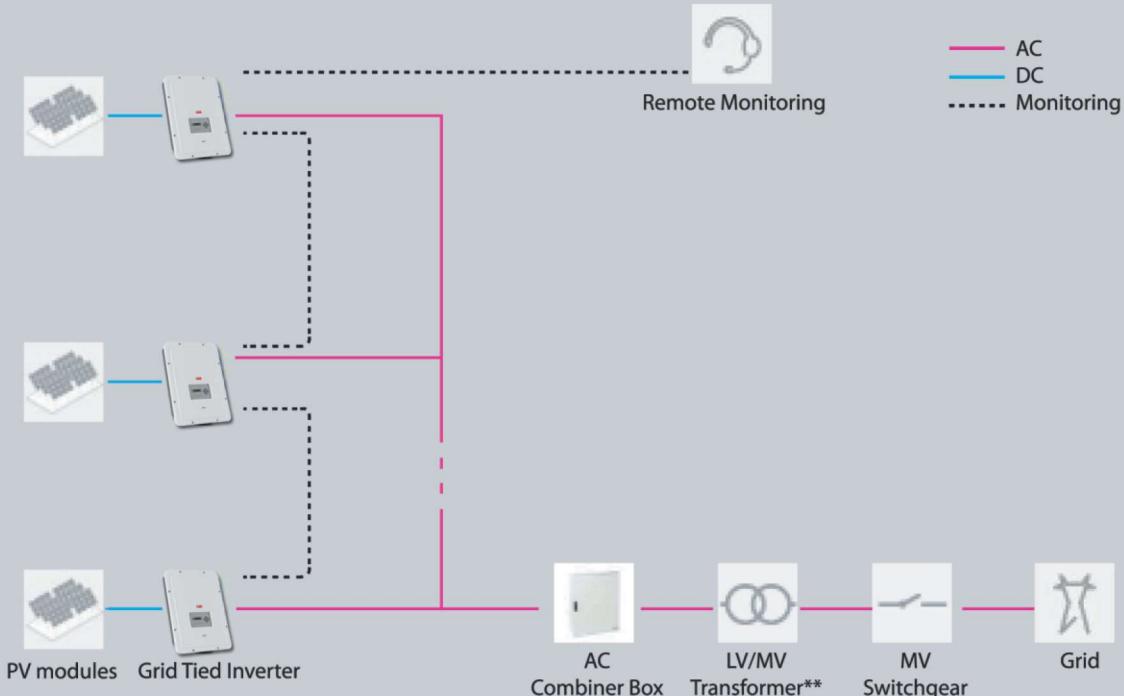
ABB string inverters



Highlights

- Wireless access to the embedded Web User Interface
- Easy commissioning capability
- Future-proof with embedded connectivity for smart building and smart grid integration
- Dynamic feed-in control (for instance “zero injection”)
- Remote Over The Air (OTA) firmware upgrade for inverter and components
- Modbus TCP/RTU Sunspec compliant
- Remote monitoring via Aurora Vision® cloud
- Dual input section with independent MPPT

Grid-tie solar inverters are suited for outdoor use and are the ideal solution for commercial buildings, carports and decentralised PV plants up to the MW range. The inverters provide dual MPP (Maximum Power Point) trackers with a wide voltage range, peak efficiency of greater than 98% for fast ROI.



Accessories



PV Emergency Box



PV Array Jn Box



AC Box



AC Distribution Box



Circuit protectors and switches

Ever Green Off Grid Home Power System



CUT POWER CUTS



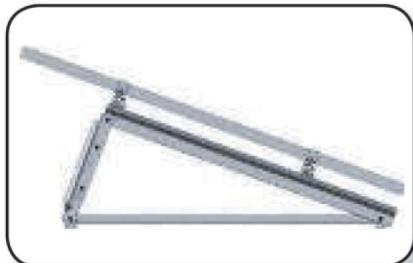
Applications

- Power back up for your home & small offices
- Domestic computer and its peripherals
- Emergency power systems
- TV, Fans & Tube Lights
- Refrigerator & Air conditioners
- Water pumps
- Petrol Pumps
- ATM's



EXPERT OPINION

PANEL MOUNTING TILT FOR EFFICIENCY CHARGING



Tilt angle-12-15 degree



South facing



Light intensity

DC CABLES

An important factor in performance of Solar PV Installations.

Energy delivered from a Solar PV system is not only dependent on the efficiency of the module but also on other system components like DC Cables, Connectors and Junction Boxes. While designing the solar farm, engineers have to factor the losses from modules to the inverters to calculate the over-all performance ratio of the farm. Low quality solar cables and connectors will lead to small increases in resistance and result in higher losses of energy (I^2Rt). The loss of energy already harvested, when calculated over a twenty five year life represents a substantial loss and would affect the profitability of the project.

A high quality Solar DC Cable is expected to perform for the complete lifetime of the installation which is about twenty five years. The cost of replacing a defective installed cable is very high. The replacement costs increase when factoring in manpower used for removal, reinstallation and testing of the system. In addition, there



are losses in power output and revenue generation. The cost of these cables and connectors is very small in the total cost. Since the differential cost of the high quality cables is insignificant, it makes sense to invest with higher initial cost and reduce the "total cost of ownership" of a PV plant.

Solar cables have to withstand a wide range of environmental conditions – and continue to do so over a long period. High temperatures, UV radiation, rain, humidity, dirt and attack by moss and microbes are all a serious challenge to solar cables. Cables tested in accordance with EN, TUV and UL requirements. They should therefore achieve the target service life of 25 years. Apart from temperature, UV radiation is the other significant factor. Optimum UV resistance can therefore only be achieved by using black solar cables with enough black carbon content.

MC4 CONNECTORS



MC4 connectors are single-contact electrical connectors commonly used for connecting solar panels. MC4 stands for the manufacturer Multi-Contact and a 4 mm² contact assembly pin. MC4s allow strings of panels to be easily constructed.



STRING COMBINER BOX (ARRAY JUNCTION BOX)

Ever Green offers array junction (DC combiner) boxes that provide interconnection between the input leads from the solar PV modules, and the output lead to the re-combiner box or inverter. The combiner box is customized for different configurations, based on the number of strings of solar PV modules used in the PV layout. For a set of 10 PV modules arranged two in series and five in parallel, a 5:1 configuration combiner box is selected.

The combiner boxes consist of the following key features:

IP65 Enclosure: The combiner box enclosures are typically made out of thermoset (GRP or polyester), or thermoplastic (polycarbonate) material, and come with IP65 protection. Enclosures come in different sizes, depending on the number of input strings and protection features implemented in the combiner box.

Fuse Protection for Strings: DC fuses rated from 2A to 25A from leading manufacturers are used in the combiner box to provide overcurrent protection. Fuses can be provided with or without indication.

Surge Protection Device: Surge Protection devices or SPD's in the combiner/junction box protects electrical and electronic equipments from the power surges and



voltage spikes. Surge protection devices divert the excess voltage and current from transient or surge into grounding wires. SPD's used by Ever Green in the combiner boxes meet Type 2 regulations, and are typically rated between 600 to 1000V.

DC Disconnect/Isolation: An accessible disconnect/isolator switch is recommended for placement before the inverter to disconnect the DC side of the system when maintenance is being performed on the inverter.

Cable Glands/Connectors: The combiner/ array junction box offered by Ever Green is provided with IP 67 rated Cable Glands or MC 4 connectors at the input and output side to terminate the array strings into the box.

String Monitoring (Optional): Our String Monitoring Combiner Box uses non contact Hall sensors for the measurement of string currents. The string currents measured are accessible over MODBUS through a RS-485 communication port by central monitoring/ SCADA software.

For over 60 years, Exide Industries Ltd., has pioneered battery technology in India. It is the only company in South and South East Asia which designs and manufactures lead acid batteries from 7Ah to 20400Ah. Exide offers the latest series of tubular batteries, manufactured in its state-of-the art ISO 9001 : 2008, ISO 14001: 2004 certified factories to meet the growing demand both in domestic and export market. Exide 12V and 6V low maintenance Tubular battery for Solar photovoltaic application comes with high quality TORR Tubular plate and its performance characteristics conform to IS 13369 : 1992 with latest amendments.

PRODUCT FEATURES

- Available in SOLA-TUBULAR range ● PPCP Container ● Tubular Positive Plates ● Pasted Negative Plates ● High tensile, acid resistant Polyester Gauntlets ● High porosity Envelope Separators ● Microporous Ceramic Vent Plug ● Heavy duty Terminal ● Low resistance Fasteners.

TORR TUBULAR TECHNOLOGY

Exide Tubular Batteries have the spines or the positive plate support cast at high pressure (100 Bar) in imported HADI machine which ensures void free structure and constant grain orientation and can protect the plate support from anodic corrosion. This in turn ensures higher reliability and longer life. Exide Torr Tubular

plates are also cast with low antimony content which reduces the topping up frequency, making the battery low maintenance type. This also keeps the float charging current at a lower value, thus minimises the total energy requirement needed to keep the battery in charged condition during standby float application.

APPLICATION :

- SOLAR HOME LIGHTING ● SOLAR STREET LIGHTING ● SOLAR PHOTOVOLTAIC POWER PLANTS ● TRAFFIC SIGNALLING

Benefits

- Specially designed for arduous SPV application.
- Manufacturing with TORR Tubular Technology which stands for reliable and consistent performance.
- Designed to operate in partial state of charge condition.
- Ideally designed for cyclic application.
- Superior voltage and energy output profile.
- Excellent charging efficiency :
 - ♦ AH efficiency - In excess of 90% ♦ WH efficiency - In excess of 80%

- Service life comparable with the best of the international brands.
- Designed cycle life at C10 discharge at 25°C :
 - ♦ 1500 cycles to 80% DOD ♦ 3000 cycles to 50% DOD ♦ 5000 cycles to 20% DOD
- Supplied in factory charged condition - ensures optimal quality and ready to use.
- Ultra low maintenance
- Low rate of self discharge
- 6V mono-blocks are supplied with MS Cabinet (fitted suitable exhaust system) or MS Stand (knock down condition) in 48V configuration - ideally designed for outdoor application.

Charging Characteristics of Solar Batteries:

Model of Operation	Voltage Setting per mono-block unit for ambient temperature 25-30°C		Current Settings
	12V mono-block	6V mono-block	
Float Voltage	13.7V ± 0.1V	6.85V ± 0.1V	Maximum - 20% of battery Ah capacity
Bulk Voltage	14.5V ± 0.1V	7.25V ± 0.1V	Minimum - 10% of battery Ah capacity
Low Voltage Disconnect	11.1V ± 0.1V	5.55V ± 0.1V	

Temperature Compensation : (reference 25°C)
Float : -18mV/C/12V/unit
Cyclic : -30mV/C/12V/unit

Technical Data

Type of Battery	Nominal Voltage	Capacity @ C10 to 1.80 v.p.c at 27°C	Cell Weight		Overall Dimension			Container Type
			Without Acid ± 5%	With Acid ± 5%	Length ± 5	Width ± 5	Height* ± 5	
6LMS20L	12	20	12.0	18.0	260	172	240	PPCP
6LMS40L	12	40	12.0	23.5	410	176	282	PPCP
6LMS40L	12	40	14.0	26.5	410	176	282	PPCP
6LMS75	12	75	20.0	32.0	410	176	282	PPCP
6LMS75L	12	75	22.5	42.5	530	220	287	PPCP
6LMS100L	12	100	30.0	57.0	500	187	416	PPCP
6LMS120L	12	120	31.4	48.5	530	220	287	PPCP
6LMS150L	12	150	44.0	66.3	500	187	416	PPCP
3LMS200L	8	200	44.7	69.0	500	187	416	PPCP
3LMS300	8	300	44.0	66.3	500	187	416	PPCP

*Height upto Terminal Top

LOW MAINTENANCE TUBULAR BATTERY FOR SOLAR PV APPLICATION





"Light up
Your life"

GRID SOLAR SYSTEM

GRID-TIED SOLAR SYSTEMS

Grid-tied, on-grid, utility-interactive, grid intertie and grid back feeding are all terms used to describe the same concept – a solar system that is connected to the utility power grid.

1. Save more money with net metering

A grid-connection will allow you to save more money with solar panels through better efficiency rates, net metering, plus lower equipment and installation costs:

Batteries, and other stand-alone equipment, are required for a fully functional off-grid solar system and add to costs as well as maintenance. Grid-tied solar systems are therefore generally cheaper and simpler to install.



Your solar panels will often generate more electricity than what you are capable of consuming. With net metering, homeowners can put this excess electricity onto the utility grid instead of storing it themselves with batteries.

Net metering (or feed-in tariff schemes in some countries) play an important role in how solar power is incentivized. Without it, residential solar systems would be much less feasible from a financial point of view.

Many utility companies are committed to buying electricity from homeowners at the same rate as they sell it themselves.

2. The utility grid is a virtual battery

Electricity has to be spent in real time. However, it can be temporarily stored as other forms of energy (e.g. chemical energy in batteries). Energy storage typically comes with significant losses. The electric power grid is in many ways also a battery, without the need for maintenance or replacements, and with much better efficiency rates. In other words, more electricity (and more money) goes to waste with conventional battery systems.

Additional perks of being grid-tied include access to backup power from the utility grid (in case your solar system stop generating electricity for one reason or another). At the same time you help to mitigate the utility company's peak load. As a result, the efficiency of our electrical system as a whole goes up.

TAX INCENTIVES FOR SOLAR IN INDIA

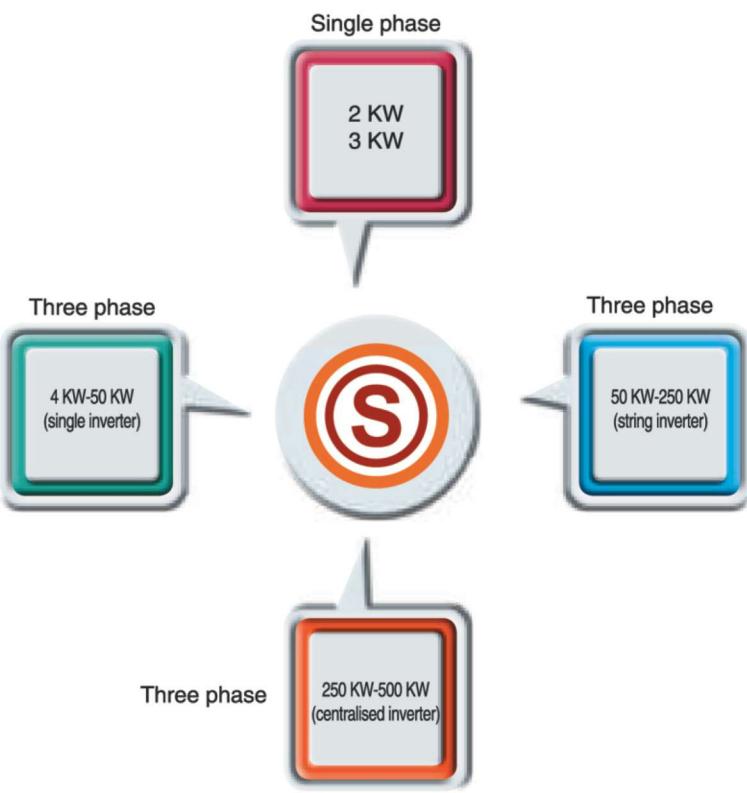
Accelerated depreciation is a method of depreciation used to depreciate the fixed assets in a manner that a significant depreciation is allowed in the first few years.

Accelerated depreciation can reduce costs during the project's start up year.

In solar projects, accelerated depreciation is widely used to claim tax incentives under the section 32 of Income Tax Act 1961. In India, Accelerated depreciation (AD) allows

How does institutions benefit?

Since the institutions have most of the power used during the day time (10 am to 5 pm), it superimposes with the time that peaks the power generation from solar. Hence, this cancels out the use of a storing device to store the solar power generated. Hence a grid tie system assists in directly using the solar power generated during day time for powering the electrical systems of the institutions during its working time and also send the excess power generated into the grid without the use of any storage devices hence making the system commercially as well as economically viable.



investors, mostly setting up capacity for captive use, to take advantage of up to 80% of the project cost YOY.

CARBON CREDITS

1 kw of solar power with a average of 5.5 hours of sunlight per day will produce 1 carbon credit per year. 1 carbon credit is equal to 1 ton of carbon dioxide offset.

Scientific consensus states that carbon emissions must be reduced by 80% by 2050 to avoid catastrophic climate change. Businesses have an important and essential role to play in meeting these targets and carbon offsetting schemes enable them to play their part in the climate change battle.

Carbon offsets are credits for reductions in greenhouse gas emissions made at another location, such as wind farms which create renewable energy and reduce the need for fossil-fuel powered energy. Carbon offsets are quantified and sold in metric tonnes of carbon dioxide equivalent (CO₂e). Buying one tonne of carbon offsets means there will be one less tonne of carbon dioxide in the atmosphere than there would otherwise have been. This could be, for example, a project to swap coal-fired power stations with solar panels or hydro power.