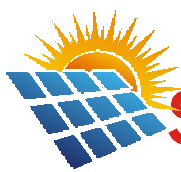


BRING HOME  
**Happiness**



**SMART SOLAR  
SOLUTION**

[www.ushasolarindia.com](http://www.ushasolarindia.com)



## About Us :

Usha Shriram Enterprises Pvt Ltd is a multi-product company. We have a range of products from Home & Institutional Lighting, all types of Furniture & Mattresses, Pressure Cookers & Cookware, Televisions & Accessories, Water & Air Purifiers, Mobiles and CCTV Camera among others. Our products are marketed under the brand Usha / Usha Shriram / Eurolex. Brand Usha Shriram is known for its quality and reliability and has built its reputation over decades through millions of satisfied customers. We have pan India after sales service network.

Company's products are also exported to countries in the Middle East and Africa our products are tested for all necessary Indian and International standards. Our motto is constant improvement and striving for the best to keep ahead of the competition.

The company was established in 1983. Its promoters were Dr. Charat Ram and Mr. N.R. Dongre. The company is now promoted by business professionals with vast experience in the field of manufacturing and marketing in India and abroad.

Company had introduced in year 2018. Its entire Product World of SOLAR including SPV Modules both Mono and Poly, Solar Batteries, Solar PCU's Solar Street Lights, Solar Charge Controllers and so on. The company continues to follow the guiding principles of business viz developing innovative products based on consumer research and focusing on customer satisfaction and delight through highest standard of quality & service.

The company believes that its strength is the talented workforce who remains motivated to exceed customer expectations and create customer delight always. This is what has made USHA, USHA SHRIRAM & EUROLEX a force to reckon with in the industry and has also given the brands phenomenal goodwill.

Our business associates / distributors / dealer and suppliers are all partners in our progress & expansion.

## Our Mission :

Empower team and associates to achieve and unleash their full potential to deliver outcomes in a sustainable way. Dare to take risks for the betterment of all. Care for environment, Community, Customers, Shareholders, People and creating a culture that will reinforce our values.



To be the globally admired leader in SOLAR ENERGY SECTOR with a deep commitment to Nation Building. Practicing Leadership with Passion & Care by pursuing best practices as young and passionate team.

## Why Usha Shriram Solar?

Usha Shriram Solar believes that its strength is the talented workforce who remains motivated to exceed customer expectations and create customer delight always. This is what has made USHA SHRIRAM & EUROLEX a force to reckon with in the industry and has also given the brands phenomenal goodwill.



## Our Products :

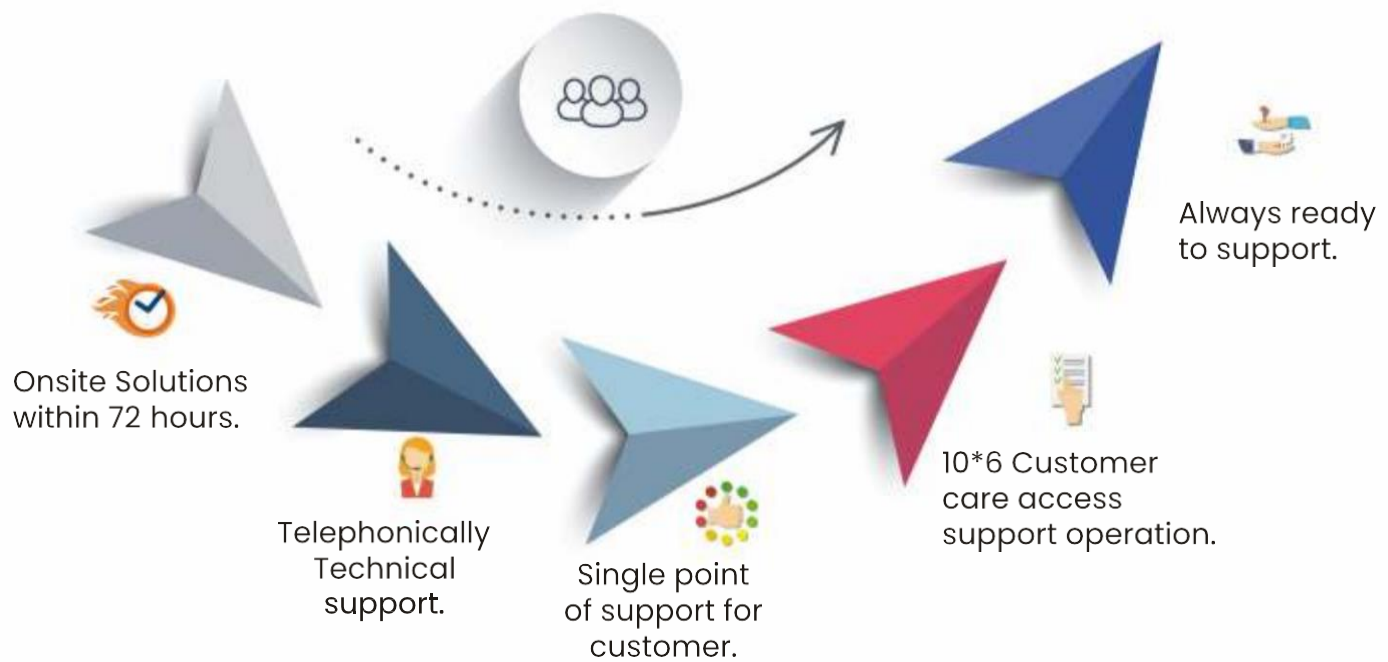
Solar PV Modules

Solar Inverters

Solar Street Lights powered by Lithium Batteries



## Our Services :



# Solar PV Module

Ranging From 10 Wp – 600 Wp

<b>SOLAR PV MODULE</b>										
Capacity (Wp)	55	80	110	170	210	275	335	345	415	450
Module (V)	12	12	12	12	12	24	24	24	24	24
No. of Cells	36	36	36	36	72	60	72	72	72	144
Cell Size	1/3	1/2	2/3	Full Cell	2/3	Full Cell	Full Cell	Full Cell	Full Cell	Half Cut
Cell Types	POLY Crystalline						MONO PERC/Bifacial			
Module WT	4.40	6.20	8.40	11.20	13.50	19.01	26.30	26.30	27.50	27.50
Glass Size (mm)	540*660	775*665	1475*660	1475*660	1385*915	1655*986	1970*986	1970*986	1985*1001	2100*1030
Diode Rating	6A	10A	10A	15A	20A	20A	20A	20A	20A	20A
Voc (V)	21.60	22.02	22.50	22.92	22.92	38.24	46.20	46.20	49.90	49.90
Isc (A)	3.10	4.45	6.30	9.30	12.00	9.30	9.55	10.30	10.30	11.46
Vmp (V)	18.2	18.03	18.4	18.8	18.7	30.8	37.5	33.8	40.5	40.8
Imp (A)	2.74	4.4	5.92	8.9	11.5	8.9	8.9	9.9	9.9	10.9
Pmax (W)	55	80	110	170	210	275	345	335	400	445
FF%	77	77	77	75	75	75	75	77	77	77
Tol.%	3	3	3	3	3	3	3	3	3	3
Max System Voltage	1000	1000	1000	1000	1000	1000	1500	1500	1500	1500



**Bifacial Mono Perc Panel**  
(415 Wp – 550 Wp)



**Poly Panel (12 V)**  
(10 Wp – 345 Wp)



**Poly Panel (24 V)**  
(275 Wp – 345 Wp)



# MBB Series - USM10BB

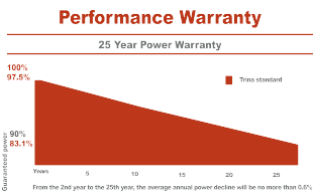
## The Dhanush

144 Half-Cut 'Crafted' Module

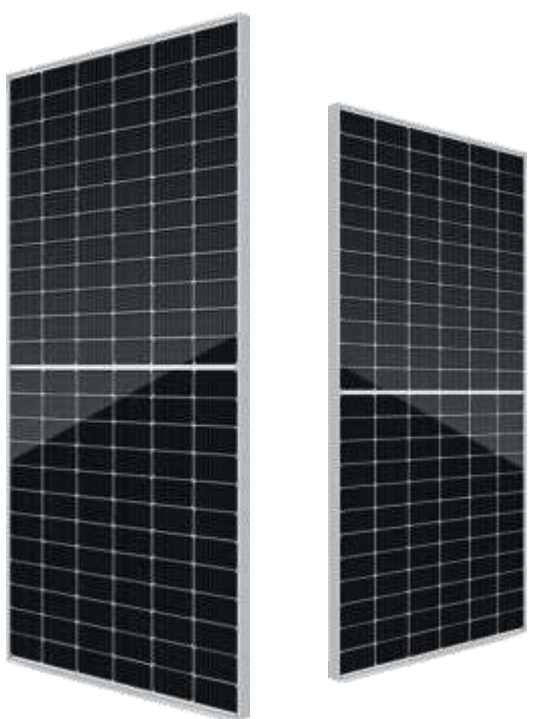
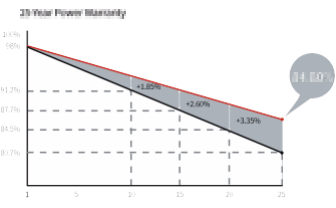
- 21.5% Max Module Efficiency
- 0~+5W Power Tolarence
- <2% First Year Power Degradation
- 0.55% Year 2-25 Power Degradation
- Half Cell Lower Operating Temperature

**Electrical characteristics STC : AM1.5 1000w/Sq.m 25 Deg Celcius**

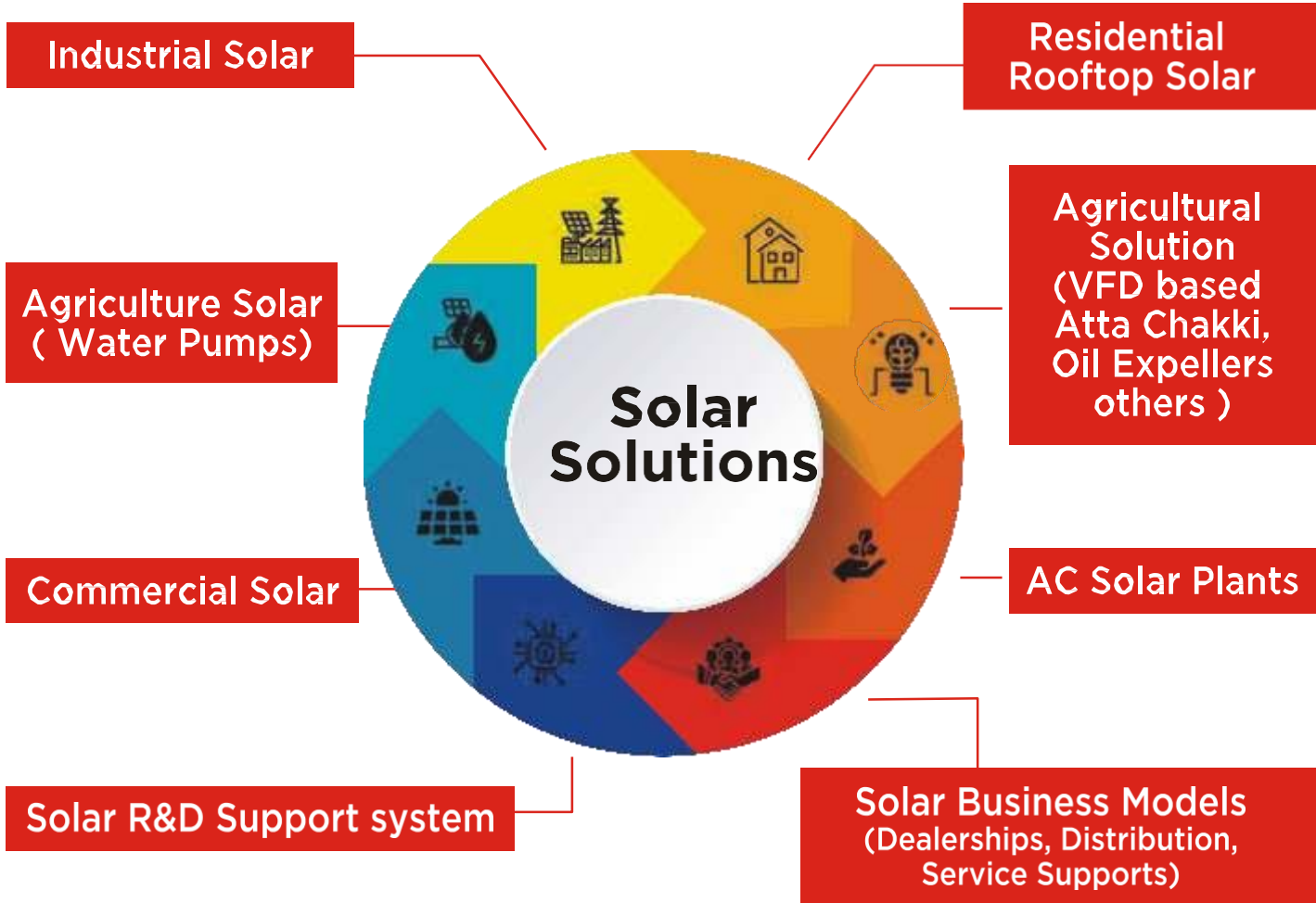
ModuleType	USM 445	USM 450	USM 540	USM 545	USM 550
Testing Condition	STC	STC	STC	STC	STC
Maximum Power (Pmax/W)	445	450	540	545	550
Voc-Open Circuit Voltage	49	49.20	49.50	49.65	49.80
Isc - Open Circuit	11.54	11.61	13.85	13.92	13.98
Vmp - Voltage at Max. Power	41.20	41.40	41.65	41.80	41.95
Imp - Current at Max. Power	10.81	10.87	12.97	13.04	13.12
Module Efficiency (%)	20.4	20.6	21.1	21.3	21.5



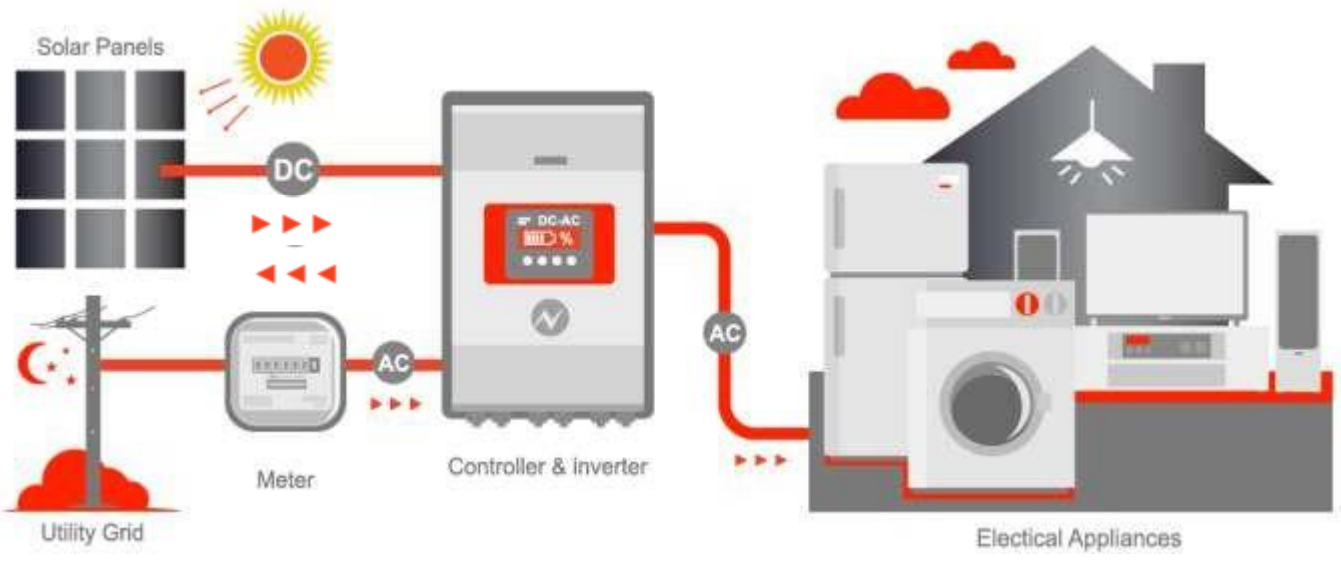
## LINEAR DEGRADATION



- High power mono perc
- Multi Bus Bar Solar Cells
- High reliability
- High energy generation
- Excellent performance on Sunny days
- Balance of System (BOS) Saving



**USHA SHRIRAM ON GRID SOLAR POWER PLANT**



# On Grid Solar Inverter



Ranging From 2 KW - 250 KW

Model No	EURO-ON-3K-5K	EURO-ON-10K	EURO-ON-15K	EURO-ON-20K	EURO-ON-30K	EURO-ON-50K
<b>Input (DC)</b>						
Max. DC Power	3402W/5550W	13 KW	19.5 KW	26 KW	39 KW	67 KW
Max. DC Voltage	600 Vdc	1000 VDC				
MPPT Voltage Range	90-580 Vdc	470-800 VDC		480-800 VDC	480-850 VDC	540-850 VDC
Rated DC Voltage	360 Vdc	160-950 VDC		180-950 VDC	200-950 VDC	200-960 VDC
Related DC Voltage	90 Vdc	620 VDC				
Start Voltage	70Vdc	200 VDC		250 VDC		
Min DC Voltage	12.5A/11A	160 VDC		160 VDC	200 VFC	250 VDC
Minimum DC Current	1/2	11A/11A	11A/22A	2*25A	3*23A	110A
Max Number Of DC Connection Set	1/2	1+1	1+2	2/2+2	2+2+2	3+3+2+2
Number Of MPPT	2		2		3	4
DC Switch	YES					
<b>Output (AC)</b>						
Rated Output Power	3000W/5000W	10 KW	15 KW	20 KW	30 KW	50 KW
Max. AC Power	3300W/5000W	11 KVA	16.5 KVA	22 KVA	33 KVA	55 KVA
Max. AC Current	14.3A/23.8A	16 A	23 A	33.5 A	48 A	76 A
Rated AC Voltage Range	220V,230V,240V	380V,400V/340-440V				
Grid Frequency	50Hz,47-53Hz					
Power Fector	±0.8(Adjustable)					
Hermonic Distortion Cureent	<3%					
Grid Connection Type	3W+N+PE					
<b>Efficiency</b>						
Max Efficiency	97.60%/97.80%	98.10%	98.20%	98.30%	98.80%	
Euro Efficiency	97.3%/97.30%	97.80%	97.80%	98%	98.40%	
MPPT Efficiency	99.50%					
<b>Protection</b>						
DC Over Current Protection	Integrated					
AC Short Circuit Current Protection	Integrated					
DC Reverse- Polarity Protection	Integrated					
Surge Protection			AC Class II	AC Class II	DC Class II, AC ClassII	
DC Insulation Monitoring	Integrated					
Leakage Current Protection	Integrated					
Anti-Islanding Protection	AFD	Integrated				
<b>Interface</b>						
AC connection	Plug-in-Connection					
DC Connection	MC4/H4					
LCD/LED Display	LED+APP (Bluetooth)					
Language	English					
Communication	RS485 (STANDARD)/Wi-Fi & GPRS (Optional)					
<b>Interface</b>						
Topology	Transformersless					
Operating Temprature range (°C)	(-25°C-60°C)					
Cooling Method	Natural Convection					
Relative Humidity	0-100%, Non Condensing					
Noise	<30dBA					
Ingress Protection Class (IP)	IP65					
Warranty	5 (Standard)/10 Optional					
Certification	All IEC Certification As Per Indian Market					

# Hybrid Inverter

Model	SUN-3K-SG04LP1-24-EU	SUN-3K-SG04LP1-EU	SUN-3.6K-SG04LP1-EU	SUN-5K-SG04LP1-EU	SUN-6K-SG04LP1-EU
<b>Battery Input Data</b>					
	Lead-acid or Lithium-ion				
Battery Voltage Range (V)	20~30		40~60		
Max. Charging Current (A)	140	70	90	120	135
	140	70	90	120	135
External Temperature Sensor					
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				
<b>PV String Input Data</b>					
Max. DC Input Power (W)	3900		4680	6500	7800
Rated PV Input Voltage (V)			370		
Max. PV Input Voltage (V)			500		
Min. PV Input Voltage (V)			125		
			125		
Full Load DC Voltage Range (V)			150-425		
			250-425		
	13			13+13	
	17			17+17	
Number of MPPT / Strings per MPPT	1/1			2/1+1	
<b>AC Output Data</b>					
Rated AC Output and UPS Power (W)	3000		3600	5000	6000
	3300		3960	5500	6600
	2 times of rated power, 10 S				
AC Output Rated Current (A)	13.6/13		16.4/15.7	22.7/21.7	21.3/26.1
Max. AC Current (A)	15/14.3		18/17.2	25/23.9	30/28.7
Max. Continuous AC Passthrough (A)			35		40
Power Factor	0.8 leading to 0.8 lagging				
Current Harmonic Distortion					
<b>Efficiency</b>					
	97.60%				
	96.50%				
	99.90%				
<b>Protection</b>					
PV Input Lightning Protection					
Anti-islanding Protection					
PV String Input Reverse Polarity Protection					
Insulation Resistor Detection					
Residual Current Monitoring Unit					
Output Over Current Protection					
Output Shorted Protection					
Output Over Voltage Protection					
	DC Type II / AC Type II				
Grid Connection Standard	EN50549-1, VDE0126, IEC61727, VDEN4105, G99, CEI0-21, NRS097, NBR16149/16150, RD1699				
Safety EMC / Standard	IEC62109-1/-2				
<b>General Data</b>					
Communication with BMS	RS485; CAN				
	14				
Protection Degree	365.5Wx470.5Hx261D				
Installation Style	IP65				
Warranty	Wall-mounted				
	5 years				



# Hybrid Inverter

Model	SUN-6K-SG04LP3 -EU/AU	SUN-8K-SG04LP3 -EU/AU	SUN-10K-SG04LP3 -EU/AU	SUN-12K-SG04LP3 -EU/AU
<b>Battery Input Data</b>				
	Lead-acid or Li-Ion			
Battery Voltage Range (V)	40~60			
Max. Charging Current (A)	150	190	210	240
	150	190	210	240
External Temperature Sensor				
Charging Strategy for Li-Ion Battery	Self-adaption to BMS			
<b>PV String Input Data</b>				
Max. DC Input Power (W)	7800	10400	13000	15600
	550 (150~800)			
	200-650			
Start-up Voltage (V)	160			
PV Input Current (A)	13+13	13+13	26+13	26+13
Max. PV ISC (A)	17+17	17+17	34+17	34+17
No.of MPPT Trackers				
No.of Strings Per MPPT Tracker	1+1	1+1	2+1	2+1
<b>AC Output Data</b>				
Rated AC Output and UPS Power (W)	6000	8000	10000	12000
	6600	8800	11000	13200
	2 times of rated power, 10 S			
AC Output Rated Current (A)				
Max. AC Current (A)	13.5	18	23	27
Max. Continuous AC Passthrough (A)	50			
Current Harmonic Distortion	THD<3% (Linear load<1.5%)			
<b>Efficiency</b>				
	97.60%			
	97.00%			
	99.90%			
<b>Protection</b>				
PV Input Lightning Protection				
Anti-islanding Protection				
PV String Input Reverse Polarity Protection				
Insulation Resistor Detection				
Residual Current Monitoring Unit				
Output Over Current Protection				
Output Shorted Protection				
Output Over Voltage Protection				
Surge protection	DC Type II / AC Type II			
<b>Certifications and Standards</b>				
Grid Regulation	IEC61727, IEC62116, IEC60068, IEC61683, NRS 097-2-1			
Safety EMC / Standard	IEC62109-1/-2, IEC61000-6-1, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12			
<b>General Data</b>				
Communication with BMS	RS485; CAN			
	34.5			
	422Wx658Hx281D			
Protection Degree	IP65			
Installation Style	Wall-mounted			
Warranty	5 years			

# SOLAR ENERGY



Authorised Channel Partner :-

SOLAR PRODUCTS



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E- [info@ushasolarindia.com](mailto:info@ushasolarindia.com) **ALMM**  
W- [ushasolarindia.com](http://ushasolarindia.com) APPROVED

CERTIFIED

