

OUR PROSPECTS

LVTOPSUN Vision- Become the best solar panel supplier in the world.
Our goal is to manufacture The best solar panel and make lvtopsun solar panel become the first choice for customers.

LVTOPSUN MISSION-Power the world with green energy



SOLAR PANEL HIGH PERFORMACE TIER 1



LVTOPSUN Solar Technology Co.,Ltd

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LVTOPSUN Solar Technology Co.,Ltd

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COMPANY PROFILE

LVTOPSUN SOLAR Technology Co.,Ltd is big manufacturer andexporte of solar panel and solar cell, established in 2008.



As a professional manufacturer, our company has more than 10 years'experience in manufacturing and exporting solar panel and solar cell.

Our products are widely recognized and trusted by users and canmeet continuously changing economic and social needs.

We are increasingly expanding our international market share basedon quality products, excellent service, reasonable price and timely delivery.

We have developed business in over 50 countries around the world,also hope to establish a win-win cooperative relationship with youin the near future.



WAFER CELL PRODUCTION LINE



MODULES ASSEMBLING LINE



GLOBAL PROJECT



Cambodia 800KW Ongrid Project

Thailand 1MW Ongrid Project



South Africa 250KW Ongrid Project

Vienam 180KW Ongrid Project

Canton 608KW Ongrid Project

GLOBAL EXHIBITIONS



Exhibitions in Vietnam



Exhibitions in Thailand

300W SERIES SOLAR PANEL

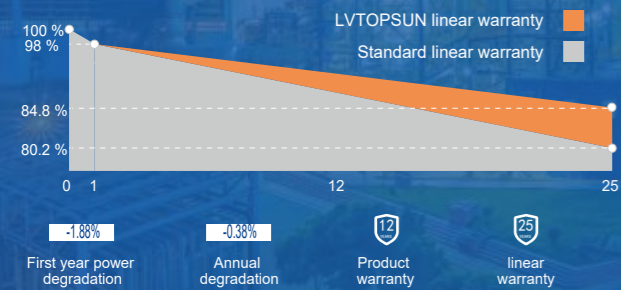
Excellent Manufacturing , Ultimate LVTOPSUN

LVTS-72 (157mm Cell)

320-340 Watt

POLY CRYSTALLINE MODULE

Industry-leading Warranty based on nominal power



Features



IP68 junction box, connector

IP68 junction box and connector have a high degree of waterproof, effectively resist the harsh environment;



PID Resistant

Excellent PID resistance at 96 hours (85°C/85%) test, and also can be improved to meet higher standards for the particularly harsh environment;



Anti-Crack

Excellent anti-microcracking performance with more balanced interior stress;



15A current

The junction box carries a current of 15A, ensuring high current flow through the modules;



Super strong frame

Glue-spilled tank has a double-layer waterproof, cross-section with hook-shaped aluminum frame, enhanced by 10% of the mechanical load strength;



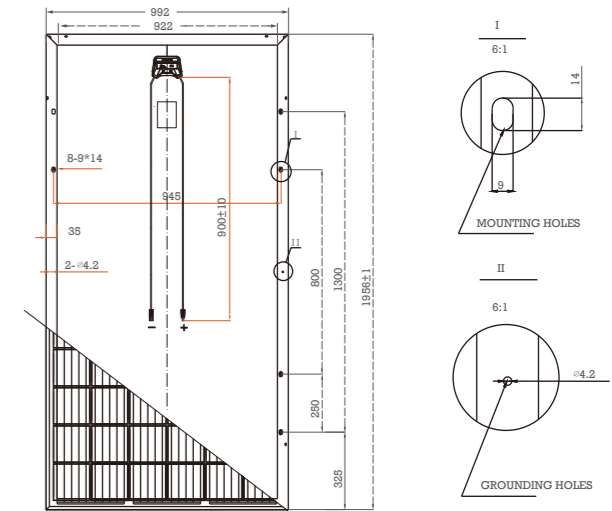
Strong mechanical load capacity

Passed the 2400pa wind load and 5400pa snow load test, ensuring that the module has a stable mechanical life;

LVTS-72

MECHANICAL SPECIFICATIONS

Cell Type	Polycrystalline
Cell Dimensions	157*157mm
Cell Arrangement	72 (6*12)
Weight	22kg
Module Dimensions	1956*992*35mm
Connector type	MC4 Compatible
Output Cables	TUV, ±length 900mm, 4.0mm ²
Front Glass	3.2mm, Low Iron Tempered Glass
No. of Bypass Diodes	3/6
Packing Configuration (1)	30pcs/carton, 804pcs/40hq
Frame	Anodized Aluminium Alloy
Junction Box	IP68



ELECTRICAL SPECIFICATIONS

Module Type	LVTS320P-72		LVTS325P-72		LVTS330P-72		LVTS335P-72		LVTS340P-72	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Testing Condition										
Rated output (Pmp/Wp)	320	237	325	241	330	245	335	248	340	252
Maximum Power Voltage(Vmpp/V)	37.75	34.5	37.95	34.8	38.15	34.8	38.0	35.0	38.2	35.3
Maximum Power Current(Impp/A)	8.53	6.87	8.57	6.92	8.65	7.02	8.82	7.08	8.90	7.13
Open Circuit Voltage(Voc/V)	44.6	41.2	46.64	41.5	46.94	42.1	46.1	42.6	46.4	42.9
Short Circuit Current(Isc/A)	9.03	7.31	9.19	7.37	9.25	7.46	9.31	7.54	9.37	7.59
Module efficiency(%)	16.5%		16.8%		17.0%		17.3%		17.5%	
Power Tolerance (W)	0~+5		0~+5		0~+5		0~+5		0~+5	

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5 NMOT: Irradiance at 800W/m², Ambient Temperature 20°C, Air Mass AM1.5, Wind Speed 1m/s

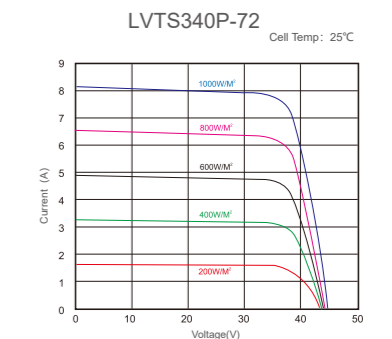
MAXIMUM RATINGS

Maximum System Voltage	1000V/1500V DC
Operating Temperature	-40°C ~ +85°C
Maximum Series Fuse	15A
Static Loading	Snow Loading: 5400Pa/ Wind Loading: 2400Pa
Conductivity at Ground	≤0.1Ω
Safety Class	II
Resistance	≥100MΩ
Connector	T01/LJQ-3-CSY/MC4/MC4-EVO2

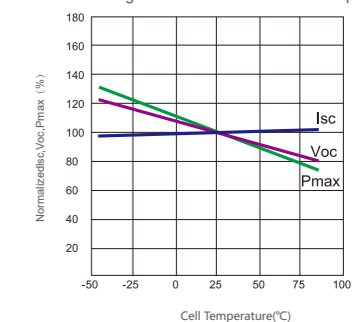
TEMPERATURE CHARACTERISTICS

NMOT Temperature	45°C±2°C
Temperature Coefficient (Pmax)	-0.41%/°C
Temperature Coefficient (Voc)	-0.33%/°C
Temperature Coefficient (Isc)	0.06%/°C

CURVE & TEMPERATURE DEPENDENC



Power voltage current curve at different temperature



400W SERIES SOLAR PANEL

Excellent Manufacturing, Ultimate LVTOPSUN

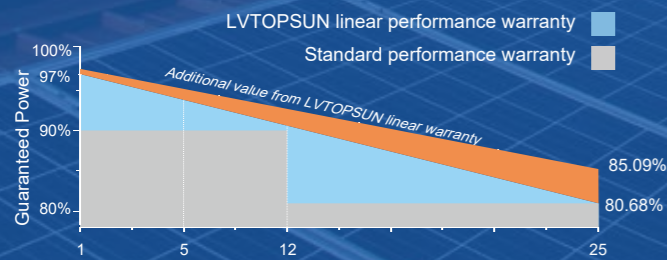
9BB

Half-Cell MBB MONO MODULE

LVTS-144M(166) 435-455 Watt

Linear Performance Warranty

12 Years Product Warranty · 25 Years Linear Power Warranty



KEY FEATURES



Multi Busbar Solar Cell

Stronger current collection ability, Special circuit design with much lower hot spot temperature;



Module efficiency up to 20.9%

Half cell structure brings low resistance characteristic, higher lifetime generating capacity, simultaneously lower annual power attenuation;



Anti PID

Excellent PID resistance at 96 hours (85°C/85%) test, and also can be improved to meet higher standards for the particularly harsh environment;



Low-Light Performance

Excellent power generation performance under Low-Light condition due to multi busbar; better shading response benefit from half cell module;



Anti-Crack

Excellent anti-microcracking performance with more balanced interior stress;



Strength and Durability

Certified for 5400Pa snow and 2400Pa loads test;

ELECTRICAL SPECIFICATIONS

Module Type	LVTS144M-435		LVTS144M-440		LVTS144M-445		LVTS144M-450		LVTS144M-455	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Rated output (Pmp/Wp)	435	322	440	325	445	329	450	333	455	337
Rated voltage (Vmp/V)	40.3	36.9	40.5	37.1	40.8	37.3	41.0	37.5	41.3	37.8
Rated current (Imp/A)	10.80	8.73	10.86	8.77	10.92	8.82	10.98	8.87	11.04	8.92
Open circuit voltage (Voc/V)	48.7	45.4	49.0	45.6	49.2	45.8	49.5	45.9	49.8	46.1
Short circuit current (Isc/A)	11.24	9.08	11.30	9.13	11.36	9.18	11.42	9.23	11.48	9.28
Module efficiency(%)	19.9 %		20.1%		20.4%		20.6%		20.8%	
Power Tolerance (W)	0~+5		0~+5		0~+5		0~+5		0~+5	

Standard Test Condition (STC) : Irradiance 1000W/m², Cell Temperature 25°C, AM1.5

Nominal Module Operating Temperature (NMOT): Irradiance 800W/m², Ambient Temperature 20°C, AM1.5, Wind Speed 1m/s

TEMPERATURE CHARACTERISTICS

NOCT Temperature	44°C ±2°C
Temperature Coefficient (Pmax)	-0.38%/°C
Temperature Coefficient (Voc)	-0.30%/°C
Temperature Coefficient (Isc)	0.06%/°C

MECHANICAL SPECIFICATIONS

Cell Type	9BB MONO 166×83mm
No. of Cells	144 (6×24)
Dimension	2102×1040×35mm
Weight	24.5kg
Glass	3.2mm, Low Iron Tempered Glass
Frame	Anodized Aluminium Alloy (silver or black)
Junction Box	IP67/IP68, 3 diodes
Output Cables	4mm ² , Length 300mm
Connector type	MC4 compatible

PACKING CONFIGURATIONS

Per Pallet	30 Pcs
Pallet/Container	22
Per 40' HQ Container	660 Pcs

MAXIMUM RATINGS

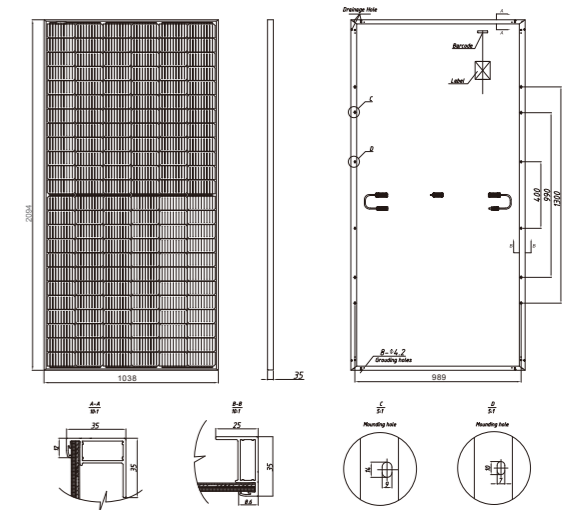
Maximum system voltage (IEC)	1500V DC
Wind/Snow	5400Pa/2400Pa
Operating Temperature	-40°C ~ +85°C
Maximum series fuse rating	20A

Product And Quality Certifications

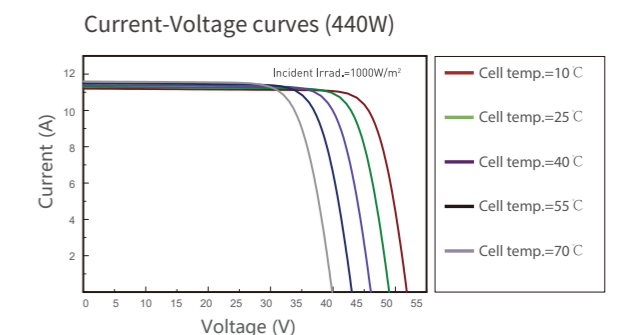
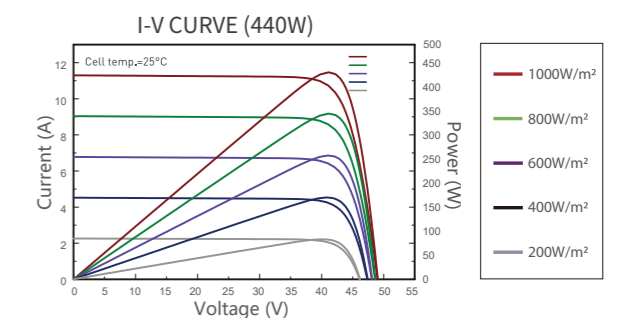
ISO 9001:2008 ISO 14001:2004 OHSAS 18001:2007



ENGINEERING DRAWINGS



CURVE & TEMPERATURE DEPENDENCE



500W SERIES SOLAR PANEL

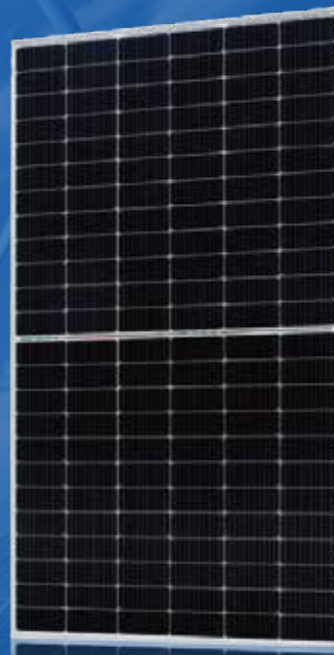
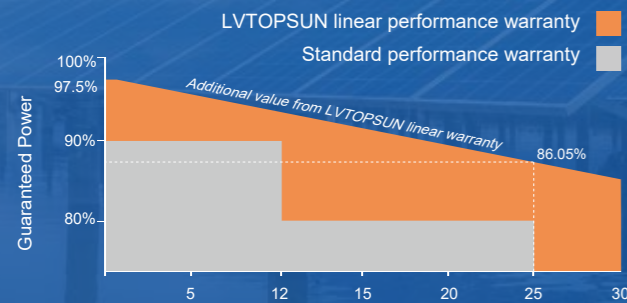
Excellent Manufacturing, Ultimate LVTOPSUN

MONO CRYSTALLINE MODULE

LVTS-144M(182MM) 525-550 Watt

Linear Performance Warranty

12 Years Product Warranty · 25 Years Linear Power Warranty



KEY FEATURES



IP68 junction box, connector

IP68 junction box and connector have a high degree of waterproof, effectively resist the harsh environment;



PID Resistant

Excellent PID resistance at 96 hours (85°C/85%) test, and also can be improved to meet higher standards for the particularly harsh environment;



MBB half-cut cell technology

New circuit design, lower internal current, lower Rs loss



Significantly lower the risk of hot spot

Special circuit design with much lower hot spot temperature



Lower LCOE

2% more power generation, lower LCOE

ELECTRICAL SPECIFICATIONS

Module Type	LVTS144M-525		LVTS144M-530		LVTS144M-535		LVTS144M-540		LVTS144M-545		LVTS144M-550	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Rated output (Pmp/Wp)	525	391.6	530	395.4	535	398.9	540	402.7	545	406.6	550	410.5
Maximum Power Voltage(Vmpp/V)	40.6	37.8	40.8	38.0	41.0	38.2	41.2	38.4	41.4	38.6	41.6	38.8
Maximum Power Current(Imp/A)	12.94	10.35	13.00	10.40	13.05	10.44	13.11	10.49	13.17	10.54	13.23	10.58
Open Circuit Voltage(Voc/V)	48.8	45.7	49.0	45.9	49.2	46.1	49.4	46.3	49.6	46.4	49.8	46.6
Short Circuit Current(Isc/A)	13.71	11.05	13.76	11.09	13.81	11.13	13.87	11.18	13.93	11.23	13.99	11.28
Module efficiency(%)	20.2%		20.4%		20.6%		20.8%		21.0%		21.2%	
Power Tolerance (W)	0~+5		0~+5		0~+5		0~+5		0~+5		0~+5	

Standard Test Condition (STC) : Irradiance 1000W/m², Cell Temperature 25°C, AM1.5

Nominal Module Operating Temperature (NMOT): Irradiance 800W/m², Ambient Temperature 20°C, AM1.5, Wind Speed 1m/s

TEMPERATURE CHARACTERISTICS

NOCT Temperature	43°C ±2°C
Temperature Coefficient (Pmax)	-0.36%/°C
Temperature Coefficient (Voc)	-0.26%/°C
Temperature Coefficient (Isc)	0.043%/°C

MECHANICAL SPECIFICATIONS

Cell Type	MONO 182*182mm
No. of Cells	144 (6*24)
Dimension	2256*1133*35mm
Weight	29kg
Glass	3.2mm (0.13inches), Tempered AR Glass
Frame	Anodized Aluminium Alloy (silver or black)
Junction Box	IP68, with Bypass Diodes
Output Cables	TUV, length 300mm, 4.0mm ²
Connector type	MC4 Compatible

PACKING CONFIGURATIONS

Container	40' HQ
Pieces Per Pallet	31
Pallets Per Container	20
Pieces Per Container	620

MAXIMUM RATINGS

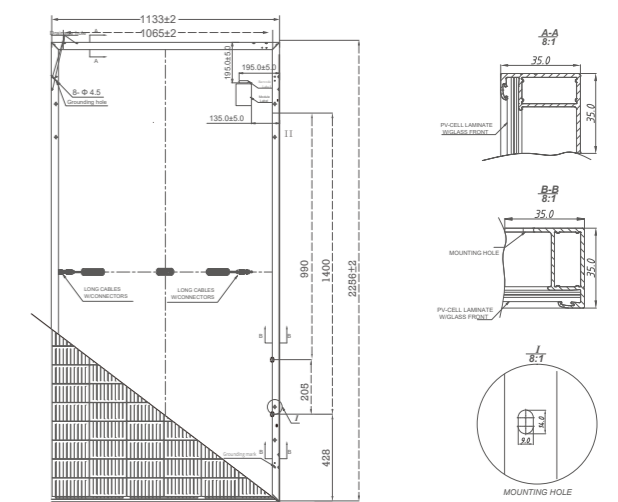
Maximum System Voltage	1000V/1500V DC
Maximum Series Fuse	25A
Increased Snowload Acc.to Iec 61215	5400Pa
Operating Temperature	-40~+85°C
Number Of Bypass Diodes	3

Product And Quality Certifications

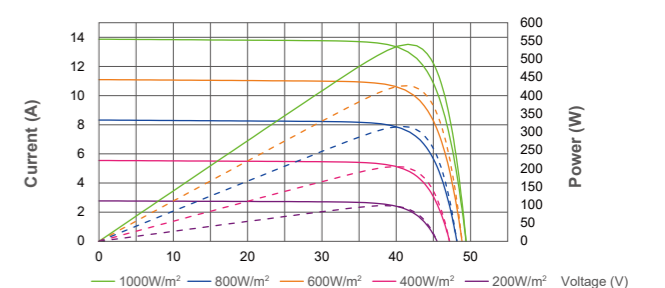
ISO 9001:2008 ISO 14001:2004 OHSAS 18001:2007



ENGINEERING DRAWINGS



CURVE & TEMPERATURE DEPENDENCE



Power voltage current curve at different temperature

