



Harnessing the Solar Power with innovative and smart future products at the affordable price range and quick returns on Investments.

LIVSOL is the leading organization in the field of renewable energy attached with some leading companies in the power sector of India and Abroad as is proud to be among the list of 100% renewable companies with its focus.

On "Designing, Engineering, Supplying. Testing and Commissioning any kind of Solar Photovoltaic plants, equipment and systems that cater to both Domestic and Industrial needs".

Strong vision coupled with professional and ethical business practices have helped it achieve good position in the markets it serves in India and Abroad.

KEY FEATURES

- Extra Long life
- Extra Energy/Power
- Extremely Compact Size
- Made of A Grade Solar Cells with up to 23% cells efficiency
- One of the most compact efficient 156.75x156.75 to 158.75x158.75mm60/72 cells module
- Module stability and reliability due to high-quality raw materials
- Positive Power Tolerance
- Snow and wind load tested
- ARC glass with UV-T & UV-C encapsulant ensure higher module efficiency
- Reliable schottky bypass diode minimizes power drop by shed
- All weather-resistance junctions box and crosslink cable
- PID resistance cells & encapsulants yield efficient performance under hot humid weather
- **TUV:IEC61215, IEC61730 certified from 3W-380 W**

TECHNICAL SPECIFICATION

Electrical Characteristics	NS - 40 WP	NS - 50 WP	NS - 60 WP	NS - 75 WP	NS - 110 WP	NS - 125 WP	NS - 165 WP	NS - 200 WP	NS - 270 WP
Peak Power (WP)	40	50	60	75	110	125	165	200	270
Open Circuit Voltage (VOC) (V)	22.32						22.68	37.24	38.46
Short Circuit Current (ISC) (A)	2.41	3.06	3.54	4.59	6.22	7.45	8.95	7.46	9.1
Voltage at Maximum Power (Vmp) (V)	18	18	18	18	18	18	18.3	29.62	31.52
Current at Maximum Power (Imp) (A)	2.24	2.82	3.35	4.21	5.75	6.95	8.75	7.12	8.54
Maximum System Voltage (V)	600 (VDC)								

Physical Parameters									
Solar Cell type	Poly								
Solar cell Per Module (Units)	36								
Arrangement of Cells (L*B) (nos)	9 Cell x 4 Strings								
Weight (Kg)	3.7	4.32	4.9	6.58	8.3	9.7	11.1	11.1	11.1
Hole to Hole Dimension (mm) (CTC)	X = 645 Y = 235	X = 645 Y = 285	X = 645 Y = 330	X = 645 Y = 415	X = 628 Y = 540	X = 628 Y = 647	X = 628 Y = 740	X = 945 Y = 740	X = 955 Y = 825
Module Size LxWxH (mm)	665x427x35	665x597x35	778x665x35	778x665x35	1010x665x35	1255x665x35	1485x665x35		1649x990x35
Module Efficiency	≥14.32	≥14.2	≥15.3	≥14.7	≥15.01	≥15.01	≥16.28	≥16.24	≥16.78
Measurement Tolerance on Power +/-3%. All electrical parameter specified at : STC: 25.C cell temperature; 1000W/m2 Irradiance									

Other Characteristics	All Dimension in mm tolerances ±2MM	
Type of Cell	Poly Crystalline Silicon	
Front Face	Tempered (Low Iron), 3.2 mm, ARC Coated	
Cell Encapsulate	Ethylene Vinyl Acetate (PID)	
Frame	≥17μ Anodize thickness aluminum frame with twin wall profile	
Junction Box	IP 65/67,3 Terminal, 2 Diodes	
Temp. Coefficients of Pmax (%/°C)	-0.45	
Temp. Coefficients of Voc (%/°C)	-0.35	
Temp. Coefficients of ISC (%/°C)	0.05	



Electrical Characteristics	NS - 335 WP	NS - 350 WP	NS-380 WP	NS-400 WP	NS-410 WP	NS-430 WP	NS-450 WP
Peak Power (WP)	335	350	380	400	410	430	450
Open Circuit Volatage (VOC) (V)	46.41	46.73	46	49.35	49.42	49.22	49.62
Short Circuit Current (ISC) (A)	9.28	9.03	6.98	10.3	10.44	11.21	11.95
Voltage at Maximum Power (Vmp) (A)	38.25	38.97	34.89	42.46	42.9	40.59	41.37
Current at Maximum Power (Imp) (A)	8.78	8.98	6.02	9.72	9.84	10.6	10.89
Hole to Hole Dimension (mm) (CTC)	X = 950 Y = 980	X = 945 Y = 740	X = 945 Y = 740				
Module Size LxWxH (mm)	1960x990x40 mm		1649x990x35 mm				
Module Efficiency	≥17.50	≥18.30	≥16.24	≥16.24	≥16.24	≥16.21	≥16.78
Solar Cell Per Module (Units)	60	72	72	72	72	72	72
Solar Cell type	POLY		MONO				
Maximum System Voltage (V)	1500 (VDC)						
Arrangement of Cells (L*B) (nos)	12*6	10*6	12*6	12*6	10*6	12*6	10*6
Weight (Kg)	21.8			21.8			
Junction Box (IP 67)	4 Terminal with 3 bypass Diodes (20A)						
Tolerance of Electrical Parameters:	3%, Pm positive tolerance				Guarantee and Certification: Product warranty: 25 Years		

Temperature Coefficients	Performance Guaranteed Power Output of 90% for 10 Years & 80% for 25	
Coefficient of Current α (% °C)	0.05 ± 0.02	
Coefficient of Voltage β (% °C)	0.35 ± 0.01	
Coefficient of Power λ (% °C)	0.44 ± 0.02	
Maximum System Voltage (V)	1500 (VDC)	
Temperature Range	40 °C to + 85°C	
Efficiency Reduction at 200W/m ² , 25°C	<5%	
Standard Test Condition (STC)	Irradiance 1000W/m ² , Temperature 25°C, AM 1.5	
Mechanical Specification:		
Cable & Connectors	4mm ² , TUV Certified, 1000 mm(Optional)	
Application Class	CLASS A (Safety Class)	
Front Cover	High Transmission, Low Iron, Tempered Glass, ARC Coated	
Cell Encapsulate	Ethylene Vinyl Acetate (PID)	
Back Cover	Composite film	
Frame	≥ 17μ Anodize thickness Aluminum frame with twin wall	

