

SL45-72_{BDI} 440~455W

BIFACIAL HALF-CUT Series

1,500V Monocrystalline PV Module

CERTIFICATIONS

IEC 61215, 61730 / UL 61730

ISO 9001: Quality Management System

ISO 14001: Environmental Management System

ISO 45001: Occupational Health & Safety System

FEATURES



Up to 25% more energy yield
due to the back side
power generation



Low LID mono PERC
bifacial cell technology



Excellent performance under
low light conditions

Cloudy days, mornings and evening



Enhanced External Load/Impact

Snow Load : 5,400 Pa

Wind Load : 2,400 Pa



PID Resistance

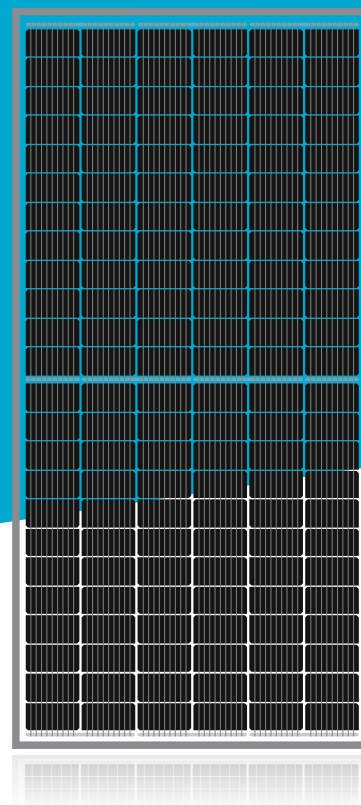
Enhanced Potential Induced Degradation
Resistance



Fire Safety

Spread of Flame Class A
Burning Brand Class C

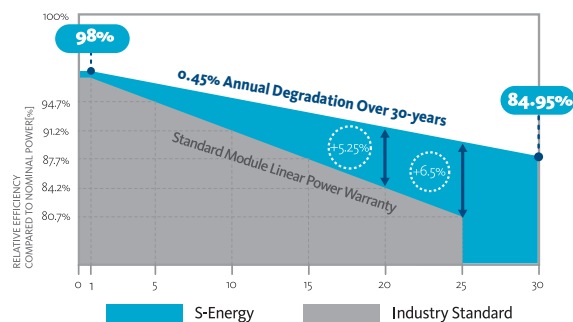
Silver



WARRANTY

12-YEARS PRODUCT WARRANTY

30-YEARS LINEAR PERFORMANCE WARRANTY



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ELECTRICAL CHARACTERISTICS

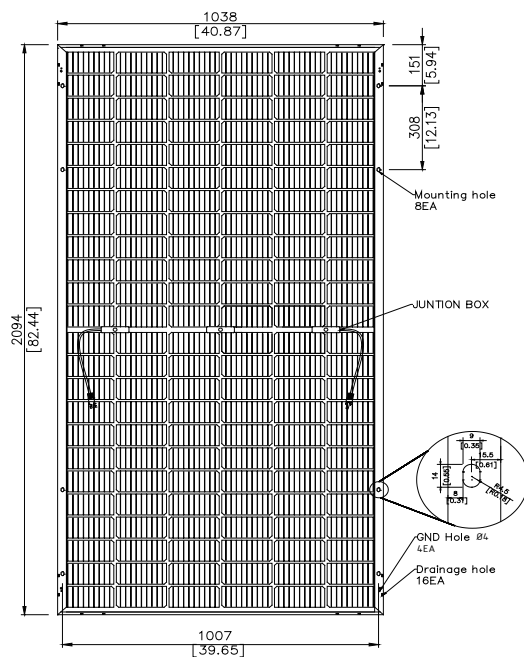
STC (Irradiance 1,000W/m², module temperature 25℃, AM=1.5)	SL45-72BDI-440Z		SL45-72BDI-445Z		SL45-72BDI-450Z		SL45-72BDI-455Z	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Rated Power (Pmax)	440W	329.9W	445W	333.6W	450W	337.1W	455W	340.8W
Voltage at Pmax (Vmp)	41.7V	38.2V	41.9V	38.4V	42.1V	38.4V	42.3V	38.7V
Current at Pmax (Imp)	10.56A	8.63A	10.63A	8.69A	10.69A	8.69A	10.76A	8.80A
Warranted Minimum Pmax	440W	329.9W	445W	333.6W	450W	337.1W	455W	340.8W
Short-Circuit Current (Isc)	11.44A	9.24A	11.51A	9.30A	11.58A	9.35A	11.65A	9.41A
Open-Circuit Voltage (Voc)	50.1V	46.8V	50.3V	46.9V	50.5V	47.1V	50.7V	47.3V
Module Efficiency	20.24%		20.47%		20.70%		20.93%	
Operating Module Temperature	-40℃ to +85℃							
Maximum System Voltage	1500V							
Maximum Fuse Rated Current	25A							
Maximum Reverse Current	33.75A							
Power Tolerance	0 ~ +5W							

ELECTRICAL CHARACTERISTICS back side power gain(reference to 450W front)

Pmax	473W	495W	518W	540W	563W
Voltage at Pmax (Vmp)	42.1V	42.1V	42.1V	42.2V	42.2V
Current at Pmax (Imp)	11.22A	11.76A	12.29A	12.80A	13.33A
Short-Circuit Current (Isc)	12.16A	12.74A	13.32A	13.90A	14.48A
Open-Circuit Voltage (Voc)	50.5V	50.5V	50.5V	50.6V	50.6V
Pmax gain	5%	10%	15%	20%	25%

MECHANICAL CHARACTERISTICS

Solar Cells	Monocrystalline Cells 166x83mm
Number of Cells	72 Half Cells (6x24 Matrix)
Dimensions	2,094 x 1,038 x 30mm
Front Load	5,400Pa
Rear Load	2,400Pa
Weight	26.5kg
Glass	Dual glass, 2mm Tempered Glass
Frame	Anodized Aluminum Frame (Silver)
J-Box	≥ IP67 with 3 bypass diodes
Output Cables	PV Wire, 12AWG (4mm ²), Cable Length : 350mm * cable length can be customized
Connectors	MC4 Compatible

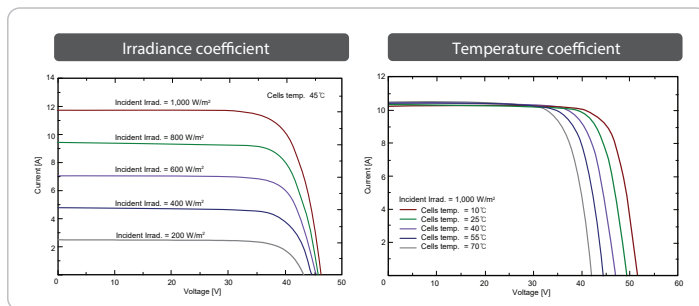


TEMPERATURE CHARACTERISTICS

Temperature coefficient of Isc	0.050 % / °C
Temperature coefficient of Voc	-0.290 % / °C
Temperature coefficient of power	-0.360 % / °C
NMOT (Tair 20°C ; Irradiance 800W/m ² ; Wind 1m/s)	44±3 °C

PACKING CONFIGURATION

Container	20'	40'
Modules Per Pallet	36pcs	36pcs
Pallets Per Container	5pallets	22pallets
Modules Per Container	180pcs	792pcs



REMARKS

- Pmax measurement tolerance : ±2.5%
- S-Energy uses triple A class simulator.
- Specification subject to change without prior notice.
- S-Energy reserves the rights of final interpretation.

NOTES

Installation instruction supplied with the module must be duly followed. For further information which is not mentioned on installation guides or directions, please contact to our technical service department.
• E-mail : Inquiry@s-energy.com