

ZION Series

Half-Cell Bifacial Module

445-460Wp | **21.16%**
Module Power Output | Max Efficiency



Key Features



High module conversion efficiency



Better temperature coefficient



Super multi busbar technology



Low attenuation long warranty



Superior load capacity



Higher bifaciality

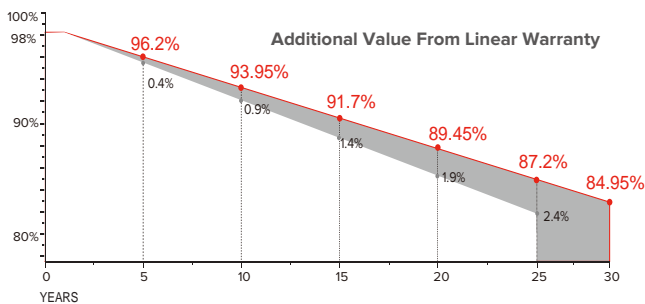


USA based liability insurance.



Houston, Texas based company.

Warranty



15 <Years> Guarantee on product material and workmanship

30 <Years> Linear power output warranty

Product Certification

IEC61215:2016; IEC 61730:2016; UL61730

IEC62804 PID

IEC61701 Salt Mist

IEC62716 Ammonia Resistance

IEC60068 Dust and Sand

IEC61215 Hailstone

Fire Type (UL61730):Type29

ISO14001:2015; ISO9001:2015; ISO45001:2018



About SEG Solar

SEG Solar is a leading manufacturer of high-performance solar panels for residential, commercial, and utility applications. The company, headquartered in Houston, Texas, is committed to providing cost-effective and reliable solar solutions that help customers reduce their energy costs and carbon footprint.



Download Datasheet

Electrical Characteristics

Module Type	SEG-445-BMA-BG			SEG-450-BMA-BG			SEG-455-BMA-BG			SEG-460-BMA-BG		
	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC
Maximum Power -Pmp(Wp)*	445	334	312	450	338	315	455	342	319	460	346	322
Open Circuit Voltage -Voc(V)	49.90	46.60	49.60	50.10	46.80	49.80	50.30	46.90	50.00	50.50	47.10	50.20
Short Circuit Current -Isc(A)	11.34	9.17	8.00	11.42	9.22	8.04	11.49	9.29	8.09	11.57	9.34	8.14
Maximum Power Voltage -Vmp(V)	41.60	38.50	41.70	41.80	38.70	41.90	42.00	38.90	42.10	42.20	39.10	42.30
Maximum Power Current -Imp(A)	10.70	8.68	7.49	10.77	8.73	7.54	10.84	8.80	7.59	10.91	8.85	7.64
Module Efficiency(%)	20.47			20.70			20.93			21.16		
Power Tolerance(W)	(0, +4.99)											
Maximum System Voltage	1500V DC											
Maximum Series Fuse Rating	25 A											

STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5

NOCT: Irradiance 800W/m² ambient temperature 20°C module temperature 45°C wind speed: 1m/s

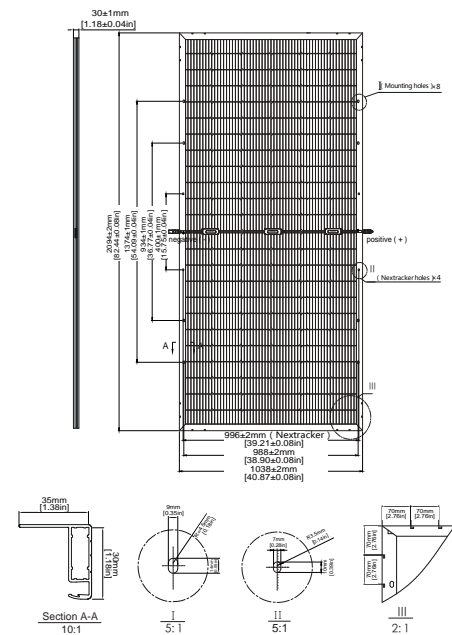
*Measuring tolerance: ±3%

Mechanical Specifications

External Dimension	2094x 1038 x 30 mm
Weight	28.0 kg
Solar Cells	PERC Mono 166 x 83mm(144 pcs)
Front Glass	2.0mm AR coating semi-tempered glass
Back Glass	2.0mm Semi-tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP68 / 3 diodes
Connector Type	PV-CO02-xy / MC4
Cable Type	12 AWG PV Wire (UL)
Cable Length	Portrait: 400 mm(+)/ 200 mm(-) Landscape: 1200 mm(+)/ 1200 mm(-) or customized length
Mechanical Load(Front)	5400 Pa / 113 psf*
Mechanical Load(Rear)	2400 Pa / 50 psf*

*Refer to SEG installation Manual for details

Technical Drawing



*Refer to SEG installation Manual for details

Packing Configuration

Container	20'GP	40'HQ	40'HQ(For USA)
Pieces per Pallet	36	36	36
Pallets per Container	5	22	18
Pieces per Container	180	792	648

Temperature Characteristics

Pmax Temperature Coefficient	-0.35 %/°C
Voc Temperature Coefficient	-0.27 %/°C
Isc Temperature Coefficient	+0.05 %/°C
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature (NOCT)	45±2 °C

I-V Curve

