









# ZION Series

Half-Cell Monofacial Module

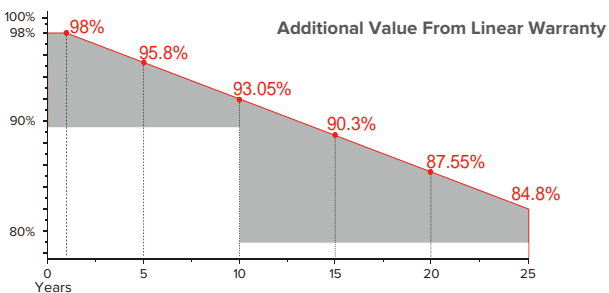
**445-460Wp** | **21.16%**  
 Module Power Output | Max Efficiency



## Key Features

-  High module conversion efficiency
-  Better temperature coefficient
-  Super multi busbar technology
-  Low attenuation long warranty
-  Superior load capacity
-  Aesthetic appearance
-  USA based liability insurance.
-  Houston, Texas based company.

## Warranty



**15** <Years> Guarantee on product material and workmanship

**25** <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):Type1	
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-HV		SEG-450-BMA-HV		SEG-455-BMA-HV		SEG-460-BMA-HV	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power -Pmp(Wp)*	445	334	450	338	455	342	460	346
Open Circuit Voltage -Voc(V)	49.90	46.60	50.10	46.80	50.30	46.90	50.50	47.10
Short Circuit Current -Isc(A)	11.34	9.17	11.42	9.22	11.49	9.29	11.57	9.34
Maximum Power Voltage -Vmp(V)	41.60	38.50	41.80	38.70	42.00	38.90	42.20	39.10
Maximum Power Current -Imp(A)	10.70	8.68	10.77	8.73	10.84	8.80	10.91	8.85
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	20 A							

STC: Irradiance 1000 W/m<sup>2</sup> module temperature 25°C AM=1.5

NOCT: Irradiance 800W/m<sup>2</sup> ambient temperature 20°C module temperature 45°C wind speed: 1m/s

\*Measuring tolerance: ±3%

## Mechanical Specifications

External Dimension	2094 x 1038 x 35 mm
Weight	23.5 kg
Solar Cells	PERC Mono 166 x 83mm(144 pcs)
Front Glass	3.2mm AR coating 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

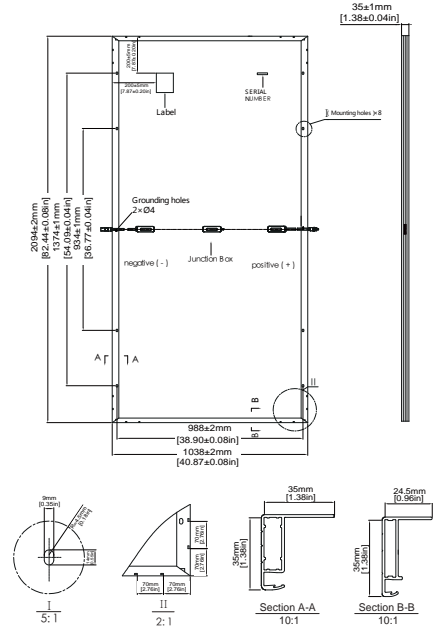
## Packing Configuration

Container	20'GP	40'HQ
Pieces per Pallet	31	31
Pallets per Container	5	22
Pieces per Container	155	682

## 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

## Technical Drawing



\*Refer to SEG installation Manual for details

## I-V Curve

