



ZION Series

Half-Cell Monofacial Module

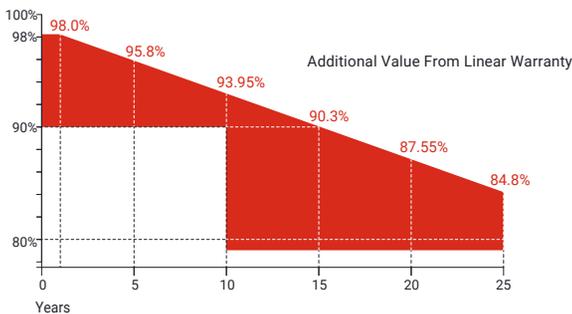
445-460Wp | **21.16%**
Module Power Output | Max Efficiency



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; IEC61730; UL61730	
IEC62804	PID
IEC61701	Salt Mist
IEC62716	Ammonia Resistance
IEC60068	Dust and Sand
IEC61215	Hailstone
Fire Type (UL61730): Type 1	
ISO14001:2015; ISO9001:2015; ISO45001:2018	
	
	
	
	

About SEG Solar

Founded in 2016, SEG is a leading vertically integrated PV manufacturer headquartered in Houston, Texas, U.S., and is dedicated to delivering reliable and cost-effective solar modules to the utility, commercial, and residential markets. By the end of 2024, SEG had shipped over 6 GW of solar modules worldwide and have achieved a module production capacity of 6 GW.



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/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	2094 x 1038 x 35 mm
Weight	23.5 kg
Solar Cells	PERC Mono-crystalline 144 pcs(72 x 2)
Front Glass	3.2 mm AR coating tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP68 / 3 diodes
Connector Type	MC4 or others
Cable Type	12 AWG PV Wire(UL)
Cable Length	400 mm(+), 200 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

Temperature Characteristics

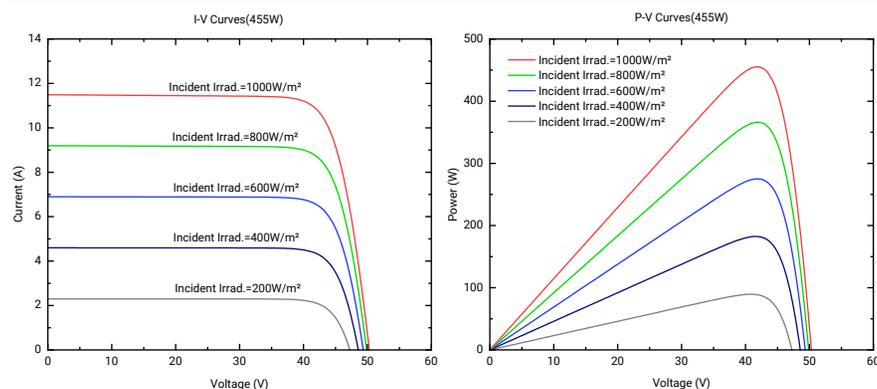
Pmax Temperature Coefficient	-0.35 %/°C
Voc Temperature Coefficient	-0.27 %/°C
Isc Temperature Coefficient	+0.05 %/°C
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature (NOCT)	45±2 °C

Packing Configuration

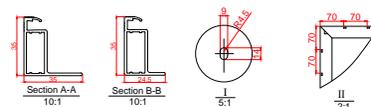
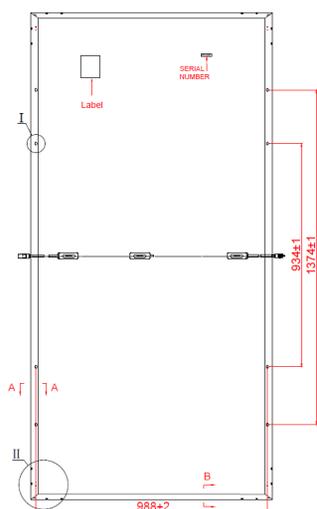
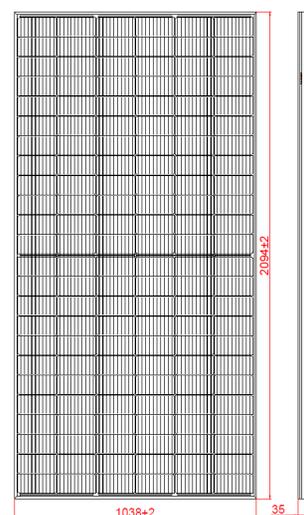
Container*	20'GP	40'HQ
Pieces per Pallet	31	31
Pallets per Container	5	22
Pieces per Container	155	682

*Refer to the SEG container technical documentation for 53' box trailer or other trucks loading quantity

Curves of PV Module



Technical Drawing



*Refer to SEG installation manual for details