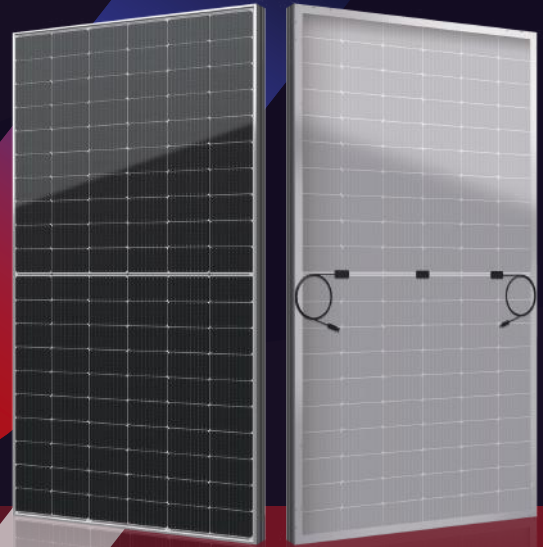


# SIV SERIES

Small Changes, Big Accomplishments

## 435-450W



### ● SIV SERIES

SEG Solar INC. (SEG) redefined the high-efficiency module series by integrating 182mm silicon wafers with multi-busbar and half-cut cell technologies. SEG panel combined creative technology effectively and extremely improved the module efficiency and power output.

### ● KEY FEATURES

- The transmittance of 400~1100nm band in the transparent region is  $\geq 90\%$
- Using POE or EVA package, there is no need to worry about component power attenuation caused by PID
- A transparent backsheet reduces module weight by 30%, resulting in reduced shipping and installation costs
- Through ultraviolet 500kWh/m<sup>2</sup> strict test, fully meet the requirements of 25 years of use of the modules
- Timely release of packaging material decomposition of acetic acid, effectively reduce the concentration of acetic acid modules
- Consistent with conventional component production process, no need to modify production equipment



### ● PRODUCT CERTIFICATION

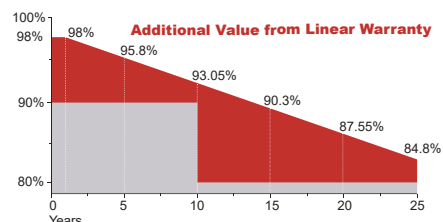
IEC61215:2016; IEC 61730:2016; UL1703; UL61730/CSA/CEC	
IEC62804	PID
IEC61701	Salt Mist
IEC62716	Ammonia Resistance
IEC60068	Dust and Sand
IEC61215	Hailstone(25mm)
Fire Type (UL61730):1/29 (Type1-HV Type29-BG)	
ISO14001:2015; ISO9001:2015; ISO45001:2018	



### ● INSURANCE



### ● WARRANTY



Guarantee on product material and workmanship



Linear power output warranty

### SEG SOLAR INC.(SEG)

### Mechanical Specifications

External Dimension	1909 x 1134 x 35 mm
Weight	22.3 kg
Solar Cells	PERC Mono crystalline(120 pcs)
Front Glass	3.2 / mm AR coating semi-tempered glass / low iron
Backsheet	Transparent backsheet
Frame	Anodized aluminium alloy
Junction Box	IP68 / 3 diodes
Connector Type	MC4
Cable Type / Length	12 AWG PV Wire (UL) / 1200 mm
Mechanical Load(Front)	5400 Pa / 113 psf*
Mechanical Load(Rear)	3600 Pa / 75 psf*

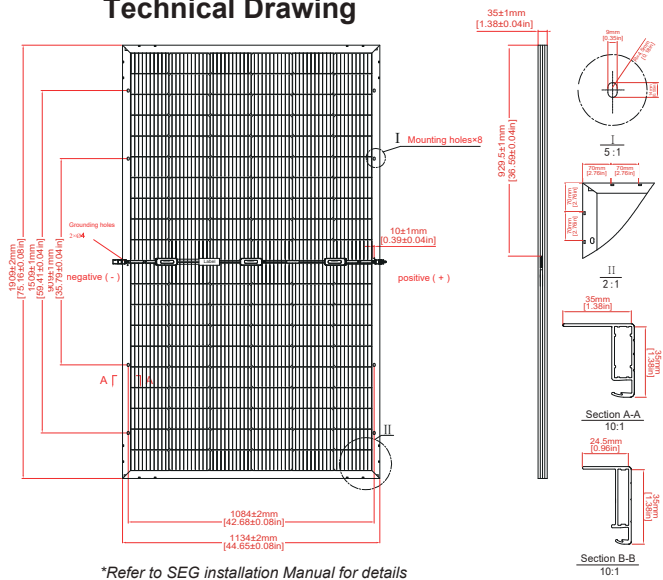
\*Refer to SEG installation Manual for details

### Packing Configuration

Container	20'GP	40'HQ
Pieces per Pallet	31	31
Pallets per Container	5	24
Pieces per Container	155	744

For details, please consult SEG.

### Technical Drawing



\*Refer to SEG installation Manual for details

### Electrical Characteristics

Module Type	SEG-435-BMB-TB			SEG-440-BMB-TB			SEG-445-BMB-TB			SEG-450-BMB-TB		
	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 -P <sub>mp</sub> (W)	435	326	305	440	329	308	445	333	312	450	337	315
Open Circuit Voltage -V <sub>oc</sub> (V)	41.00	38.27	40.98	41.12	38.33	41.10	41.22	38.41	41.20	41.32	38.57	41.30
Short Circuit Current -I <sub>sc</sub> (A)	13.45	10.87	9.48	13.56	10.96	9.56	13.66	11.04	9.63	13.76	11.12	9.70
Maximum Power Voltage -V <sub>mp</sub> (V)	33.98	31.55	34.01	34.08	31.63	34.09	34.18	31.82	34.22	34.28	31.98	34.29
Maximum Power Current -I <sub>mp</sub> (A)	12.82	10.33	8.97	12.92	10.41	9.04	13.03	10.48	9.12	13.13	10.56	9.19
Module Efficiency STC-η <sub>m</sub> (%)	20.09			20.33			20.56			20.79		
Power Tolerance (W)	(0, +3%)											
Pmax Temperature Coefficient	-0.35 %/°C											
Voc Temperature Coefficient	-0.27 %/°C											
Isc Temperature Coefficient	+0.05 %/°C											

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  
Power measurement tolerance: +/-3%

### Rear Side Power Gain(SEG-440-BMB-TB)

Power Gain	10%	15%	20%	25%	30%
Maximum Power -P <sub>mp</sub> (W)	484	506	528	550	572
Open Circuit Voltage -V <sub>oc</sub> (V)	41.12	41.12	41.12	41.12	41.12
Short Circuit Current -I <sub>sc</sub> (A)	14.92	15.60	16.27	16.95	17.63
Maximum Power Voltage -V <sub>mp</sub> (V)	34.08	34.08	34.08	34.08	34.08
Maximum Power Current -I <sub>mp</sub> (A)	14.21	14.86	15.50	16.15	16.80

### Application Conditions

Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	25 A
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature	45±2 °C
Bifaciality	70%±10%

### I-V Curve

