



ALPINE N Series

Half-Cell N-Type Bifacial Module

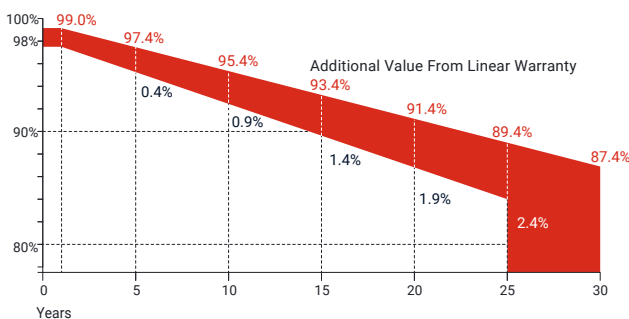
495-510Wp | **22.93%**
Module Power Output | Max Efficiency



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



30 Years Guarantee on product material and workmanship

30 Years Linear power output warranty

Product Certification

IEC61215; IEC61730; UL61215; UL61730	
IEC62804	PID
IEC61701	Salt Mist
IEC62716	Ammonia Resistance
IEC60068	Dust and Sand
IEC61215	Hailstone
Fire Type (UL61730): Type 29	
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-495-BTD-BG			SEG-500-BTD-BG			SEG-505-BTD-BG			SEG-510-BTD-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)*	495	375	396	500	379	400	505	383	404	510	387	408
Open Circuit Voltage -Voc(V)	39.90	37.70	39.88	40.10	37.90	40.08	40.30	38.10	40.28	40.50	38.30	40.48
Short Circuit Current -Isc(A)	15.82	12.76	12.61	15.88	12.81	12.67	15.95	12.87	12.74	16.01	12.91	12.80
Maximum Power Voltage -Vmp(V)	33.10	31.20	33.08	33.30	31.40	33.28	33.50	31.60	33.48	33.70	31.70	33.68
Maximum Power Current -Imp(A)	14.96	12.03	11.97	15.02	12.08	12.02	15.08	12.13	12.07	15.14	12.20	12.11
Module Efficiency(%)	22.26			22.48			22.71			22.93		
Power Tolerance(W)							(0, +4.99)					
Maximum System Voltage							1500V DC					
Maximum Series Fuse Rating							35 A					
Bifaciality							80±10%					

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

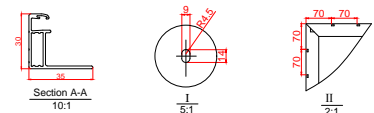
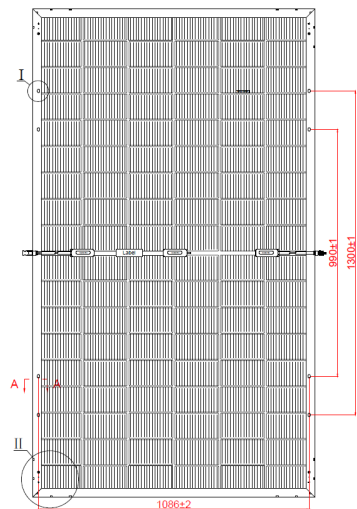
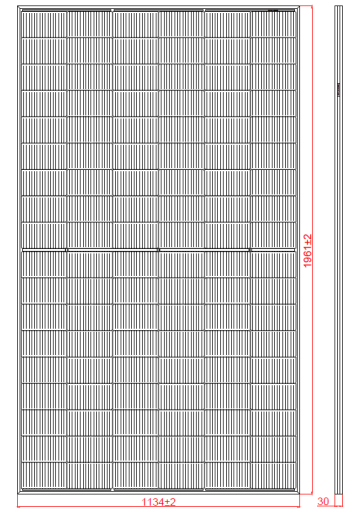
*Measuring tolerance: ±3%

Mechanical Specifications

External Dimension	1961 x 1134 x 30 mm
Weight	28.0 kg
Solar Cells	N-Type Mono 108 pcs(54 x 2)
Front Glass	2.0 mm AR coating semi-tempered glass
Back Glass	2.0 mm Semi-tempered glass
Frame	Black anodized aluminium alloy
Junction Box	IP68 / 3 diodes
Connector Type	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

Temperature Characteristics

Pmax Temperature Coefficient	-0.30 %/°C
Voc Temperature Coefficient	-0.25 %/°C
Isc Temperature Coefficient	+0.046 %/°C
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature (NOCT)	45±2 °C

Packing Configuration

Container*	20'GP	40'HQ	40'HQ (For USA)
Pieces per Pallet	36	36	36
Pallets per Container	5	24	18
Pieces per Container	180	864	648

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

Curves of PV Module

