

## SEM 300-385W BF Framed



### Premium BF Series with 10-30% Power Generation Gain

- The power generation increased by reflected light 10-30%
- Zero light degradation (LID)
- Enhanced safety by excellent fire resistance
- Frameless design is perfect for sandy, snowy and high latitude regions
- Positive power tolerance 0/+5W
- Bankable module
- PID free
- Advanced surface texturing
- Resistance to sand and dust abrasion
- Safety for salt mist and ammonia corrosion
- Outstanding power output capability at low irradiance
- Triple 100% EL tests
- 3800 Pa wind load and 5400 Pa snow load (900 kg snow load per module); 35 mm hail stones at 97 km/h

### Certificates

CE-Compliant, IEC 61215 (Ed.1)  
 IEC 61730 application class A,  
 Safety Class II, UL 1703



### Warranty

15 Years: Manufacturing Warranty  
 12 Years Warranty: 90% Power Output  
 25 Years Warranty: 80% Power Output

### Mechanical Characteristics

Cell type	Mono-crystalline, 5 bus bars
No. of Cells	60 (6×10)
Module Dimensions	1974 × 992 × 35/40 mm
Weight	21.7 kg
Front Glass / Back Glass	2.0 mm tempered glass
Frame	Anodized aluminum alloy
Junction Box	IP68 (distributed junction box)
Connector	MC4 compatible
Output Cables	4.0 mm <sup>2</sup> , asymmetrical lengths (-) 350 mm, (+) 160 mm
Mechanical load	5400 Pa

## Electrical Characteristics

Model	SEM 300-375W BF framed	SEM 305-380W BF framed	SEM 310-385W BF framed
<b>Performance at Standard Test Conditions (STC): 1000 W/m<sup>2</sup>, 25°C, AM 1.5</b>			
Testing Conditions	Front Side / Rear Side	Front Side / Rear Side	Front Side / Rear Side
Maximum Power (Pmax)	300 W / 255 W	305 W / 259 W	310 W / 264 W
Operating Voltage (Vmpp)	32.3 V / 32.2 V	32.5 V / 32.4 V	32.7 V / 32.6 V
Operating Current (Impp)	9.29 A / 7.92 A	9.39 A / 8.01 A	9.49 A / 8.09 A
Open-Circuit Voltage (Voc)	39.2 V / 38.9 V	39.4 V / 39.1 V	39.6 V / 39.3 V
Short-Circuit Current (Isc)	9.82 A / 8.41 A	9.90 A / 8.47 A	9.98 A / 8.54 A
Module Efficiency	18.2 % / 15.5 %	18.5 % / 15.7 %	18.8 % / 16.1 %
<b>Performance at Nominal Operating Cell Temperature (NOCT) : 800 W/m<sup>2</sup>, 20°C, AM 1.5, wind speed 1m/s</b>			
Testing Conditions	Front Side / Rear Side	Front Side / Rear Side	Front Side / Rear Side
Maximum Power (Pmax)	221 W / 187 W	224 W / 191 W	228 W / 194 W
Operating Voltage (Vmpp)	29.7 V / 29.6 V	29.8 V / 29.7 V	30.0 V / 29.9 V
Operating Current (Impp)	7.43 A / 6.34 A	7.51 A / 6.41 A	7.59 A / 6.48 A
Open-Circuit Voltage (Voc)	36.3 V / 36.0 V	36.4 V / 36.2 V	36.6 V / 36.3 V
Short-Circuit Current (Isc)	7.91 A / 6.78 A	7.98 A / 6.83 A	8.04 A / 6.89 A
Power Tolerance	0 /+5 W		
Maximum System Voltage	1500 VDC (IEC) / 1000 VDC (UL)		
Maximum Series Fuse	15 A		
<b>Temperature Characteristics</b>			
Temperature Coefficient at Pmax	- 0.38% / °C		
Temperature Coefficient at Voc	- 0.30 % / °C		
Temperature Coefficient at Isc	+ 0.048 % / °C		
Nominal Operating Cell Temperature	42 ± 2 °C		
Operating Temperature	-40 °C to 85 °C		

## With Different Power Generation Gain (360S)

Power Gain	Max. Power (Pmax)	MPP Voltage (Vmpp)	MPP Current (Voc)	Open-Circuit Voltage (Voc)	Short-Circuit Voltage (Isc)
10 %	336 W	32.7 V	10.30 A	39.6 V	10.83 A
15%	350 W	32.7 V	10.70 A	39.6 V	11.25 A
20%	363 W	32.8 V	11.07 A	39.7 V	11.64 A
25%	376 W	32.8V	11.46 A	39.7 V	12.05 A
30%	389 W	32.8 V	11.85 A	39.7 V	12.47 A