

SEM 365-450W 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	72 (6×12)
Module Dimensions	1980 × 992 × 35/40 mm
Weight	26.1 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 ² , asymmetrical lengths (-) 350 mm, (+) 160 mm
Mechanical load	5400 Pa

Electrical Characteristics

Model	SEM 365-440W BF framed	SEM 370-445W BF framed	SEM 375-450W BF framed
Performance at Standard Test Conditions (STC): 1000 W/m², 25°C, AM 1.5			
Testing Conditions	Front Side / Rear Side	Front Side / Rear Side	Front Side / Rear Side
Maximum Power (Pmax)	365 W / 310 W	370 W / 314 W	375 W / 319 W
Operating Voltage (Vmpp)	38.2 V / 38.0 V	38.4 V / 38.2 V	38.5 V / 38.3 V
Operating Current (Impp)	9.56 A / 8.15 A	9.66 A / 8.24 A	9.75 A / 8.32 A
Open-Circuit Voltage (Voc)	44.8 V / 44.4 V	45.0 V / 44.6 V	45.1 V / 44.7 V
Short-Circuit Current (Isc)	10.13 A / 8.68 A	10.23 A / 8.76 A	10.32 A / 8.83 A
Module Efficiency	18.6 % / 15.8 %	18.8 % / 16.0 %	19.1 % / 16.2 %
Performance at Nominal Operating Cell Temperature (NOCT) : 800 W/m², 20°C, AM 1.5, wind speed 1m/s			
Testing Conditions	Front Side / Rear Side	Front Side / Rear Side	Front Side / Rear Side
Maximum Power (Pmax)	268 W / 228 W	272 W / 231 W	276 W / 234 W
Operating Voltage (Vmpp)	35.1 V / 35.0 V	35.2 V / 35.1 V	35.3 V / 35.2 V
Operating Current (Impp)	7.65 A / 6.52 A	7.73 A / 6.59 A	7.80 A / 6.65 A
Open-Circuit Voltage (Voc)	41.4 V / 41.1 V	41.6 V / 41.3 V	41.7 V / 41.4 V
Short-Circuit Current (Isc)	8.17 A / 7.0 A	8.24 A / 7.06 A	8.32 A / 7.12 A
Power Tolerance	0 /+5 W		
Maximum System Voltage	1500 VDC (IEC) / 1000 VDC (UL)		
Maximum Series Fuse	15 A		
Temperature Characteristics			
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%	391 W	38.1 V	10.26 A	44.7 V	10.90 A
15%	406 W	38.1 V	10.66 A	44.7 V	11.33 A
20%	421 W	38.1 V	11.05 A	44.8 V	11.72 A
25%	437 W	38.2 V	11.44 A	44.8 V	12.14 A
30%	452 W	38.2 V	11.83 A	44.8 V	12.55 A