

SEM 400W/405W/410W HC



- Excellent module efficiency – up to 20.2%
- 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
- Safety for fire risk
- 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 61215-1 (ed.1), IEC 61215-1-1 (ed.1), IEC 61215-2 (ed.1) IEC 61730-1 (ed.2), IEC 61730-2 (ed.2), 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

Solar Cells	Mono-crystalline silicon
No. of Cells	144 (6 × 24)
Module Dimensions	2028 × 1002 × 35 mm
Weight	27.0 kg
Front Glass	2.0 mm semi-tempered glass
Frame	Anodized aluminum alloy
Junction Box	IP68 rated
Output Cables	4.0 mm ²
Connectors	MC4 compatible (1000V), MC4 EVO2, Cable 01S (1500V)

Electrical Characteristics

Model	SEM 400 HC	SEM 405 HC	SEM 410 HC
Performance at Standard Test Conditions (STC): 1000 W/m², 25°C, AM 1.5			
Maximum Power (Pmax)	400 W	405 W	410 W
Operating Voltage (Vmpp)	40.7 V	40.9 V	41.1 V
Operating Current (Impp)	9.83 A	9.91 A	9.98 A
Open-Circuit Voltage (Voc)	48.5 V	48.7 V	48.9 V
Short-Circuit Current (Isc)	10.34 A	10.42 A	10.49 A
Module Efficiency	19.70%	20.00%	20.20%
Performance at Nominal Module Operating Temperature (NMOT)			
Maximum Power (Pmax)	300.6 W	304.6 W	308.2 W
Operating Voltage (Vmpp)	37.8 V	38.1 V	38.2 V
Operating Current (Impp)	7.95 A	8.0 A	8.06 A
Open-Circuit Voltage (Voc)	45.4 V	45.7 V	45.9 V
Short-Circuit Current (Isc)	8.35 A	8.41 A	8.46 A
Power Tolerance		0 / +5 W	
Maximum System Voltage		1000 VDC / 1500 VDC (IEC)	
Maximum Series Fuse		20 A	
Temperature Characteristics			
Temperature Coefficient at Pmax		- 0.37 % / °C	
Temperature Coefficient at Voc		- 0.304 % / °C	
Temperature Coefficient at Isc		0.05 % / °C	
Nominal Operating Cell Temperature		42 ± 2 °C	
Operating Temperature		-40 °C to 85 °C	

Current-Voltage & Power-Voltage Curve (4105)

