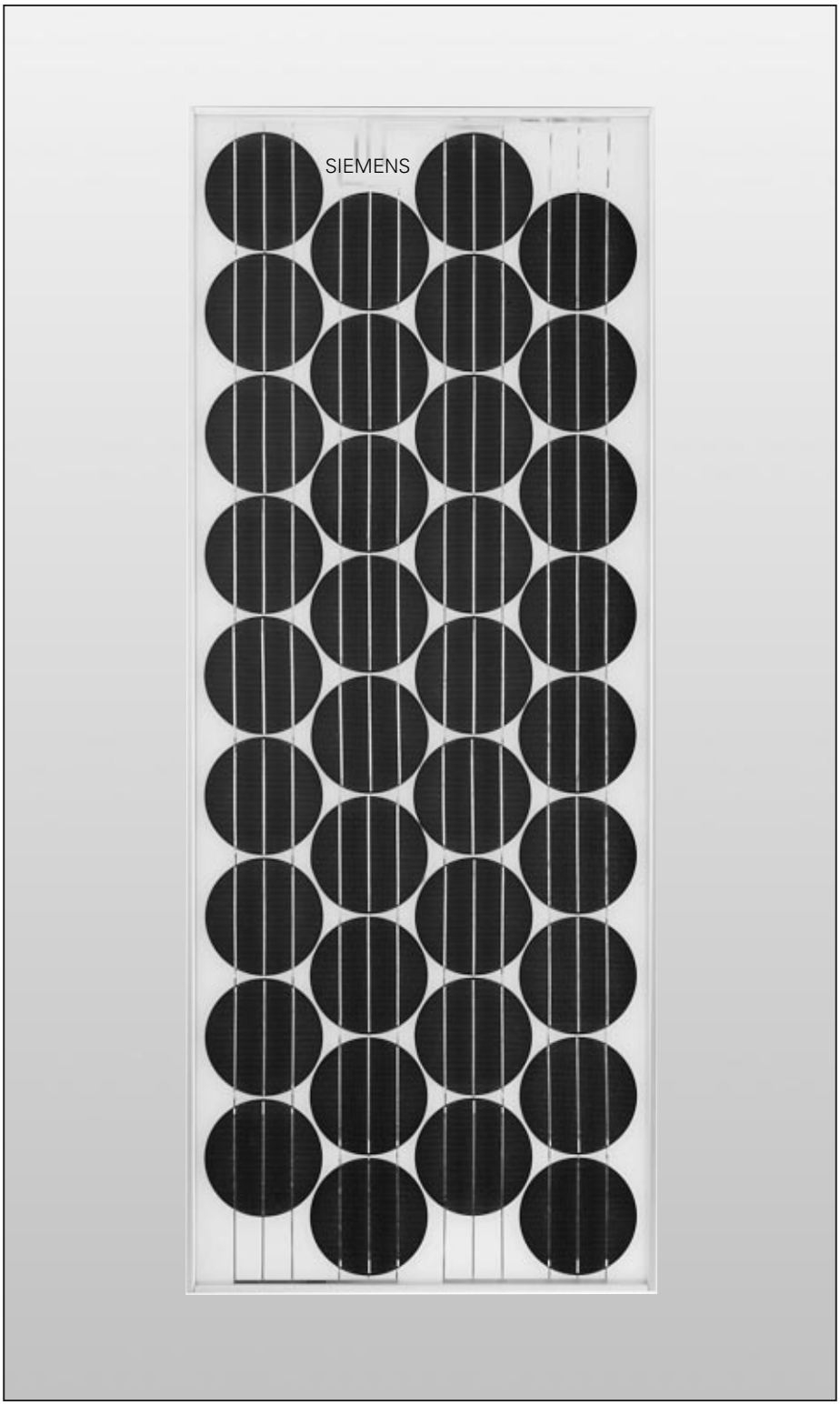
SIEMENS

Solar module SR100



The Siemens SR100 solar (photovoltaic) module efficiently generates power by converting the energy contained in sunlight directly into electricity. It has no moving parts, operates silently, uses no fuel, and produces no waste. Built for long-term dependability, the SR100 has a twenty-five year limited warranty on power output.

PowerMax® technology

Siemens PowerMax® solar cells give the SR100 its outstanding energy performance characteristics. A proprietary process increases the ability of the single-crystal silicon cells to absorb light-energy and generate electricity efficiently. This enables the SR100 to produce power even in low light and deliver excellent performance under any operating condition.

Engineered for strength, durability and dependable operation in any climatic region, the SR100 is able to endure even severe environmental conditions and continue to generate power reliably and efficiently.

Siemens manufactures solar modules to exacting standards of quality in our ISO 9001 certified facilities. We control every phase of production to assure optimal product performance.

Outstanding power performance and reliability, along with easy wiring, installation and system expansion, make Siemens SR100 modules an excellent choice for many industrial, commercial and consumer solar electric power systems.

Solar module

Model:	**SR100**
Rated power:	**100 Watts**
Limited Warranty:	**25 Years**

Certifications and Qualifications

- UL-Listing 1703
- IEC 61215
- JPL Specification 5101-161
- MIL Standard 810

Intelligent module design

- All cells are electrically matched to assure greatest power output.
- Ultra-clear tempered glass provides excellent light transmission and protects from wind, hail, and impact.
- Torsion and corrosion resistant anodized aluminum module frame assures dependable performance, even through harsh weather conditions and in marine environments.
- Built-in bypass diodes (12V configuration) help system performance during partial shading.

High quality

- Every module is subject to final factory review, inspection and test to assure compliance with electrical, mechanical and visual criteria.
- PowerMax® single-crystalline solar cells deliver excellent performance even in reduced-light or poor weather conditions.
- Cell surfaces have Texture Optimized Pyramidal Surface (TOPS™) to process more energy from available light.
- Fault tolerant multi-redundant contacts on front and back of each cell provide superior reliability.
- Solar cells laminated between a multi-layered polymer backsheet and layers of ethylene vinyl acetate (EVA) for environmental protection, moisture resistance, and electrical isolation.
- Durable multiple-layered backing system provides the module underside with protection from scratching, cuts, breakage, and most environmental conditions.
- Laboratory tested and certified for a wide range of operating conditions.
- Ground continuity of less than 1 ohm for all metallic surfaces.
- Manufactured in ISO 9001 certified facilities to exacting Siemens quality standards.

Easy installation

- ProCharger™-CR junction box accepts conduit, cable or wire and is designed for easy field wiring.
- Lightweight aluminum frame and pre-drilled mounting holes for easy installation.
- Modules are factory configured for 12 volt operation and may be reconfigured in the field for 6 Volt operation.
- Modules may be wired together in series and parallel to attain required power levels.

Performance warranty

- 25 Year limited warranty on power output.

Further information on solar products, systems, principles and applications is available in the Siemens Solar product catalog.

Siemens modules are recyclable.

Solar module SR100

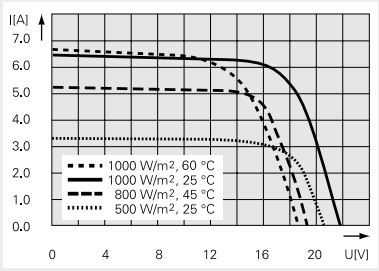
Electrical parameters			12V / 6V
Maximum power rating P_{max}		[W_p] 1)	100
Rated current I_{MPP}		[A]	5.6/11.2
Rated voltage V_{MPP}		[V]	17.7/8.85
Short circuit current I_{SC}		[A]	6.3/12.6
Open circuit voltage V_{OC}		[V]	22/11

Thermal parameters			
NOCT 2)		[°C]	45 ±2
Temp. coefficient: short-circuit current			2.1mA / °C
Temp. coefficient: open-circuit voltage			-.079V / °C

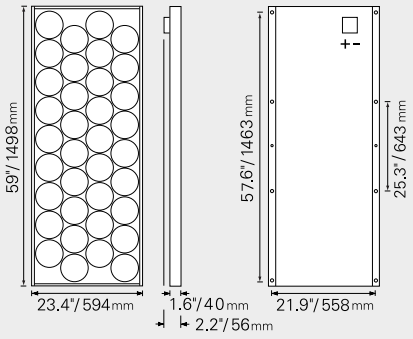
Qualification test parameters 4)			
Temperature cycling range		[°C]	-40 to +85
Humidity freeze, Damp heat		[%RH]	85
Maximum system voltage		[V]	1000 (per ISPRA/CEC) 600 (per U.L.)
Wind Loading	PSF	[N/m^2]	50 [2400]
Maximum distortion 3)		[°]	1.2
Hailstone impact	Inches	[mm]	1.0 [25]
	MPH	[m/s]	52 [v=23]
Weight	Pounds	[kg]	24.0 [10.9]

1) Wp (Watt peak) = Peak power (Minimum Wp = 90 Watts) under standard test conditions:
   Air Mass AM = 1.5
   Irradiance E = 1000 W/m^2
   Cell temperature T_C = 25 °C
2) Normal Operating Cell Temperature at:
   Irradiance E = 800 W/m^2
   Ambient temperature T_U = 25 °C
   Wind Speed v_W = 1 m/s
3) Diagonal lifting of module plane
4) Per IEC 61215 test requirements
5) 12 Volt configuration

Voltage-current characteristic 5)



Module dimensions

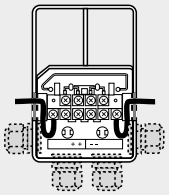


Hole Diameter 0.26 inch (6.6mm)
Mounting hole dimensions are center to center

ProCharger™-CR Junction-box

Maximum cable diameter: 4mm²

Type of protection: IP44



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