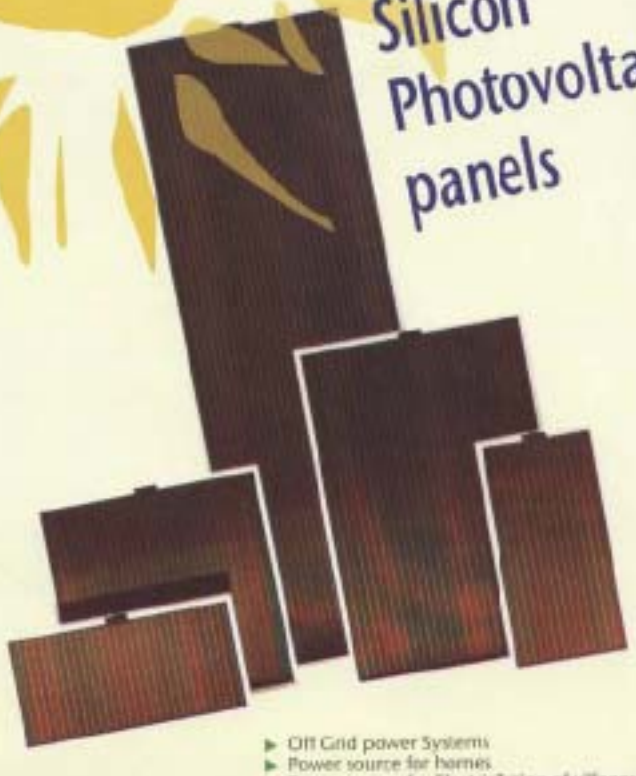
SOLAR cells®

www.solar-cells.net

energy for you

Silicon Photovoltaic (PV) panels



ISO 9002

MEMBER OF

EPIA

-40 °C → +90

operating temperature

applications

- Off Grid power Systems
- Power source for homes
- Power source for Electrification of villages in remote areas
- Power source for Medical facilities in rural areas
- Power source for School facilities in rural areas
- Pumping systems for irrigation, rural water supplies and livestock watering
- Water quality and environmental data monitoring systems
- Desalination systems
- Railroad signals
- Emergency communication systems
- Microwave / radio repeater stations
- Navigation lighthouses and ocean buoys
- Cathodic protection systems
- Aviation obstruction lights
- Recreational vehicles
- Sailboat charging systems

Technical data

DEFINITIONS

- SOLAR CELLS plate shall be defined as a SOLAR CELLS photovoltaic device on a glass substrate protected with a color coated film medium (SP Series).
- SOLAR CELLS module shall be defined as a SOLAR CELLS photovoltaic device on a glass substrate protected with a glass to glass, edge seal and frame encapsulating system (SM Series).
- SOLAR CELLS modules SM series framed with aluminium frame over the polymer (SM Al Series).
- The short circuit current, Isc is defined as the current when there is no voltage across the load at STC.
- The open circuit voltage, Voc is defined as the voltage when no current is being drawn at STC.
- The specified voltage, Vspec is the voltage at which the circuit is designed to draw current from the PV device.
- The peak wattage is defined as the product of current and voltage at the peak power point; that is, Wpeak = Ipeak x Vpeak at STC.
- The Standard Test Conditions (STC) shall be defined as Insolation = 1000 W/m². Module Temperature = 25°C Air Mass = 1,5.
- The NOMT (Nominal Operating Module Temperature) is 45°C under test conditions with an ambient temperature of 25°C The relative temperature coefficient for a typical device are voltage (Voc): - 0,13%/°C; Current (ISC): + 0,09%/°C; Power: - 0,23%/°C.

QUALITY CONTROL

- Thermal cycling and shock test
- Thermal / Freezing and high humidity cycling test
- Electrical insulation test
- Hail impact test
- Mechanical, wind and twist loading test
- Salt mist test
- Light and water-exposure test
- Field exposure test
- Environmentally friendly packing materials

Amorphous
Thin - Film Tehnology
Stabilized/artificially aged
Low Cost, Many Standard Sizes, Modular
Effective in sun obstructed positions/shades/clouds
5-year warranty

SOLAR CELL® PLATES-SP

can be made in sizes to suit requirements

MODEL	SIZE EU (mm)	Vspec (V)	I at Vspec (mA)	Wpeak MAX (W)	Wpeak STABILE (W)	Voc Typical (V)	Isc Typical (mA)
SP 112	305x305	14,5	276	5	4	22,5	330
SP 106	153x305	14,5	138	2,5	2	22,5	165
SP 061	153x305	7,5	240	2,5	2	11	330
SP 0606	153x153	7,5	133	1,2	1	11	165
Glass thickness 2 mm or 3 mm							

SOLAR CELL® MODULES-SM

MODEL	SIZE EU (mm)	Vspec (V)	I at Vspec (mA)	Wpeak MAX (W)	Wpeak STABILE (W)	Voc Typical (V)	Isc Typical (mA)
SM 136	308x920x8	14,5	828	14	12	22,5	990
SM 118	308x463x8	14,5	414	7	6	22,5	495
SM 112	308x310x8	14,5	276	5	4	22,5	330
SM 106	308x157x8	14,5	138	2,5	2	22,5	165
SM 061	157x308x8	7,5	266	2,5	2	11	330

SOLAR CELL® MODULES-SM Al

easy mounting on support structures

MODEL	SIZE EU (mm)	Vspec (V)	I at Vspec (mA)	Wpeak MAX (W)	Wpeak STABILE (W)	Voc Typical (V)	Isc Typical (mA)
SM Al 136	312x923x25	14,5	828	14	12	22,5	990
SM Al 118	312x465x25	14,5	414	7	6	22,5	495
SM Al 112	312x312x25	14,5	276	5	4	22,5	330
SM Al 106	312x160x25	14,5	138	2,5	2	22,5	165

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