

SS Solar Photovoltaic Solar Panels



Model		KM5	KM10	KM20	SW50	SW85	SW130	SW135	SW140	SW175	SW235
Nominal Voltage	V	12	12	12	12	12	12	12	12	24	24
Maximum Power	W	5	10	20	50	85	130	135	140	175	235
Current @ Maximum Power	A	0,286	0,60	1,14	2,75	4,77	7,49	7,69	7,85	4,89	7,85
Voltage @ Maximum Power	V	17,56	17,56	17,56	18,2	17,9	17,4	17,7	18,0	35,8	30,0
Short-circuit Current	A	0,31	0,66	1,23	2,95	5,20	7,99	8,16	8,35	5,30	8,35
Open Circuit Voltage	V	21,52	21,52	21,5	22,1	22,0	21,5	21,9	22,1	44,4	37,0
Daily charge capacity *	Ah/day	1,43	3,0	5,70	13,75	23,85	37,45	38,45	39,25	24,45	39,25
Length	mm	310	380	550	680	1229	1508	1508	1508	1610	1675
Width	mm	190	290	340	680	556	680	680	680	810	1001
Thickness	mm	28	28	28	34	34	34	34	34	34	31
Weight	kg	1	2	2,6	5,6	7,5	11,8	11,8	11,8	15	21,2
Part #		<b>59068</b>	<b>59069</b>	<b>59070</b>	<b>31975</b>	<b>50071</b>	<b>47742</b>	<b>59071</b>	<b>59072</b>	<b>59073</b>	<b>59074</b>

STC - Standard Test Conditions 1000 W/m<sup>2</sup> irradiation, Spectrum AM 1.5, cells @ 25°C  
 \*daily charge capacity considering a local with 5 peak-equivalent hours/day of insulation

Solar photovoltaic power started with very sophisticated and specialized applications, but matured to an economically viable solution for several applications.

Some of the advantages of solar power for rural energy systems:

- Zero cost of 'fuel'
- Modularity - systems can be easily expanded for more power capacity
- Reliability - solar panels have a long life expectancy, of up to 20 years.
- No power surges or voltage variations, common on rural power lines
- Silent and non-pollutant operation

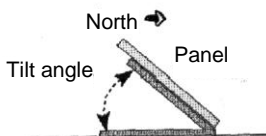
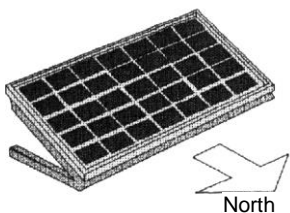
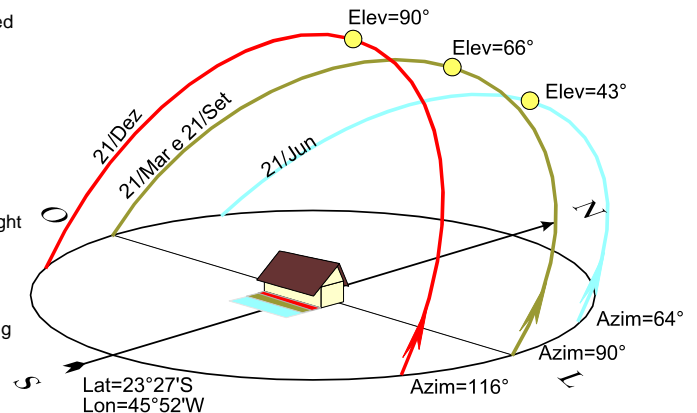
**SOLAR PANEL**

The solar panel consists in individual cells or thin-film elements interconnected which converts light energy into electrical energy through photovoltaic process.

The Sun radiation on the Earth's surface is about 1000W/m<sup>2</sup>. With a 1x0.33m panel at this radiation rate, 43W can be obtained - thus the 'efficiency' is of about 13%.

**SOLAR PANEL ORIENTATION**

On the South Hemisphere, the module should be facing North, with an inclination angle according to the table below. Climate information for each specific region can lead to different ideal angles. Contact us for a detailed system design.



Latitude	Tilt Angle
0-15°	15°
20°	20°
25°	25°
30°	35°
35°	40°

**We design and manufacture module supports according to your needs. Contact us.**