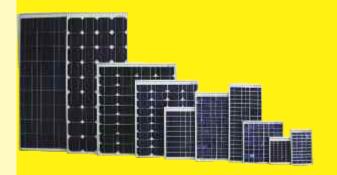


## Solar Photovoltaic Module

Solar lighting system works on the principle of converting light energy to electric energy. This is done by using Photo Voltaic silicon cells. When light energy strikes this cells, energy is transmitted by the movement of electrons. The flow of electrons results in a potential difference. This potential difference is stored in rechargeable Batteries and can be used when needed. In course of time, a day will come when electrical energy will be scarce. This is the right time to adopt the non-conventional resources that are in abundance in the nature.

Solar Modules are made of a grade Mono/Polycrystalline solar cells and have a high impact resistance and highly transparent tempered glass plate on top and polymer sheets on pack. Both front glass and back polymer protect the solar cells from rain, dust and other particles. Static Energy Module ranges from 3Wp to 300Wp. Silicon cells are thin wafers about 0.3mm in thickness sliced from a single crystal of 'n 'type or 'p' type doped silicon. Metal electrodes made from a Ti-Ag solder are attached to the front and back contact of the cell. On the front contact, the electrode is in the form of a metal grid with fingers which permits the sun light to go through, while on the back contact, the electrode completely covers the surface. An anti reflection coating of SiO having a thickness of 0.1mm is also put on the top surface. When radiation falls on the cell, it is absorbed and pairs of positive and negative charges, called electron hole pairs are created. The positive and negative charges are separated because of the p-n junction. The direct current thereby produced is collected by the metal electrodes and flows to the metal electrodes and flows to the external load.





## Solar Photovoltaic SPV Module

Static Energy SPV Modules confirm to international standards and specifications. Mono /Multi crystalline SPV modules are available in the range of 3Wp to 300Wp in 6 V,12V and 24V configurations. Static Energyalso produces specially configured and designed SPV Modules as per customer requirements to terrestrial applications

| Model No. | No. of Cells | Module Dimensions (mm) | Module Wattage | Voc (V) | ISC   |
|-----------|--------------|------------------------|----------------|---------|-------|
| SE 0603   | 18           | 200 X 185 X 22         | 06V, 03Wp      | >10.5   | >0.37 |
| SE 0605   | 18           | 300 X 185 X 22         | 06V, 05WP      | >10.5   | >0.62 |
| SE 1205   | 36           | 300 X 185 X 22         | 12V,05Wp       | >21     | >0.31 |
| SE 1210   | 36           | 355 X 305 X 22         | 12V, 10Wp      | >21     | >0.62 |
| SE 1220   | 36           | 475 X 350 X 22         | 12V, 20 Wp     | >21     | >1.24 |
| SE 1240   | 36           | 666 X 435 X 22         | 12V, 40Wp      | >21     | >2.32 |
| SE 1250   | 36           | 666 X 535 X 22         | 12V, 50 Wp     | >21     | >3.14 |
| SE 1275   | 36           | 785 X 666 X 35         | 12V, 75Wp      | >21     | >4.72 |
| SE 12120  | 36           | 1151 X 666 X 35        | 12V, 120Wp     | >21     | >7.6  |
| SE 24200  | 60           | 1640 X 985 X 42        | 24V, 200Wp     | >36     | >7.9  |
| SE 24250  | 60           | 1640 X 985 X 42        | 24V, 250Wp     | >36     | >8.1  |
| SE 24300  | 72           | 1965 X 985 X 42        | 24V, 300Wp     | >44     | >8.4  |
|           |              |                        | Under STC      | (25℃)   |       |

## Static Energy

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