

## SOLAR GENERATOR - small

Cat: EM3731-001 0.45V 200mA

### GENERAL DESCRIPTION:

This instrument is a small solar panel 74 x 43mm mounted on a plastic base fitted with 4mm socket to accept banana plugs. The overall size of the base is 115 x 110mm. When held to face into bright direct sunlight, the cell will produce about 0.45 volts at a current of 200mA.

Under a strong white incandescent light (approx. 100 Watt), outputs similar to sunshine can be obtained, however the sun produces the better wavelength for the higher efficiency.

Reflector lamps are much better and the lamp can be lower power and cooler. IECs low voltage 12V Microscope Lamp LB2162-002 is an excellent and cool light source.

### EM3731-001



**Physical size:**

**Weight:** kg

**CAUTION:** Be careful when placing the solar cell close to high power incandescent lights because the heat radiating from the lamp can melt or distort the plastic casing of the cell.

Fluorescent light will not provide a useful output because the light is actually of low power and it is turning on and off 100 times per second. The average output energy is quite low.

**USING THE INSTRUMENT:** Several units can be wired in series to increase the output voltage in 0.45V steps to 0.9, 1.35 or higher voltages. The output of several volts can run low power electrical equipment like a small transistor radio or small toy motor or similar.

Using a bright incandescent light with a reflector directing all the light towards the cell, the relationship between the output power (volts x amps) into a load can be established as a ratio of distance the lamp is away from the cell.

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