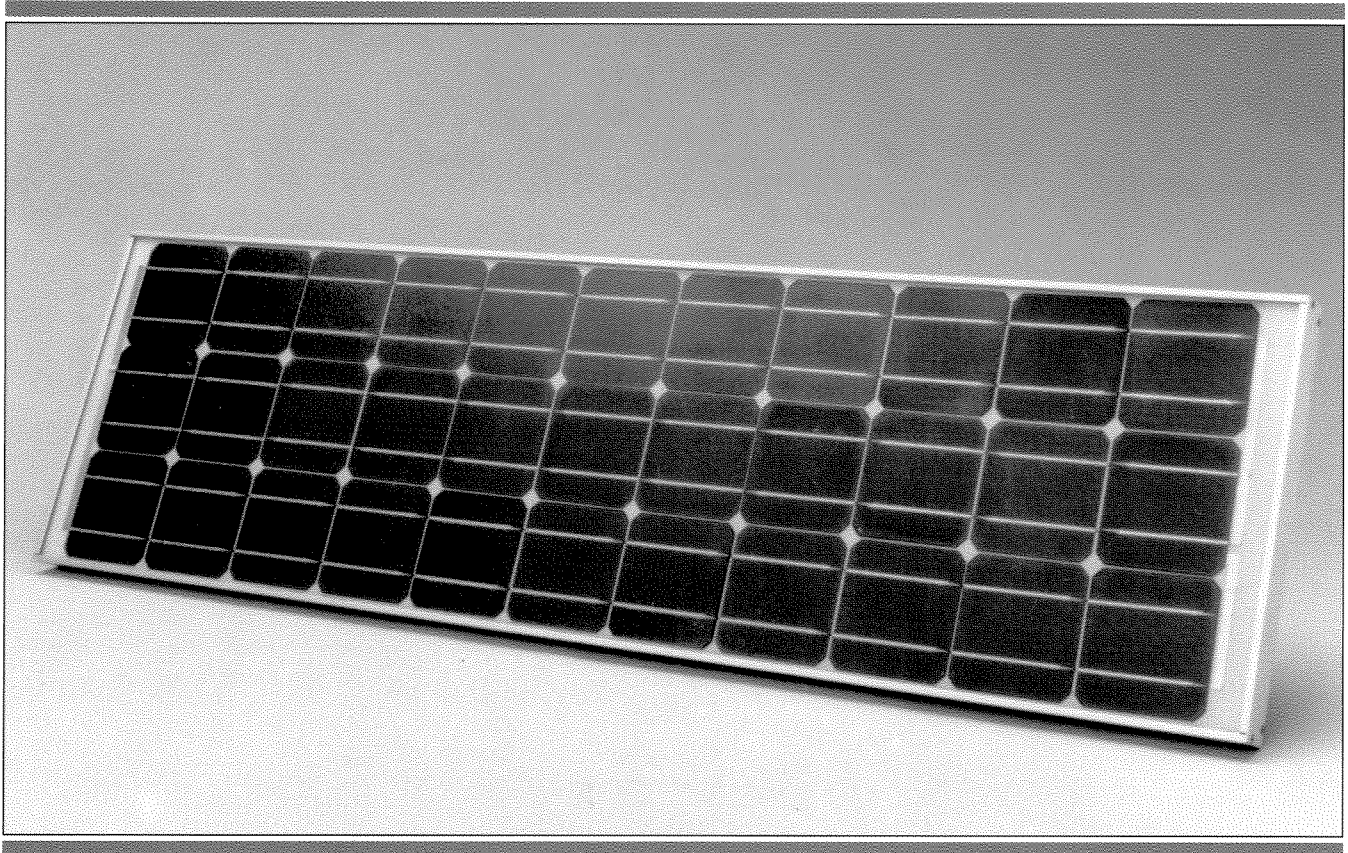


# SIEMENS

## **M75** High efficiency solar electric module



### **RATED POWER 48 WATTS**


The Siemens M75 is a 48 watt solar electric module with 33 high efficiency single crystal solar cells in series. It represents the optimum module configuration for battery charging in all but the very hottest of climates.

Maintaining the quality, features and construction that are industry standards, the M75 solar module can withstand some of the world's harshest environments and continue to perform efficiently. It is an efficient, reliable and durable power module, suitable for a wide variety of applications.

Siemens solar electric modules are tested to meet or exceed industry standards, and even more rigorous Siemens quality and performance requirements.

### **10 YEAR WARRANTY**

Designed for easy installation, the Siemens M75 solar module is sold with comprehensive installation and operating instructions. It carries a 10-year limited warranty on power output and

 is listed by Underwriters Laboratories (UL), an independent, not for profit organization, testing for public safety.

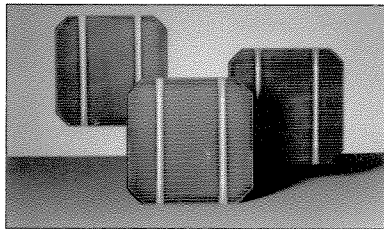
### **Siemens solar electric module features:**

- **Silent operation**
- **Sunlight as fuel**
- **High power density**
- **Easy installation**
- **Rugged, durable construction**
- **Simple, reliable operation**
- **Easy to expand systems**
- **Low maintenance**
- **No moving parts to wear out**
- **No environmental pollutants**

## FEATURES

Large, high efficiency single crystal solar cells provide the highest light to energy conversion efficiency available from Siemens.

Cells are textured and have an anti-reflection coating.



Multiple redundant contacts provide a high degree of fault tolerance and circuit reliability.

Cells within a module are electrically-matched for increased efficiency.

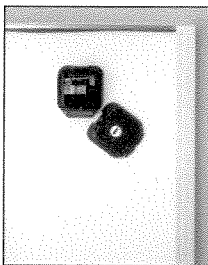
Circuit is laminated between layers of ethylene vinyl acetate (EVA) for moisture resistance, UV stability and electrical isolation.

Low iron tempered glass front for strength and superior light transmission.

Rugged anodized aluminum frame is designed for exceptional strength.

Side rails with multiple mounting holes for easy installation.

Tough, multi-layered polymer backsheet is used for environmental protection, resistance to abrasion, tears and punctures.



Two junction covers with lids are designed for easy field wiring, safety and environmental protection.

Wired-in bypass diodes reduce potential loss of

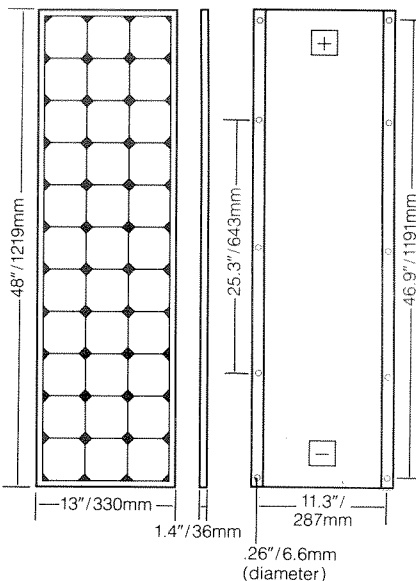
power from partial array shading.

## SPECIFICATIONS

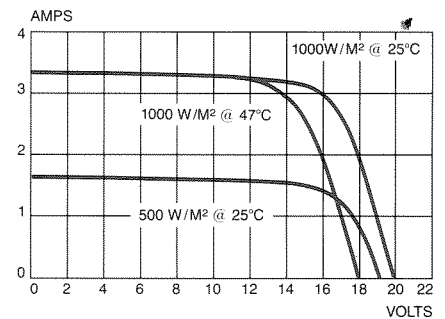
<b>Rated Power</b>	<b>48 Watts</b>
Current (typical at load)	3.02 Amps
Voltage (typical at load)	15.9 Volts
Short Circuit Current (typical)	3.4 Amps
Open Circuit Voltage (typical)	19.8 Volts

Power specifications are at standard test conditions of: 1000 W/M<sup>2</sup> solar irradiance, 25°C cell temperature and solar spectral irradiance per ASTM E892

Weight	11.6 lb/5.2 kg
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## CHARACTERISTICS



The IV curve (current vs. voltage) above demonstrates typical power response to various light levels at 25°C and a 47°C cell temperature.

- Minimum power upon final factory inspection is within 10% of rated power.
- Module leakage current of less than 50µA at 3000 VDC.
- Normal operating cell temperature (NOCT) as defined by ASTM E 1036 is 42°C +/- 2°C.
- Laboratory tested for wide range of operating conditions (-40°C to 90°C, 0 to 85% humidity).
- Passes Salt Fog Test per Mil-Standard 810.
- Passes complete environmental requirements of JPL Specification No. 5101-61 (Block V).
- External grounding screw for electrical safety.
- Ground continuity of less than 1 ohm for all metallic surfaces.
- Ten-year limited warranty on power output.\*
- UL Listed. (Per UL 1703).

Charts are for estimating purposes only. Specifications subject to change without notice.

\*Complete warranty and installation information is included in the module package or is available from Siemens or your Siemens Solar dealer prior to purchase.

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