175 WATT
HIGH POWER. HIGH EFFICIENCY.

SINGLE CRYSTAL SILICON PHOTOVOLTAIC MODULE WITH 175W MAXIMUM POWER

This single crystal 175 watt module features 16.4% encapsulated cell efficiency and 14.2% module efficiency. Using breakthrough technology perfected by Sharp’s nearly 45 years of research and development, these modules use a textured cell surface to reduce reflection of sunlight, and BSF (Black Surface Field) structure to improve conversion efficiency. An anti-reflective coating provides a uniform blue color and increases the absorption of light in all weather conditions. Common applications include office buildings, cabins, solar power stations, solar villages, radio relay stations, beacons, and traffic lights. Ideal for grid-connected systems and designed to withstand rigorous operating conditions, Sharp’s NT-175U1 modules offer the maximum usable power per square foot of solar array.

FEATURES
• High-power module (175W) using 125mm square single crystal silicon solar cells with 13.5% module conversion efficiency
• Bypass diode minimizes the power drop caused by shade
• Textured cell surface to reduce the reflected sunlight and BSF (Black Surface Field) structure to improve cell conversion efficiency: 16.4%
• White tempered glass, EVA resin, and a weatherproof film, plus aluminum frame for extended outdoor use
• Nominal 24VDC output, perfect for grid-connected systems
• UL Listings: UL 1703, cUL
• Sharp modules are manufactured in ISO 9001 certified facilities
• 25-year limited warranty on power output (see dealer for details)
### Electrical Characteristics

- **Cell**: Single crystal silicon
- **No. of Cells and Connections**: 72 in series
- **Open Circuit Voltage (Voc)**: 44.4V
- **Maximum Power Voltage (Vpm)**: 35.4V
- **Short Circuit Current (Isc)**: 5.4A
- **Maximum Power Current (Ipm)**: 4.95A
- **Maximum Power (Pm)**: 175W
- **Minimum Power (Pm)**: 157.5W
- **Encapsulated Solar Cell Efficiency (ηc)**: 16.4%
- **Module Efficiency (ηm)**: 13.5%
- **PTC Rating (W)**: 153.65
- **Maximum System Voltage**: 600VDC
- **Series Fuse Rating**: 10A
- **Type of Output Terminal**: Lead Wire with MC Connector

### Mechanical Characteristics

- **Dimensions (A x B x C)**: 62.01 x 32.52 x 1.81" / 1575 x 826 x 46mm
- **Weight**: 37.485 lbs / 17.0kg
- **Packaging Configuration**: 2 pcs per carton
- **Size of Carton**: 66.93 x 38.19 x 5.12" / 1700 x 970 x 130mm
- **Loading Capacity (20 ft container)**: 168 pcs (84 cartons)
- **Loading Capacity (40 ft container)**: 392 pcs (196 cartons)

### Absolute Maximum Ratings

- **Operating Temperature**: -40 to 194°F / -40 to +90°C
- **Storage Temperature**: -40 to 194°F / -40 to +90°C
- **Dielectric Isolation Voltage**: 2200 VDC max.

### IV Curves

**Cell Temperature: 25°C**

- **1000 [W/m²]**
- **800 [W/m²]**
- **400 [W/m²]**

**Current vs. Voltage Characteristics**

**Power vs. Voltage Characteristics**

**Current, Power vs. Voltage Characteristics**

Specifications are subject to change without notice.

* (STC) Standard Test Conditions: 25°C, 1 kW/m², AM 1.5
** (PTC) Pacific Test Conditions: 20°C, 1 kW/m², AM 1.5, 1 m/s wind speed

In the absence of confirmation by product manuals, Sharp takes no responsibility for any defects that may occur in equipment using any Sharp devices. Contact Sharp to obtain the latest product manuals before using any Sharp device.