This mono-crystalline 180 watt module features 13.8% module efficiency for an outstanding balance of size and weight to power and performance. Using breakthrough technology perfected by Sharp's more than 45 years of research and development, these modules use a textured cell surface to increase light absorption and improve efficiency. Common applications include office buildings, cabins and solar power stations. Ideal for both residential and commercial grid-connected systems and designed to withstand rigorous operating conditions, Sharp's NT-180U1 modules offer the maximum usable power per square foot of solar array.

**FEATURES**
- High-power module (180W) using 126mm square mono-crystalline silicon solar cells with 13.8% module conversion efficiency
- Bypass diode minimizes the power drop caused by shade
- Sharp's advanced surface texturing process increases light absorption and efficiency while providing a more subdued, "natural" look
- 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)
## IV CURVES

**Cell Temperature: 25°C**

- **Current vs. Voltage**
- **Power vs. Voltage**

### Current, Power vs. Voltage Characteristics

- **Voltage (V)**: 0, 10, 20, 30, 40, 50
- **Current (A)**: 1, 2, 3, 4, 5, 6
- **Power (W)**: 0, 40, 80, 120, 160, 200

### Voltage (W/m²)

- 1000
- 800
- 600

### Current (A)

- 10

### Power (W)

- 180

### Operating Temperature

- -40 to 194°F / -40 to 90°C

### Storage Temperature

- -40 to 194°F / -40 to 90°C

## MECHANICAL CHARACTERISTICS

- **Dimensions (A x B x C below)**: 62.0" x 32.5" x 1.8" / 1575 x 826 x 46mm
- **Weight**: 37.5 lbs / 17kg
- **Packing Configuration**: 2 pcs per carton
- **Size of Carton**: 66.93" x 38.19" x 5.12" / 1700 x 970 x 130mm
- **Pallet Quantity**: 28 pcs per pallet
- **Loading Capacity (48 ft container)**: 448 pcs (16 pallets)
- **Loading Capacity (53 ft container)**: 504 pcs (18 pallets)

## ABSOLUTE MAXIMUM RATINGS

- **Cell**: Mono-crystalline silicon
- **No. of Cells and Connections**: 72 in series
- **Open Circuit Voltage (Voc)**: 44.8V
- **Maximum Power Voltage (Vpm)**: 35.86V
- **Short Circuit Current (Isc)**: 5.60A
- **Maximum Power Current (Ipm)**: 5.02A
- **Rated Power (Pmax) ***: 180W (+10%/-5%)
- **Module Efficiency Maximum Power (ηm)**: 13.8%
- **Maximum System Voltage**: 600VDC
- **Series Fuse Rating**: 10A
- **Type of Output Terminal**: Lead Wire with MC Connector

* (STC) Standard Test Conditions: 25°C, 1 kW/m², AM 1.5

## ELECTRICAL CHARACTERISTICS

### Specifications and design are subject to change without notice.

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.