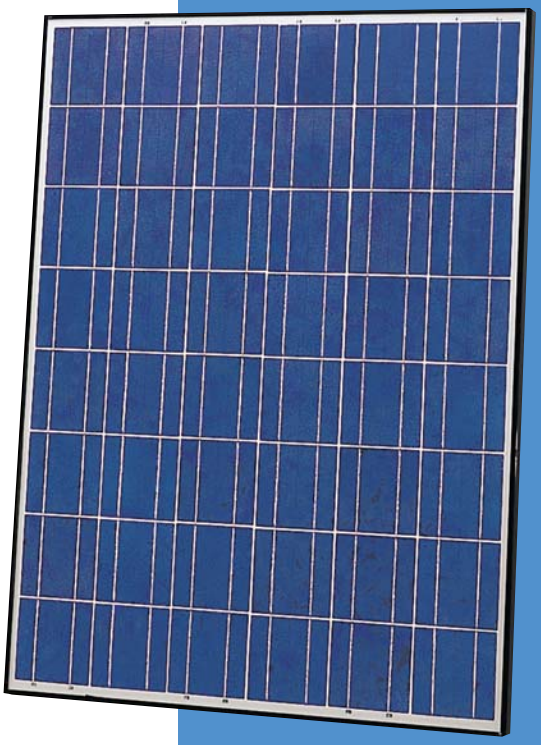
SHARP

RESIDENTIAL SYSTEM MODULE

ND-167U1

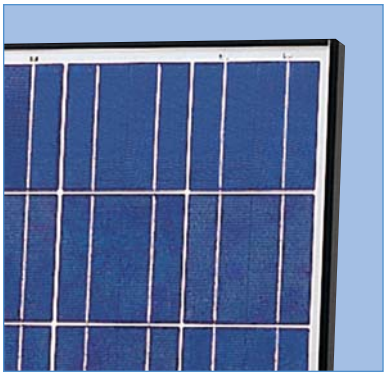
167 WATT

POWERFUL. ATTRACTIVE. RELIABLE.



MULTI-CRYSTAL SILICON PHOTOVOLTAIC MODULE WITH 167W MAXIMUM POWER

Designed specifically for peak roofs, Sharp's ND-167U1 photovoltaic modules offer industry-leading performance and aesthetics. These residential modules give the clean, attractive appearance of a high-tech skylight while the black anodized aluminum frames and trim strips blend beautifully with the home's exterior. In addition, an "L" hook design located along the frame's perimeter ensures easy integration with the residential system mounting hardware. Perfected by Sharp's nearly 45 years of research and development, these modules allow for maximum usable power. An anti-reflective coating provides a uniform blue color and increases light absorption in all types of weather conditions. Sharp's ND-167U1 modules are a breakthrough in technology and aesthetics.



The laminated glass module is glazed into a high torsion black anodized aluminum frame.

Sharp's residential modules with black frames and trim strips are ideal for peak roofs, and allow for the seamless integration of the system into the home's design.

FEATURES

- **High-power module (167W) using 48 square multi-crystal silicon solar cells with 12.60% module conversion efficiency**
- **Bypass diode minimizes the power drop caused by shade**
- **Black anodized aluminum frame and "L" hook design located along frame perimeter for easy integration with residential system mounting hardware**
- **Water white, tempered glass, EVA laminate, and a weather-proof film yield long-life modules while enhancing cell performance**
- **Nominal 16 VDC output is an ideal match for the Sharp multi-string inverter**
- **Manufactured in ISO 9001 certified facilities**
- **25-year limited warranty on power output (see dealer for details)**
- **UL Listings: UL 1703, cUL**

ND-167U1

RESIDENTIAL SYSTEM MODULE

167 WATT

ELECTRICAL CHARACTERISTICS

Cell	Multi-crystal silicon
No. of Cells and Connections	48 in series
Open Circuit Voltage (Voc)	29.0V
Maximum Power Voltage (Vpm)	23.5V
Short Circuit Current (Isc)	7.91A
Maximum Power Current (Ipm)	7.1A
Maximum Power (Pm)*	167W
Minimum Power (Pm)*	150.3W
Encapsulated Solar Cell Efficiency (ηc)	14.39%
Module Efficiency (ηm)	12.60%
PTC Rating (W)**	146.50
Maximum System Voltage	600VDC
Series Fuse Rating	15A
Type of Output Terminal	Lead Wire with MC Connector

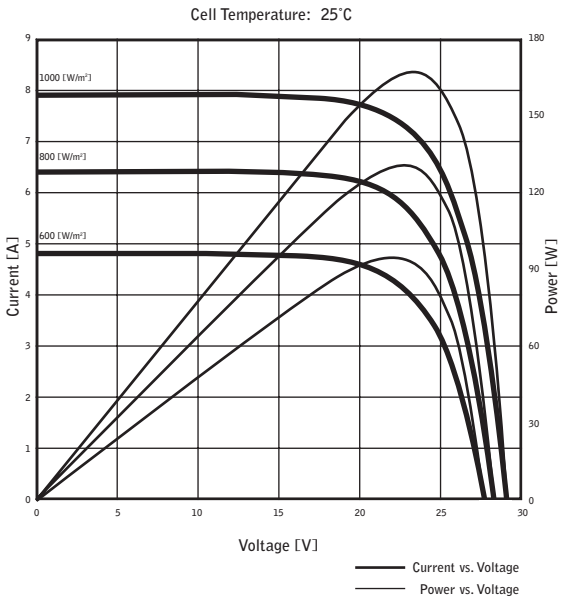
MECHANICAL CHARACTERISTICS

Dimensions (A x B x C below)	52.28 x 39.53 x 1.81" / 1328 x 1004 x 46mm
Weight	35.27lbs / 16.0kg
Packing Configuration	2 pcs per carton
Size of Carton	56.3 x 42.52 x 5.12" / 1430 x 1080 x 130mm

ABSOLUTE MAXIMUM RATINGS

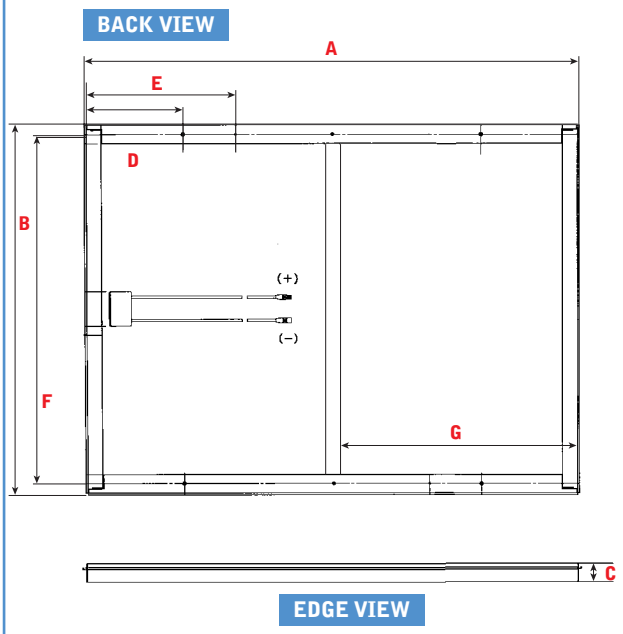
Operating Temperature	-40 to 194˚F / -40 to +90˚C
Storage Temperature	-40 to 194˚F / -40 to +90˚C
Dielectric Isolation Voltage	2200 VDC max.

IV CURVES



Current, Power vs. Voltage Characteristics

DIMENSIONS



A	B	C	D	E	F	G
52.28"/1328mm	39.53"/1004mm	1.81"/46mm	10.2"/259mm	15.75"/400mm	37.13"/943mm	25.16"/639mm

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.

SHARP

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