

# 123 WATT

SUPERIOR DURABILITY. HIGH EFFICIENCY.

## POLY-CRYSTALLINE SILICON PHOTOVOLTAIC MODULE WITH 123W MAXIMUM POWER

Sharp's ND-123UJF photovoltaic modules offer industry-leading performance, durability, and reliability for a variety of electrical power requirements. Using breakthrough technology perfected by Sharp's 45 years of research and development, these modules incorporate an advanced surface texturing process to increase light absorption and improve efficiency. Common applications include cabins, solar power stations, pumps, beacons, and lighting equipment. Designed to withstand rigorous weather conditions, a junction box is also provided for easy electrical connections in the field, making Sharp's ND-123UJF modules the perfect combination of advanced technology and reliability.



*Solder-coated grid results in high fill factor performance under low light conditions.*



*Sharp multi-purpose modules offer industry-leading performance for a variety of applications.*

## FEATURES

- High-power module (123W) using 156mm square polycrystalline silicon solar cells with 12.39% module conversion efficiency
- Sharp's advanced surface texturing process increases light absorption and efficiency while providing a more subdued, "natural" look
- Bypass diodes minimize the power drop caused by shade
- Water white, tempered glass, EVA laminate, plus aluminum frame for extended outdoor use
- Junction box for easy electrical connections in the field
- Nominal 12VDC output for battery charging applications
- 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	Poly-crystalline silicon
No. of Cells and Connections	36 in series
Open Circuit Voltage (Voc)	21.8V
Maximum Power Voltage (Vpm)	17.2V
Short Circuit Current (Isc)	7.99A
Maximum Power Current (Ipm)	7.15A
Maximum Power (Pmax)*	123W (+10%/-5%)
Module Efficiency ( $\eta_m$ )	12.39%
Maximum System Voltage	600VDC
Series Fuse Rating	15A
Type of Output Terminal	Junction Box

## MECHANICAL CHARACTERISTICS

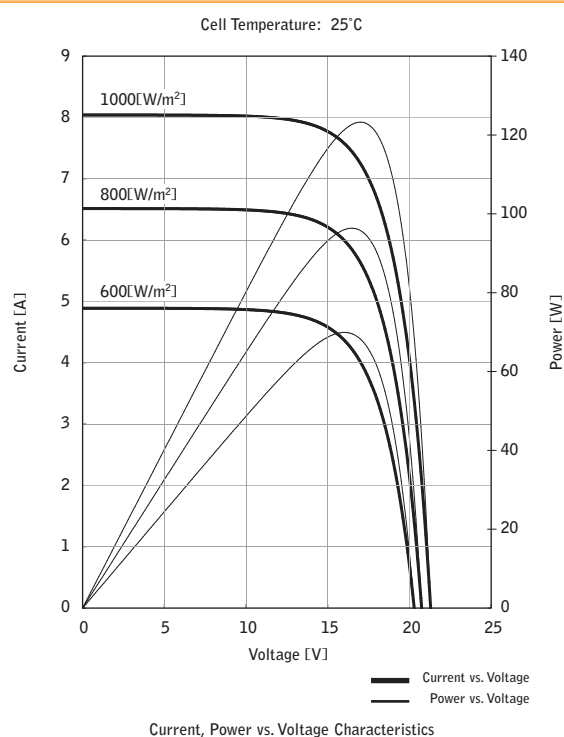
Dimensions (A x B x C below)	59.02" x 26.06" x 1.81" / 1499 x 662 x 46mm
Weight	30.86lbs / 14.0kg
Size of Carton	62.99"x 30.71"x 5.12" / 1600 x 780 x 130mm
Packing Configuration	2 pcs per carton
Loading Capacity (20 ft container)	196 pcs (98 pallets)
Loading Capacity (40 ft container)	420 pcs (210 pallets)

## ABSOLUTE MAXIMUM RATINGS

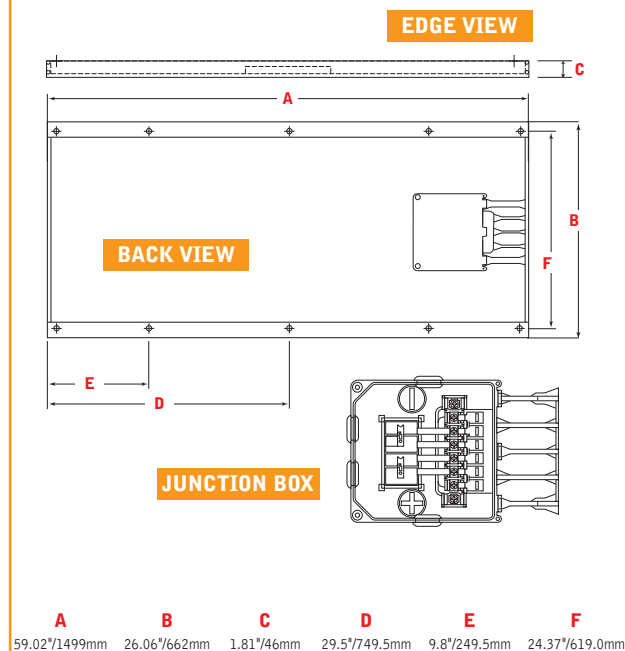
Operating Temperature	-40 to 194°F / -40 to 90°C
Storage Temperature	-40 to 194°F / -40 to 90°C

\*(STC) Standard Test Conditions: 25°C, 1 kW/m<sup>2</sup>, AM 1.5

## IV CURVES



## DIMENSIONS



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