

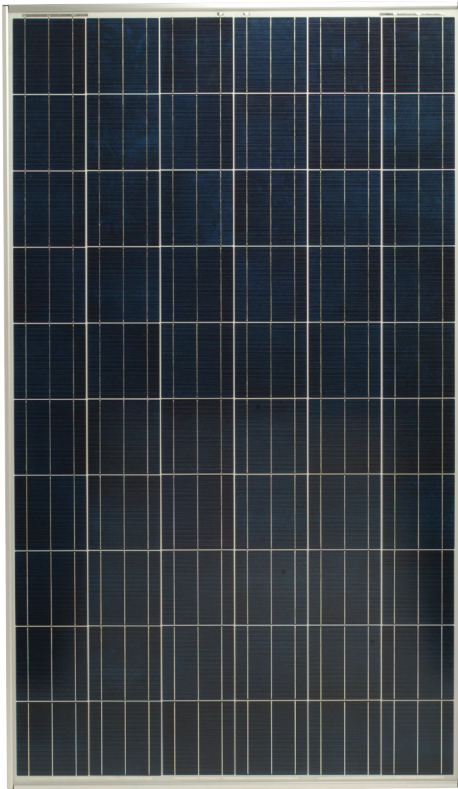
# SHARP®

solar electricity

## 230 WATT

MULTI-PURPOSE MODULE

NEC 2008 Compliant



ND-U230C1

### NEW TRIPLE TAB TECHNOLOGY.

Originally introduced as a 200 watt module, this 60-cell format has a history of continuous improvement through Sharp's commitment to innovation and manufacturing excellence. This new 230 watt version of our flagship multi-purpose module presents the latest embodiment of our technology prowess, offering high power and high efficiency. Common applications include commercial grid-tied roof systems as well as ground-mounted arrays. Designed to withstand rigorous operating conditions, Sharp's ND-U230C1 module offers high power output per square foot of solar array.

Business leaders install this module in large commercial applications, demonstrating financial astuteness and environmental stewardship.

#### ENGINEERING EXCELLENCE

High module efficiency for an outstanding balance of size and weight to power and performance.

#### DURABLE

Tempered glass, EVA lamination and weatherproof backskin provide long-life and enhanced cell performance.

#### RELIABLE

25-year limited warranty on power output.

#### HIGH PERFORMANCE

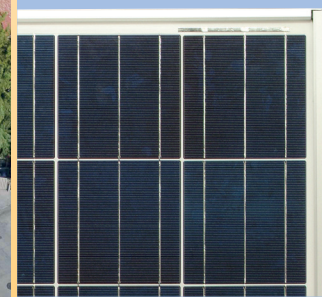
This module uses an advanced surface texturing process to increase light absorption and improve efficiency.

#### INNOVATIVE

Triple tab technology boosts module performance by increasing current collection efficacy.



Sharp multi-purpose modules offer outstanding performance for a variety of applications.



New high efficiency cells each have 3 tabs.

#### SHARP: THE NAME TO TRUST

When you choose Sharp, you get more than well-engineered products. You also get Sharp's proven reliability, outstanding customer service and the assurance of our 25-year limited warranty on power output. A global leader in solar electricity, Sharp powers more homes and businesses than any other solar manufacturer worldwide.

**BECOME POWERFUL**

# 230 WATT

## ND-U230C1

NEC 2008 Compliant

Module output cables now 12 AWG with locking connectors

### ELECTRICAL CHARACTERISTICS

Maximum Power (Pmax)*	230 W
Tolerance of Pmax	+10% / -5%
Type of Cell	Polycrystalline silicon
Cell Configuration	60 in series
Open Circuit Voltage (Voc)	37.0 V
Maximum Power at Voltage (Vpm)	30.3 V
Short Circuit Current (Isc)	8.24 A
Maximum Power at Current (Ipm)	7.60 A
Module Efficiency (%)	14.1%
Maximum System (DC) Voltage	600 V
Series Fuse Rating	15 A
NOCT	47.5°C
Temperature Coefficient (Pmax)	-0.485% / °C
Temperature Coefficient (Voc)	-0.36% / °C
Temperature Coefficient (Isc)	0.053% / °C

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

### MECHANICAL CHARACTERISTICS

Dimensions (A x B x C below)	39.1" x 64.6" x 1.8"/994 x 1640 x 46 mm
Cable Length (L)	43.3"/1100 mm
Output Interconnect Cable**	12 AWG with MC4 Locking Connector
Weight	44 lbs / 20 kg
Max Load	50 psf (2400 Pascals)

\*\*A safety lock clip (Multi Contact part number PV-SSH4) may be required in readily accessible locations per NEC 2008 690.33 (C)

### QUALIFICATIONS

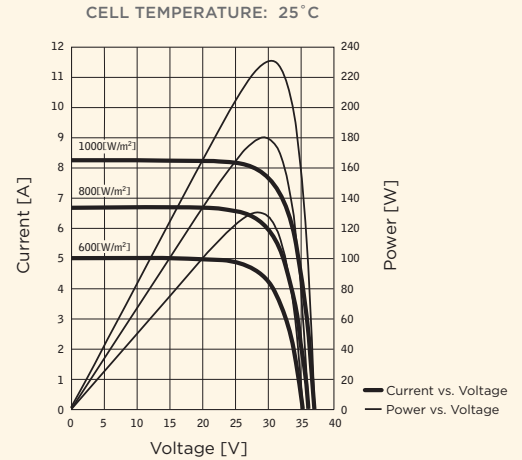
UL Listed	UL 1703
Fire Rating	Class C



### WARRANTY

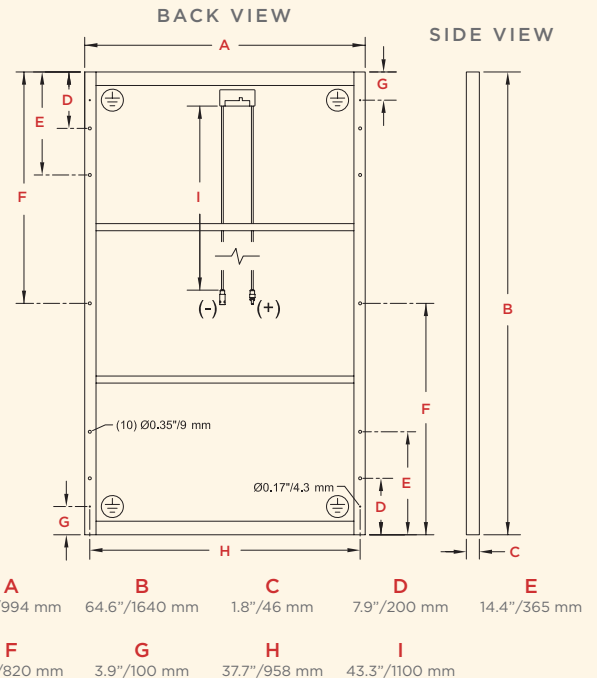
25-year limited warranty on power output  
Contact Sharp for complete warranty information

### IV CURVES



CURRENT, POWER VS. VOLTAGE CHARACTERISTICS

### DIMENSIONS



Contact Sharp for tolerance specifications

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