

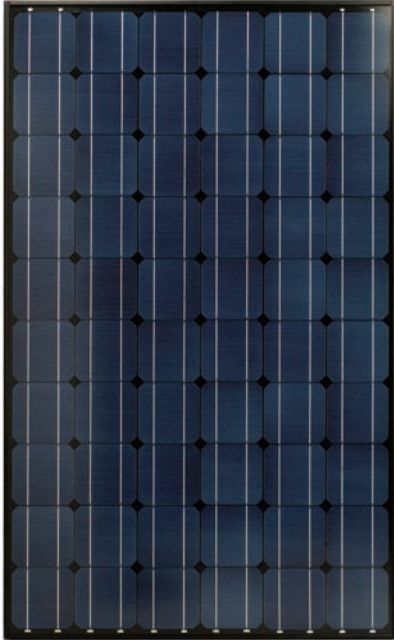
# SHARP®

solar electricity

## 230 WATT

### RESIDENTIAL MODULE

NEC 2008 Compliant



### NU-U230F3

## RESIDENTIAL 230 WATT MODULE FROM THE WORLD'S TRUSTED SOURCE FOR SOLAR.

Our most powerful residential module manufactured today, the NU-U230F3 blends high performance with advanced solar aesthetics. Black backsheet and sleek black frame create a modern silhouette on nearly any roof. Using breakthrough technology, made possible by nearly 50 years of proprietary research and development, this module incorporates an advanced surface texturing process to increase light absorption and improve efficiency. Flexible enough to permit installation on nearly any kind of roof, the 230 watt module is the newest innovation in Sharp's residential product offerings.

Sharp's highest-power residential solar module makes a beautiful addition to nearly any roof.

#### ENGINEERING EXCELLENCE

NU-U230F3 is the perfect combination of high-performance and design.

#### ADVANCED AESTHETICS

Sleek, black frame module provides an elegant appearance that blends beautifully with your home's roofline.

#### 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.



Black frame improves aesthetics for residential roof top applications.



Laminated glass construction in a high torsion frame.

#### 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

## NU-U230F3

NEC 2008 Compliant

Module output cables 12 AWG with locking connectors

### ELECTRICAL CHARACTERISTICS

|                                |                         |
|--------------------------------|-------------------------|
| Maximum Power (Pmax)*          | 230 W                   |
| Tolerance of Pmax              | +10%/-5%                |
| Type of Cell                   | Monocrystalline silicon |
| Cell Configuration             | 60 in series            |
| Open Circuit Voltage (Voc)     | 37.0 V                  |
| Maximum Power Voltage (Vpm)    | 30.0 V                  |
| Short Circuit Current (Isc)    | 8.40 A                  |
| Maximum Power Current (Ipm)    | 7.67 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)  | -0.351%/°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                       | 44.1 lbs / 20.0 kg                      |
| Max Load                     | 50 psf (2400 Pascals)                   |
| Operating Temperature (cell) | -40 to 194°F / -40 to 90°C              |

\*\*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

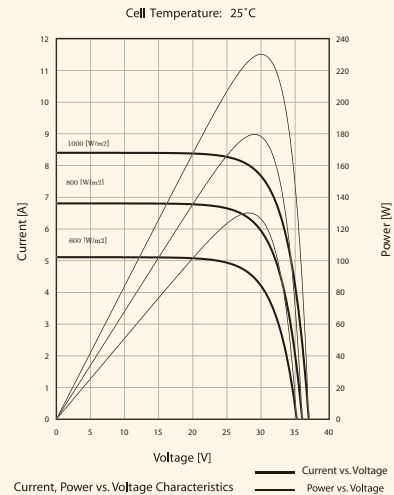
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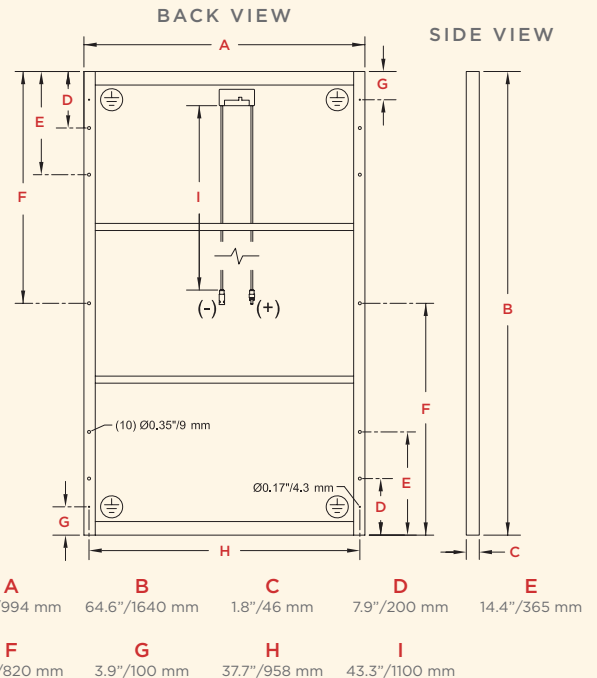
# SHARP®

SHARP ELECTRONICS CORPORATION  
5901 Bolsa Avenue, Huntington Beach, CA 92647  
1-800-SOLAR-06 • Email: [sharpsolar@sharpusa.com](mailto:sharpsolar@sharpusa.com)  
[www.sharpusa.com/solar](http://www.sharpusa.com/solar)

### IV CURVES



### DIMENSIONS



Contact Sharp for tolerance specifications