

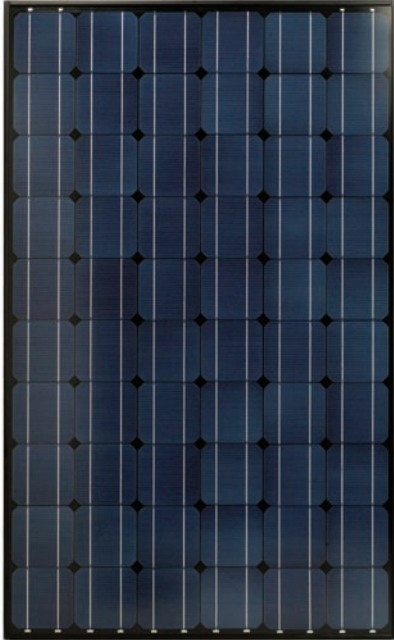
SHARP®

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/m² 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



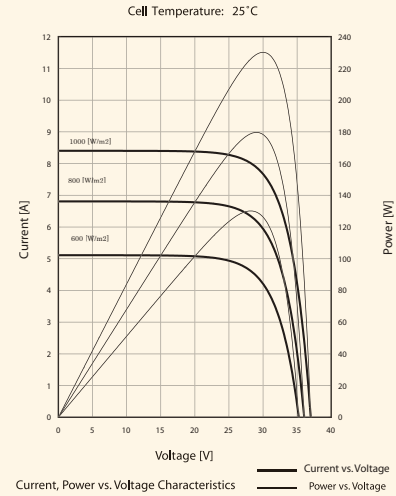
WARRANTY

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

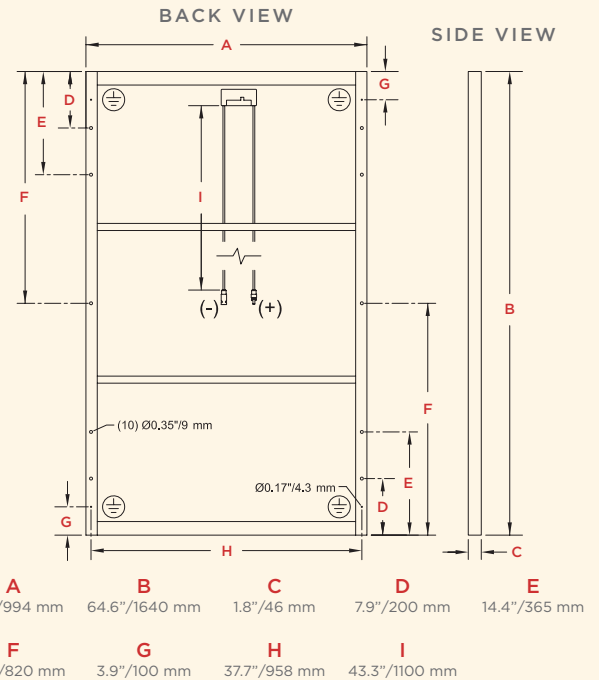
Design and specifications are subject to change without notice. Sharp is a registered trademark of Sharp Corporation. All other trademarks are property of their respective owners. Contact Sharp to obtain the latest product manuals before using any Sharp device.



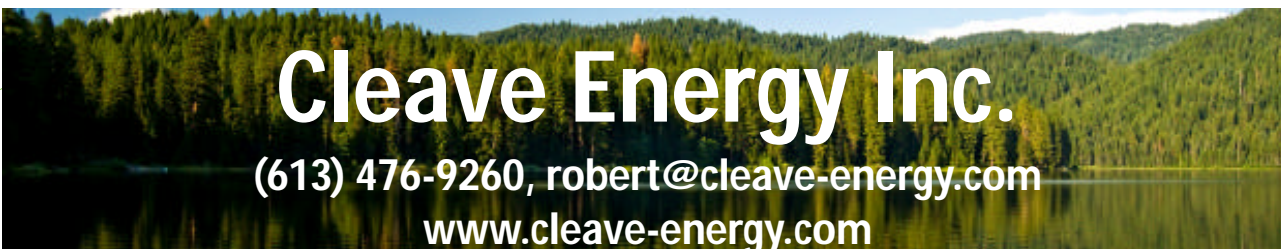
IV CURVES



DIMENSIONS



Contact Sharp for tolerance specifications



Cleave Energy Inc.

(613) 476-9260, robert@cleave-energy.com

www.cleave-energy.com