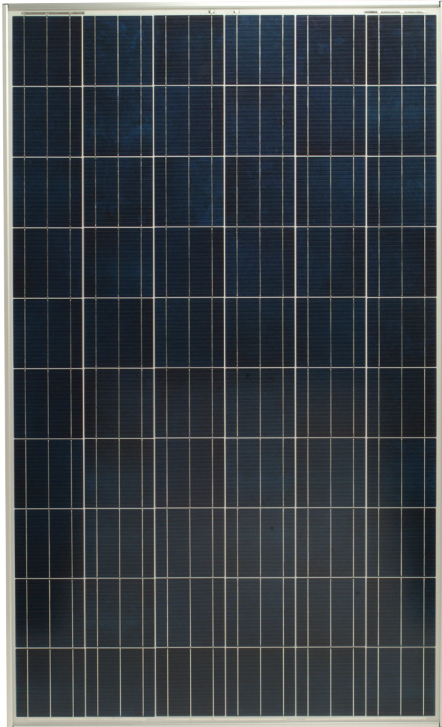


SHARP®

solar electricity

230 WATT MULTI-PURPOSE MODULE



ND-V230A1

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-V230A1 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

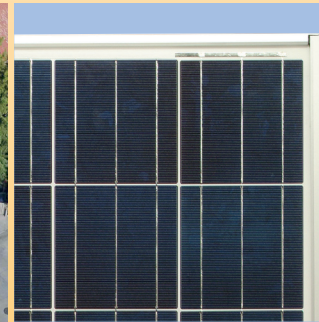
This module uses an advanced surface texturing process to increase light absorption and improve efficiency.

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. A global leader in solar electricity, Sharp powers more homes and businesses than any other solar manufacturer worldwide.

BECOME POWERFUL

230 WATT

ND-V230A1

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/m², 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
Type of Output Terminal	Lead wire with MC connector
Weight	44 lbs / 20 kg
Max Load	50 psf (2400 Pascals)

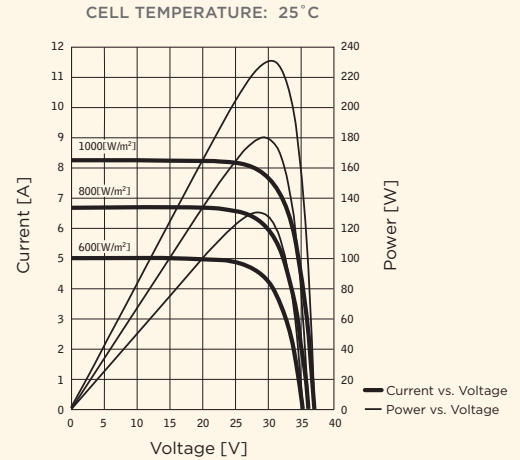
QUALIFICATIONS

UL Listed	UL 1703	
Fire Rating	Class C	

WARRANTY

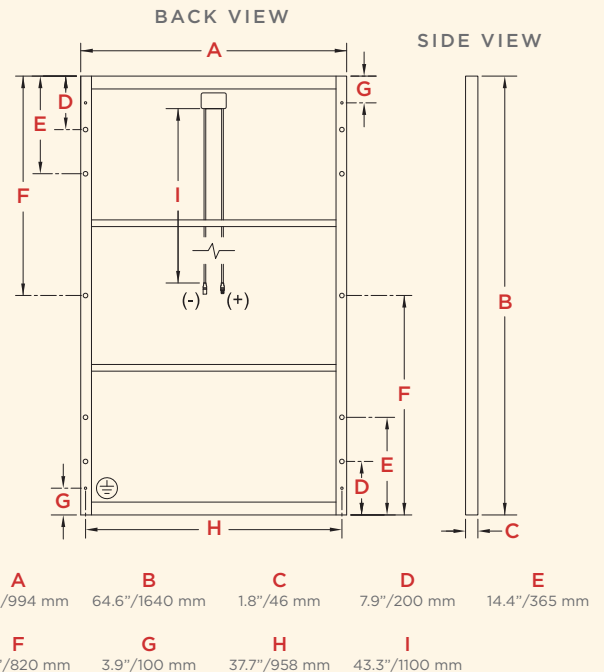
25-year limited warranty
Contact Sharp for complete warranty information

IV CURVES



CURRENT, POWER VS. VOLTAGE CHARACTERISTICS

DIMENSIONS



Contact Sharp for tolerance specifications

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. 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.

Cover photo: Solar installation by Pacific Power Management, Auburn CA

SHARP®

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