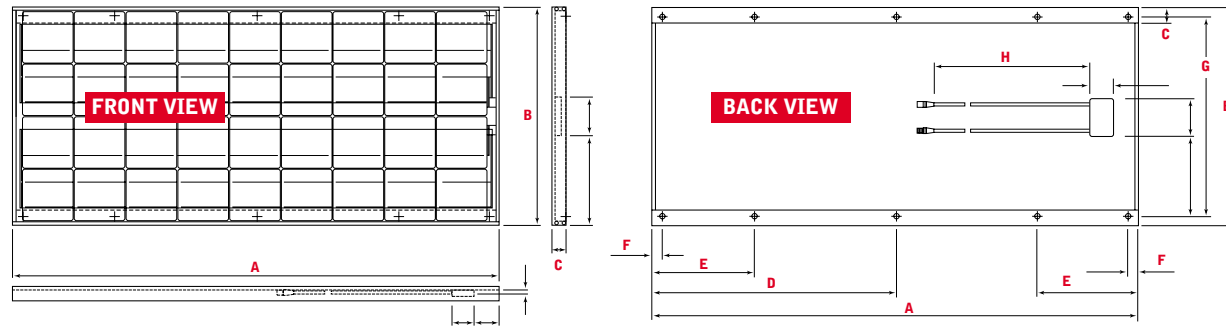


### SHARP SOLAR MODULE SPECIFICATIONS

MODEL NUMBER	NT-S5E1U	NE-Q5E2U	ND-L3E1U	NE-80E1U
Name Plate Rating	185	165	123	80
Cell Type	125 mm Single Crystal	125 mm Poly Crystal	155 mm Poly Crystal	125 mm Poly Crystal
Number of Cells	72	72	36	36
Maximum Power (W)*	185.0	165.0	123.0	80.0
Minimum Power (W)	166.5	148.5	110.7	72.0
Open Circuit Voltage (V)	Voc. 44.9	Voc. 43.1	Voc. 21.3	Voc. 21.3
Short Circuit Current (A)	Isc. 5.75	Isc. 5.46	Isc. 8.1	Isc. 5.3
Maximum Power Voltage (V)	Vpm. 36.2	Vpm. 34.6	Vpm 17.2	Vpm 17.1
Maximum Power Current (A)	Ipm. 5.11	Ipm. 4.77	Ipm. 7.16	Ipm 4.67
Encapsulated Solar Cell Efficiency	17.5%	14.55%	14.13%	14.11%
Module Efficiency	14.2%	12.68%	12.39%	12.60%
PTC Rating (W)**	162.43	144.87	107.75	70.24
Length (mm / in) (A in diag. below)	1575 / 62.01	1575 / 62.01	1499 / 59.02	1200 / 47.28
Width (mm / in) (B in diag. below)	826 / 32.52	826 / 32.52	662 / 26.06	530 / 20.88
Depth (mm / in) (C in diag. below)	46 / 1.81	46 / 1.81	46 / 1.81	35 / 1.38
Weight (kg / lbs)	17 / 37.48	17 / 37.48	14 / 30.86	8.5 / 18.74
Type of Output Terminal	Lead wire w/MC Connector	Lead wire w/MC Connector	Lead wire w/MC Connector	Lead wire w/MC Connector
Packing Condition	2 pcs - 1 Carton	2 pcs - 1 Carton	2 pcs - 1 Carton	2 pcs - 1 Carton
Size of Carton (mm)	1700 X 970 X 130	1700 X 970 X 130	1610 X 780 X 130	1350 X 700 X 110
Size of Carton (in)	66.93 X 38.19 X 5.12	66.93 X 38.19 X 5.12	63.39 X 30.71 X 5.12	53.15 X 27.56 X 4.33
Weight (packed carton) (kg / lbs)	37 / 81.585	37 / 81.585	31 / 68.34	21 / 46.30
Loading Capacity (20ft container)	168 pcs - 84 carton	168 pcs - 84 carton	196 pcs - 98 carton	308 pcs - 154 carton
Loading Capacity (40ft container)	392 pcs - 196 carton	392 pcs - 196 carton	420 pcs - 210 carton	644 pcs - 322 carton
UL / CUL Listed				



MODEL	D	E	F	G	H
185 WATT	785.5	485.5	185.5	773.0	1300+/-50
165 WATT	785.5	485.5	185.5	773.0	1300+/-50
123 WATT	749.5	n/a	249.5	619.0	1300+/-50
80 WATT	600.0	250.0	25+/-1	488.0	1300+/-50

All measurements in millimeters

\*Standard Test Conditions (STC) \*\*Pacific Test Conditions (PTC) Specifications are subject to change without notice.

Since 1959, Sharp has been developing products that harness the power of the sun to improve the quality of life.

Today, we are the world's leading manufacturer of solar cells and modules.

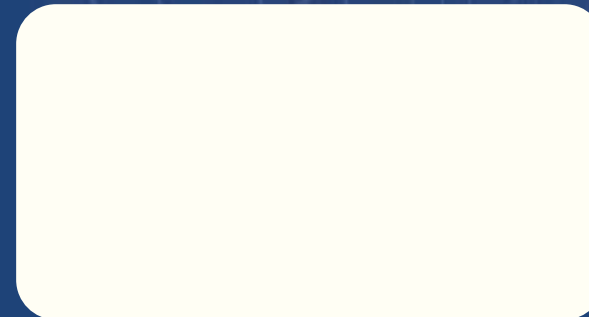
In fact, Sharp's high-quality, Photovoltaic Power Generation Systems are used for everything from satellites to lighthouses, industrial applications to residential use. Sharp's solar energy systems take advantage of the natural, inexhaustible resource of sunlight to generate electricity. No environmentally harmful compounds, no fossil fuel pollution.

Just clean, safe, reliable solar energy for living.

**SHARP.** | be sharp™

SHARP ELECTRONICS CORPORATION  
 5901 Bolsa Avenue  
 Huntington Beach, CA 92647  
 Tel: 1-800-BE-SHARP  
 E-mail: sharpsolar@sharpsec.com  
 www.sharpsolar.com

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ENHANCE THE  
 QUALITY OF LIFE

PRODUCT PROFILES

THE POWER OF THE SUN.  
 THE INGENUITY OF SHARP.

**MORE THAN 40 YEARS  
OF ADVANCED SOLAR RESEARCH.**



Sharp began its research and development of photovoltaics in 1959. Since then, we have worked to constantly improve and expand our superior line of solar energy products and peripherals. Sharp innovations in solar power generation have resulted in effective solutions for virtually every energy requirement — from low wattage up to megawatts. Whatever the power need, Sharp Solar Energy has responded with forty years of technological leadership.

**NUMBER ONE UNDER THE SUN –  
SHARP PHOTOVOLTAIC MODULES**

As the world's leading manufacturer, Sharp produces both single and multi-crystalline solar cells. They are incorporated into an extensive line of high-power modules for every electrical power requirement. Based on the technology of crystalline silicon solar cells developed over the years, these modules have superb durability to withstand rigorous operating conditions and are suitable for use in most solar systems.

Common applications for Sharp modules include residences, office buildings, solar power stations, solar villages, radio relay stations, beacons and traffic lights. As the world's leading manufacturer of photovoltaic modules, Sharp produces an extensive line of high power modules for every electrical power requirement.

**SHARP SOLAR MODULE FEATURES**

- Bypass diodes minimize the power drop caused by shade.
- Textured cell surface to reduce the reflection of sunlight.
- BSF (Back Surface Field) structure to improve cell conversion efficiency.
- White tempered glass, EVA resin and a weatherproof film, plus aluminum frame provide a reliable and durable package.
- Output terminal: Lead wire with waterproof connector
- Certifications: CUL and UL1703
- Sharp modules are built in ISO 9001 facilities.



**PRODUCT PROFILES**



**185 WATT**

**SINGLE CRYSTAL SILICON PHOTOVOLTAIC MODULE WITH 185W MAXIMUM POWER**

**BIG POWER, SMALL FOOTPRINT**

This high-power module (185W) using 125mm square single crystal silicon solar cells features 17.5% encapsulated cell efficiency and 14.2% module conversion efficiency - one of the highest efficiency commercially available! Using breakthrough technology perfected in Sharp's space cell program, the NT-S5E1U module allows for maximum usable power per square foot of solar array.

Sharp's NT-S5E1U is designed for large electrical power requirements. Common applications include residences, office buildings, solar power stations, solar villages, radio relay stations, beacons and traffic lights.

**This 185 watt module has a nominal 24 DC output that is perfect for grid applications.**



**165 WATT**

**MULTI-CRYSTAL SILICON PHOTOVOLTAIC MODULE WITH 165W MAXIMUM POWER**

**A HIGH-POWERED MODULE FOR LARGE ELECTRICAL POWER NEEDS**

This high-power module (165W) using 125mm square multi-crystal silicon solar cells features 14.55% encapsulated cell efficiency and 12.68% module conversion efficiency.

Sharp's NE-Q5E2U is designed for large electrical power requirements. Common applications include residences, office buildings, solar power stations, solar villages, radio relay stations, beacons and traffic lights.

**This 165 watt module has a nominal 24 DC output that is perfect for grid applications.**



**123 WATT**

**MULTI-CRYSTAL SILICON PHOTOVOLTAIC MODULE WITH 123W MAXIMUM POWER**

**SUPERB DURABILITY WITH EXCELLENT CELL CONVERSION EFFICIENCY**

This high-power module (123W) using 155mm square multi-crystal silicon solar cells features 14.13% encapsulated cell efficiency and 12.39% module conversion efficiency.

Common applications for Sharp's ND-L3E1U include private residences, RVs, cabins and vacation homes, solar power stations, pumps, telemetry systems, beacons and traffic lights.

**This 123 watt module has a nominal 12 Volt output that is ideal for battery charging applications.**



**80 WATT**

**MULTI-CRYSTAL SILICON PHOTOVOLTAIC MODULE WITH 80W MAXIMUM POWER**

**CLEAN, SAFE, RELIABLE, SOLAR ENERGY FROM SHARP**

This high-power module (80W) using 125mm square multi-crystal silicon solar cells features 14.11% encapsulated cell efficiency and 12.60% module conversion efficiency.

Common applications for Sharp's NE-80E1U include private residences, RVs, cabins and vacation homes, solar power stations, pumps, beacons and lighting equipment.

**This 80 watt module has a nominal 12 Volt output that is ideal for battery charging applications.**