

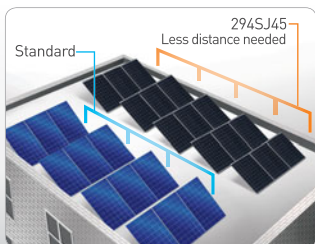


19.1% module efficiency

Industry top-level output for a PV module < 1.6 m²

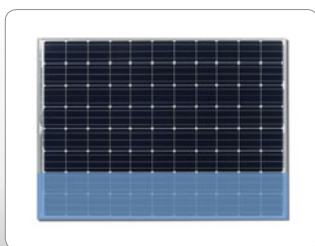
Compact size

Best fit in portrait due to shorter module length. Less space needed between module rows on flat roofs



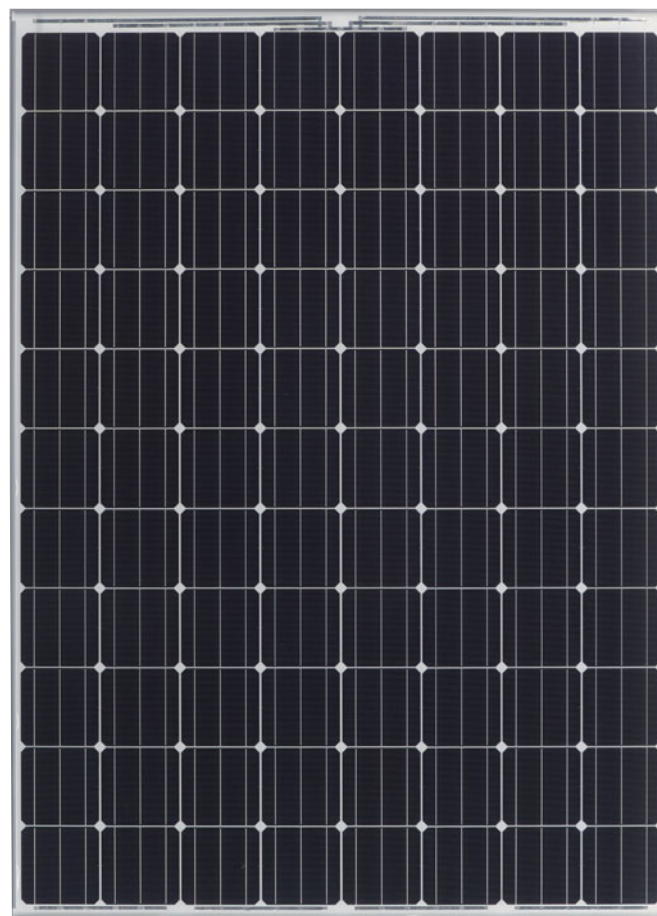
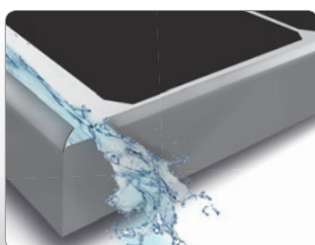
Improved shading performance

Featuring 4 shading zones instead of 3



Unique water drainage

on each corner for an improved self-cleaning



294 W

High Efficiency

+

High Performance
at High Temperatures

=

High Power
Generation

QUALITY PROVEN 4 WAYS

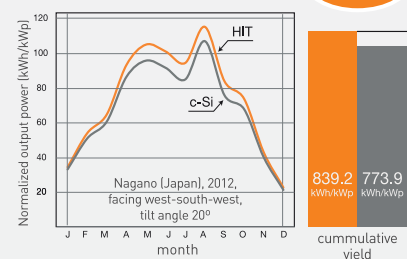
1 Panasonic Quality

- IEC and over 20 Panasonic internal tests
- 40 years experience, longer than our 25 years warranty



3 Higher yield on field test

8% more yield than standard c-Si solar modules



approx. 8% more

2 Record low claim rate

0.0038% failure rate after more than 10 years experience in Europe (as of Jan.2015)

4 3rd Party verified

- Lifecycle testing (Long-Term-Sequential-Test) by TÜV Rheinland (tested on VBHN240SE10)
- PID-free (by Fraunhofer Institute)

Electrical data (at STC)

VBHN294SJ45

Max. power (Pmax) [W]	294
Voltage at Max. Power (Vmp) [V]	52.6
Current at Max. Power (Imp) [A]	5.59
Open circuit voltage (Voc) [V]	63.7
Short circuit current (Isc) [A]	5.99
Max. over current rating [A]	15
Production tolerance power [%]	+10/0*
Max. system voltage [V]	1000

Note: Standard Test Conditions: Air mass 1.5; Irradiance = 1000W/m²; cell temp. 25°C
*Each panel output is measured by Panasonic at the time of production.

Temperature characteristics

Temperature (NOCT) [°C]	44.0
Temp. coefficient of Pmax [%/°C]	-0.29
Temp. coefficient of Voc [V/°C]	-0.164
Temp. coefficient of Isc [A/°C]	0.002

At NOCT (Normal Operating Conditions)

Max. power (Pmax) [W]	221
Max. power voltage (Vmp) [V]	49.2
Max. power current (Imp) [A]	4.50
Open circuit voltage (Voc) [V]	59.5
Short circuit current (Isc) [A]	4.85

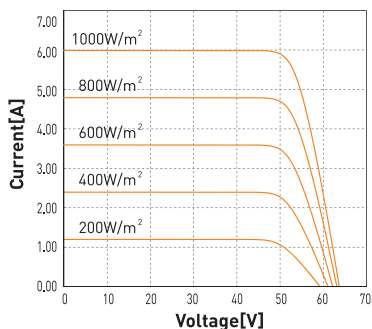
Note: Nominal Operating Cell Temp.: Air mass 1.5; Irradiance = 800W/m²; Air temperature 20°C; wind speed 1 m/s

At low irradiance (20%)

Max. power (Pmax) [W]	56.8
Max. power voltage (Vmp) [V]	51.1
Max. power current (Imp) [A]	1.11
Open circuit voltage (Voc) [V]	60.3
Short circuit current (Isc) [A]	1.20

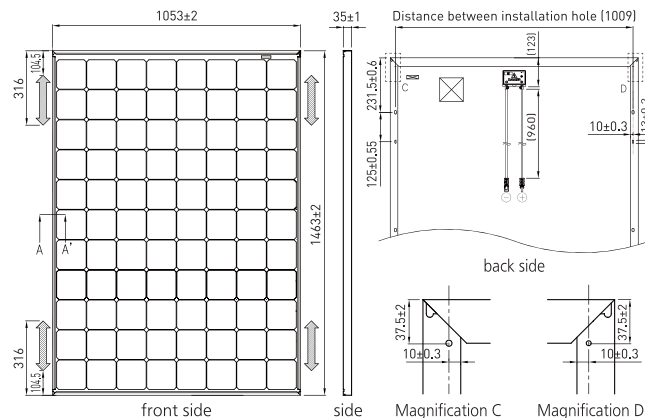
Note: Low irradiance: Air mass 1.5; Irradiance = 200W/m²; cell temp. = 25°C

Dependence on irradiance



Reference data for model VBHN294SJ45 (Cell temperature 25°C)

Dimensions and weight



weight: 18 kg
weight/m²: 11,7 kg/m²
unit: mm
Snow and Wind Load: 2400 Pa

Note: A module is installed using 4 points, symmetrical mounting within setting range (shaded). Fixing span must be between 836-1200mm.

Warranty

Power output: 10 years (90% of Pmin)
25 years (80% of Pmin)
Product workmanship: 10 years (based on warranty document)

Materials

Cell material: 5 inch photovoltaic cells
Glass material: AR coated tempered glass
Frame materials: Silver anodized aluminium
Connectors type: SMK

Certificates



IEC61215
IEC61730-1
IEC61730-2



manufactured by SANYO Electric Co., Ltd.

Please consult your local dealer for more information

CAUTION! Please read the installation manual carefully before using the products.

Panasonic Corporation Eco Solutions Company

<http://panasonic.net/ecosolutions/solar>

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