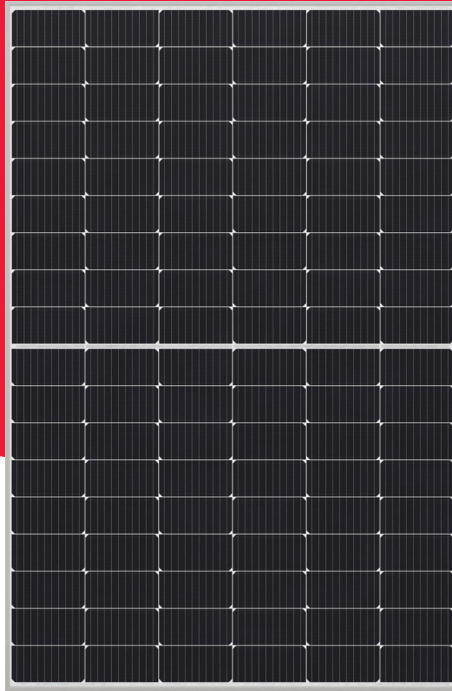


NU-JC Series

# NU-JC415


415 W

The High Performer





## Powerful product features


**+%** Guaranteed positive power tolerance (0/+5 %)

 High module efficiency 21.25 %  
PERC monocrystalline silicon photovoltaic modules

**MBB** MBB busbar technology  
Improved reliability  
Higher efficiency  
Reduced series resistance

 Half-cut cell  
Improved shading performance  
Lower internal losses  
Reduced hot spot risk

 Tested and certified  
VDE, IEC/EN61215, IEC/EN61730  
Safety class II, CE  
Fire rating class C

 Robust product design  
PID resistance test passed  
Salt mist test passed (IEC61701)  
Ammonia test passed (IEC62716)  
Dust and sand test passed (IEC60068)

## Your solar partner for life

**60 YEARS** 60 years of solar expertise

 Local support team in Europe

**25 YEARS** Linear power output guarantee

**50 MIL** 50 million PV modules installed

**10\* YEARS** Product guarantee

**1 TIER** Tier 1 - BloombergNEF



Energy Solutions

**SHARP**  
Be Original.

\* Applicable for modules installed in countries as shown in the guarantee conditions.

## Electrical data (STC)

NU-JC415			
Maximum power	$P_{max}$	415	$W_p$
Open-circuit voltage	$V_{oc}$	38.08	V
Short-circuit current	$I_{sc}$	13.87	A
Voltage at point of maximum power	$V_{mpp}$	31.49	V
Current at point of maximum power	$I_{mpp}$	13.18	A
Module efficiency	$\eta_m$	21.25	%

STC = Standard Test Conditions: irradiance 1,000 W/m<sup>2</sup>, AM 1.5, cell temperature 25 °C.  
 Rated electrical characteristics are within ±10 % of the indicated values of  $I_{sc}$ ,  $V_{oc}$  and 0 to +5 % of  $P_{max}$ .  
 Reduction of efficiency from an irradiance change of 1,000 W/m<sup>2</sup> to 200 W/m<sup>2</sup> ( $T_{module} = 25$  °C) is less than 3 %.

## Electrical data (NMOT)

NU-JC415			
Maximum power	$P_{max}$	311.11	$W_p$
Open-circuit voltage	$V_{oc}$	36.09	V
Short-circuit current	$I_{sc}$	11.25	A
Voltage at point of maximum power	$V_{mpp}$	29.35	V
Current at point of maximum power	$I_{mpp}$	10.6	A

NMOT = Nominal Module Operating Temperature: 42.5 °C, irradiance 800 W/m<sup>2</sup>, air temperature of 20 °C, wind speed of 1 m/s.

## Mechanical data

Length	1,722 mm
Width	1,134 mm
Depth	30 mm
Weight	20.7 kg

## Temperature coefficient

$P_{max}$	-0.341 %/°C
$V_{oc}$	-0.262 %/°C
$I_{sc}$	0.054 %/°C

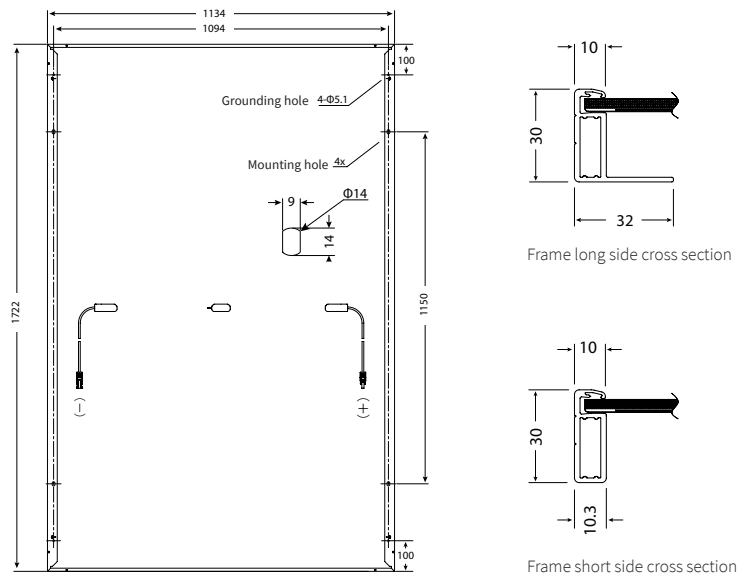
## Limit values

Maximum system voltage	1,000 V DC
Over-current protection	25 A
Temperature range	-40 to 85 °C
Max. mechanical load (snow/wind)	2,400 Pa
Tested snow load (IEC61215 test pass*)	5,400 Pa

## Packaging data

Modules per pallet	36 pcs
Pallet size (L × W × H)	1.75 m × 1.13 m × 1.25 m
Pallet weight	Approx. 780 kg

## Dimensions (mm)



\*Please refer to SHARP's installation manual for details.

## General data

Cells	Half-cut cell mono, 182 mm x 91 mm, MBB, 2 strings of 54 cells in series
Front glass	Anti-reflective high transmissive low iron tempered glass, 3.2 mm
Frame	Anodized aluminium alloy, silver
Backsheet	White
Cable	∅ 4.0 mm <sup>2</sup> , length 1,250 mm
Connection box	IP68 rating, 3 bypass diodes
Connector	MC4 (Multi Contact, Stäubli), IP68

Note: Technical data is subject to change without prior notice. Before using SHARP products, please request the latest data sheets from SHARP. SHARP accepts no responsibility for damage to devices which have been equipped with SHARP products on the basis of unverified information. The specifications may deviate slightly and are not guaranteed. Installation and operating instructions are to be found in the corresponding handbooks, or can be downloaded from [www.sharp.eu](http://www.sharp.eu). This module should not be directly connected to a load.