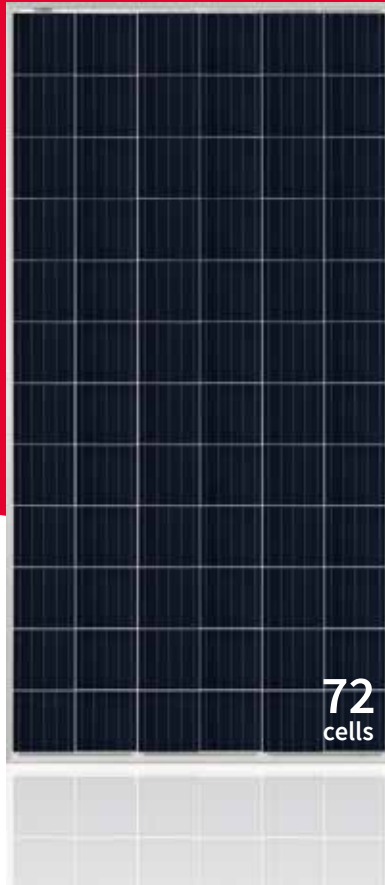


ND-AF330C

# ND-AF Series

330 W

The Project Solution



## Powerful product features



Guaranteed positive power tolerance (0/+5%)



Polycrystalline silicon photovoltaic modules



Max. system voltage 1,500 V



Tested and certified  
VDE, IEC/EN61215, IEC/EN61730



Safety class II/CE  
Application class A



Fire rating class C



17% Module efficiency



Robust product design



5 busbar technology  
Improved reliability  
Higher efficiency  
Reduced series resistance

## Your solar partner for life



60 years of solar expertise



Linear power output guarantee



Product guarantee



50 million PV modules installed



Local support team in Europe



Top PV brand award



Energy Solutions

# SHARP

Be Original.

## Electrical data (STC)

### ND-AF330C

Maximum power	$P_{max}$	330	$W_p$
Open-circuit voltage	$V_{oc}$	45.96	V
Short-circuit current	$I_{sc}$	8.91	A
Voltage at point of maximum power	$V_{mpp}$	39.11	V
Current at point of maximum power	$I_{mpp}$	8.45	A
Module efficiency	$\eta_m$	17.0	%

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  $P_{max}$  (power measurement tolerance ±3%).

Reduction of efficiency from an irradiance of 1,000 W/m<sup>2</sup> to 200 W/m<sup>2</sup> ( $T_{module} = 25\text{ °C}$ ) is less than 5%.

## Electrical data (NMOT)

### ND-AF330C

Maximum power	$P_{max}$	246.90	$W_p$
Open-circuit voltage	$V_{oc}$	43.56	V
Short-circuit current	$I_{sc}$	7.22	A
Voltage at point of maximum power	$V_{mpp}$	36.46	V
Current at point of maximum power	$I_{mpp}$	6.77	A

NMOT (Nominal Module Operating Temperature) = 42.5 °C.

Irradiance = 800 W/m<sup>2</sup>, air temperature = 20 °C, wind speed = 1 m/s.

## Mechanical data

Length	1,960 mm
Width	992 mm
Depth	40 mm
Weight	22.5 kg

## Temperature coefficient

$P_{max}$	-0.38%/°C
$U_{oc}$	-0.28%/°C
$I_{sc}$	0.039%/°C

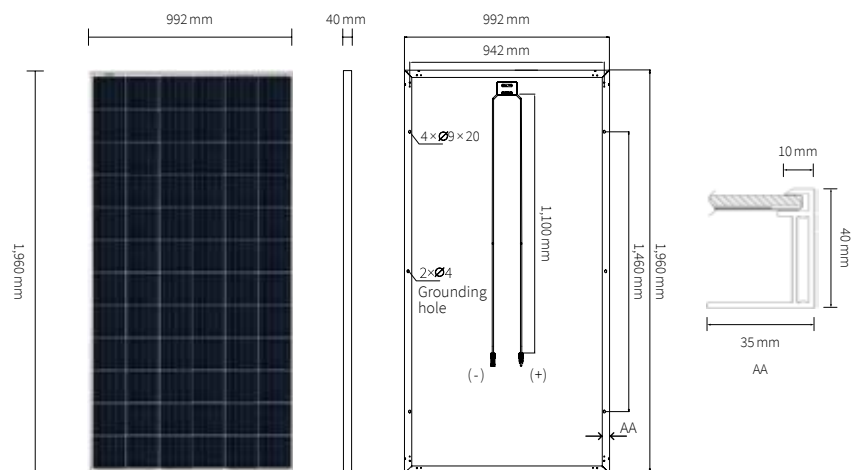
## Limit values

Maximum system voltage	1,500 VDC
Over-current protection	15 A
Temperature range	-40 to +85 °C
Max. mechanical load (snow/wind)	2,400 Pa

## Packaging data

Modules per pallet	26 pcs
Pallet size (L x W x H)	2.000 m x 1.055 m x 1.200 m
Pallet weight	620 kg

## Dimensions (mm)



## General data

Cells	polycrystalline 157 mm x 157 mm, 72 cells in series
Front glass	low iron tempered glass, 3.0 mm
Frame	anodized aluminium alloy, silver
Connection box	IP67, 3 bypass diodes
Cable	4.0 mm <sup>2</sup> , length 1,100 mm
Connector	C1 Series, IP67

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/solar](http://www.sharp.eu/solar). This module should not be directly connected to a load.

Contact Sharp

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## Electrical data (STC)

### NU-JD440

Maximum power	$P_{max}$	440	$W_p$
Open-circuit voltage	$V_{oc}$	49.77	V
Short-circuit current	$I_{sc}$	11.49	A
Voltage at point of maximum power	$V_{mpp}$	41.20	V
Current at point of maximum power	$I_{mpp}$	10.68	A
Module efficiency	$\eta_m$	19.9	%

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  $P_{max}$  (power measurement tolerance ±3%).  
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-JD440

Maximum power	$P_{max}$	329.21	$W_p$
Open-circuit voltage	$V_{oc}$	46.67	V
Short-circuit current	$I_{sc}$	9.30	A
Voltage at point of maximum power	$V_{mpp}$	38.46	V
Current at point of maximum power	$I_{mpp}$	8.56	A

NMOT = Nominal Module Operating Temperature: 45 °C, irradiance 800 W/m<sup>2</sup>, air temperature of 20 °C, wind speed of 1 m/s.

## Mechanical data

Length	2,108 mm
Width	1,048 mm
Depth	40 mm
Weight	25.5 kg

## Temperature coefficient

$P_{max}$	-0.347%/°C
$V_{oc}$	-0.263%/°C
$I_{sc}$	0.032%/°C

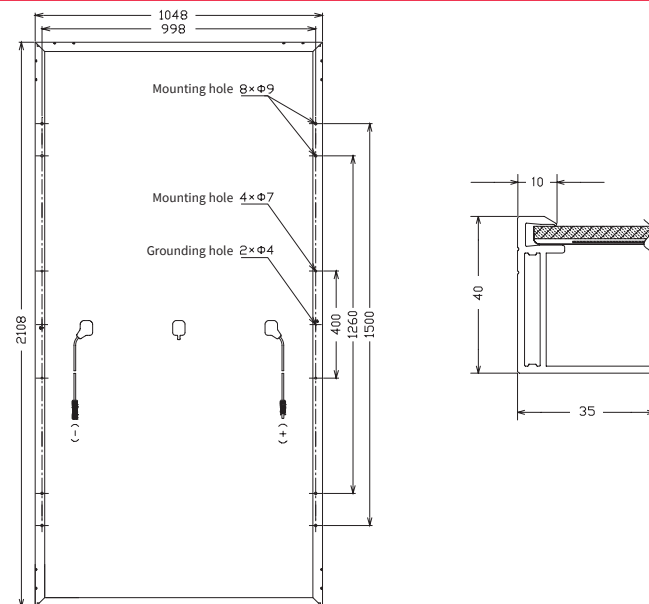
## Limit values

Maximum system voltage	1,500 V DC
Over-current protection	20 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	27 pcs
Pallet size (L x W x H)	2,16 m x 1,13 m x 1,24 m
Pallet weight	Approx. 736 kg

## Dimensions (mm)



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

## General data

Cells	Half-cut cell mono, 166 mm x 83 mm, 9BB, 2 strings of 72 cells in series
Front glass	Anti-reflective high transmissive low iron tempered glass, 3.2 mm
Frame	Anodized aluminium alloy, silver
Backsheet	White
Connection box	IP68 rating, 3 bypass diodes
Cable	Ø 4.0 mm <sup>2</sup> , length 1,670 mm [or on request (+) 365 mm, (-) 50 mm]
Connector	C1, IP68

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