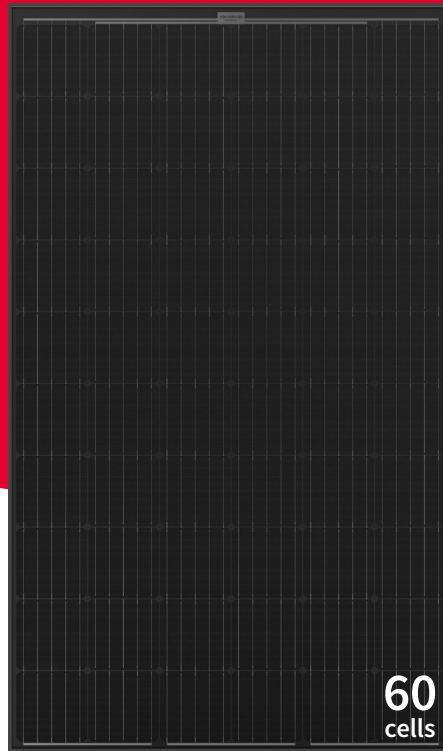


NU-RD310D/NU-RD300D

# NU-RD (D) Series

310 W / 300 W

The Design Solution



## Powerful product features



Made in Germany



Guaranteed positive power tolerance (0/+5%)



5 busbar technology  
Improved reliability  
Higher efficiency  
Reduced series resistance



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



Safety class II / CE  
Application class A



Fire rating class C



PERC technology  
High module efficiency 18.9%



Monocrystalline silicon photovoltaic modules



Portrait or landscape mounting



Robust product design  
PID resistance test passed  
Salt mist test passed (IEC61701)

## Your solar partner for life



60 years of solar expertise



Linear power output guarantee



Local support team in Europe



Product guarantee



50 million PV modules installed



Top PV brand award



Energy Solutions

# SHARP

Be Original.

## Electrical data (STC)

|                                   |           | NU-RD310D | NU-RD300D |       |
|-----------------------------------|-----------|-----------|-----------|-------|
| Maximum power                     | $P_{max}$ | 310       | 300       | $W_p$ |
| Open-circuit voltage              | $V_{oc}$  | 39.9      | 39.6      | V     |
| Short-circuit current             | $I_{sc}$  | 10.02     | 9.85      | A     |
| Voltage at point of maximum power | $V_{mpp}$ | 32.8      | 32.4      | V     |
| Current at point of maximum power | $I_{mpp}$ | 9.51      | 9.34      | A     |
| Module efficiency                 | $\eta_m$  | 18.9      | 18.3      | %     |

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> ( $T_{module} = 25 °C$ ) is less than 2%.

## Electrical data (NMOT)

|                                   |           | NU-RD310D | NU-RD300D |       |
|-----------------------------------|-----------|-----------|-----------|-------|
| Maximum power                     | $P_{max}$ | 231       | 224       | $W_p$ |
| Open-circuit voltage              | $V_{oc}$  | 37.3      | 37.0      | V     |
| Short-circuit current             | $I_{sc}$  | 8.07      | 7.94      | A     |
| Voltage at point of maximum power | $V_{mpp}$ | 30.4      | 30.0      | V     |
| Current at point of maximum power | $I_{mpp}$ | 7.59      | 7.45      | A     |

Electrical values measured under nominal module operating conditions: 800 W/m<sup>2</sup> irradiance, air temperature of 20 °C, wind speed of 1 m/s. NMOT: 45.5 °C (nominal module operating conditions).

## Mechanical data

|        |          |
|--------|----------|
| Length | 1,660 mm |
| Width  | 990 mm   |
| Depth  | 42 mm    |
| Weight | 19 kg    |

## Temperature coefficient

|           |           |
|-----------|-----------|
| $P_{max}$ | -0.40%/°C |
| $V_{oc}$  | -0.29%/°C |
| $I_{sc}$  | 0.05%/°C  |

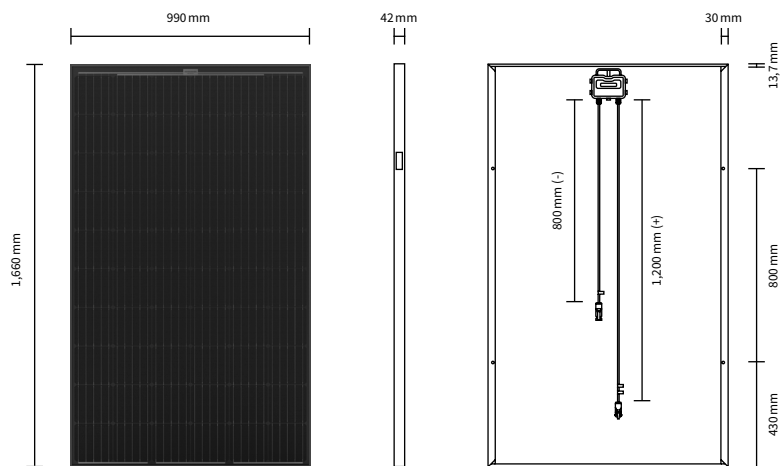
## Limit values

|  |              |
|--|--------------|
| Maximum system voltage                 | 1,000 VDC    |
| 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      | 26 pcs                 |
| Pallet size (L × W × H) | 1.2 m × 1.0 m × 1.86 m |
| Pallet weight           | approx. 519 kg         |

## Dimensions (mm)



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

## General data

|                |   |
|----------------|---|
| Cells          | monocrystalline Si, 156.75 mm × 156.75 mm, 60 cells in series     |
| Front glass    | anti-reflective high transmissive low iron tempered glass, 3.2 mm |
| Frame          | anodized aluminium alloy, black                                   |
| Backsheet      | black   |
| Connection box | IP67 Rating, 148 mm × 123 mm × 27 mm, 3 bypass diodes             |
| Cable          | length 1,200 mm (+), 800 mm (-)                                   |
| Connector      | MC4 (Multi Contact, Stäubli Electrical Connectors AG)             |

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.

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