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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

**Sharp Energy Solutions Europe  
NU-RD285-300  
NU-RD295**

Also available on the web at  
[EnergyPal.com/sharp-energy-solutions-europe-solar-panels/nu-rd295](http://EnergyPal.com/sharp-energy-solutions-europe-solar-panels/nu-rd295)

# SHARP

NU-RD285 | 285 W  
NU-RD290 | 290 W  
NU-RD295 | 295 W  
NU-RD300 | 300 W

The design solution  
**285/290/295/300 W**  
Mono black



## For your independence

Take advantage of solar panels + battery solutions for maximum independence



55 years of solar expertise



### Proven Quality

VDE, IEC/EN 61215, IEC/EN61730  
Safety Class II / CE  
MCS accredited product  
ISO 9001 / ISO 14001



Top PV brand award



0/+5 %

Guaranteed positive power tolerance (0/+5 %)



Monocrystalline silicon photovoltaic modules



Robust product design (PID resistance)

10 YEARS

Product guarantee

25 YEARS

Linear power output guarantee



Up to 18.3 % module efficiency



Made in Germany

Electrical data (STC)						
		NU-RD300	NU-RD295	NU-RD290	NU-RD285	
Maximum power	$P_{max}$	300	295	290	285	$W_p$
Open-circuit voltage	$V_{oc}$	39.4	39.3	39.3	39.2	V
Short-circuit current	$I_{sc}$	9.97	9.87	9.80	9.73	A
Voltage at point of maximum power	$V_{mpp}$	31.2	31.3	31.3	31.3	V
Current at point of maximum power	$I_{mpp}$	9.63	9.42	9.25	9.1	A
Module efficiency	$\eta_m$	18.3	18.0	17.6	17.3	%

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%.

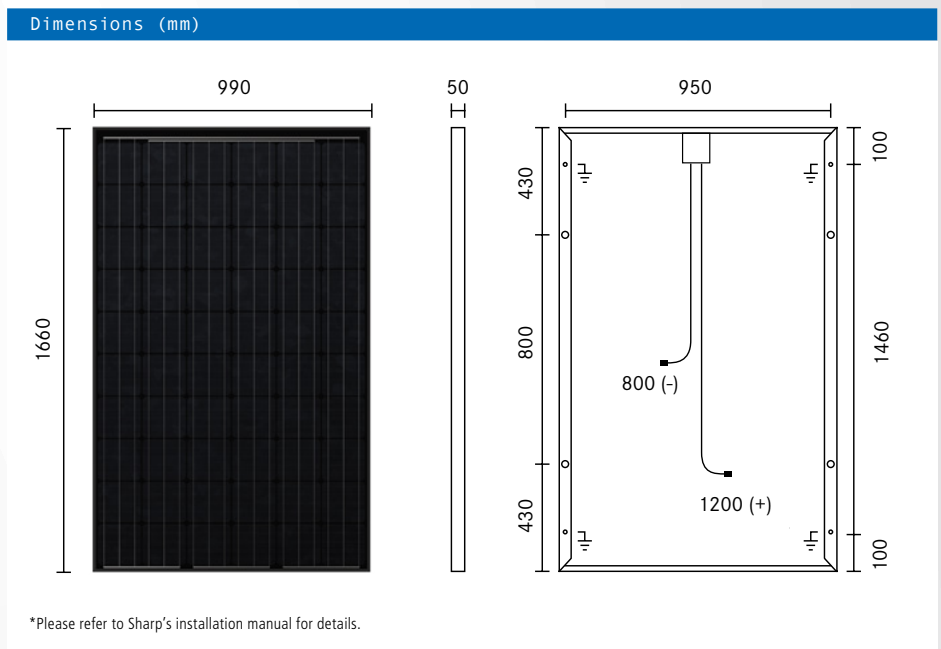
Electrical data (NOCT)						
		NU-RD300	NU-RD295	NU-RD290	NU-RD285	
Maximum power	$P_{max}$	219	215	211	207	$W_p$
Open-circuit voltage	$V_{oc}$	36.3	36.2	36.0	36.0	V
Short-circuit current	$I_{sc}$	8.07	7.99	7.93	7.88	A
Voltage at point of maximum power	$V_{mpp}$	28.5	28.4	28.3	28.3	V
Current at point of maximum power	$I_{mpp}$	7.72	7.59	7.45	7.33	A
Module efficiency	$\eta_m$	16.7	16.4	16.0	15.7	%

Electrical values measured under nominal operating conditions of cells : 800 W/m<sup>2</sup> irradiance, air temperature of 20 °C, wind speed of 1 m/s. NOCT : 49 °C (nominal operating cell temperature).

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

Mechanical data	
Length	1,660 mm
Width	990 mm
Depth	50 mm
Weight	20 kg

Limit values	
Maximum system voltage	1,000 V
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



General data	
Cells	monocrystalline, 156 mm × 156 mm, 60 cells in series
Front glass	low iron tempered glass, 3.2 mm
Frame	anodized aluminium alloy, black
Connection box	PPE/PPO resin, IP67 Rating, 148 x 123 x 27 mm, 3 bypass diodes
Cable	CE cable, length 1,200 mm (+), 800 mm (-)
Connector	MC4

Packaging data	
Modules per pallet	22 pcs
Pallet size (L × W × H)	1.2 m × 1.0 m × 1.85 m
Pallet weight	approx. 477 kg
Modules packed in one carton	22 pcs

 **Empower yourself**

[www.sharp.eu](http://www.sharp.eu)

**SHARP**

**Contact Sharp**  
 SHARP ELECTRONICS GMBH  
 ENERGY SOLUTIONS  
 NAGELSWEG 33 - 35  
 20097 HAMBURG  
 GERMANY  
 T: +49 (0) 40/2376-2436  
 F: +49 (0) 40/2376-2193

**Contact Installer**

Local responsibility: **Benelux** SolarInfo.seb@sharp.eu, **France** SolarInfo.fr@sharp.eu, **Germany** SolarInfo.de@sharp.eu, **Poland** energy-info.pl@sharp.eu  
**Spain & Portugal** SolarInfo.es@sharp.eu, **United Kingdom** SolarInfo.uk@sharp.eu, **Other countries** SolarInfo.Europe@sharp.eu

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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