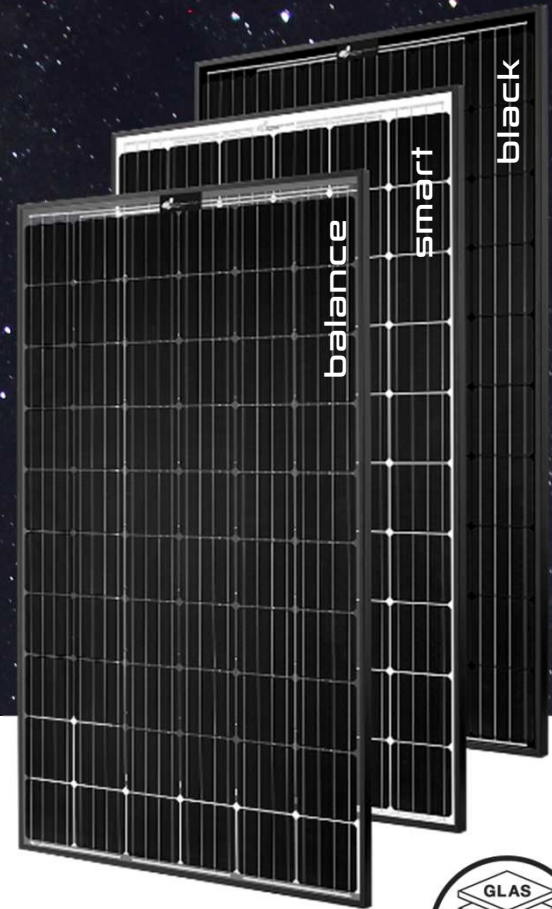


Optional  
snow load module edition  
1500 volts module edition  
optional in transparent, white, full black  
Total Care for the entire system  
Extended product guarantee



**EXCELLENT GLASS/GLASS PERC60**  
balance | smart | black

PERC 305-320 Wp



### Long lifetime even under extreme conditions

2 x 2 mm strong, hardened and scratchresistant solar glass

Protection of cells against microcracks through double glass composite

Maximum test load 8.100 Pascal <sup>2</sup>

Stability optimized for increased requirements due to slipping snow loads (optional)

Extended hail impact tests to 30 mm

### Optimized for performance

PID-free PERC high performance solar cells

Antireflective coated solar glass

Low-light optimized

Positively classified -0/+4.99 Wp

Industry-leading NMOT values

### Highest quality standards

Manufactured according to  
DIN EN ISO 9001:2015  
DIN EN ISO 14001:2015  
BS OHSAS 18001:2007

PV-module type approval according to IEC 61215:2016 <sup>3</sup>

PV-module safety qualification according to IEC 61730:2016 <sup>3</sup>

### Guaranteed performance <sup>1</sup>

30 years of linear performance guarantee

20 years product guarantee, optional extension to 30 years

Total Care for the entire system (optional)

<sup>1</sup> For detailed information please consult the CS Wismar GmbH warranty conditions

<sup>2</sup> See backside for detailed test loads

<sup>3</sup> Subject to recertification

# EXCELLENT GLASS/GLASS 305 | 310 | 315 | 320 PERC60

balance | smart | black

## Performance STC

Under standard Test Conditions STC:  
1000 W/m<sup>2</sup>; spectrum AM 1.5;  
Cell temperature 25°C  
Measurement tolerance STC:  
P<sub>mpp</sub> ±3%; I<sub>sc</sub> ±10%; U<sub>oc</sub> ±10%

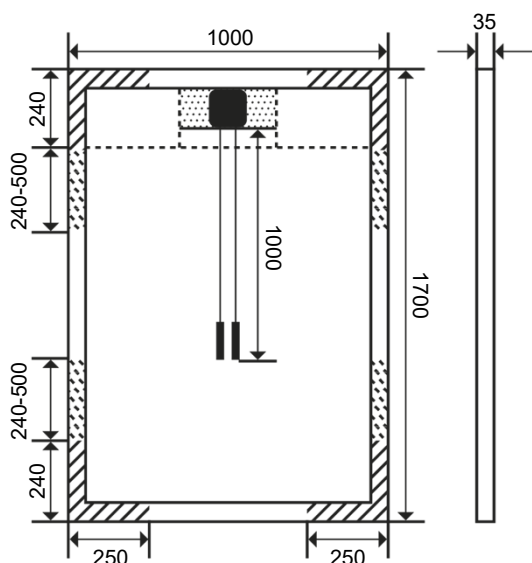
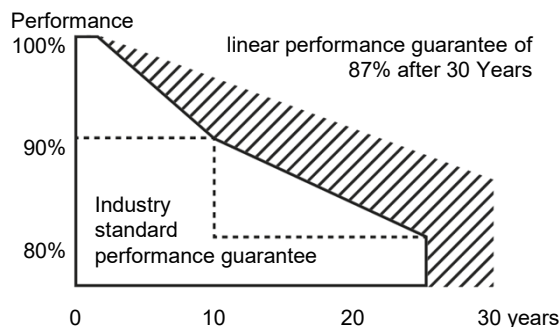
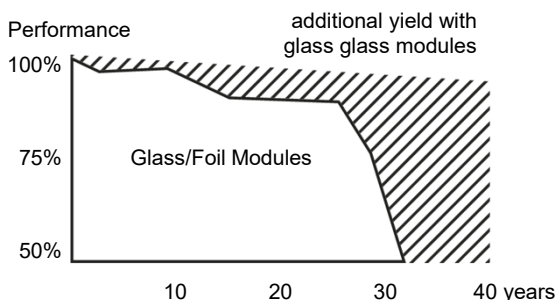
|   |       |       |       |       |
|---|-------|-------|-------|-------|
| Nominal Power P <sub>mpp</sub> (Wp)       | 305   | 310   | 315   | 320   |
| Open Circuit Voltage U <sub>oc</sub> (V)  | 39,62 | 39,82 | 40,03 | 40,22 |
| Voltage U <sub>mpp</sub> (V)              | 32,94 | 33,16 | 33,37 | 33,61 |
| Short Circuit Current I <sub>sc</sub> (A) | 9,87  | 9,98  | 10,09 | 10,20 |
| Current I <sub>mpp</sub> (A)              | 9,26  | 9,35  | 9,44  | 9,52  |
| Efficiency η (%)                          | 17,9  | 18,2  | 18,5  | 18,8  |

Reduction of module efficiency at reduction from 1000 W/m<sup>2</sup> to 200 W/m<sup>2</sup>: 2,6% ± 0,1% (relative)

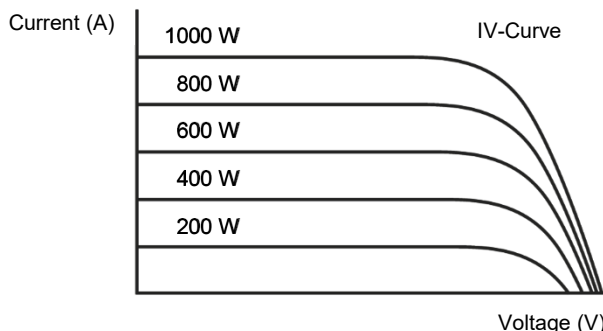
## Performance NMOT

Nominal operating temperature of module  
800 W/m<sup>2</sup>, NMOT, AM 1.5

|   |       |       |       |       |
|---|-------|-------|-------|-------|
| Nominal Power P <sub>mpp</sub> (Wp)       | 239   | 243   | 246   | 250   |
| Open Circuit Voltage U <sub>oc</sub> (V)  | 37,05 | 37,24 | 37,44 | 37,61 |
| Voltage U <sub>mpp</sub> (V)              | 32,29 | 32,50 | 32,71 | 32,94 |
| Short Circuit Current I <sub>sc</sub> (A) | 7,97  | 8,06  | 8,15  | 8,24  |
| Current I <sub>mpp</sub> (A)              | 7,39  | 7,46  | 7,53  | 7,60  |



measurements in mm



**clamping area**  
 approved up to 2.400 Pa  
 no contact between junction box and mounting profile permitted in this area.  
 approved up to 5.400 Pa

## Other Technical Specification

|                         |                            |
|-------------------------|----------------------------|
| Max. system voltage     | 1000 V                     |
| Weight                  | 22.0 ± 0.5 kg              |
| Reverse Current Load IR | 15 A                       |
| Junction box            | IP 67 with 3 bypass diodes |
| Connectors              | IP 67, MC4                 |
| Fire rating             | class C                    |
| Operating temperature   | -40°C ... +85°C            |
| Design load: snow       | 5.400 Pa *                 |
| Max test load           | 8.100 Pa                   |
| Design load: wind       | 2.400 Pa *                 |
| Max test load           | 3.600 Pa                   |

\* safety factor 1.5

## Thermal Properties

|                     |             |
|---------------------|-------------|
| TC P <sub>mpp</sub> | -0.39 %/K   |
| TC U <sub>oc</sub>  | -0.28 %/K   |
| TC I <sub>sc</sub>  | 0.040 %/K   |
| NMOT                | 45 +/- 2 °C |

## Material Used

|               |                      |
|---------------|----------------------|
| No. of cells  | 60 cells             |
| Type of cells | mono perc            |
| Front         | hardened solar glass |
| Frame         | anodized aluminium   |
| Frame height  | 35 mm                |

