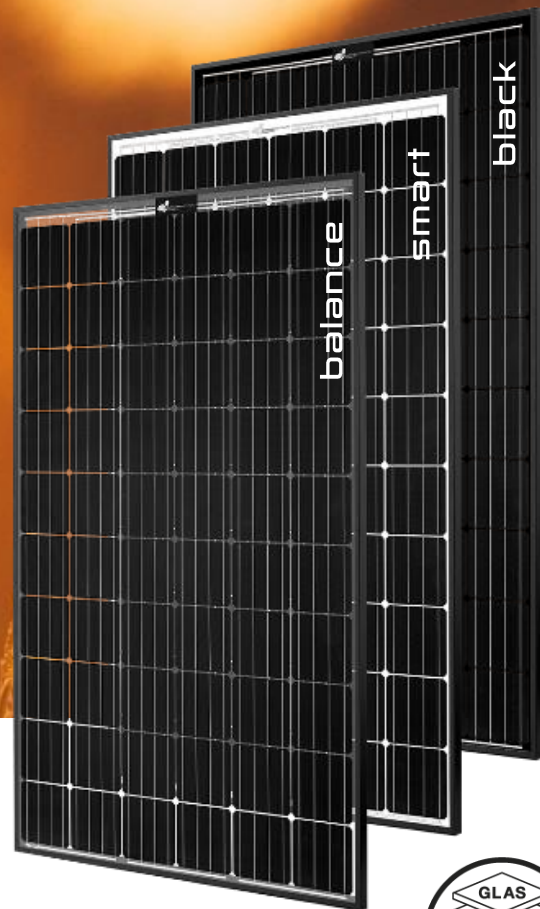
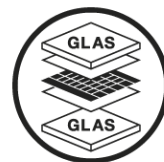




EXCELLENT GLASS/GLASS M60 balance | smart | black

MONOCRYSTALLINE 275-290 WP



Long lifetime even under extreme conditions

2 x 2 mm strong, scratch-resistant thermally hardened solar glass

Glass-Glass composite technology minimizes impact of environmental factors

cells in neutral phase are especially protected against tensile and pressure loads

Load up to 5,400 Pa

Optimized for performance

PID-free monocrystalline high performance solar cells

Antireflective coated and light-transmitting solar glass

Best low-light behavior

Positively classified
-0/+4.99 Wp

Industry-leading NMOT values

Highest quality standards

Manufactured in accordance with
DIN EN ISO 9001:2015
DIN EN ISO 14001:2015
BS OHSAS 18001:2007

PV-module type approval according to
IEC 61215:2016¹

PV-module safety qualification according to
IEC 61730:2016¹

Performance guarantee degradation below industry standard *

30 years linear performance guarantee

20 years product guarantee

Optional extension of product guarantee to 30 years

Optional Total Care for the entire system

* For detailed information please consult the CS Wismar GmbH warranty conditions

¹ Subject to recertification

EXCELLENT GLASS/GLASS 275 | 280 | 285 | 290 M60

balance | smart | black

Performance STC

Under standard Test Conditions STC:
1000 W/m²; spectrum AM 1.5;
Cell temperature 25°C
Measurement tolerance STC:
P_{mp} ±3%; I_{sc} ±10%; U_{oc} ±10%

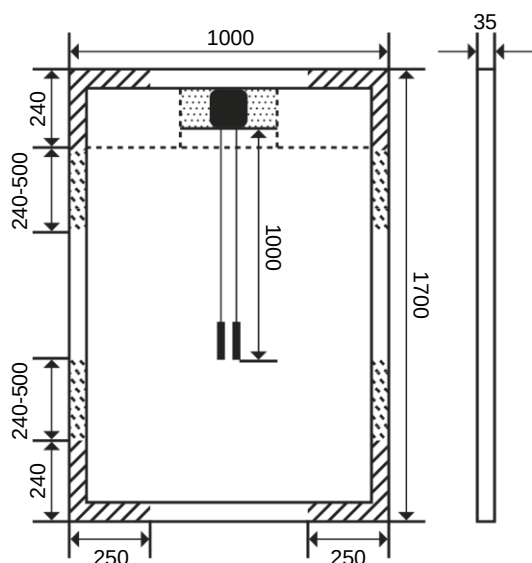
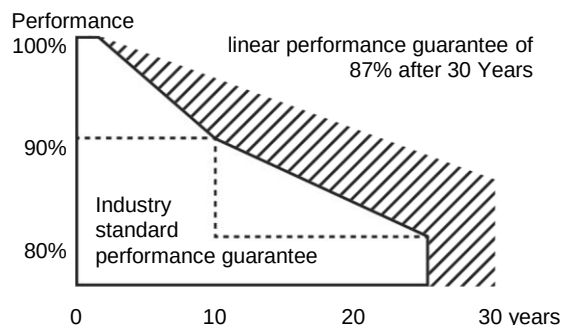
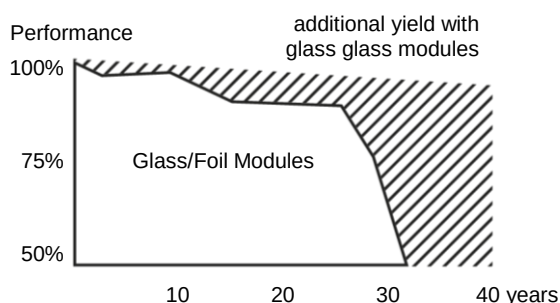
Nominal Power P _{mp} (Wp)	275	280	285	290
Open Circuit Voltage U _{oc} (V)	38,99	39,16	39,33	39,48
Voltage U _{mp} (V)	31,27	31,64	32,01	32,37
Short Circuit Current I _{sc} (A)	9,37	9,46	9,54	9,63
Current I _{mp} (A)	8,80	8,87	8,90	8,95
Efficiency η (%)	16,2	16,5	16,8	17,1

Reduction of module efficiency at reduction from 1000 W/m² to 200 W/m²: 1,4% ± 0,8% (relative)

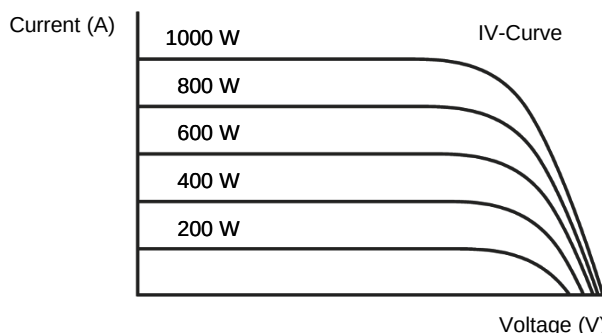
Performance NMOT

Nominal operating temperature of module
800 W/m², NMOT, AM 1.5

Nominal Power P _{mp} (Wp)	215	219	222	226
Open Circuit Voltage U _{oc} (V)	36,21	36,36	36,52	36,66
Voltage U _{mp} (V)	30,58	30,91	31,23	31,55
Short Circuit Current I _{sc} (A)	7,58	7,65	7,72	7,79
Current I _{mp} (A)	7,03	7,09	7,11	7,15



measurements in mm



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

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 _{mp}	-0.41 %/K
TC U _{oc}	-0.31 %/K
TC I _{sc}	0.045 %/K
NMOT	45 +/- 2 °C

Material Used

No. of cells	60 cells
Type of cells	monocrystalline
Front	hardened solar glass
Frame	anodized aluminium
Frame height	35 mm

