



## PHOTOVOLTAIK MODULE

# Glass-Glass-Series

### German quality standards

All WIOSUN® photovoltaic modules are subject to our strict quality standards. To ensure this, we continually monitor all manufacturers and suppliers worldwide that deliver products to WIOSUN®. All of our 25 year know-how together with selected individual components in premium quality have gone into them. These modules are also particularly suitable for use in hot regions due to their high degree of laminated membrane integration.

### Positive-only tolerance

You can count on our quality, because WIOSUN® delivers only modules with positive tolerance up to +4.99 Wp.

### Suitable for all snow load regions

The newly developed and strengthened 35 millimetre hollow chamber frame gives our modules extremely high stability – in all weather conditions.

### 10 year warranty on our products

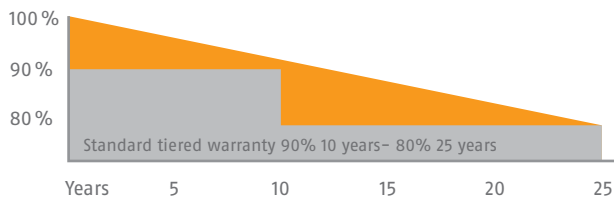
With the 10 year product warranty on the WIOSUN® module series, as well as a 25 year performance guarantee, WIOSUN® photovoltaic modules are among the most reliably calculable components for efficient PV systems.



MADE IN EUROPE



10 YEAR WARRANTY



Added Value – Linear performance warranty from WIOSUN®



**General**

MODULETYPE			A200M-GLASS	A200P-GLASS	C250M-GLASS	C250P-GLASS	D300M-GLASS	A300P-GLASS
Cells			6x8 MONO	6x8 POLY	6x10 MONO	6x10 POLY	6x12 MONO	6x12 POLY
Cellsize			156 x 156 mm					
Frame			edge protection , black					
Connection			at the side of frame with 3 bypass-diodes					
Connector			MC4 compatible					
Front glass			2.0 mm solar glass					
Power tolerance			0 bis + 4.99 Wp					

**Electrical Datas (STC\*)**

MODULETYPE			A200M-GLASS	A200P-GLASS	C250M-GLASS	C250P-GLASS	D300M-GLASS	A300P-GLASS
Nominal Power	$P_{MPP}$	Wp	200	200	250	250	300	300
MPP-Voltage	$U_{MPP}$	V	23.96	24.50	30.31	29.98	36.37	35.97
MPP-Current	$I_{MPP}$	A	8.41	8.05	8.25	8.34	8.25	8.34
Open-circuit voltage	$U_{OC}$	V	30.25	29.52	37.90	37.54	45.47	45.04
Short-circuit current	$I_{SC}$	A	8.97	8.95	8.82	8.84	8.85	8.86
Module efficiency	$\eta\%$		15.26	15.26	16.94	15.40	16.98	15.4
Cell efficiency	$\eta\%$		18.84	17.80	18.43	17.80	18.43	17.80

**Electrical Datas (NOCT\*\*)**

MODULETYPE			A200M-GLASS	A200P-GLASS	C250M-GLASS	C250P-GLASS	D300M-GLASS	A300P-GLASS
Nominal Power	$P_{MPP}$	Wp	145	144	182	181	220	218
MPP-Voltage	$U_{MPP}$	V	21.61	22.2	27.36	27.7	33.2	33.3
Open-circuit voltage	$U_{OC}$	V	27.79	28.6	34.82	34.2	42.4	41.3
Short-circuit current	$I_{SC}$	A	7.23	7.07	7.11	7.07	6.92	7.04

**Temperature coefficients**

MODULETYPE			A200M-GLASS	A200P-GLASS	C250M-GLASS	C250P-GLASS	D300M-GLASS	A300P-GLASS
Temperature coefficients $I_{SC}$			+ 0.031 % / K	+ 0.04 % / K	+ 0.031 % / K	+ 0.05 % / K	+ 0.031 % / K	+ 0.05 % / K
Temperature coefficients $U_{OC}$			- 0.31 % / K	- 0.34 % / K	- 0.31 % / K	- 0.33 % / K	- 0.31 % / K	- 0.33 % / K
Temperature coefficient $sP_{MPP}$			- 0.4 % / K	- 0.48 % / K	- 0.4 % / K	- 0.45 % / K	- 0.4 % / K	- 0.44 % / K
NOCT			48 °C ± 2 °C					

**Limits**

MODULETYPE			A200M-GLASS	A200P-GLASS	C250M-GLASS	C250P-GLASS	D300M-GLASS	A300P-GLASS
System voltage max.			600V/1000V	600V/1000V	600V/1000V	600V/1000V	600V/1000V	600V/1000V
Reverse current max.			15A	15A	15A	15A	15A	15A
Operating temperature			- 40 °C bis + 90 °C					
Maximum load			5400 Pa/m <sup>2</sup> = 550 kg/m <sup>2</sup> (75 lbs/ft <sup>2</sup> )					
Safety class			II					

**Certifications and warranty**

MODULETYPE			A200M-GLASS	A200P-GLASS	C250M-GLASS	C250P-GLASS	D300M-GLASS	A300P-GLASS
TÜV			IEC 61215, IEC 61730, 1703 i. p.					
Product warranty			10 years					
Performance warranty			linear 25 years					

**Mechanical Datas**

MODULETYPE			A200M-GLASS	A200P-GLASS	C250M-GLASS	C250P-GLASS	D300M-GLASS	A300P-GLASS
Dimensions			1316 x 996	1316 x 996	1640 x 990	1640 x 990	1950 x 990	1950 x 990
LxWxH in mm ±1mm			x 35	x 35	x 35	x 35	x 5	x 5
Weight			15 kg	15 kg	18 kg	18 kg	20 kg	20 kg

All figures are according to DIN EN 50380.  
 Tolerance at rated power 0 to +4.99 Wp. All other specifications ± 3%.  
 At a low irradiation intensity of 200 W/m<sup>2</sup> (AM 1.5, cell temperature 25 °C)  
 96 % of the STC module efficiency will be archived.

\* Standard Test conditions (1000 W/m<sup>2</sup>, AM 1.5, cell temperature 25 °C)

\*\* Normal Operating Cell Temperature (800 W/m<sup>2</sup>, AM 1.5,  
 windspeed 1 m/s, ambient temperature 25 °C)