
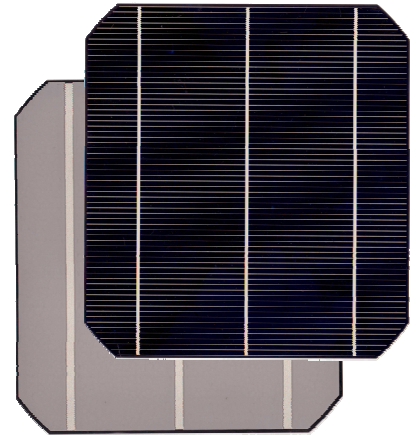


HIGH PERFORMANCE	DATASHEET	TG18.5 BR	 The Bifacial PV Cell Company

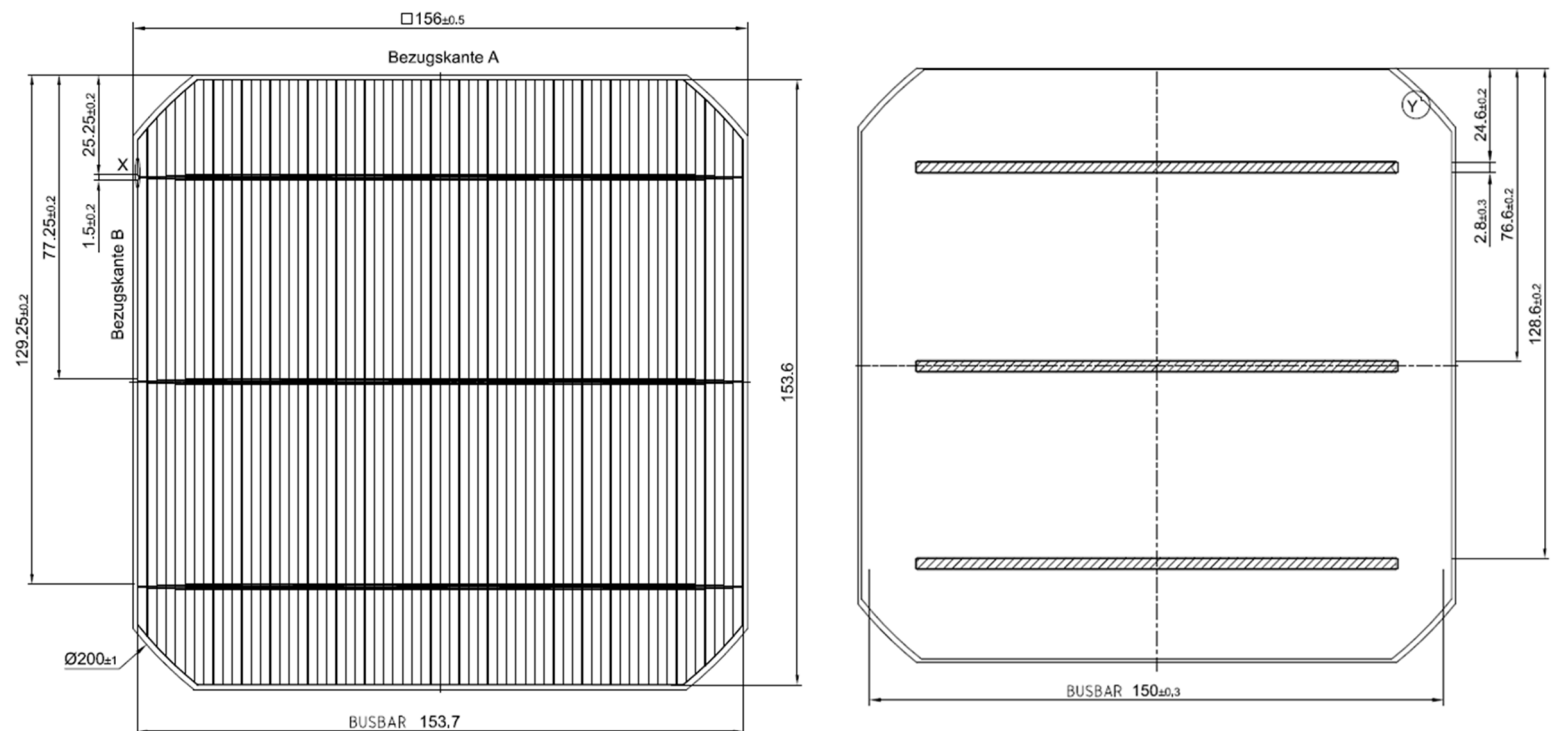
Monocrystalline Silicon Solar Cell

TG18.5 BR (D200, 156mm x 156mm)



OVERVIEW	
Product	Monocrystalline P-Type Silicon Solar Cell
Format ; Diameter	156 mm x 156 mm; 200 mm
Description:	High performance and premium optical quality and appearance cell, suitable for all applications including BIPV. (Efficiency 17.5% - 18.39%).
Electrical contacts	Front side: grid; 3 busbars Back side: 3 busbars

CELL LAYOUT



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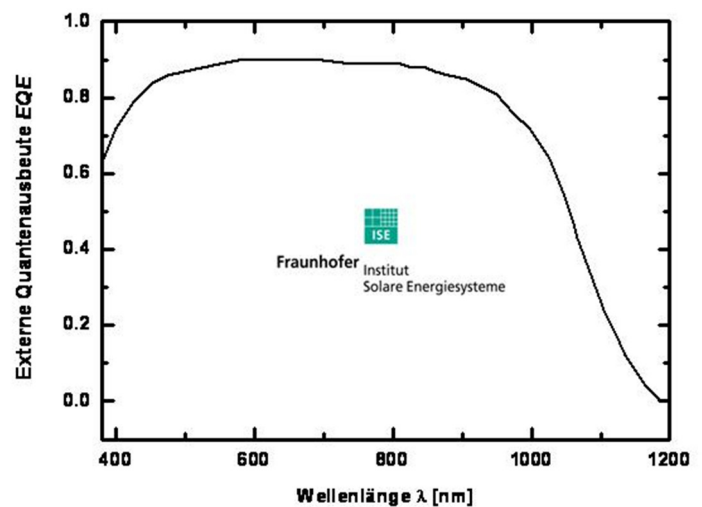
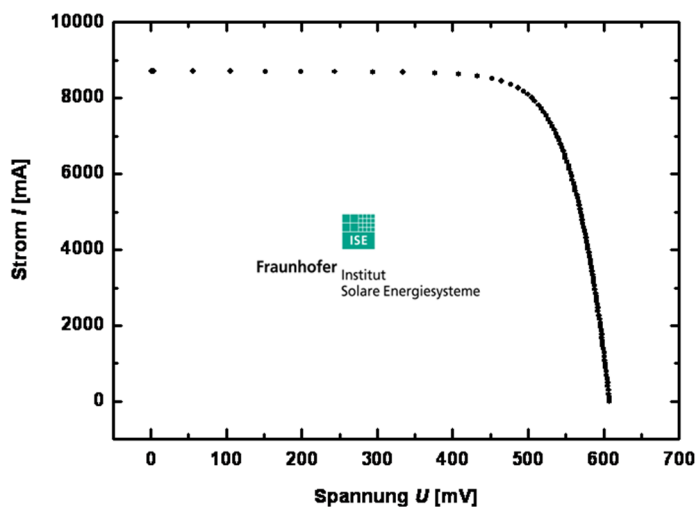
APPEARANCE AND DIMENSIONS	
Material	Monocrystalline Silicon
Surface and color	Textured, dark blue - black
Dimensions; area	156 mm x 156 mm; 23,895 mm ² (± 250 mm ²)
Cell thickness (related to silicon)	180 μ m (± 30 μ m)
Electrical contacts	Front side: grid; 3 busbars Back side: 3 busbars
Polarity	Front side: negative; back side: positive
Cell structure	n+ p p+
Antireflective coating	Silicon Nitride

ELECTRICAL DATA*		BIN 36	BIN 35	BIN 34
Classification voltage	U_{LD} (mV)	500	500	500
Voltage at open circuit	U_{OC} (mV)	620	618	612
Current at classification voltage	I_{ULD} (A)	8.60-8.84	8.36-8.60	8.12-8.36
Mean short circuit current	I_{SC} (A)	8.88	8.85	8.75
Mean power	P_{MPP} (W)	4.39	4.35	4.18
Mean efficiency	η (%)	18.39	18.20	17.53
Reverse current	I_{Rev12V} (A)	≤ 0.5	≤ 0.5	≤ 0.5

TEMPERATURE COEFFICIENTS*		ABSOLUTE	RELATIVE
Voltage at open circuit	T_{KUOC}	-2.23 mV/K	-0.37 %/K
Short circuit current	T_{KISC}	3.14 mA/K	0.04 %/K
Power	T_{KP}	-18.02 mW/K	-0.45 %/K

* These values are valid for the following testing conditions: light spectrum AM1.5G; light intensity 100 mW/cm²; measuring temperature 25°C; accuracy in the range from 25°C to 75°C: $\pm 2.5\%$

PRODUCT INFORMATION	
Working temperature of the cell	-50 °C to 80 °C
Stocking conditions	Avoid humidity and corrosive atmospheres
Recommended solder	Saturated with silver (2-4% Ag)



Specifications subject to technical changes

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