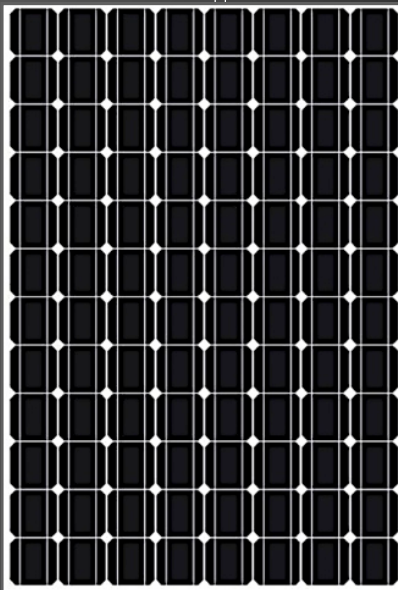


Solar Direct Group

Black series



High efficiency mono crystalline cells



IEC 61215 & 61730 certificates from TUV SÜD



Positive power sorting system



5 years of product workmanship warranty



25 years of warranty for modules power performance

Photovoltaics Integrated

Product Technical Characteristic

Module Name
Nominal power
Power tolerance
Rated Voltage
Rated Current
Open Circuit Voltage
Short Circuit Current
Module Efficiency
Max. System Voltage

Electrical Characteristics

SDM	230+	235+	240+	245+	250+
Pm (Wp)	230	235	240	245	250
%	3,0	3,0	3,0	3,0	3,0
Vmp (V)	48,1	48,3	48,5	48,7	48,9
Imp (I)	4,80	4,87	4,95	5,03	5,12
Voc (V)	60,15	60,38	60,63	60,88	61,07
Isc (I)	5,1	5,26	5,35	5,43	5,54
%	13,6	13,9	14,2	14,4	14,7
VDC	1000	1000	1000	1000	1000

Cells Configuration
Cell Size
No . Of Bypass diodes
Max. Series Fuse Rating
Junction Box Protection

Constructive Characteristics

96 pcs (8X12), Mono Crystalline Silicon
125mm X 125mm
3 pcs
12 A
IP65

Module Dimensions
Module Weight
Cables Characteristics
Glass Characteristics
Max Mechanical Load

Mechanical Characteristics

1575 mm X 1082 mm X 45 mm
21 kg
900 mm long, 4 mm thick, MC4 compatible connectors
High Transmission, Low Iron, Tempered, 3,2 mm
2400 (Pa)

Pm Temp. Coefficient
Isc Temp. Coefficient
Voc Temp. Coefficient
Fill Factor
Operating Cell Temp.

Thermal Characteristics

- 0,48 %/ °C
0,038 %/ °C
- 0,34 %/ °C
-0,157 %/ °C
45 ± 2 °C

Dielectric Insulation
Operating Temp.
Storage Temp.
Max Hail Diameter
Max Wind Load Speed

Thermal Characteristics

Max 3000 (VDC)
-40 to +85 °C
-40 to +85 °C
At 80 km/h up to 25 mm
130 km/h (36m/s)

Nominal rating at STC: 1000W/m² AM 1,5, 25°C , Electrical Parameter tolerance +/- 3%

