

DATA SHEET

Model Q110, Q112.5, Q115, Q117.5, Q120

Sunfilm AG

Sunfilmstraße 8
01900 Großröhrsdorf
Germany

Tel: +49 (0)35952 280 - 0
Fax: +49 (0)35952 280 - 1070
E-Mail: info@sunfilm.com
Web: www.sunfilm.com

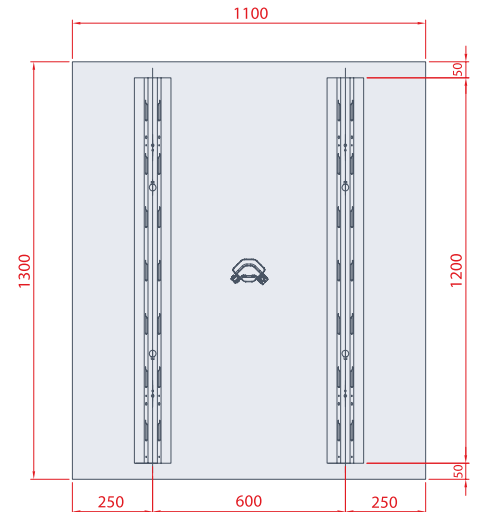
MODEL Q110, Q112.5, Q115, Q117.5, Q120

Thin film silicon tandem junction

Mechanical Specifications

Parameter	Unit	Value
Length x Width	[mm]	1300 x 1100
Thickness	[mm]	7.6 (35 incl. junction box and back bar)
Weight	[kg]	27
Front Glass	[mm]	3.2 (low iron float glass)
Back Glass	[mm]	3.2 (float glass)
Interlayer	[mm]	1.14 (PVB)
Frame		None
Back Bar		Galvanized steel, according to corrosion class C3
Cell type		Tandem junction silicon [a-Si/ μ c-Si]
Junction Box		Protection class IP 67, with by-pass diode
Cable		No cables included
Connector		Multi-Contact MC4 (or equivalent)

Module



Electrical characteristics

Performance at Standard Test Conditions (STC): 1000W/m², 25°C, AM 1.5 SPECTRUM

Parameter	Unit	Q110	Q112.5	Q115	Q117.5	Q120
Nominal Power ($\pm 5\%$)	P_{max} [W]	110	112.5	115	117.5	120
Short Circuit Current	I_{sc} [A]	1.31	1.32	1.34	1.35	1.36
Open Circuit Voltage	V_{oc} [V]	138	139	140	141	142
Current at Maximum Power	I_{mpp} [A]	1.05	1.07	1.09	1.10	1.12
Voltage at Maximum Power	V_{mpp} [V]	104	105	106	107	108

Performance at Normal Operating Cell Temperature (NOCT): 800W/m², 40°C, AM 1.5

Parameter	Unit	Q110	Q112.5	Q115	Q117.5	Q120
Nominal Power ($\pm 5\%$)	P_{max} [W]	85.3	87.1	89.0	90.9	92.8
Short Circuit Current	I_{sc} [A]	1.06	1.07	1.08	1.09	1.10
Open Circuit Voltage	V_{oc} [V]	129	130	131	132	133
Current at Maximum Power	I_{mpp} [A]	0.87	0.88	0.89	0.90	0.91
Voltage at Maximum Power	V_{mpp} [V]	98	99	100	101	102

Performance at low irradiance

Module efficiency at an irradiance of 200W/m² relative to an irradiance of 1000W/m² (both at 25°C and AM 1.5 SPECTRUM) is: 95%

All values $\pm 10\%$ unless otherwise indicated.

Properties for system design

Parameter	Unit	Value
Maximum System Voltage - V_{sys}	[V]	1000
Maximum Reverse Current - I_R	[A]	4
Bypass Diode Current - I_b	[A]	10

Temperature coefficients

At 1000 W/m², AM 1.5 SPECTRUM

Parameter	Unit	Value
Temperature Coefficient of I_{sc}	[%/K]	+0.10
Temperature Coefficient of V_{oc}	[%/K]	-0.37
Temperature Coefficient of P_{mpp}	[%/K]	-0.30

Qualifications and Certificates

CE-Compliant
IEC 61646: 2008
EN 61730-1 (Application Class A)/EN 61730-2 (Application Class A): 2007
Safety Class II

Specifications subject to technical changes © Sunfilm AG

PS-C1-99-002 / Rev. 006 | August 2009