



# Certificate of Compliance

**Certificate:** 2593411

**Master Contract:** 257442

**Project:** 70016432

**Date Issued:** December 3, 2014

**Issued to:** SolarWorld AG

24 Martin Luther King Strasse  
Bonn, North Rhine Westfalia 53175  
Germany

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.*



*Tatjana Galonja-Stojsavljevic*

Issued by: Tatjana Galonja-Stojsavljevic

## **PRODUCTS**

**CLASS 5311 10** - POWER SUPPLIES - Photovoltaic Modules and Panels

**CLASS 5311 90** - POWER SUPPLIES - Photovoltaic Modules and Panels - Certified to US Standards

## **PART A:**

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc and with Fire Performance of Type 1, Model Series:

Sunmodule Plus SW, followed by 200, 205, 210, 215, 220, 225, 230, 235, 240, 245, 250, 255, 260, 265, 270, 275, 280, 285, 290, 295 or 300 followed by "mono", may be followed by "black".

Sunmodule Plus SW, followed by 200, 205, 210, 215, 220, 225, 230, 235, 240, 245, 250, 255, 260, 265, 270, 275 or 280 followed by "poly", may be followed by "black".

XL modules - "Sunmodule SW", followed by 260, 265, 270, 275, 280, 285, 290, 295, 300, 305, 310, 315, 320, 325, 330, 335, 340, 345, 350, 355 or 360 followed by "XL mono", may be followed by "black"



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XL modules - "Sunmodule SW", followed by 260, 265, 270, 275, 280, 285, 290, 295, 300, 305, 310, 315, 320, 325, 330 or 335 followed by "XL poly", may be followed by "black"

Off-Grid modules - Sunmodule SW, followed by 50 poly RGA, 50 poly RMA, 55 poly RMA, 80 mono RHA, 80 poly RNA, 85 poly RNA, 100 poly RIB, 100 poly RGP, 120 poly R6A, 130 poly R6A, 135 poly R6A, 140 poly R6A, 145 poly R6A, 150 poly R6A, 155 poly R6A or 160 poly R6A.

Electrical Ratings -

Mono-crystalline Versions - (Type designations may be followed by "black"):

Model	Open Circuit Voltage at STC, (V dc)	Rated Voltage at STC, (V dc)	Rated Current at STC, (A dc)	Short Circuit Current at STC, (A dc)	Rated Maximum Power at STC, (Watts)
SW 300	40.1	31.6	9.57	10.23	300
SW 295	40.0	31.5	9.45	10.1	295
SW 290	39.9	31.4	9.33	9.97	290
SW 285	39.7	31.3	9.20	9.84	285
SW 280	39.5	31.2	9.07	9.71	280
SW 275	39.4	31.0	8.94	9.58	275
SW 270	39.2	30.9	8.81	9.44	270
SW 265	39.0	30.8	8.69	9.31	265
SW 260	38.9	30.7	8.56	9.18	260
SW 255	38.7	30.6	8.43	9.05	255
SW 250	37.8	31.1	8.05	8.28	250
SW 245	37.7	30.8	7.96	8.25	245
SW 240	37.6	30.6	7.87	8.22	240
SW 235	37.5	30.3	7.77	8.19	235
SW230	37.4	30.0	7.68	8.16	230
SW 225	37.3	29.7	7.59	8.13	225
SW 220	37.2	29.4	7.50	8.10	220
SW 215	37.1	29.1	7.41	8.07	215
SW 210	37.0	28.8	7.32	8.04	210
SW 205	37.0	28.5	7.22	8.01	205
SW 200	36.9	28.2	7.13	7.98	200



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Poly-crystalline Versions - (Type designations may be followed by "black"):

Model	Open Circuit Voltage at STC, (V dc)	Rated Voltage at STC, (V dc)	Rated Current at STC, (A dc)	Short Circuit Current at STC, (A dc)	Rated Maximum Power at STC, (Watts)
SW 280	39.8	33.0	8.58	9.19	280
SW 275	39.4	32.6	8.53	9.13	275
SW 270	39.1	32.2	8.48	9.07	270
SW 265	38.7	31.8	8.43	9.00	265
SW 260	38.4	31.4	8.37	8.94	260
SW 255	38.0	30.9	8.32	8.88	255
SW 250	37.6	30.5	8.27	8.81	250
SW 245	37.3	30.1	8.22	8.75	245
SW 240	36.9	29.7	8.17	8.69	240
SW 235	37.0	30.0	7.85	8.35	235
SW 230	36.9	29.8	7.72	8.25	230
SW 225	36.8	29.5	7.63	8.17	225
SW 220	36.6	29.2	7.54	8.08	220
SW 215	36.5	28.9	7.44	8.00	215
SW 210	36.4	28.7	7.32	7.90	210
SW 205	36.2	28.5	7.20	7.80	205
SW 200	36.1	28.3	7.07	7.70	200

Off-grid modules:

Model	Open Circuit Voltage at STC, (V dc)	Rated Voltage at STC, (V dc)	Rated Current at STC, (A dc)	Short Circuit Current at STC, (A dc)	Rated Maximum Power at STC, (Watts)
SW 50 poly RGA	22.1	18.1	2.75	3.02	50
SW 50 poly RMA	22.1	18.2	2.75	2.95	50
SW 55 poly RMA	22.1	18.1	3.05	3.28	55
SW 80 mono RHA	22.5	18.5	4.35	4.66	80
SW 80 poly RNA	21.9	17.9	4.49	4.78	80
SW 85 poly RNA	22.1	17.9	4.76	5.02	85
SW 100 poly RIB	22.1	18.8	5.51	6.04	100



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SW 100 poly RGP	44.2	37.6	2.75	3.02	100
SW 120 poly R6A	21.7	16.9	7.14	7.71	120
SW 130 poly R6A	21.8	17.4	7.49	7.99	130
SW 135 poly R6A	21.9	17.7	7.69	8.16	135
SW 140 poly R6A	22.1	17.8	7.85	8.35	140
SW 145 poly R6A	22.2	18.0	8.17	8.69	145
SW 150 poly R6A	22.5	18.3	8.27	8.81	150
SW 155 poly R6A	22.8	18.6	8.37	8.93	155
SW 160 poly R6A	23.1	18.9	8.47	9.05	160

XL Modules - Mono-crystalline Versions - (Type designations may be followed by "black"):

Model	Open Circuit Voltage at STC, (V dc)	Rated Voltage at STC, (V dc)	Rated Current at STC, (A dc)	Short Circuit Current at STC, (A dc)	Rated Maximum Power at STC, (Watts)
SW 360	48.4	38.9	9.95	9.32	360
SW 355	48.2	38.7	9.89	9.25	355
SW 350	48.0	38.4	9.82	9.17	350
SW 345	47.8	38.2	9.75	9.10	345
SW 340	47.6	38.0	9.69	9.01	340
SW 335	47.4	37.8	9.62	8.93	335
SW 330	47.2	37.5	9.55	8.87	330
SW 325	46.1	37.0	9.48	8.84	325
SW 320	45.9	36.7	9.41	8.78	320
SW 315	45.6	36.5	9.35	8.71	315
SW 310	45.4	36.2	9.28	8.64	310
SW 305	45.6	36.3	9.02	8.49	305
SW 300	47.0	38.3	7.87	8.22	300
SW 295	46.9	38.0	7.79	8.20	295
SW 290	46.8	37.7	7.72	8.17	290
SW 285	46.7	37.4	7.64	8.15	285
SW 280	46.6	37.1	7.57	8.12	280
SW 275	46.5	36.8	7.50	8.10	275
SW 270	46.4	36.5	7.43	8.08	270
SW 265	46.3	36.2	7.36	8.05	265
SW 260	46.3	35.9	7.28	8.03	260



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XL Modules - Poly-crystalline Versions - (Type designations may be followed by "black"):

Model	Open Circuit Voltage at STC, (V dc)	Rated Voltage at STC, (V dc)	Rated Current at STC, (A dc)	Short Circuit Current at STC, (A dc)	Rated Maximum Power at STC, (Watts)
SW 335	46.8	39.0	9.20	8.61	335
SW 330	46.6	38.7	9.13	8.54	330
SW 325	46.2	38.4	9.05	8.48	325
SW 320	46.1	38.2	8.40	8.96	320
SW 315	45.9	37.9	8.33	8.88	315
SW 310	45.6	37.6	8.26	8.80	310
SW 305	45.4	37.4	8.19	8.72	305
SW 300	45.2	37.1	8.12	8.63	300
SW 295	45.0	36.8	8.04	8.55	295
SW 290	44.8	36.5	7.97	8.47	290
SW 285	44.6	36.2	7.90	8.39	285
SW 280	44.3	36.0	7.83	8.31	280
SW 275	43.3	35.5	7.75	8.25	275
SW 270	42.9	35.2	7.68	8.17	270
SW 265	42.6	34.9	7.60	8.09	265
SW 260	42.2	34.6	7.52	8.00	260

**PART B**

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc and with Fire Performance of Type 3, Model Series:

Sunmodule Protect SW, followed by 200, 205, 210, 215, 220, 225, 230, 235, 240, 245, 250, 255, 260, 265, 270, 275, 280, 285, 290, 295 or 300, followed by "mono", may be followed by "black" or "clear", may be followed by Laminate.



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Sunmodule Protect SW, followed by 200, 205, 210, 215, 220, 225, 230, 235, 240, 245, 250, 255, 260, 265 or 270, 275 or 280, followed by "poly", may be followed by "black" or "clear", may be followed by Laminate.

Electrical Ratings:

Mono-Crystalline Versions: (Type designations may be followed by "black"):

Model	Open Circuit Voltage at STC, (V dc)	Rated Voltage at STC, (V dc)	Rated Current at STC, (A dc)	Short Circuit Current at STC, (A dc)	Rated Maximum Power at STC, (Watts)
SW 300	40.1	31.6	9.57	10.23	300
SW 295	40.0	31.5	9.45	10.1	295
SW 290	39.9	31.4	9.33	9.97	290
SW 285	39.7	31.3	9.20	9.84	285
SW 280	39.5	31.2	9.07	9.71	280
SW 275	39.4	31.0	8.94	9.58	275
SW 270	39.2	30.9	8.81	9.44	270
SW 265	39.0	30.8	8.69	9.31	265
SW 260	38.9	30.7	8.56	9.18	260
SW 255	38.7	30.6	8.43	9.05	255
SW 250	37.8	31.1	8.05	8.28	250
SW 245	37.7	30.8	7.96	8.25	245
SW 240	37.6	30.6	7.87	8.22	240
SW 235	37.5	30.3	7.77	8.19	235
SW230	37.4	30.0	7.68	8.16	230
SW 225	37.3	29.7	7.59	8.13	225
SW 220	37.2	29.4	7.50	8.10	220
SW 215	37.1	29.1	7.41	8.07	215
SW 210	37.0	28.8	7.32	8.04	210
SW 205	37.0	28.5	7.22	8.01	205
SW 200	36.9	28.2	7.13	7.98	200

Poly-Crystalline Versions: (Type designations may be followed by "black"):

Model	Open Circuit Voltage at STC, (V dc)	Rated Voltage at STC, (V dc)	Rated Current at STC, (A dc)	Short Circuit Current at STC, (A dc)	Rated Maximum Power at STC, (Watts)
SW 280	39.8	33.0	8.58	9.19	280



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SW 275	39.4	32.6	8.53	9.13	275
SW270	39.1	32.2	8.48	9.07	270
SW265	38.7	31.8	8.43	9.00	265
SW260	38.4	31.4	8.37	8.94	260
SW255	38.0	30.9	8.32	8.88	255
SW250	37.6	30.5	8.27	8.81	250
SW245	37.3	30.1	8.22	8.75	245
SW240	36.9	29.7	8.17	8.69	240
SW235	37.0	30.0	7.85	8.35	235
SW230	36.9	29.8	7.72	8.25	230
SW225	36.8	29.5	7.63	8.17	225
SW220	36.6	29.2	7.54	8.08	220
SW215	36.5	28.9	7.44	8.00	215
SW210	36.4	28.7	7.32	7.90	210
SW205	36.2	28.5	7.20	7.80	205
SW200	36.1	28.3	7.07	7.70	200

**Notes:**

1. Nomenclature - for Off-Grid modules:

Type of cell cut	Dimension of cells (mm) = cut
R6A	156 x 156 = 1 = no cut
RGA	156 x 52 = 1/3 = 1 or 2
RGP	52 x 156 = 1/3 = 1 or 2
RHA	156 x 78 = 1/2 = 1 cut
RIB	104 x 156 = 2/3 = 1 cut
RMA	156 x 62 = 2/5 = 1 or 2
RNA	156 x 94 = 3/5 = 1 cut

Where:

R = rural = Module Type "Off Grid";

A or B = 36 = total number of cells in serial connection.

P = 72 = total number of cells in serial connection.

2. Modules followed by 'Laminate' are approved only as components which are sold to manufacturers of complete modules where the final product is subject to approval by CSA Group.



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3. Rated electrical characteristics are within +/-10% of measured values at Standard Test Conditions of 100 mW/cm<sup>2</sup> irradiance, AM 1.5 spectrum, and cell temperature of 25°C.

4. SolarWorld Type 1 and Type 3 modules with Sunfix Plus ® Mount mounting system in combination with roof coverings were evaluated to System Fire Class A Rating, Steep Slope 5/12 & Low Slope ½ /12. Type 1 or Type 3 modules mounted as per Sunfix Plus Mounting Manual, and Sunfix Plus ® Mount mounting system construction as per Sunfix Plus Mounting Manual.

**APPLICABLE REQUIREMENTS**

ULC/ORD- C1703-01 - Flat-Plate Photovoltaic Modules and Panels

UL 1703-3rd Edition - Flat-Plate Photovoltaic Modules and Panels