

SOLARIF

RISK MANAGEMENT

1. Appendix I - Certified Modules

Certificate holder: **Suzhou Akcome Optronics Science & Technology Co., Ltd.**

Certificate number: **SOLARIF20220714001**

Certified factory: **No.110, West Jintang Rd, Zhangjiagang Economic Development Zone
Zhangjiagang City, Jiangsu Province, China¹**

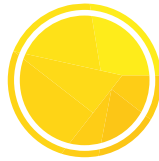
Valid from: **20 April 2022**

Expires on: **20 April 2023**

Module Type	Cell Type	Cell qty	Cell Size	Power Range	Dimension	Max. system voltage	Weight	40' container	Quantity/ctn
SK6613MHV-xxx	perc	78	156	405-420	2116×992×40	1500V	24	26	616
SK6612MHV-xxx	perc	72	158	320-395	1979 x 1002 x 30/40	1500V	22.5	26	616
			156		1957 x 992 x 30/40/45	1500V	22.5	26	672
SK6611MHV-xxx	perc	66	156	310-355	1799 x 992 x 30/35/40/45	1500V	19.5	26	672
SK6610MHV-xxx	perc	60	158	280-325	1665 x 1002 x 30/35	1500V	19	30	896
			156		1640 x 992 x 30/35/40/45 1634 x 1003 x 35	1500V	18.5	30	896

¹ Only the modules produced in this factory are certified

Certificate number: **SOLARIF20220714001**



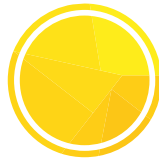
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SK6609MHV-xxx	perc	54	156	250-290	1482 x 992 x 30/35/40/45 1483 x 1003 x 30/35/40/45	1500V	16.5	30	960
SK6608MHV-xxx	perc	48	156	220-260	1324 x 992 x 30/35/40/45	1500V	14.5	30	1020
SK6612MHVC-xxx	perc	144	156/158	370-425	2000 x 992 x 30/40/45 2008/2018 x 1002 x 30/40/45	1500V	22.5/22	27/31	638/737
SK6611MHVC-xxx	perc	132	158	355-390	1856x1002x35	1500V	21	31	804
SK6610MHVC-xxx	perc	120	158	300-355	1684x1002x35	1500V	19	31	871

SK8612MHVC-xxx	perc	144	166	420-470	2108*1048*35 2094*1038*35	1500V	24.9/24.4	27/31	616/715
SK8611MHVC-xxx	perc	132	166	385-430	1935x1048x35	1500V	22.6	31	780
SK8610MHVC-xxx	perc	120	166	350-390	1765*1048*35/30 1755*1038*30	1500V	21.1/21/20.5	31/36/36	845/988/988
SK8609MHVC-xxx	perc	108	166	315-350	1595*1048*35	1500	19	31	910
SK9612MHVC-xxx	perc	144	182	525-565	2278x1134x35	1500V	28.6	31	620
SK9611MHVC-xxx	perc	132	182	480-515	2094*1134*35	1500V	26.3	31	682

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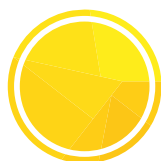


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SK9610MHVC-xxx	perc	120	182	435-470	1908*1134*30	1500V	23.8	36	864
SK9609MHVC-xxx	perc	108	182	395-420	1722*1134*30	1500V	21.5	36	936
SKA611MHVC-xxx	perc	132	210	645-670	2384×1303×35	1500V	33.7	31	558
SKA610MHVC-xxx	perc	120	210	585-610	2172×1303×35	1500V	30.9	31	558
SKA511MHVC-xxx	perc	110	210	535-555	2384*1096*35	1500V	28.6	31	620
SKA510MHVC-xxx	perc	150	210	495-520	2187×1102×35	1500V	26.3	31	620
SKA508MHVC-xxx	perc	120	210	395-415	1754×1096×30	1500V	21.2	36	936
SK6613M-xxx	perc	78	156	405-420	2116×992×40	1000V	24	26	616
SK6612M-xxx	perc	72	158	320-395	1979×1002×40	1000V	22.5	26	616
			156		1957×992×40				

SK6611M-xxx	perc	66	156	310-355	1799×992×40	1000V	19.5	26	672
SK6610M-xxx	perc	60	158	280-325	1665×1002×35	1000V	19	30	896
			156		1640×992×35				
SK6609M-xxx	perc	54	156	250-290	1482 x 992 x 30/35/40/45 1483 x 1003 x 30/35/40/45	1000V	16.5	30	960



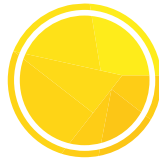
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SK6608M-xxx	perc	48	158	220-260	1324 x 992 x 30/35/40/45	1000V	14.5	30	1020
SK6612MC-xxx	perc	144	156/1 58	370-425	2000 x 992 x 30/40/45 2008/2018 x 1002 x 30/40/45	1000V	22.5/22	27/31	638/737
SK6611MC-xxx	perc	132	158	355-390	1856×1002×35	1000V	21	31	804
SK6610MC-xxx	perc	120	158	300-355	1684×1002×35	1000V	19	31	871
SK8612MC-xxx	perc	144	166	420-470	2108*1048*35 2094*1038*35	1000V	24.9/24.4	27/31	616/715
SK8611MC-xxx	perc	132	166	385-430	1935×1048×35	1000V	22.6	31	780
SK8610MC-xxx	perc	120	166	350-390	1765*1048*35/3 0 1755*1038*30	1000V	21.1/21/20.5	31/36 /36	845/988/ 988
SK8609MC-xxx	perc	108	166	315-350	1595*1048*35	1000V	19	31	910
SK9612MC-xxx	perc	144	182	525-565	2279×1134×35	1000V	28.6	31	620
SK9611MC-xxx	perc	132	182	480-515	2094*1134*35	1000V	26.3	31	682
SK9610MC-xxx	perc	120	182	435-470	1908*1134*30	1500V	23.8	36	864
SK9609MC-xxx	perc	108	182	395-420	1722*1134*30	1500V	21.5	36	936
SKA611MC-xxx	perc	132	210	645-670	2384×1303×35	1500V	33.7	31	558
SKA610MC-xxx	perc	120	210	585-610	2172×1303×35	1500V	30.9	31	558

SKA511MC-xxx	perc	110	210	535-555	2384*1096*35	1500V	28.6	31	620
SKA510MC-xxx	perc	150	210	495-520	2187×1102×35	1500V	26.3	31	620
SKA508MC-xxx	perc	120	210	395-415	1754×1096×30	1500V	21.2	36	936

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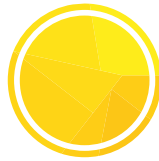


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SK6612MDGDC -xxx	perc	144	158	400-425	2030×1010×30	1500V	26.8 (Glass 2.0mm+2.0mm) 31 (Glass 2.5mm+2.5mm)	35	770
SK6610MDGDC -xxx	perc	120	158	340-350	1714×1010×30	1500V	22.4 (Glass 2.0mm+2.0mm) 26.8 (Glass 2.5mm+2.5mm)	35	910
SK8612MDGDC -xxx	perc	144	166	425-475	2132*1048*30 2094*1038*30	1500V	29/27.5	35	730/814
SK8610MDGDC -xxx	perc	120	166	355-395	1791*1048*30 1755*1038*30	1500V	23.5/22.8	35	840/962
SK9612MDGDC -xxx	perc	144	182	520-560	2278*1134*35 2278*1134*30	1500V	32.7 32.5	31/35	620/700
SK9611MDGDC -xxx	perc	132	182	475-510	2094*1134*30	1500V	29.9kg(Glass 2.0mm+2.0mm)	35	770
SK9610MDGDC -xxx	perc	120	182	435-465	1914*1134*35	1500V	26.4 (Glass 2.0mm+2.0mm)	31	744
SK9609MDGDC -xxx	perc	108	182	390-420	1722*1134*30	1500V	24.5(Glass 2.0mm+2.0mm)	35	910
SKA611MDGDC -xxx	perc	132	210	635-675	2384*1303*35	1500V	38.7	31	558
SKA610MDGDC -xxx	perc	120	210	580-610	2172*1303*35	1500V	35.3	31	558
SKA511MDGDC -xxx	perc	110	210	525-560	2384*1096*35	1500V	32.6	31	620
SK6612HDGDC- xxx	HJT	144	156/1 58	415-440	2030*1010*30	1500V	26.8 (Glass 2.0mm+2.0mm)	35	770

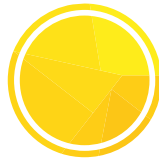
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SK6611HDGDC-xxx	HJT	132	158	380-400	1860*1010*30	1500V	24.5(Glass 2.0mm+2.0mm)	35	840
SK6610HDGDC-xxx	HJT	120	158	350-365	1714*1010*30	1500V	22.4 (Glass 2.0mm+2.0mm)	35	910
SK8612HDGDC-xxx	HJT	144	166	450-490	2132*1048*30 2094*1038*30	1500V	29.5/29.0/27.5	35	730/814
SK8611HDGDC-xxx	HJT	132	166	410-450	1940×1048*30	1500V	26.4 (Glass 2.0mm+2.0mm)	35	700
SK8610HDGDC-xxx	HJT	120	166	375-405	1791*1048*30 1755*1038*30	1500V	23.5/22.8	35	840/962
SKA611HDGDC-xxx	HJT	132	210	645-700	2384×1303×35	1500V	38.6	31	558
SKA610HDGDC-xxx	HJT	120	210	585-635	2172×1303×35	1500V	35.3	31	558
SKA511HDGDC-xxx	HJT	110	210	540-580	2384×1096×35	1500V	32.6	31	620
SKA510HDGDC-xxx	HJT	100	210	490-530	2187*1102*35	1500V	29.7	31	620
SKA508HDGDC-xxx	HJT	80	210	390-425	1754*1096*30	1500V	24.5	35	875
SK6678HDGDS-xxx	HJT	468	156/158	380-395	2040 x 1004 x 5 / 2012 x 992 x 5	1500V	26.4	35	770
SK6666HDGDS-xxx	HJT	396	156/158	320-335	1736 x 1004 x 5 / 1714 x 992 x 5	1500V	23	35	910

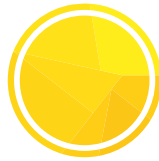


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2. Module Standards - Certification Details

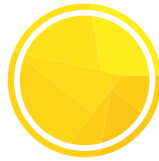
DESIGN QUALIFICATION/ SAFETY (IEC 61215/ IEC61730)	
Certification body	TÜV NORD
Certificate No	44 780 21 406749 - 241R5A2M7
Date of Issue	2022/05/18
Validity	2023/10/11
Tested according to	<ul style="list-style-type: none">• IEC/EN 61215-1:2016• IEC/EN 61215-1-1:2016• IEC 61215-2:2016 / EN 61215-2:2017 + AC:2017 + AC:2018;• IEC61730-1:2016 / EN IEC 61730-1:2018 + AC:2018;• IEC61730-2:2016 / EN IEC 61730-2:2018 + AC 2018;



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Certified modules	<p>PV Modules with 6" Mono-crystalline Silicon Solar Cells: 78 cells: SK6613MHV-xxx (xxx = 405-420, in increment of 5) 72 cells: SK6612MHV-xxx (xxx = 320-395, in increment of 5) 66 cells: SK6611MHV-xxx (xxx = 310-355, in increment of 5) 60 cells: SK6610MHV-xxx (xxx = 280-325, in increment of 5) 54 cells: SK6609MHV-xxx (xxx = 250-290, in increment of 5) 48 cells: SK6608MHV-xxx (xxx = 220-260, in increment of 5)</p> <p>PV Modules with half-cut 6" Mono-crystalline Silicon Solar Cells: 144cells: SK6612MHVC-xxx (xxx=370-425, in increment of 5) 132cells: SK6611MHVC-xxx (xxx=355-390, in increment of 5) 120cells: SK6610MHVC-xxx (xxx=310-355, in increment of 5) 144cells: SK8612MHVC-xxx (xxx = 420-470, in increment of 5) 132cells: SK8611MHVC-xxx (xxx = 385-430, in increment of 5) 120cells: SK8610MHVC-xxx (xxx = 350-390, in increment of 5) 108 cells: SK8609MHVC-xxx (xxx = 315-350, in increment of 5)</p> <p>PV Modules with half-cut 7" Mono-crystalline Silicon Solar Cells: 144 cells: SK9612MHVC-xxx (xxx = 525-565, in increment of 5) 132 cells: SK9611MHVC-xxx (xxx = 480-515, in increment of 5) 120 cells: SK9610MHVC-xxx (xxx = 440-470, in increment of 5) 108 cells: SK9609MHVC-xxx (xxx = 395-420, in increment of 5)</p> <p>PV Modules with half-cut 8" Mono-crystalline Silicon Solar Cells: 132 cells: SKA611MHVC-xxx (xxx = 645-670, in increment of 5) 120 cells: SKA610MHVC-xxx (xxx = 585-610, in increment of 5) 110 cells: SKA511MHVC-xxx (xxx = 535-555, in increment of 5)</p> <p>PV Modules with 1/3-cut 8" Mono-crystalline Silicon Solar Cells: 150 cells: SKA510MHVC-xxx (xxx = 495-520, in increment of 5) 120 cells: SKA508MHVC-xxx (xxx = 395-415, in increment of 5)</p> <p>PV Modules with 6" Mono-crystalline Silicon Solar Cells: 78 cells: SK6613M-xxx (xxx = 405-420, in increment of 5)</p>
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72 cells: SK6612M-xxx (xxx = 320-395, in increment of 5)
66 cells: SK6611M-xxx (xxx = 310-355, in increment of 5)
60 cells: SK6610M-xxx (xxx = 280-325, in increment of 5)
54 cells: SK6609M-xxx (xxx = 250; 255; 260; 265; 270; 275; 280; 284; 285; 290)
48 cells: SK6608M-xxx (xxx = 220-260, in increment of 5)

PV Modules with half-cut 6" Mono-crystalline Silicon Solar Cells:

144 cells: SK6612MC-xxx (xxx = 370-425, in increment of 5)
132 cells: SK6611MC-xxx (xxx = 355-390, in increment of 5)
120 cells: SK6610MC-xxx (xxx = 310-355, in increment of 5)
144 cells: SK8612MC-xxx (xxx = 420-470, in increment of 5)
132 cells: SK8611MC-xxx (xxx = 385-430, in increment of 5)
120 cells: SK8610MC-xxx (xxx = 350-390, in increment of 5)
108 cells: SK8609MC-xxx (xxx = 315-350, in increment of 5)

PV Modules with half-cut 7" Mono-crystalline Silicon Solar Cells:

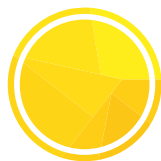
144 cells: SK9612MC-xxx (xxx = 525-565, in increment of 5)
132 cells: SK9611MC-xxx (xxx = 480-515, in increment of 5)
120 cells: SK9610MC-xxx (xxx = 440-470, in increment of 5)
108 cells: SK9609MC-xxx (xxx = 395-420, in increment of 5)

PV Modules with half-cut 8" Mono-crystalline Silicon Solar Cells:

132 cells: SKA611MC-xxx (xxx = 645-670, in increment of 5)
120 cells: SKA610MC-xxx (xxx = 585-610, in increment of 5)
110 cells: SKA511MC-xxx (xxx = 535-555, in increment of 5)

PV Modules with 1/3-cut 8" Mono-crystalline Silicon Solar Cells:

150 cells: SKA510MC-xxx (xxx = 495-520, in increment of 5)
120 cells: SKA508MC-xxx (xxx = 395-415, in increment of 5)

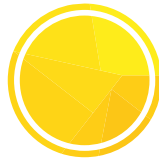


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PID	
Certification body	TÜV NORD
Certificate No	44 780 18 406749 - 235R1A1M1
Date of Issue	2022/03/17
Validity	2023/07/25
Tested according to	P12.4-AA-02 Rev.00 (IEC TS 62804-1:2015 modified)
Tested modules	Double glass PV Modules with half-cut 8" n-type heterojunction Bifacial Mono Solar Cells: 132 cells: SKA611HDGDC-xxx (xxx=645-700,in increment of 5) 120 cells: SKA610HDGDC-xxx (xxx=585-635,in increment of 5) 110 cells:SKA511HDGDC-xxx (xxx=540-580,in increment of 5) 100 cells: SKA510HDGDC-xxx (xxx=490-530,in increment of 5) 80 cells: SKA508HDGDC-xxx (xxx=390-425,in increment of 5) Double glass PV Modules with half-cut 7" Bifacial Mono Solar Cells: 144 cells: SK9612MDGDC-xxx (xxx=520-550,in increment of 5)
	120 cells: SK9610MDGDC-xxx (xxx=435-455,in increment of 5) 108 cells:SK9609MDGDC-xxx (xxx=390-410,in increment of 5) Double glass PV Modules with half-cut 6" n-type heterojunctionBifacial Mono Solar Cells: 144 cells: SK8612HDGDC-xxx (xxx= 450-490,in increment of 5) 132cells: SK8611HDGDC-xxx (xxx=410-450,in increment of 5) 120 cells: SK8610HDGDC-Xxx (xxx=375-405,in increment of 5)

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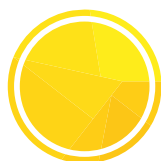


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Salt Mist Corrosion	
Certification body	TÜV NORD
Certificate No	44 780 22 406749 - 036
Date of Issue	2022/03/03
Validity	2027/03/02
Tested according to	IEC 61701:2020
Tested modules	<p>Double glass PV Modules with half-cut 6" Bifacial Mono Solar Cells: 144 cells: SK6612MDGDC-xxx (xxx = 400-425, in increment of 5) 120 cells: SK6610MDGDC-xxx (xxx=340-350, in increment of 5) 144 cells: SK8612MDGDC-xxx (xxx =425-475, in increment of 5) 120 cells: SK8610MDGDC-xxx (xxx=355-395, in increment of 5)</p> <p>Double glass PV Modules with half-cut 7" Bifacial Mono Solar Cells: 144cells: SK9612MDGDC-xxx (xxx=520.550, in increment of 5) 120 cells: SK9610MDGDC-xxx (xxx= 435-455, in increment of 5) 108 cells: SK9609MDGDC-xxx (xxx=390-410, in increment of 5)</p> <p>Double glass PV Modules with half-cut 8" Bifacial Mono Solar Cells: 132 cells: SKA611MDGDC-xxx (xxx=635-675, in increment of 5) 120cells: SKA610MDGDC-xxx (xxx=580-610, in increment of 5) 110 cells: SKA511MDGDC-xxx (xxx=525-560, in increment of 5)</p> <p>Double glass PV Modules with half-cut 6" n-type heterojunction Bifacial Mono Solar Cells: 144 cells: SK6612HDGDC-xxx (xxx=415-440, in increment of 5) 132 cells: SK6611HDGDC-xxx (xxx=380-400, in increment of 5) 120 cells: SK6610HDGDC-xxx (xxx=350-365, in increment of 5) 144 cells: SK8612HDGDC-xxx (xxx=450-490, in increment of 5) 132 cells: SK8611HDGDC-xxx (xxx=410-450, in increment of 5) 120 cells: SK8610HDGDC-xxx (xxx=375-405, in increment of 5)</p> <p>Double glass PV Modules with half-cut 8"n-type heterojunction Bifacial Mono Solar Cells: 132 cells: SKA611HDGDC-xxx (xxx=645-700, in increment of 5) 120 cells: SKA610HDGDC-xxx (xxx=585-635, in increment of 5) 110 cells: SKA511HDGDC-xxx (xxx =540-580, in increment of 5) 100 cells: SKA510HDGDC-xxx (xxx=490-530, in increment of 5) 80 cells: SKA508HDGDC-xxx (xxx=390-425, in increment of 5)</p>
	<p>Double glass PV Modules with 1/6-cut Shingled 6" n-type heterojunction Bifacial Mono Solar Cells: 468 cells: SK6678HDGDS-xxx (xxx=380-395, in increment of 5) 396 cells: SK6666HDGDS-xxx (xxx=320-335, in increment of 5)</p>

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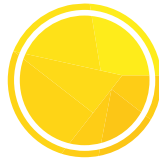


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Ammonia Corrosion	
Certification body	TÜV NORD
Certificate No	44 780 21 406749 – 214R1A1M1
Date of Issue	2022/03/01
Validity	2026/10/13
Tested according to	IEC 62716:2013 / EN 62716:2013 + AC:2014
Tested modules	<p>PV Modules with half-cut 6" Mono-crystalline Silicon Solar Cells: 144cells: SK6612MHVC-xxx (xxx=370-425, in increment of 5) 132cells: SK6611MHVC-xxx (xxx=355-390, in increment of 5) 120cells: SK6610MHVC-xxx (xxx=310-355, in increment of 5) 144cells: SK8612MHVC-xxx (xxx = 420-470, in increment of 5) 132cells: SK8611MHVC-xxx (xxx = 385-430, in increment of 5) 120cells: SK8610MHVC-xxx (xxx = 350-390, in increment of 5) 108 cells: SK8609MHVC-xxx (xxx = 315-350, in increment of 5)</p> <p>PV Modules with half-cut 7" Mono-crystalline Silicon Solar Cells: 144 cells: SK9612MHVC-xxx (xxx = 525-565, in increment of 5) 132 cells: SK9611MHVC-xxx (xxx = 480-515, in increment of 5) 120 cells: SK9610MHVC-xxx (xxx = 440-470, in increment of 5) 108 cells: SK9609MHVC-xxx (xxx = 395-420, in increment of 5)</p> <p>PV Modules with half-cut 8" Mono-crystalline Silicon Solar Cells: 132 cells: SKA611MHVC-xxx (xxx = 645-670, in increment of 5) 120 cells: SKA610MHVC-xxx (xxx = 585-610, in increment of 5) 110 cells: SKA511MHVC-xxx (xxx = 535-555, in increment of 5)</p> <p>PV Modules with 1/3-cut 8" Mono-crystalline Silicon Solar Cells: 150 cells: SKA510MHVC-xxx (xxx = 495-520, in increment of 5) 120 cells: SKA508MHVC-xxx (xxx = 395-415, in increment of 5)</p> <p>PV Modules with half-cut 6' Poly-crystalline silicon Solar cells: 144 cells: SK6612PHVC-xxx (xxx=330-350, in increment of 5) 120 cells:SK6610PHVC-xxx (xxx=275-290, in increment of 5)</p> <p>PV Modules with half-cut 6" Mono-crystalline Silicon Solar Cells: 144 cells: SK6612MC-xxx (xxx = 370-425, in increment of 5) 132 cells: SK6611MC-xxx (xxx = 355-390, in increment of 5) 120 cells: SK6610MC-xxx (xxx = 310-355, in increment of 5) 144 cells: SK8612MC-xxx (xxx = 420-470, in increment of 5) 132 cells: SK8611MC-xxx (xxx = 385-430, in increment of 5) 120 cells: SK8610MC-xxx (xxx = 350-390, in increment of 5)</p>

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108 cells: SK8609MC-xxx (xxx = 315-350, in increment of 5)

PV Modules with half-cut 7" Mono-crystalline Silicon Solar Cells:

144 cells: SK9612MC-xxx (xxx = 525-550, in increment of 5)

132 cells: SK9611MC-xxx (xxx = 480-500, in increment of 5)

120 cells: SK9610MC-xxx (xxx = 440-455, in increment of 5)

108 cells: SK9609MC-xxx (xxx = 395-410, in increment of 5)

PV Modules with half-cut 8" Mono-crystalline Silicon Solar Cells:

132 cells: SKA611MC-xxx (xxx = 645-670, in increment of 5)

120 cells: SKA610MC-xxx (xxx = 585-610, in increment of 5)

110 cells: SKA511MC-xxx (xxx = 535-555, in increment of 5)

PV Modules with 1/3-cut 8" Mono-crystalline Silicon Solar Cells:

150 cells: SKA510MC-xxx (xxx = 495-520, in increment of 5)

120 cells: SKA508MC-xxx (xxx = 395-415, in increment of 5)

PV Modules with half-cut 6" Poly-crystalline silicon Solar cells:

144 cells: SK6612PC-xxx (xxx=330-350, in increment of 5)

120 cells: SK6610PC-xxx (xxx=275-290, in increment of 5)