Certificate of Compliance

Certificate: 2284121 **Master Contract:** 249143

Project: 80039685 **Date Issued:** 2020-04-13

Issued to: Canadian Solar Inc
545 Speedvale Ave West
Guelph, Ontario N1K 1E6
CANADA

Attention: Yuan Zhou

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

Issued by: *Simon Shen*
Simon Shen

PRODUCTS

CLASS - C531190 - POWER SUPPLIES-Photovoltaic Modules and Panels - Certified to US Standards
CLASS - C531110 - POWER SUPPLIES-Photovoltaic Modules and Panels

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Model Series CS6X-XXXP, CS6X-XXXPX where 'XXX' is the power output from 250 W to 360 W with the following electrical ratings typical at 360 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	46.5 V
Short Circuit Current (Isc):	9.92 A
Operating Voltage (Vpmax):	38.3 V
Current at Operating Voltage (Ipmax):	9.40 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Model Series CS6P-XXXP, CS6P-XXXPX where 'XXX' is the power output from 200 W to 300 W with the following electrical ratings typical at 300 W for CS6P-XXXP/ CS6P-XXXP-S, and CS6P-XXXPX series respectively @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	38.8 V
Short Circuit Current (Isc):	9.92 A

Operating Voltage (Vpmax): 32.0 V
Current at Operating Voltage (Ipmax): 9.38 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Model Series CS6P-XXXM and CS6P-XXXMX where 'XXX' is the power output from 200 W to 300 W with the following electrical ratings typical at 300 W for CS6P-XXXM and CS6P-XXXMX series respectively @ Standard Test Condition (STC):

Open Circuit Voltage (Voc): 39.1 V
Short Circuit Current (Isc): 9.78 A
Operating Voltage (Vpmax): 32.4 V
Current at Operating Voltage (Ipmax): 9.25 A

Photovoltaic Modules with maximum system voltage of 600 V dc, Model Series CS6A-XXXP, where 'XXX' is the power output from 160 W to 210 W with the following electrical ratings typical at 210 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc): 30.0 V
Short Circuit Current (Isc): 9.19 A
Operating Voltage (Vpmax): 24.4 V
Current at Operating Voltage (Ipmax): 8.63 A

Photovoltaic Modules with maximum system voltage of 600 V dc, Model Series CS6C-XXXM, CS6C-XXXMS, where 'XXX' is the power output from 120 W to 180 W with the following electrical ratings typical at 145 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc): 22.4V
Short Circuit Current (Isc): 8.52 A
Operating Voltage (Vpmax): 18.1V
Current at Operating Voltage (Ipmax): 8.01 A

Photovoltaic Modules with maximum system voltage of 600 V dc, Model Series CS6C-XXXP, where 'XXX' is the power output from 120 W to 180 W with the following electrical ratings typical at 150 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc): 22.3V
Short Circuit Current (Isc): 8.87 A
Operating Voltage (Vpmax): 18.1V
Current at Operating Voltage (Ipmax): 8.30 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc or 1500V dc, Model Series CS6K-XXXP, where 'XXX' is the power output from 220 W to 320 W with the following electrical ratings typical at 320 W for CS6K-XXXP series @ Standard Test Condition (STC):

Open Circuit Voltage (Voc): 39.4 V
Short Circuit Current (Isc): 10.32 A
Operating Voltage (Vpmax): 32.7 V

Current at Operating Voltage (Ipmax): 9.79 A

Photovoltaic Modules with maximum system voltage of 600 V dc, Model Series CS6A-XXXM, CS6A-XXXMS, where 'XXX' is the power output from 160 W to 245 W with the following electrical ratings typical at 245 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc): 32.1V
Short Circuit Current (Isc): 9.84 A
Operating Voltage (Vpmax): 26.2V
Current at Operating Voltage (Ipmax): 9.36 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc or 1500V dc, Model Series CS6K-XXXM, CS6K-XXXMS, where 'XXX' is the power output from 240 W to 335 W with the following electrical ratings typical at 335 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc): 41.1V
Short Circuit Current (Isc): 10.39 A
Operating Voltage (Vpmax): 33.9V
Current at Operating Voltage (Ipmax): 9.90 A

Photovoltaic Modules with maximum system voltage of 1000V dc or 1500 V dc, Model Series CS6U-XXXP, CS6U-XXXPN, where 'XXX' is the power output from 250 W to 385 W with the following electrical ratings typical at 385 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc): 47.5 V
Short Circuit Current (Isc): 10.35 A
Operating Voltage (Vpmax): 39.3 V
Current at Operating Voltage (Ipmax): 9.80 A

Photovoltaic Modules with maximum system voltage of 600V dc or 1000 V dc, Model Series CS6P-XXXP-SD, and CS6K-XXXP-SD where 'XXX' is the power output from 240 W to 300 W with the following electrical ratings typical at 250 W @ Standard Test Condition (STC):

Output Voltage Range (Vout): 5 – 60V
Maximum Output Current (Imax): 15A

Photovoltaic Modules with maximum system voltage of 600V dc or 1000 V dc, Model Series CS6P-XXXM-SD, CS6K-XXXMS-SD, and CS6K-XXXM-SD where 'XXX' is the power output from 240 W to 305 W with the following electrical ratings typical at 250 W @ Standard Test Condition (STC):

Output Voltage Range (Vout): 5 – 60 V
Maximum Output Current (Imax): 15A

Photovoltaic Modules with maximum system voltage of 600V or 1000 V dc, Model Series CS6P-XXXP-TD, where 'XXX' is the power output from 240 W to 300 W with the following electrical ratings typical at 250 W @ Standard Test Condition (STC):

Output Voltage Range (Vout):	16 – 32 V (Voc*)
Maximum Output Current (Imax):	9.5 A

*For modules with Smart Curve function the Voc is adjustable and is programmed only at the factory based on the PV module voltage.

Photovoltaic Modules with maximum system voltage of 1000V dc or 1500 V dc, Model Series CS3U-XXXMS-H, where 'XXX' is the power output from 350 W to 400 W with the following electrical ratings typical at 400 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	48.6 V
Short Circuit Current (Isc):	10.33 A
Operating Voltage (Vpmax):	40.8 V
Current at Operating Voltage (Ipmax):	9.81 A

Photovoltaic Modules with maximum system voltage of 1000V dc or 1500 V dc, Model Series CS3U-XXXP-H, where 'XXX' is the power output from 295 W to 360 W with the following electrical ratings typical at 360 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	46.7 V
Short Circuit Current (Isc):	9.68 A
Operating Voltage (Vpmax):	39.2 V
Current at Operating Voltage (Ipmax):	9.19 A

Photovoltaic Modules with maximum system voltage of 1000V dc or 1500 V dc, Model Series CS3U-XXXMS, where 'XXX' is the power output from 350 W to 420 W with the following electrical ratings typical at 420 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	49.9 V
Short Circuit Current (Isc):	10.66 A
Operating Voltage (Vpmax):	41.6 V
Current at Operating Voltage (Ipmax):	10.10 A

Photovoltaic Modules with maximum system voltage of 1000V dc or 1500 V dc, Model Series CS3K-XXXMS, where 'XXX' is the power output from 280 W to 345 W with the following electrical ratings typical at 345 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	40.6 V
Short Circuit Current (Isc):	10.58 A
Operating Voltage (Vpmax):	34.3 V
Current at Operating Voltage (Ipmax):	10.06 A

Photovoltaic Modules with maximum system voltage of 1000V dc or 1500 V dc, Model Series CS3U-XXXP, where 'XXX' is the power output from 295 W to 420 W with the following electrical ratings typical at 420 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	49.4 V
Short Circuit Current (Isc):	10.63 A
Operating Voltage (Vpmax):	42.0 V
Current at Operating Voltage (Ipmax):	10.00 A

Photovoltaic Modules with maximum system voltage of 1000V dc or 1500 V dc, Model Series CS3K-XXXP, where 'XXX' is the power output from 250 W to 350 W with the following electrical ratings typical at 350 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	41.3 V
Short Circuit Current (Isc):	10.45 A
Operating Voltage (Vpmax):	34.7 V
Current at Operating Voltage (Ipmax):	10.09 A

Photovoltaic Modules with maximum system voltage of 1000V dc or 1500 V dc, Model Series CS3W-XXXP, where 'XXX' is the power output from 380 W to 445 W with the following electrical ratings typical at 445 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	48.8 V
Short Circuit Current (Isc):	11.45 A
Operating Voltage (Vpmax):	40.5 V
Current at Operating Voltage (Ipmax):	10.99 A

Photovoltaic Modules with maximum system voltage of 1000V dc or 1500 V dc, Model Series CS3W-XXXMS, where 'XXX' is the power output from 420 W to 465 W with the following electrical ratings typical at 465 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	49.3 V
Short Circuit Current (Isc):	11.83 A
Operating Voltage (Vpmax):	41.1 V
Current at Operating Voltage (Ipmax):	11.32 A

Photovoltaic Modules with maximum system voltage of 1000V dc or 1500 V dc, Model Series CS3L-XXXP, where 'XXX' is the power output from 315 W to 365 W with the following electrical ratings typical at 365 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	40.8 V
Short Circuit Current (Isc):	11.44 A
Operating Voltage (Vpmax):	33.6 V
Current at Operating Voltage (Ipmax):	10.87 A

Photovoltaic Modules with maximum system voltage of 1000V dc or 1500 V dc, Model Series CS3L-XXXMS, where 'XXX' is the power output from 350 W to 385 W with the following electrical ratings typical at 385 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	41.0 V
Short Circuit Current (Isc):	11.80 A
Operating Voltage (Vpmax):	34.1 V
Current at Operating Voltage (Ipmax):	11.30 A

Photovoltaic Modules with maximum system voltage of 1000V dc, Model Series CS1V-XXXMS, where 'XXX' is the power output from 240 W to 275 W with the following electrical ratings typical at 265 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	35.7 V
Short Circuit Current (Isc):	9.51 A
Operating Voltage (Vpmax):	29.4 V
Current at Operating Voltage (Ipmax):	9.00 A

Photovoltaic Modules with maximum system voltage of 1000V dc, Model Series CS1VL-XXXMS, where 'XXX' is the power output from 200 W to 220W with the following electrical ratings typical at 220 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	28.8 V
Short Circuit Current (Isc):	9.82 A
Operating Voltage (Vpmax):	23.7 V
Current at Operating Voltage (Ipmax):	9.28 A

Photovoltaic Modules with maximum system voltage of 1500V dc, Model Series CS1U-XXXMS, where 'XXX' is the power output from 385 W to 430W with the following electrical ratings typical at 430 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	54.0 V
Short Circuit Current (Isc):	9.90 A
Operating Voltage (Vpmax):	45.3 V
Current at Operating Voltage (Ipmax):	9.51 A

Photovoltaic Modules with maximum system voltage of 1500V dc, Model Series CS1X-XXXMS, where 'XXX' is the power output from 400 W to 440W with the following electrical ratings typical at 440 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	55.9 V
Short Circuit Current (Isc):	9.85 A
Operating Voltage (Vpmax):	46.7 V
Current at Operating Voltage (Ipmax):	9.44 A

Photovoltaic Modules with maximum system voltage of 1000V dc, Model Series CS1K-XXXMS, where 'XXX' is the power output from 310 W to 350W with the following electrical ratings typical at 350 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	43.9 V
Short Circuit Current (Isc):	9.95 A
Operating Voltage (Vpmax):	36.8 V
Current at Operating Voltage (Ipmax):	9.51 A

Photovoltaic Modules with maximum system voltage of 1000V dc, Model Series CS1H-XXXMS, where 'XXX' is the power output from 310 W to 350W with the following electrical ratings typical at 350 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	43.9 V
Short Circuit Current (Isc):	9.95 A
Operating Voltage (Vpmax):	36.8 V
Current at Operating Voltage (Ipmax):	9.51 A

Photovoltaic Modules with maximum system voltage of 1000V dc or 1500 V dc, Model Series CS3U-XXXMS-V, where 'XXX' is the power output from 350 W to 420 W with the following electrical ratings typical at 420 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	49.9 V
Short Circuit Current (Isc):	10.66 A
Operating Voltage (Vpmax):	41.6 V
Current at Operating Voltage (Ipmax):	10.10 A

Photovoltaic Modules with maximum system voltage of 1000V dc, Model Series CS3K-XXXMS-V, where 'XXX' is the power output from 280 W to 345 W with the following electrical ratings typical at 345 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	40.6 V
Short Circuit Current (Isc):	10.58 A
Operating Voltage (Vpmax):	34.3 V
Current at Operating Voltage (Ipmax):	10.06 A

Photovoltaic Modules with maximum system voltage of 1000V dc or 1500 V dc, Model Series CS3U-XXXP-V, where 'XXX' is the power output from 295 W to 360 W with the following electrical ratings typical at 360 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	46.7 V
Short Circuit Current (Isc):	9.68 A
Operating Voltage (Vpmax):	39.2 V
Current at Operating Voltage (Ipmax):	9.19 A

Photovoltaic Modules with maximum system voltage of 1000V dc, Model Series CS3K-XXXP-V, where 'XXX' is the power output from 250 W to 310 W with the following electrical ratings typical at 310 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	39.1 V
Short Circuit Current (Isc):	9.96 A
Operating Voltage (Vpmax):	32.4 V
Current at Operating Voltage (Ipmax):	9.57 A

Photovoltaic Modules with maximum system voltage of 1000V dc, Model Series CS3K-XXXP-H, where 'XXX' is the power output from 250 W to 310 W with the following electrical ratings typical at 310 W @ Standard Test Condition (STC):

Open Circuit Voltage (Voc):	39.1 V
Short Circuit Current (Isc):	9.96 A
Operating Voltage (Vpmax):	32.4 V
Current at Operating Voltage (Ipmax):	9.57 A

Notes:
1. Rated electrical characteristics are within +/-10% of measured values at Standard Test Conditions of 100 mW/cm^2 irradiance, AM 1.5 spectrum, and cell temperature of 25ºC.
2. A maximum series fuse rating of 20A is only for module Model Series CS6P-XXXP-SD, CS6K-XXXP-SD, CS3W-XXXP, CS3L-XXXP, CS3W-XXXMS, CS3L-XXXMS, CS6P-XXXM-SD, CS6K-XXXMS-SD and CS6K-XXXM-SD, CS1K-XXXMS, CS1V-XXXMS, CS6K-XXXMS, CS1U-XXXMS, CS1X-XXXMS, CS1H-XXXMS, CS1K-XXXMS.
3. A maximum series fuse rating of 30A is only for module Model Series CS3U-XXXMS-H, CS3U-XXXP-H, CS3U-XXXMS, CS3U-XXXP, CS3K-XXXMS, CS3K-XXXP and CS3K-XXXP-H.

APPLICABLE REQUIREMENTS

ULC/ORD- C1703-01 - Flat-Plate Photovoltaic Modules and Panels
UL 1703-3rd Edition - Flat-Plate Photovoltaic Modules and Panels

Supplement to Certificate of Compliance

Certificate: 2284121 **Master Contract:** 249143

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
80039685	2020-04-13	Update report to add new cell M1569BPERCBP manufactured by Tongwei Solar (Chengdu) Co., Ltd.
80037715	2020-04-01	Update report to add Update report to add new manufacturer Vina Solar Technology Co. Ltd.
80029763	2020-03-25	Update report to add two new ECA new RELAND 9152 manufactured by Shanghai Reland Photovoltaic Materials Co., Ltd.
80029762	2020-03-02	Update report to add two new ECA DT-96 manufactured by Yantai Darbond Technology Co., Ltd., ICP 8259 manufactured by Henkel Corporation., add alternative thickness for Light Interconnector reflecting film GS-1200-090-02 and SR-ZX12M. and rename ECA from GS-1200-090-02(50u) to GS-1200-090-02 based on consistency statement.
80027042	2020-02-14	Update report to add a 166mm*83mm new cell PM69BF29B2 manufactured by Jiangsu Runergy Yueda PV Technology Co., Ltd.
80025260	2020-01-20	Update report to add new bifacial cell 8M6E916A-X8 manufactured by Tianjin Aiko Solar Energy Technology Co., Ltd. and new combination for the approved EVA F406PS/F806W and approved backsheet Cynagard205A(R) based on the declaration letter.
80029761	2020-01-15	Update report to add new bifacial cells CC6P5-BPS, CC6M5-BPS manufactured by CSI Cells Co Ltd. and new combination for the approved EVA T2014/T2053W and approved backsheet Cynagard205A based on the declaration letter.
80029760	2020-01-13	Update report to add new bifacial cells CC6P9-BPS, CC6M9-BPS, CC7P9-BPS manufactured by CSI Cells Co Ltd.
80024176	2020-01-09	Update report to add new B20V, B20T junction box and add new laminator in Luoyang manufacturer.
80027702	2019-12-16	Update report to add new combination of approved EVA F406PS/F806PS with approved backsheet Cynagard 09100.
80022607	2019-11-29	Update report to add a 166mm*83mm new cell CC7M9-BPS manufactured by CSI cell Inc. and add the related new module CS3W-MS, CS3L-MS model series.
80009250	2019-10-31	Update report to add an alternative thickness for XF300 backsheet.

80016916	2019-09-30	Update report to add new factory Tiger Solar Company Limited, including IFE for two manufacturing facilities and Humidity Test.
80016866	2019-09-26	Update report 2284121 to add new mono cell LA-MP-01 manufactured by Shanxi Lu'an Photovaltic Technology Co.,Ltd.
80016865	2019-09-12	Update report to add new combination of approved EVA F406PS/F806W with approved backsheet KFB-30 and KFB-30(plus) and add alternative junction box adhesive 1527, HT8258, HT906Z with approved junction box B20S.
80015410	2019-09-05	Update report to add new mono cell 156KBMP-05 and poly cell 1570SPP-05 manufactured by Sumin Renewable Energy Technology Ltd.
80008781	2019-08-30	Update report to extend the power range of the module type CS3U-xxxMS, CS3K-xxxMS, CS3U-xxxMS-V, CS3K-xxxMS-V.
70220544	2019-08-27	Update report to add new combination of approved EVA T2014/ T2053W with approved backsheet KFB-30 and alternative backsheet KFB-30(plus) was added based on the declaration letter.
80015052	2019-08-20	Update report to extend the power range of the module type CS3W-XXXP, CS3L-XXXP.
80010785	2019-08-14	Update report to add new cell manufactured by DMEGC, DMBD5B157-210 and Light Reflected Film manufactured by Guangdong Sunrui New Materials Co.,Ltd, type SR-ZX12M.
80012123	2019-08-02	Update report to add new cell manufactured by Shunfeng, type 156S2-PERC-5BB and Light Reflected Film manufactured by 3M, type T81X.
80009711	2019-07-24	Update report to add new cell manufactured by TW solar, type M1565BPERCBP.
80009567	2019-07-08	Update report to revise the name of EVA manufactured by Shanghai HIUV New Materials Co., Ltd. from S201MT to S201MT1 and add new combination of approved EVA S201MT1/S201W with approved backsheet BEC-303.
80008073	2019-06-28	Update report to add new 1/6 cut cell module CS1X-MS series based on the approved module CS1U-MS series and add alternative bypass diode FRD3045 for CF1208 series junction box.
80005565	2019-06-21	Update report to add new factory Canadian Solar Manufacturing Taiwan Co.,Ltd, including IFE and Humidity Test.
80001199	2019-05-07	Update report to add two new combinations of approved EVA and approved backsheet.
70214431	2019-04-19	Update report to add two new combination of approved EVA and approved backsheet.
70220178	2019-04-10	Update report to add one new cell M1565B PERC SE from TW solar, add two alternative connectors and delete the two module models CS6X-XXXM, CS6U-XXXM.

70219584	2019-03-22	Update report to add new electrically conductive adhesive RELAND 9151 from Shanghai Reland Photovoltaic Materials Co.,Ltd.
70195549	2019-03-06	Update report to add new cell 156S2-PERC-5BB from SF-PV and add new solar light reflecting film GS-1200-090-02(50μ) from Suzhou Golden Star Electronic Technology Co., Ltd.
70215663	2019-02-20	Update report to add new frame, Type F20, Grade 6005 and add alternative glass manufacturer ShanXi RiShengDa New Material Technology Co., Ltd.
70182107	2019-01-08	Update report to add new backsheet, type TB2053W from Changshu Tegu New Material Technology Co. Ltd.
70200038	2018-12-19	Update report to extension the power range of the module type CS6U-P, CS3U-P and CS6K-MS.
70201981	2018-12-11	Update report to add new cell YL156-PM-5 from Yingli, the cell model type M-156-5 was changed to NP6W(M-156-5) and the manufacturer name for Neo Solar Power Corp. and Solartech energy Corp. were changed to United renewable energy Co., Ltd.
70205130	2018-11-09	Update report to add new 1/6 cut cell model type CS1U-MS, CS1H-MS, CS1K-MS, new ECA type DT-9003 from Darbond, new 1/6 cut cell type CC6M6-HiDM from CSI and add new 1/5 cut cell model type CS6VL-MS based on certified CS1K-MS series.
70189209	2018-11-01	Update report to add new combinations of JBOX/adhensive/backsheet, related potting materials and bypass diode.
70193895	2018-09-29	Update report to add new factory CSI Modules(DaFeng) Co., Ltd, including IFE and Humidity Test.
70195548	2018-08-30	Update report to approve new combination of qualified Tegu EVA T2014&T2053 and qualified Toyal Solar backsheet FPL-FAW-T250-W50 and add new Toyal Solar backsheet type FPL-FAW-T250-W50-9.
70193578	2018-08-06	Update report to add new 9BB half-cut Poly-Si cell CC7P9-BPS manufactured by CSI, add related new 72 cells module type CS3W-XXXP and new 60 cells module type CS3L-XXXP.
70187659	2018-07-18	Update report to approve new combination of qualified EVA First F806W&F406PS and qualified backsheet First BEC-303.
70187049	2018-06-29	Update report to add new cell CC6M9-BPS manufactured by CSI, the overall dimension of CS3K-XXXMS and CS3K-XXXP was slightly changed, the system voltage of CS3K-XXXMS and CS3K-XXXP was increased to1500V and the fuse rating of CS6K-MS and CS6K-M was increased to 20A.
70187046	2018-06-20	Update report to add new cells CC6P9-BPS, CC6P9 manufactured by CSI and new 0.4mm and 0.3mm diameter cell interconnect material specification, the fuse rating of CS6U-P and CS6K-P increased to 20A.
70182682	2018-05-21	Update report to add alternative new F18 type frame.

70182338	2018-05-08	Update report to add alternative new F16 type frame.
70172153	2018-03-30	Update report to add alternative frame adhesive 1581 manufactured by Tonsan and HT9661 manufactured by Huitian and add different combinations of B20S J-box, J-box adhesive and substrate.
70175270	2018-03-05	Update report to add new combination of approved EVA Tegu T2014/ T2053 and approved backsheet Crown BE350X3.
70175269	2018-03-05	Update report to add new combination of approved EVA Tegu T2014/ T2053 and approved backsheet Cybrid Cynagard205A(R).
70172162	2018-02-08	Update report to add five alternative cells (type BYS6M-5BB manufactured by Beyondsun, type B156X1D5A manufactured by BIG SUN Energy, type NS6WL manufactured by Neo Solar Power, type S5P and type S5N manufactured by Shinsung) and alternative specification of the cell interconnect material.
70162213	2017-11-29	Update report to add alternative frame adhesive 1522 manufactured by Tonsan Adhesives Inc.
70156221	2017-11-28	Update report to add alternative junction box CF11080-03gb manufactured by Changshu Friends, alternative bypass diode SB1640LDC manufactured by PanJit Electronics (Wuxi) Co., LTD. and add different combinations of J-box adhesive and substrate with CF11080-03gb J-box.
70156219	2017-11-21	Update report to add different combinations of J-box, J-box adhesive and substrate. Update report to add alternative junction box CF1505-01mx manufactured by Changshu Friends and bypass diode SB3045DY and GF3045MC manufactured by Wuxi Panjit Semi Conductor and Yangzhou Yangjie Electronic Technology Co., Ltd.
70162210	2017-11-13	Update report to add new encapsulation material EVA “S201MT (above cell)/ S201W (below cell)” manufactured by Shanghai HIUV combined with Cynagard205A manufactured by Cybrid, add new combination of approved backsheet KFB-30 manufactured by Jolywood and approved EVA S201MT (above cell) and S201W (below cell) manufactured by Shanghai HiUV, update fire performance of CS1K-MS and CS1V-MS.
70162211	2017-11-09	Update report to add new module types CS3U-XXXMS-V (representative for CS3K-XXXMS-V also) with half-size mono-Si cell, new module type CS3U-XXXP-V (representative for CS3K-XXXP-V also) with half-size poly-Si cell, new module type CS3K-XXXP-H, new internal circuit construction, alternative junction box CF1208-01/ CF1208-02 manufactured by Changshu Friends, new mounting method with F9 frame.
70162212	2017-11-07	Update report to add alternative poly 5BB cell T1M produced by Tainergy Tech.
70156220	2017-10-31	Update report 2284121 to increase the maximum system voltage of already approved substrates from 1000 Vdc to 1500 Vdc.
70137102	2017-09-25	Update report 2284121 to add an alternative ECA type CA3556HF manufactured by Henkel Corporation for CS1K-XXXMS and CS1V-XXXMS series.

70137101	2017-09-21	Update the report 2284121 to add new model series CS1K-XXXMS and CS1V-XXXMS used with imbrication technology.
70144491	2017-09-20	Update report 2284121 to add 8 different combinations of adhesion surface and RTV silicones with specified junction box.
70125950	2017-08-22	Update report to add alternative 5BB cells (Shanghai Suntech mono, Gintech mono & poly & PERC, Vina cell poly, TSEC poly, Shunfeng mono).
70143781	2017-06-27	Update report 2284121 to add a new F9 frame, VDE order 2017-40128
70143782	2017-06-27	Update report 2284121 to add new module type CS3U-XXXMS (representative for CS3K-XXXMS also) with half-size mono-si cell "CC6M5-BPS" manufactured by CSI, new module type CS3U-XXXP (representative for CS3K-XXXP also) with half-size poly-si cell "CC6P5" and "CC6P5-BPS" manufactured by CSI, new internal circuit construction, alternative junction box CF1505-01mx manufactured by Changshu Friends, new mounting method with F9 frame, VDE order 2017-40146
70136623	2017-06-27	Update report 2284121 to add a new 1500V substrate & a new combination with EVA+205A(substrate) & new mounting method for NEXtracker NX Horizon 2.2.2 top clamp, VDE order:2017-40139 & 2017-40140
70136627	2017-06-27	Update the report 2284121 to add new Mono PERC cell CC6M5-BPS with aluminum finger on back field manufactured by CSI, VDE order: 2017-40168
70133123	2017-05-04	Update report 2284121 to add alternative backsheets KPO390, ZTT-KPO (covers ZTT-KPO350) & CROWN BE350X with testing in CPVT, add alternative encapsulations F406P/F806W & F406PS/F806W with testing in CSI.
70122825	2017-05-04	Update report to add PV module with PERC Mono crystalline silicon half cells, Testing in CPTL, Max. Series Fuse Rating 30A.
70123968	2017-05-04	update report 2284121 to add a new suzhou manufacturer
70122153	2017-05-04	Update report 2284121 to add a new manufacturer (baotou)
70117932	2017-05-04	Update Report 2284121 to add 7 alternative solar cells with testing in CSA.
70133122	2017-05-04	Update report 2284121 to add alternative cells Vina 4BB mono & Jolywood 4BB mono, with testing in CSI.
70133149	2017-05-04	Update Report 2284121 to add alternative solar cells (7 poly & 2 mono) with testing in CSA Group Kunshan.
70126004	2017-05-04	Update report 2284121 to add a new cell ribbon
70093512	2017-01-09	Alternate for a new frame (F6) VDE order:224570
70093513	2017-01-09	Update report 2284121 to qualify 3 new 4BB cells, VDE order 226452
70093546	2017-01-09	Update report 2284121 to qualify a new mounting method, VDE order 225348
70095478	2017-01-09	Alternate a new solar cell made by Hareon, VDE 227492

70089272	2017-01-09	Update report 2284121 alternate a new PERFECT ENERGY 4BB 4BB cell modification. VDE order no: 227385
70093414	2016-12-06	Add alternate Manufacturing Location
70108918	2016-11-17	Update report to correct the new Malaysia manufacturer information in project 70097257, add the laminator information of two new factory in edition 46
70091476	2016-11-06	Add a new manufacturer in Luoyang
70097257	2016-11-06	Update report 2284121 to add a new Malaysia manufacturer, add a new mounting method,correct the maximum output current rating for SD series
70086287	2016-09-13	Added a new Thailand manufacturer
70093511	2016-09-13	Alternate a new substrate for CS6U series module (1500V system voltage) VED order no. (224845)
70071361	2016-08-15	Increase the system voltage from 600Vdc to 1000Vdc for module series CS6P-XXXP/M-SD.
70078847	2016-08-15	Added a new Indonesia manufacturer
70093509	2016-08-15	Alternate CS6U series module (1500V system voltage) VED order no. (224844)
70080234	2016-07-14	5 EVA/backsheet Combination
70080241	2016-07-14	New backsheet type BF320S by CROWN ENERGY New potting HT6360 by Tianchcen
70080242	2016-07-14	New cell type B156X1D4H by Bigsun
70064054	2016-05-23	Update report 2284121 to add new cell type : NB6PLA, made by NBS energy group co., ltd
70061626	2016-04-20	Update report 2284121 to add new junction box 'cm0806-01 to new combination of Junction box adhesive and potting materials, new cells, and generate new model series CS6FA-XXXP, CS6DA-XXXP, CS6DB-XXXP, CS6DC-XXXP, CS6N-XXXP, CS6NA-XXXP.
70071861	2016-04-15	Update report 2284121 to qualify new combination of 11 certified substrates, add 3 new cells, 4 new substrates and 1 new EVA. And al ternate CS6XB-XXXP and CS6XB-XXXM module series with identical component list as previous.
70061233	2016-02-15	Update report 2284121 to add alternative cells, alternative black backsheets, to add new module model types CS6X-PN, and alternative backsheet and junction box combinations.
70059120	2016-01-07	Update the Descriptive Report 2284121 for 1. Alternate cells: Shunfeng, Suntech, CETC, Boviet, and CSIC PERC cell technology; 2. Alternative backsheet: Fuji; 3. New module model type CS6K with Solaredge J-box; 4. Update 20A series fuse rating for module with Solaredge J-box; 5. Canadian Solar Manufacturing Vietnam Co., Ltd. HF10 test report (no charge); 6. Alternative ground connections: Burndy WEEB-PMC & WEEB-UMC,

		Mounting systems Inc. WEEB-BMC, and Rillito River Solar grounding hardware.
70050245	2015-11-10	IFE for a new factory CANADIAN SOLAR MANUFACTURING VIETNAM CO., LTD. Customer requested for a rush IFE to be on November 4, 2015.
70048197	2015-10-05	Update Report 2284121 for 1. Seven new cell technologies 2. Two new J-box tested with 13 different combinations of backsheets and adhesive 3. New J-box and frame adhesive 4. New clamping method for ZEP frame 5. Mounting on NexTracker 6.Removal of obsolete models and materials 7. Update F1 frame for NexTracker and ATI trackers 8. Update HF10 test results for Boviet Solar factory
70043990	2015-09-10	Provide Report Update to add HF test results
70031273	2015-05-01	Update test report no. 2284121 for 1. Alternate EVA - ' Changshu Tegu New Material Technology Co. Ltd.', types "T2014" and "T2053", 0.45~0.5 mm nominal thickness, two sheets provided (T2014 type above cell strings - superstrate side - and T2053 type below - substrate side) 2. Alternate Substrate - (Suzhou) Sunwatt Co., Ltd. ', white type "KFB-30" overall thickness, 0.290 mm nominal. 3. Alternate Substrate - 'Crown Adbanced Material Co., Ltd. ', white type "BE-D2", overall thickness, 0.390 mm nominal 4. Add new Model Series CS6P-XXXP-TD , 240 W to 275 W range, with Tigo DC optimizer 5. Alternate Jbox - 'Changshu Friends Connector Technology Co., Ltd', junction box type CF1108-03g, rated 600 V dc, 11A 6. Alternate Jbox - 'Changshu Friends Connector Technology Co., Ltd', junction box type CF1108-03g b, rated 1000 V dc, 11A 7. Alternate Jbox - #Tigo energy Inc.#, junction box type MMJ-ES50, with Smart Curve function, rated 1000 dc, 9.5A 8. Alternative Cables: For use with MMJ-ES50 junction boxes only, on CS6P-P-TD, NRTL approved type PV wire No. 12 AWG, rated 600 V minimum. Outer diameter 6.7±0.20 mm, 90ºC minimum, marked sunlight resistant 9. Add new bypass diode 30CTQ100S (For use with MMJ-ES50 junction boxes only), rated 100v, 30A 10. Alternate mounting system - CS6X-xxxPX with ZS Peak mounting system 11. Alternate mounting system - CS6X-xxxP with Array Technology Inc, DuraTrack# HZ Solar Tracker V3 clamps and torque tube 12. Alternate grounding method - for Brilliant Rack Ground Mount System. 13.
70016938	2015-01-09	Update Report 2284121 to Include Vietnam Factory "Vina Solar Technology"
70015998	2014-12-24	Update Report 2284121 to add model CS6P-P-SD (w/Solaredge Optimizer), four alternative cells, new combinations of EVA and backsheet, and alternative grounding method.
70013912	2014-10-30	Update Report 2284121 to include two alternative cells and alternative grounding methods.
2761996	2014-09-24	Update Report 2284121 to add Celestica, ON as a Factory; IFE Not Required
2749251	2014-07-25	Update to include alternative cells, EVA, backsheet, potting compound and grounding methods.

2725910	2014-05-15	Update Report 2284121 to include the addition of series -M and -MM and alternative construction.
2679144	2014-01-31	Add Factory "Canadian Solar Solutions Inc, London, ON".
2676999	2013-11-13	Update to include an alternative EVA, backsheet, junction box and cells.
2633572	2013-07-08	Update to include two alternative backsheets and two cells.
2618121	2013-04-19	Update to include an alternative EVA, backsheet, junction box, junction box adhesive and cells.
2604442	2013-02-26	Update to include changes to cells, alternative EVA and addition of series CS6K.
2600055	2013-02-06	Update to include an alternative mounting system.
2594501	2013-01-17	Update to inlcude alternative junction box and a number of poly and mono cells.
2584786	2013-01-03	Update to add factory "CSI Central Power".
2587786	2012-12-19	Update to include changes to cells, alternative j-box and back sheets BEC-301 by Hangzhou First and VTPE1RW by Taiflex.
2559421	2012-09-26	Update to include the addition of Flexcon KPE backsheet.
2542034	2012-07-06	Update to include new half cell modules series PT, addition of 1000 V rating, alternative j-boxes and adhesive.
2496460	2012-06-15	Evaluation to add backsheet from COVEME for all the module series (with F806 EVA, CM0804 junction box and Tonsan 1527 adhesive).
2515777	2012-06-12	Update to include the evaluation of factory location in South Korea (includes HF10 test sequence).
2532459	2012-06-05	Update to include new models (smaller modules), alternative cells and backsheets.
2512339	2012-03-28	Update to include alternative cells.
2508436	2012-03-21	Update to include three alternative cells and an alternative Toyo back sheet.
2490216	2012-01-13	Update to add CS5P-xxxP and CS5A-XXXP Series.
2458713	2011-12-19	Evaluation for an alternative (Shunfeng) cell and j-box with Isovolta AAA backsheet with PV744 adhesive.
2480024	2011-12-01	Evaluation for alternative JA Solar cells and to add new series.
2470474	2011-10-28	Update to add the laminates (without frame).
2455625	2011-09-02	Update to add smaller modules with cut cells.
2441645	2011-07-26	Update to include change in glass dimensions, black backsheet, new frame and new j-box and edgeseal adhesive.
2431019	2011-06-03	Update to include the addition of model series CS6A and use of alternative mateirals and components.

2404638	2011-04-18	Update to include an alternate lamination line, includes HF10 test sequence.
2390337	2011-02-08	Addition of factory location in Ontario.
2380821	2010-12-17	Update to include Model Series CS5A-XXXM and CS5T-XXXM.
2284122	2010-10-14	Addition of 72 cell series CS6X-XXXP and CS6X-XXXM.
2284121	2010-06-30	Evaluation of PV Panel Series for C/CSA/US Mark.

Certificate of Compliance

Certificate: 2655017 **Master Contract:** 249143

Project: 80040047 **Date Issued:** 2020-04-30

Issued to: Canadian Solar Inc
545 Speedvale Ave West
Guelph, Ontario N1K 1E6
CANADA

Attention: Yuan Zhou

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

C US

Issued by: *Simon Shen*
Simon Shen

PRODUCTS

CLASS - C531110 - POWER SUPPLIES-Photovoltaic Modules and Panels
CLASS - C531190 - POWER SUPPLIES-Photovoltaic Modules and Panels - Certified to US Standards

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Class A, Model Series CS6X-XXXP-FG where 'XXX' is the power output from 290 W to 360 W with the following electrical rating typical at 360 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	46.5 V
Short Circuit Current (Isc):	9.92 A
Operating Voltage (Vpmax):	38.3 V
Current at Operating Voltage (Ipmax):	9.40 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Class A, Model Series CS6K-XXXP-FG, CS6K-XXXP-PG where 'XXX' is the power output from 245 W to 300 W with the following electrical rating typical at 300 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	38.8 V
Short Circuit Current (Isc):	9.92 A
Operating Voltage (Vpmax):	32.0 V

Current at Operating Voltage (Ipmax): 9.38 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Class A, Model Series CS6X-XXXM-FG where 'XXX' is the power output from 290 W to 360 W with the following electrical rating typical at 360 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc): 46.9 V
Short Circuit Current (Isc): 9.78 A
Operating Voltage (Vpmax): 38.7 V
Current at Operating Voltage (Ipmax): 9.31 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Class A, Model Series CS6K-XXXM-FG, CS6K-XXXMS-FG where 'XXX' is the power output from 245 W to 305 W with the following electrical rating typical at 305 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc): 39.9 V
Short Circuit Current (Isc): 9.75 A
Operating Voltage (Vpmax): 32.9 V
Current at Operating Voltage (Ipmax): 9.27 A

Photovoltaic Modules with maximum system voltage of 1000 V dc or 1500 V dc, Class A, Model Series CS6K-XXXP-AG where 'XXX' is the power output from 245 W to 300 W with the following electrical rating typical at 300 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc): 38.8 V
Short Circuit Current (Isc): 9.92 A
Operating Voltage (Vpmax): 32.0 V
Current at Operating Voltage (Ipmax): 9.38 A

Photovoltaic Modules with maximum system voltage of 1000 V dc or 1500 V dc, Class A, Model Series CS6K-XXXM-AG, CS6K-XXXMS-AG where 'XXX' is the power output from 200 W to 305 W with the following electrical rating typical at 305 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc): 39.9 V
Short Circuit Current (Isc): 9.75 A
Operating Voltage (Vpmax): 32.9 V
Current at Operating Voltage (Ipmax): 9.27 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Class A, Model Series CS3U-XXXMS-FG where 'XXX' is the power output from 350 W to 410 W with the following electrical rating typical at 410 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc): 49.0 V
Short Circuit Current (Isc): 10.49 A
Operating Voltage (Vpmax): 41.2 V
Current at Operating Voltage (Ipmax): 9.96 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Class A, Model Series CS3U-XXXP-FG where 'XXX' is the power output from 310 W to 405 W with the following electrical rating typical at 405 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	49.2 V
Short Circuit Current (Isc):	10.37 A
Operating Voltage (Vpmax):	41.4 V
Current at Operating Voltage (Ipmax):	9.79 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Class A, Model Series CS3K-XXXMS-FG where 'XXX' is the power output from 250 W to 330 W with the following electrical rating typical at 330 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	40.5 V
Short Circuit Current (Isc):	10.30 A
Operating Voltage (Vpmax):	33.7 V
Current at Operating Voltage (Ipmax):	9.80 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Class A, Model Series CS3K-XXXP-FG where 'XXX' is the power output from 270 W to 335 W with the following electrical rating typical at 335 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	41.3 V
Short Circuit Current (Isc):	10.37 A
Operating Voltage (Vpmax):	34.1 V
Current at Operating Voltage (Ipmax):	9.83 A

Photovoltaic Modules with maximum system voltage of 1000 V dc or 1500 V dc, Class A, Model Series CS3U-XXXMS-AG where 'XXX' is the power output from 350 W to 410 W with the following electrical rating typical at 410 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	49.0 V
Short Circuit Current (Isc):	10.49 A
Operating Voltage (Vpmax):	41.2 V
Current at Operating Voltage (Ipmax):	9.96 A

Photovoltaic Modules with maximum system voltage of 1000 V dc or 1500 V dc, Class A, Model Series CS3U-XXXP-AG where 'XXX' is the power output from 310 W to 405 W with the following electrical rating typical at 405 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	49.2 V
Short Circuit Current (Isc):	10.37 A
Operating Voltage (Vpmax):	41.4 V
Current at Operating Voltage (Ipmax):	9.79 A

Photovoltaic Modules with maximum system voltage of 1000 V dc or 1500 V dc, Class A, Model Series CS3K-XXXMS-AG where 'XXX' is the power output from 250 W to 330 W with the following electrical rating typical at 330 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	40.5 V
Short Circuit Current (Isc):	10.30 A
Operating Voltage (Vpmax):	33.7 V
Current at Operating Voltage (Ipmax):	9.80 A

Photovoltaic Modules with maximum system voltage of 1000 V dc or 1500 V dc, Class A, Model Series CS3K-XXXP-AG where 'XXX' is the power output from 270 W to 335 W with the following electrical rating typical at 335 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	41.3 V
Short Circuit Current (Isc):	10.37 A
Operating Voltage (Vpmax):	34.1 V
Current at Operating Voltage (Ipmax):	9.83 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Class A, Model Series CS3U-XXXMB-FG where 'XXX' is the power output from 350 W to 410 W with the following electrical rating typical at 410 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	49.0 V
Short Circuit Current (Isc):	10.49 A
Operating Voltage (Vpmax):	41.2 V
Current at Operating Voltage (Ipmax):	9.96 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Class A, Model Series CS3U-XXXPB-FG where 'XXX' is the power output from 310 W to 420 W with the following electrical rating typical at 420 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	49.9 V
Short Circuit Current (Isc):	10.66 A
Operating Voltage (Vpmax):	41.6 V
Current at Operating Voltage (Ipmax):	10.10 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Class A, Model Series CS3K-XXXMB-FG where 'XXX' is the power output from 250 W to 330 W with the following electrical rating typical at 330 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	40.5 V
Short Circuit Current (Isc):	10.30 A
Operating Voltage (Vpmax):	33.7 V
Current at Operating Voltage (Ipmax):	9.80 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Class A, Model Series CS3K-XXXPB-FG where 'XXX' is the power output from 270 W to 350 W with the following electrical rating typical at 350 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	41.9 V
Short Circuit Current (Isc):	10.6 A
Operating Voltage (Vpmax):	34.7 V
Current at Operating Voltage (Ipmax):	10.09 A

Photovoltaic Modules with maximum system voltage of 1000 V dc or 1500 V dc, Class A, Model Series CS3U-XXXMB-AG where 'XXX' is the power output from 350 W to 410 W with the following electrical rating typical at 410 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	49.0 V
Short Circuit Current (Isc):	10.49 A
Operating Voltage (Vpmax):	41.2 V
Current at Operating Voltage (Ipmax):	9.96 A

Photovoltaic Modules with maximum system voltage of 1000 V dc or 1500 V dc, Class A, Model Series CS3U-XXXPB-AG where 'XXX' is the power output from 310 W to 420 W with the following electrical rating typical at 420 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	49.8 V
Short Circuit Current (Isc):	10.55 A
Operating Voltage (Vpmax):	42.0 V
Current at Operating Voltage (Ipmax):	10.00 A

Photovoltaic Modules with maximum system voltage of 1000 V dc or 1500 V dc, Class A, Model Series CS3K-XXXMB-AG where 'XXX' is the power output from 250 W to 330 W with the following electrical rating typical at 330 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	40.5 V
Short Circuit Current (Isc):	10.30 A
Operating Voltage (Vpmax):	33.7 V
Current at Operating Voltage (Ipmax):	9.80 A

Photovoltaic Modules with maximum system voltage of 1000 V dc or 1500 V dc, Class A, Model Series CS3K-XXXPB-AG where 'XXX' is the power output from 270 W to 350 W with the following electrical rating typical at 350 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	41.9 V
Short Circuit Current (Isc):	10.6 A
Operating Voltage (Vpmax):	34.7 V
Current at Operating Voltage (Ipmax):	10.09 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Class A, Model Series CS6K-XXXMB-FG where 'XXX' is the power output from 245 W to 320W with the following electrical rating typical at 320 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	40.5 V
Short Circuit Current (Isc):	10.15 A
Operating Voltage (Vpmax):	33.3 V
Current at Operating Voltage (Ipmax):	9.61 A

Photovoltaic Modules with maximum system voltage of 600 V dc or 1000 V dc, Class A, Model Series CS6K-XXXPB-FG where 'XXX' is the power output from 245 W to 300 W with the following electrical rating typical at 300 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	38.8 V
Short Circuit Current (Isc):	9.92 A
Operating Voltage (Vpmax):	32.0 V
Current at Operating Voltage (Ipmax):	9.38 A

Photovoltaic Modules with maximum system voltage of 100 V dc or 1500 V dc, Class A, Model Series CS3W-XXXPB-AG where 'XXX' is the power output from 380 W to 445 W with the following electrical rating typical at 445 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	48.8 V
Short Circuit Current (Isc):	11.45 A
Operating Voltage (Vpmax):	40.5 V
Current at Operating Voltage (Ipmax):	10.99 A

Photovoltaic Modules with maximum system voltage of 1000 V dc or 1500 V dc, Class A, Model Series CS3W-XXXMB-AG where 'XXX' is the power output from 415 W to 460 W with the following electrical rating typical at 460 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	49.1 V
Short Circuit Current (Isc):	11.77 A
Operating Voltage (Vpmax):	40.9 V
Current at Operating Voltage (Ipmax):	11.25 A

Photovoltaic Modules with maximum system voltage of 100 V dc or 1500 V dc, Class A, Model Series CS3L-XXXPB-AG where 'XXX' is the power output from 315 W to 365 W with the following electrical rating typical at 365 W at Standard Test Conditions (STC):

Open Circuit Voltage (Voc):	40.6 V
Short Circuit Current (Isc):	11.38 A
Operating Voltage (Vpmax):	33.6 V
Current at Operating Voltage (Ipmax):	10.87 A

Notes:

1. Rated electrical characteristics are within +/-10% of measured values at Standard Test Conditions of 100 mW/cm^2 irradiance, AM 1.5 spectrum, and cell temperature of 25ºC.
2. Fire resistance rating: Class C (Canada) , Type 3 (US) for CS6X-XXXP-FG, CS6K-XXXP-FG, CS6X-XXXM-FG, CS6K-XXXM-FG, CS6K-XXXMS-FG, CS3U-XXXMB-FG, CS3U-XXXPB-FG, CS3K-XXXMB-FG, CS3K-XXXPB-FG, CS6K-XXXMB-FG, CS6K-XXXPB-FG, CS3U-XXXMS-FG, CS3U-XXXP-FG, CS3K-XXXMS-FG, CS3K-XXXP-FG model series. Class C (Canada), similar to Type 3 (US) for CS6K-XXXP-AG, CS6K-XXXM-AG, CS6K-XXXMS-AG, CS3U-XXXMB-AG, CS3U-XXXPB-AG, CS3K-XXXMB-AG, CS3K-XXXPB-AG, CS3W-XXXPB-AG, CS3W-XXXMB-AG, CS3L-XXXPB-AG, CS3U-XXXMS-AG, CS3U-XXXP-AG, CS3K-XXXMS-AG, CS3K-XXXP-AG model series, the constructions and fire performance of these models are similar to Type 3, except that assembly with metallic frames. Class C (Canada), similar to Type 3 (US) for CS6K-XXXP-PG model series, the constructions and fire performance of these models are similar to Type 3, except that assembly with polymeric frames.
3. The Rated electrical power performance of the bifacial modules, CS3U-XXXMB-FG, CS3U-XXXPB-FG, CS3K-XXXMB-FG, CS3K-XXXPB-FG, CS3U-XXXMB-AG, CS3U-XXXPB-AG, CS3K-XXXMB-AG, CS3K-XXXPB-AG, CS6K-XXXMB-FG, CS6K-XXXPB-FG, CS3W-XXXPB-AG, CS3W-XXXMB-AG, CS3L-XXXPB-AG model series, is only generated by front side of the PV module, more power may be generated if considering back side of the PV module.

APPLICABLE REQUIREMENTS

ULC/ORD- C1703-01 - Flat-Plate Photovoltaic Modules and Panels
UL 1703-3rd Edition - Flat-Plate Photovoltaic Modules and Panels

Supplement to Certificate of Compliance

Certificate: 2655017 **Master Contract:** 249143

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
80040047	2020-04-30	Update report to add encapsulation of new EPE T2019P and EVA T2014 manufactured by Changshu Tegu New Material Technology Co. Ltd. and new frame adhesive HT-8258 manufactured by Jiangsu Tianchen Silicon Materials Co. Ltd.
80040043	2020-04-21	Update report to add new encapsulation T2019P manufactured by Changshu Tegu New Material Technology Co. Ltd., add new frame adhesive XS1110-A manufactured by Shenzhen SISUN Silicone technology Co. Ltd. and change the fire resistance rating.
80039686	2020-04-14	Update report to add new cell M1569BPERCBP manufactured by Tongwei Solar (Chengdu) Co., Ltd.
80038818	2020-04-07	Update report to add new encapsulation combination of EP304 with F406PS manufactured by Hangzhou First PV Material Co.,Ltd., add alternative glass manufacturers for substrate, add frame adhesive HT906Z manufactured by 'Huitian New Chemical Material Co Ltd.' and add alternative overall dimension for CS3K-MB-AG, CS3K-PB-AG module series.
80038819	2020-04-07	Update report to add new encapsulation EP304 with EP304 manufactured by Hangzhou First PV Material Co., Ltd.
80029599	2020-03-09	Update report to add alternative F26 short frame, rename superstrate manufacturer Changzhou Hongxie Safety Glass Co. Ltd. to SLT special glass(Jiangsu) Co. Ltd. based on the declaration letter, add alternative manufacturer Xinyi Products (Anhui) Holdings Ltd. for glass substrate/ superstrate and add alternative 0.8 mm thickness for T22 POE.
80027043	2020-03-02	Update report to add a 166mm*83mm new cell PM69BF29B2 manufactured by Jiangsu Runergy Yueda PV Technology Co., Ltd. and add alternative thickness for Light Interconnector reflecting film GS-1200-090-02 and SR-ZX12M.
80025261	2020-02-19	Update report to add new bifacial cell 8M6E916A-X8 manufactured by Tianjin Aiko Solar Energy Technology Co., Ltd. and add three certified alternative interconnector reflecting film based on CSA test report 2284121 which is for signal glass PV module and add alternative connector PV-KST4/ PV-KBT4 based on UL6703 certificate.
80016358	2020-01-02	Update report to add new POE TR02 manufactured by Mitsui Chemicals Tohcello, Inc. and add new junction box B05Y manufactured by ChangShu

		Tlian Co., Ltd. and the width of string interconnector was increased from 6 mm to 8 mm.
80022609	2019-12-02	Update report to add a 166mm*83mm new cell CC7M9-BPS manufactured by CSI cell Inc. and add the related new module CS3W-MB-AG model series.
70214105	2019-08-21	Update report to add new POE TF4 combined with EVA F406PS manufactured by Hangzhou First PV Material Co., Ltd. and renamed for the superstrate manufacturer Changzhou Hongxie Safety Glass Co. Ltd.
80015051	2019-08-19	Update report to extend the power range of the module type CS3W-PB-AG, CS3U-PB-FG, CS3U-PB-AG, CS3K-PB-FG, CS3K-PB-AG.
80010391	2019-08-16	Update report to add new POE P507 and new EVA S201MT1 manufactured by Shanghai HIUV New Materials Co., Ltd.
80010786	2019-08-05	Update report to add new bifacial cell manufactured by Hengdian group DMEGC magnetics co.,ltd, type DMBD5B157-210.
80012120	2019-07-31	Update report to add new bifacial cell manufactured by Shunfeng, type 156S2-PERC-5BB.
80009712	2019-07-22	Update report to add new bifacial cell manufactured by TW solar, type M1565BPERCBP and cancelled the CS6U-PB-AG, CS6U-MB-AG, CS6U-PB-FG, CS6U-MB-FG module series.
80005567	2019-07-16	Update report to extend the power rating of models 3U-P-AG, 3U-P-FG, 3U-PB-AG, 3U-PB-FG, 3K-P-AG, 3K-P-FG, 3K-PB-AG, 3K-PB-FG series.
80003460	2019-05-21	Update report to add new 166mm*83mm big bifacial cell CC7P9-BPS from CSI cell Co. Ltd. add alternative glass and cell connector manufacturer, and introduce related new models CS3W-PB-AG and CS3L-PB-AG series.
70208374	2019-01-20	Update report to add new POE, type TP01 from Changshu Tegu New Material Technology Co.Ltd.
70211208	2019-01-04	Update report 2655017 to add new frame, type F26 (long side) & F27 (short side).
70209032	2018-12-28	Update report 2655017 to add two new bifacial cells CC6P9-BPS, CC6M9-BPS manufactured by CSI Cells Co Ltd.
70200037	2018-11-19	Update report to add new junction box B05S and related bypass diodes, potting compounds, junction box adhesive.
70187048	2018-07-09	Update report to add two new bifacial cells CC6P5-BPS, CC6M5-BPS and related new bifacial module types, CS6U-XXXMB-FG, CS6K-XXXMB-FG, CS6U-XXXPB-FG, CS6K-XXXPB-FG, slightly change the overall dimension of CS3U-PB-AG and CS3U-MB-AG series.
70172360	2018-04-24	Update report to add two new bifacial cells, two new junction box, two alternative connectors, four alternative bypass diodes, one alternative substrate manufacturer, two combinations of J-box and J-box adhesive and related new bifacial module types, CS3U-XXXPB-FG, CS3K-XXXPB-FG,

		CS3U-XXXMB-FG, CS3K-XXXMB-FG, CS3U-XXXPB-AG, CS3K-XXXPB-AG, CS3U-XXXMB-AG, CS3K-XXXMB-AG. The power range of CS3K-XXXP-FG, CS3K-XXXP-AG was also expanded.
70171875	2018-02-11	Update Report 2655017 to add new models CS3U-XXXMS-AG, CS3U-XXXP-AG, CS3K-XXXMS-AG and CS3K-XXXP-AG and related F14 frame.
70165399	2017-12-13	Update Report 2655017 to add new models CS3U-XXXMS-FG, CS3U-XXXP-FG, CS3K-XXXMS-FG and CS3K-XXXP-FG with half-cells.
70165398	2017-12-07	Update Report 2655017 to add new mounting methods for F14 & F15 frame.
70144480	2017-10-30	Update report 2655017 to add a new encapsulation material POE "T22" manufactured by Cybrid.
70136613	2017-08-22	Update Report 2655017 to add junction box CF1505-01mx with connectors T4-PPE-1 & T4-PC-1, adhesive 1527/HT8258/CV709, and to cover alternative cells from Report 2284121.
70122823	2017-05-19	Update report 2655017 to add double glass module with frame, model series CS6U-XXXP-AG, CS6U-XXXM-AG, CS6K-XXXP-AG, CS6K-XXXM-AG, CS 6K-XXXMS-AG.
70133941	2017-05-18	Update report 2655017 to add junction box B12S by Changshu Tlian.
70133943	2017-05-17	Update report 2655017 to add new encapsulant TF4 by Hangzhou First.
70083941	2016-10-24	1. Add two new model series: CS6X-M, CS6K-M 2. Expend the power rating for model series: CS6X-P, CS6K-P 3. Alternate new mechanical installation method 4. Increase the model size for CS6K-P series
70046455	2015-09-11	Update Report 2655017 for the CS6X-XXXP-FG Series with alternate EVA manufactured by First PV, F406P & F806W, for extension approval of frameless type CS6X-XXXP-FG with bigger size based on previous approved type CS6K-XXXP-FG with EVA pair 9110T/9130W of supplier 3M, and extension approval of fire test class A based on approved class C, CSA Report #70024060 is referenced.
70036467	2015-06-18	Update Descriptive Report 2655017.
70023134	2015-04-28	Update Report 2655017 to add alternative frame adhesive.
70020421	2015-01-14	Update Report 2655017 to include model series CS6K-XXXP-PG and Fire Performance Type.
2655017	2013-10-01	Photovoltaic Modules, Model Series CS6K-XXXP-LG. (C/US).