



Certificate of Compliance

Certificate: 80194024

Master Contract: 304329

Project: 80219189

Date Issued: 2025-04-1

Issued to: PT LESSO NEW ENERGY

Kawasan Industri JIPS blok D Jalan Raya Semarang - Demak KM 14.7 Desa/Kelurahan, Batu,
Kec.Karangtengah,kab.Demak Demak Regency, Jawa Tengah 59561 Indonesia

Attention: Mr Che Fulong

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: *Sara Guo*
Sara Guo

PRODUCTS

Class 5311 10 POWER SUPPLIES - Photovoltaic Modules and Panels

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

Photovoltaic modules with Fire Performance (USA) Type 29, maximum system voltage of 1500 V dc, model series: xxxC(HBD)72(182) (xxx=555-585 in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire Performance (USA) Type 29, maximum system voltage of 1500 V dc, model series: xxxC(HBD)66(182) (xxx=510-535 in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire Performance (USA) Type 29, maximum system voltage of 1500 V dc, model series: xxxC(HBD)60(182) (xxx=465-485 in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire Performance (USA) Type 29, maximum system voltage of 1500 V dc, model series: xxxC(HBD)54(182) (xxx=415-435 in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire Performance (USA) Type 1, maximum system voltage of 1500 V dc, model series: xxxC(HBB)54(182) (xxx=430-410, in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire Performance (USA) Type 1, maximum system voltage of 1500 V dc, model series: xxxC(HWB)72(182) (xxx=585-560, in steps of 5), Fuse rating 30A.



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Photovoltaic modules with Fire Performance (USA) Type 1, maximum system voltage of 1500 V dc, model series: xxxC(HWB)66(182) (xxx=535-510, in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire Performance (USA) Type 1, maximum system voltage of 1500 V dc, model series: xxxC(HWB)60(182) (xxx=485-460, in steps of 5), Fuse rating 30A.

Photovoltaic modules with Fire Performance (USA) Type 1, maximum system voltage of 1500 V dc, model series: xxxC(HWB)54(182) (xxx=435-410, in steps of 5), Fuse rating 30A.

Notes:

1. The electrical characteristics are within ± 4 percent of the rated values of I_{sc} , ± 3 percent of the rated values of V_{oc} and P_{max} under standard test conditions (irradiance of 1000 W/m², AM 1.5 spectrum, and a cell temperature of 25°C (77°F)).
2. The operating ambient temperature of these devices may exceed 40 °C at full load for all wire sizes if it is determined suitable in the field use application.

STC condition					
Model	Open Circuit Voltage at STC (V dc)	Short Circuit Current at STC (A dc)	Rated Voltage at STC (V dc)	Rated Current at STC (A dc)	Rated Maximum Power at STC (Watts)
xxxC(HBD)72(182) (xxx=555-585 in steps of 5)					
585C(HBD)72(182)	52.62	14.39	42.89	13.64	585
580C(HBD)72(182)	52.42	14.33	42.75	13.57	580
575C(HBD)72(182)	52.22	14.27	42.60	13.50	575
570C(HBD)72(182)	52.02	14.21	42.45	13.43	570
565C(HBD)72(182)	51.82	14.15	42.30	13.36	565
560C(HBD)72(182)	51.62	14.09	42.11	13.30	560
555C(HBD)72(182)	51.42	14.03	41.92	13.24	555
xxxC(HBD)66(182) (xxx=510-535 in steps of 5)					
535C(HBD)66(182)	48.24	14.55	39.29	13.62	535
530C(HBD)66(182)	48.05	14.49	39.09	13.56	530
525C(HBD)66(182)	47.87	14.43	38.89	13.50	525
520C(HBD)66(182)	47.69	14.37	38.70	13.44	520
515C(HBD)66(182)	47.50	14.31	38.50	13.38	515
510C(HBD)66(182)	47.32	14.25	38.29	13.32	510
xxxC(HBD)60(182) (xxx=465-485 in steps of 5)					
485C(HBD)60(182)	43.68	14.67	35.69	13.59	485
480C(HBD)60(182)	43.52	14.61	35.48	13.53	480
475C(HBD)60(182)	43.35	14.55	35.27	13.47	475
470C(HBD)60(182)	43.18	14.49	35.05	13.41	470
465C(HBD)60(182)	43.02	14.43	34.84	13.35	465
xxxC(HBD)54(182) (xxx=415-435 in steps of 5)					



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STC condition					
Model	Open Circuit Voltage at STC (V dc)	Short Circuit Current at STC (A dc)	Rated Voltage at STC (V dc)	Rated Current at STC (A dc)	Rated Maximum Power at STC (Watts)
435C(HBD)54(182)	39.17	14.79	32.11	13.55	435
430C(HBD)54(182)	39.02	14.73	31.88	13.49	430
425C(HBD)54(182)	38.87	14.67	31.65	13.43	425
420C(HBD)54(182)	38.72	14.61	31.42	13.37	420
415C(HBD)54(182)	38.57	14.55	31.18	13.31	415
xxxC(HBB)54(182) (xxx=430-410 in steps of 5)					
430C(HBB)54(182)	40.13	14.82	31.69	13.57	430
425C(HBB)54(182)	39.98	14.76	31.46	13.51	425
420C(HBB)54(182)	39.83	14.70	31.23	13.45	420
415C(HBB)54(182)	39.68	14.64	31.00	13.39	415
410C(HBB)54(182)	39.53	14.58	30.77	13.33	410
xxxC(HWB)72(182) (xxx=585-560, in steps of 5)					
560C(HWB)72(182)	51.62	14.09	42.11	13.30	560
565C(HWB)72(182)	51.82	14.15	42.30	13.36	565
570C(HWB)72(182)	52.02	14.21	42.45	13.43	570
575C(HWB)72(182)	52.22	14.27	42.60	13.50	575
580C(HWB)72(182)	52.42	14.33	42.75	13.57	580
585C(HWB)72(182)	52.62	14.39	42.89	13.64	585
xxxC(HWB)66(182) (xxx=535-510, in steps of 5)					
510C(HWB)66(182)	47.32	14.25	38.29	13.32	510
515C(HWB)66(182)	47.50	14.31	38.50	13.38	515
520C(HWB)66(182)	47.69	14.37	38.70	13.44	520
525C(HWB)66(182)	47.87	14.43	38.89	13.50	525
530C(HWB)66(182)	48.05	14.49	39.09	13.56	530
535C(HWB)66(182)	48.24	14.55	39.29	13.62	535
xxxC(HWB)60(182) (xxx=485-460, in steps of 5)					
460C(HWB)60(182)	42.85	14.37	34.63	13.29	460
465C(HWB)60(182)	43.02	14.43	34.84	13.35	465
470C(HWB)60(182)	43.18	14.49	35.05	13.41	470
475C(HWB)60(182)	43.35	14.55	35.27	13.47	475
480C(HWB)60(182)	43.52	14.61	35.48	13.53	480
485C(HWB)60(182)	43.68	14.67	35.69	13.59	485
xxxC(HWB)54(182) (xxx=435-410, in steps of 5)					
410C(HWB)54(182)	38.42	14.49	30.95	13.25	410
415C(HWB)54(182)	38.57	14.55	31.18	13.31	415
420C(HWB)54(182)	38.72	14.61	31.42	13.37	420



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STC condition					
Model	Open Circuit Voltage at STC (V dc)	Short Circuit Current at STC (A dc)	Rated Voltage at STC (V dc)	Rated Current at STC (A dc)	Rated Maximum Power at STC (Watts)
425C(HWB)54(182)	38.87	14.67	31.65	13.43	425
430C(HWB)54(182)	39.02	14.73	31.88	13.49	430
435C(HWB)54(182)	39.17	14.79	32.11	13.55	435

BNPI condition						BSI condition
Model	Open Circuit Voltage (V dc)	Short Circuit Current (A dc)	Rated Voltage (V dc)	Rated Current (A dc)	Rated Maximum Power (Watts)	Short Circuit Current (A dc)
xxxC(HBD)72(182) (xxx=555-585 in steps of 5)						
585C(HBD)72(182)	52.61	15.89	42.98	15.02	645	17.72
580C(HBD)72(182)	52.41	15.82	42.84	14.94	639	17.64
575C(HBD)72(182)	52.21	15.75	42.69	14.86	634	17.56
570C(HBD)72(182)	52.01	15.69	42.53	14.79	628	17.50
565C(HBD)72(182)	51.81	15.62	42.38	14.71	623	17.42
560C(HBD)72(182)	51.61	15.56	42.19	14.64	617	17.36
555C(HBD)72(182)	51.41	15.49	42.00	14.58	612	17.27
xxxC(HBD)66(182) (xxx=510-535 in steps of 5)						
535C(HBD)66(182)	48.23	16.06	39.37	15.00	590	17.91
530C(HBD)66(182)	48.04	16.00	39.17	14.93	584	17.85
525C(HBD)66(182)	47.86	15.93	38.97	14.86	579	17.76
520C(HBD)66(182)	47.68	15.86	38.78	14.80	573	17.68
515C(HBD)66(182)	47.49	15.80	38.58	14.73	568	17.62
510C(HBD)66(182)	47.31	15.73	38.37	14.67	562	17.54
xxxC(HBD)60(182) (xxx=465-485 in steps of 5)						
485C(HBD)60(182)	43.67	16.20	35.76	14.96	535	18.07
480C(HBD)60(182)	43.51	16.13	35.55	14.90	529	17.99
475C(HBD)60(182)	43.34	16.06	35.34	14.83	524	17.91
470C(HBD)60(182)	43.17	16.00	35.12	14.76	518	17.85
465C(HBD)60(182)	43.01	15.93	34.91	14.70	513	17.76
xxxC(HBD)54(182) (xxx=415-435 in steps of 5)						
435C(HBD)54(182)	39.16	16.33	32.17	14.92	479	18.21
430C(HBD)54(182)	39.01	16.26	31.94	14.85	474	18.13
425C(HBD)54(182)	38.86	16.20	31.71	14.79	468	18.07
420C(HBD)54(182)	38.71	16.13	31.48	14.72	463	17.99



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BNPI condition						BSI condition
Model	Open Circuit Voltage (V dc)	Short Circuit Current (A dc)	Rated Voltage (V dc)	Rated Current (A dc)	Rated Maximum Power (Watts)	Short Circuit Current (A dc)
415C(HBD)54(182)	38.56	16.06	31.24	14.65	457	17.91
xxxC(HBB)54(182) (xxx=430-410 in steps of 5)						
430C(HBB)54(182)	40.20	16.36	31.73	14.72	467	18.24
425C(HBB)54(182)	40.05	16.30	31.49	14.65	461	18.18
420C(HBB)54(182)	39.90	16.23	31.26	14.59	456	18.10
415C(HBB)54(182)	39.75	16.16	31.02	14.52	450	18.02
410C(HBB)54(182)	39.60	16.10	30.80	14.46	445	17.96
xxxC(HWB)72(182) (xxx=585-560, in steps of 5)						
560C(HWB)72(182)	51.61	15.56	42.19	14.64	617	17.36
565C(HWB)72(182)	51.81	15.62	42.38	14.71	623	17.42
570C(HWB)72(182)	52.01	15.69	42.53	14.79	628	17.50
575C(HWB)72(182)	52.21	15.75	42.69	14.86	634	17.56
580C(HWB)72(182)	52.41	15.82	42.84	14.94	639	17.64
585C(HWB)72(182)	52.61	15.89	42.98	15.02	645	17.72
xxxC(HWB)66(182) (xxx=535-510, in steps of 5)						
510C(HWB)66(182)	47.31	15.73	38.37	14.67	562	17.54
515C(HWB)66(182)	47.49	15.80	38.58	14.73	568	17.62
520C(HWB)66(182)	47.68	15.86	38.78	14.80	573	17.68
525C(HWB)66(182)	47.86	15.93	38.97	14.86	579	17.76
530C(HWB)66(182)	48.04	16.00	39.17	14.93	584	17.85
535C(HWB)66(182)	48.23	16.06	39.37	15.00	590	17.91
xxxC(HWB)60(182) (xxx=485-460, in steps of 5)						
460C(HWB)60(182)	42.84	15.86	34.69	14.62	507	17.68
465C(HWB)60(182)	43.01	15.93	34.91	14.70	513	17.76
470C(HWB)60(182)	43.17	16.00	35.12	14.76	518	17.85
475C(HWB)60(182)	43.34	16.06	35.34	14.83	524	17.91
480C(HWB)60(182)	43.51	16.13	35.55	14.90	529	17.99
485C(HWB)60(182)	43.67	16.20	35.76	14.96	535	18.07
xxxC(HWB)54(182) (xxx=435-410, in steps of 5)						
410C(HWB)54(182)	38.41	16.00	31.01	14.59	452	17.83
415C(HWB)54(182)	38.56	16.06	31.24	14.65	457	17.91
420C(HWB)54(182)	38.71	16.13	31.48	14.72	463	17.99
425C(HWB)54(182)	38.86	16.20	31.71	14.79	468	18.07
430C(HWB)54(182)	39.01	16.26	31.94	14.85	474	18.13
435C(HWB)54(182)	39.16	16.33	32.17	14.92	479	18.21



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APPLICABLE REQUIREMENTS

CSA C22.2 No. 61730-1:19 Photovoltaic (PV) module safety qualification — Part 1: Requirements for construction, 2019-12.

CSA C22.2 No. 61730-2:19 Photovoltaic (PV) module safety qualification — Part 2: Requirements for testing, 2019-12.

UL 61730-1 2nd: Photovoltaic (PV) Module Safety Qualification – Part 1: Requirements for Construction, 2022-10-28.

UL 61730-2 2nd: Photovoltaic (PV) Module Safety Qualification – Part 2: Requirements for Testing, 2022-10-28, reprint 2023-10-10.

UL 61215-1 2nd: Terrestrial Photovoltaic (PV) Modules - Design Qualification and Type Approval - Part 1: Test requirements, 2021-07-28

UL 61215-1-1 2nd: Terrestrial Photovoltaic (PV) Modules - Design Qualification and Type Approval - Part 1-1: Special requirements for testing of crystalline silicon photovoltaic (PV) modules, 2021-07-28

UL 61215-2 2nd, Terrestrial photovoltaic (PV) modules – Design qualification and type approval – Part 2: Test procedures, 2021-07-28.

Notes:

Products certified under Class C531110 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca





Supplement to Certificate of Compliance

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*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
80219189	2025-04-01	Update report 80194024 to add new series xxxC(HWB)72(182), xxxC(HWB)66(182), xxxC(HWB)60(182), (182) xxxC(HWB)54(182) with new materials.
80219188	2024-12-19	Update report 80194024 to add a frame with 30mm height in xxxC(HBD)72(182), xxxC(HBD)66(182), xxxC(HBD)60(182), xxxC(HBD)54(182), xxxC(HBB)54(182) module series.
80219190	2024-12-13	Update report 80194024 to add new series xxxC(HBB)54(182) (xxx = 430 to 410, in steps of 5) with new BOM materials and correct Module Serial Number Coding System.
80194024	2024-08-02	Original certificate for double glass type modules.