



Certificate of Compliance

Certificate: 70218631

Master Contract: 259077

Project: 80054498

Date Issued: 2020-11-10

Issued to: Altenergy Power System Inc.
No.1 Yatai Road
Jiaxing, Zhejiang, 314050
CHINA
Attention: Kevin Lu

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: Rohana Yang
Rohana Yang

PRODUCTS

CLASS 5311 09 - POWER SUPPLIES - Distributed Generation Power Systems Equipment

CLASS 5311 89 - POWER SUPPLIES - Distributed Generation Power Systems Equipment - Certified to U.S. Standards

APsmart Rapid shutdown System:

Model	Attenuators	Initiation Device	System Ratings
Type-A	RSD-S-PLC-A	Transmitter-PLC	System voltage 1000Vdc, Attenuators Input: 8~80Vdc, 15Amax per module, 15A max input short circuit. Attenuators Output: 8~80Vdc, 15Amax, 800W max per module. Rapid shutdown time limit 15s. Initiated by the loss of AC power
Type-B	RSD-S-PLC-B	Transmitter-PLC	System voltage 1500Vdc, Attenuators Input: 8~80Vdc, 15Amax per module, 15A max input short circuit. Attenuators Output: 8~80Vdc, 15Amax, 800W max per module. Rapid shutdown time limit 15s. Initiated by the loss of AC power



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Type-C	RSD-S-PLC-A	Transmitter-PLC-PCBA	System voltage 1000Vdc, Attenuators Input: 8~80Vdc, 15Amax per module, 15A max input short circuit. Attenuators Output: 8~80Vdc, 15Amax, 800W max per module. Rapid shutdown time limit 15s. Initiated by the loss of AC power
Type-D	RSD-S-PLC-B	Transmitter-PLC-PCBA	System voltage 1500Vdc, Attenuators Input: 8~80Vdc, 15Amax per module, 15A max input short circuit. Attenuators Output: 8~80Vdc, 15Amax, 800W max per module. Rapid shutdown time limit 15s. Initiated by the loss of AC power

Model	Attenuators	Initiation Device	Inverter	System Ratings
APsmart's RSD system, PVRSS: Sunspec	Altenergy Power System Inc. RSD-S-PLC-A RSD-S-PLC-B	Altenergy Power System Inc. Transmitter-PLC Transmitter-PLC-PCBA	SHANGHAI CHINT POWER SYSTEMS CO., LTD. CPS SCA60KTL-DO/US-480 CPS SCA50KTL-DO/US-480 CPS SCA25KTL-DO-R/US-480 CPS SCA20KTL-DO-R/US-480 CPS SCA25KTL-DO/US-208	1000 Vdc maximum system voltage. Rapid shutdown time limit 30s with inverter. Initiated by the loss of AC power
	Zhejiang Twinsel Electronic Technology Co., Ltd. PV-SY020-A PV-SY020	Zhejiang Twinsel Electronic Technology Co., Ltd. PV-SY020-PLC PV-SY020-PCBA		
	Baoding Yitong PV Science& Technology Co., Ltd. YT-RSD-P-1000 YT-RSD-P-1500	Baoding Yitong PV Science &Technology Co., Ltd. Transmitter-PLC Transmitter-PLC-PCBA	Delta Electronics (Shanghai) Co., Ltd. M10-4-TL-US M10-TL-US M8-TL-US M6-TL-US M5-TL-US M4-TL-US E8-TL-US E6-TL-US	600 Vdc maximum system voltage. Rapid shutdown time limit 30s with inverter. Initiated by the loss of AC power
			Solectria Renewables, LLC PVI 50TL-480 PVI 60TL-480 PVI 20TL-480-R PVI 25TL-480-R PVI 25TL-208	1000 Vdc maximum system voltage. Rapid shutdown time limit 30s with inverter. Initiated by the loss of AC power



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			<p>Fronius International GmbH Fronius Symo Advanced 10.0-3 208-240 Fronius Symo Advanced 12.0-3 208-240</p>	<p>600 Vdc maximum system voltage.</p> <p>Rapid shutdown time limit 30s with inverter.</p> <p>Initiated by the loss of AC power</p>
			<p>Fronius International GmbH Fronius Symo Advanced 15.0-3 480 Fronius Symo Advanced 20.0-3 480 Fronius Symo Advanced 22.7-3 480 Fronius Symo Advanced 24.0-3 480</p>	<p>1000 Vdc maximum system voltage.</p> <p>Rapid shutdown time limit 30s with inverter</p> <p>Initiated by the loss of AC power</p>
			<p>Fronius International GmbH Primo GEN24 3.8 208-240 Primo GEN24 5.0 208-240 Primo GEN24 6.0 208-240</p>	<p>600 Vdc maximum system voltage.</p> <p>Rapid shutdown time limit 30s with inverter.</p> <p>Initiated by external buttons with signal wire connected to the WSD interface of the Inverter.</p>

Model	Attenuators	Initiation Device	Inverter	System Ratings
<p>APsmart Rapid shutdown System, PVRSS: Sunspec</p>	<p>Altenergy Power System Inc. RSD-S-PLC-A; RSD-S-PLC-B;</p> <p>Zhejiang Twinsel Electronic Technology Co., Ltd. PV-SY020-A; PV-SY020;</p> <p>Baoding Yitong PV Science &</p>	<p>Altenergy Power System Inc. Transmitter-PLC</p>	<p>Manufacturer: SolaX Power Network Technology (Zhe jiang) Co., Ltd.</p> <p>Family series (1) Models: A1-Hybrid-6.0-US, A1-Hybrid-7.0-US, A1-Hybrid-7.6-US, A1-Hybrid-8.6-US;</p> <p>Family series (2) Models: A1-6.0-US, A1-7.0-US, A1-7.6-US, A1-8.6-US</p>	<p>600 Vdc maximum system voltage. Rapid shutdown time limit 30 s with inverter.</p> <p>Family series (1) Initiated by external emergency button with signal wire connected to the Inverter's ELV circuit.</p>



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	Technology Co., Ltd. YT-RSD-P-1000; YT-RSD-P-1500;			Family series (2) Initiated by the loss of AC Grid.
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Note:

1. For details related to rating, size, configuration, etc., reference should be made to the CSA Certification Record, Certificate of Compliance Annex A, or the Descriptive Report.
2. Photovoltaic Rapid Shutdown Function has also been evaluated according to NEC-2017 Section 690.12 applicable requirement.

APPLICABLE REQUIREMENTS

UL Std. No. 1741-Second Edition - Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources (February 15, 2018)
CSA C22.2 No. 330-17 - Photovoltaic rapid shutdown systems



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
80054498	2020-11-10	Update report 70218631 to add Inverter model of PVI 25TL-208 in the APsmart's RSD system, PVRSS.
80054497	2020-08-31	Update report 70218631 to add Inverter model of CPS SCA25KTL-DO/US-208, in the APsmart's RSD system, PVRSS.
80046237	2020-07-27	Update report 70218631 to add Inverter models of Manufacturer: SolaX Power Network Technology (Zhe jiang) Co., Ltd., Family series (1) Models: A1-Hybrid-6.0-US, A1-Hybrid-7.0-US, A1-Hybrid-7.6-US, A1-Hybrid-8.6-US, and Family series (2) Models: A1-6.0-US, A1-7.0-US, A1-7.6-US, A1-8.6-US in the APsmart's RSD system, PVRSS.
80041567	2020-07-15	Update report 70218631 to add Inverter models of Fronius Symo Advanced 10.0-3 208-240; Fronius Symo Advanced 12.0-3 208-240; Fronius Symo Advanced 15.0-3 480; Fronius Symo Advanced 20.0-3 480; Fronius Symo Advanced 22.7-3 480; Fronius Symo Advanced 24.0-3 480. Primo GEN24 3.8 208-240; Primo GEN24 5.0 208-240; Primo GEN24 6.0 208-240 in the APsmart's RSD system, PVRSS.
80039795	2020-04-16	Update report 70218631 to add Inverter models of PVI 50TL-480, PVI 60TL-480, PVI 20TL-480-R and PVI 25TL-480-R in the APsmart's RSD system, PVRSS.
80028762	2019-12-20	Update report 70218631 to add Inverter models of CPS SCA25KTL-DO-R/US-480 and CPS SCA20KTL-DO-R/US-480 in the APsmart's RSD system, PVRSS.
80013686	2019-09-23	Update to report 70218631 to add inverter models M10-4-TL-US/ M10-TL-US/ M8-TL-US/ M6-TL-US/ M5-TL-US/ M4-TL-US/ E8-TL-US/ E6-TL-US as PVRSE for PVRSS.
80009242	2019-08-06	Update to report 70218631 to add inverter models CPS SCA50KTL-DO/US-480 and CPS SCA60KTL-DO/US-480 as PVRSE for PVRSS.
70218631	2019-06-13	Photovoltaic Rapid Shutdown System: APsmart Rapid shutdown System Type-A/Type-B/Type-C/Type-D. (CSA C22.2 No. 330-17/UL 1741 (2nd Edition)). (C/US)