



Certificate of Compliance

Certificate: 80023775 **Master Contract:** 272687
Project: 80023775 **Date Issued:** Jan 7, 2020
Issued to: SolaX Power Network Technology (Zhejiang) Co.,Ltd.

No 288, Shizhu Rd, Tonglu Economic, Hangzhou, Zhejiang 311500, China
Attention: Ms Jessica Zhu

The products listed below are eligible to bear the CSA Mark shown with adjacent indicator 'US' for US only



Issued by: Joseph (Fei) Zhou
Joseph (Fei) Zhou

PRODUCTS

CLASS 3701-84 ELECTRICAL ENERGY STORAGE SYSTEMS - Certified to US Standard

Li-ion Battery Energy Storage System (Pre-Engineered of Matched Component), models series A1-ESS-Hybrid and A1-ESS-Fit.

Refer to following table for component included in Energy Storage System

Overall System Name for ESS	Inverter		Battery System		Auto-transformer Model No.
	Inverter Series Name	Model Name	Battery System Name	Battery System Model Name	
A1-ESS-Hybrid	A1-Hybrid Series	A1-Hybrid-6.0-US	T-BAT SYS HV	T-BAT H 4.5	A1-TX-8.6
		A1-Hybrid-7.0-US		T-BAT H 6.3	
		A1-Hybrid-7.6-US		T-BAT H 12.6	
		A1-Hybrid-8.6-US		T-BAT H 18.9	
A1-ESS-Fit		A1-Fit-6.0-US		T-BAT H 9.0	
				T-BAT H 13.5	



Certificate: 80023775

Master Contract: 272687

Project: 80023775

Date Issued: Jan 7, 2020

	A1-Fit Series	A1-Fit-7.0-US			
		A1-Fit-7.6-US			
		A1-Fit-8.6-US			

Refer to below table for the ratings of the energy storage system:

Model	ESS models with Inverter A1-Hybrid-US						
	Charge Mode		Utility Interactive Mode		Off Grid Mode		
INPUT RATINGS:	PV Port	AC Grid Port		PV Port	Battery Port	PV Port	Battery Port
Input Voltage, V	105~500Vdc	Rated, Vac	Peak, Vac	105~500Vdc	84-432 Vdc (see note1)	105~500Vdc	84-432 Vdc (see note 1)
		120	-				
		240	264				
Max Input Current, A	10Adc(per MPPT)	See note 3		10Adc(per MPPT)	25	10Adc(per MPPT)	25
Max Input Power, W	See note 2	See note 4		See note 2	-	See note 2	-
Number of Phase	-	Single Phase		-	-	-	-
Frequency, Hz	-	59.3~60.5		-	-	-	-
OUTPUT RATINGS:							
Output Voltage, V	84-432 Vdc			Rated, Vac	Peak, Vac	Rated, Vac	Peak, Vac
				120	-	120	-
				240	264	240	-
Max Output Current, A	25			See note 3		See note 7	
Max Output Power, W	See note 5			See note 6		See note 8	
Number of Phase	-			Single phase		Single Phase	
Frequency, Hz	-			59.3~60.5		60Hz	
OTHER RATINGS:							
Cooling	Nature convection						
Operating Temperature Range, °C	-20~60 (0~45 for ESS with battery)						
Special Environmental Ratings	Indoor/Outdoor Use (Residential use only)						
Max short circuit Current	765Aac peak/5ms(AC output)						
Battery Enclosure Rating	IP55						
Inverter Enclosure Rating	Type 4X						
Overvoltage category of Battery	II						
Overvoltage category of Inverter	IV						



Certificate: 80023775

Master Contract: 272687

Project: 80023775

Date Issued: Jan 7, 2020

The ratings in above table indicated with notes were corresponding to different subassembly ratings, see below for details:

Note 1: depends on the battery pack used in the system, 154~235.2Vdc for battery pack models T-BAT H 9.0 and T-BAT H 12.6, 231~352.8Vdc for battery pack models T-BAT H 13.5 and T-BAT H 18.9.

Note 2: depends on the inverters used in the system, 7200W for A1-Hybrid- 6.0-US, 8400W for A1-Hybrid-7.0 - US, 9120W for A1-Hybrid-7.6-US and 10320W for A1-Hybrid-8.6-US.

Note 3: depends on the inverters used in the system for max ac input/output current, 28Aac for inverter model A1-Hybrid-6.0-US, 32Aac for A1-Hybrid-7.0-US, 35Aac for A1-Hybrid-7.6-US and 41Aac for A1-Hybrid-8.6-US.

Note 4: depends on the inverters used in the system, 6600VA for A1-Hybrid- 6.0-US, and 7700VA for A1-Hybrid-7.0-US, 8360VA for A1-Hybrid-7.6-US, and 9460VA for A1-Hybrid-8.6-US

Note 5: depends on the inverter used in the system, 7100W for A1-Hybrid-6.0-US, 8300W for A1-Hybrid-7.0-US, 9000W for A1-Hybrid-7.6-US and 10200W for A1-Hybrid-8.6-US.

Note 6: depends on the inverter used in the system, 6600VA for A10Hybrid-6.0-US, 7700VA for A1-Hybrid-7.0-US, 8360VA for A1-Hybrid-7.6-US and 9460VA for A1-Hybrid-8.6-US (240Vac).

Note 7: depends on the inverter used in the system for the max output current, 25A for A10Hybrid-6.0-US, 29A for A1-Hybrid-7.0-US, 32A for A1-Hybrid-7.6-US and 36A for A1-Hybrid-8.6-US (240Vac).

Note 8: depends on the inverter used in the system for the max output capacity, 6000VA for A1-Hybrid-6.0-US, 7000VA for A1-Hybrid-7.0-US, 7600VA for A1-Hybrid-7.6-US and 8600VA for A1-Hybrid-8.6-US (240Vac).



Certificate: 80023775
Project: 80023775

Master Contract: 272687
Date Issued: Jan 7, 2020

Model	ESS models with Inverter A1-Fit-US					
	Charge Mode		Utility Interactive Mode	Off Grid Mode		
INPUT RATINGS:	AC Grid Port		Battery Port	AC Grid Port	Battery Port	
Input Voltage, V	Rated, Vac	Peak, Vac	84-432 Vdc (see note 3)	-	84-432 Vdc	
	120	-				
	240	264				
Max Input Current, A	See note 1		25	-	25	
Max Input Power, W	See note 2		-	-	-	
Number of Phase	Single Phase		-	-	-	
Frequency, Hz	59.3~60.5		-	-	-	
OUTPUT RATINGS:						
Output Voltage, V	84-432 Vdc (see note 3)		Rated, Vac	Peak, Vac	Rated, Vac	Peak, Vac
			120	-	120	-
			240	264	240	-
Max Output Current, A	25		See note 1		See note 4	
Max Output Power, W	See note 6		See note 2		See note 5	
Number of Phase	-		Single Phase		Single Phase	
Frequency, Hz	-		59.3~60.5		60Hz	
OTHER RATINGS:						
Cooling			Nature convection			
Operating Temperature Range, °C			-20~60(0~45 for ESS with battery)			
Special Environmental Ratings			Indoor/Outdoor Use (Residential use only)			
Max short circuit Current			765Aac peak/5ms(AC output)			
Battery Enclosure Rating			IP55			
Inverter Enclosure Rating			Type 4X			
Overvoltage category of Battery			II			
Overvoltage category of Inverter			IV			

The ratings in above table indicated with notes were corresponding to different subassembly ratings, see below for details:

Note 1: depends on the inverters used in the system for max ac input/output current, 28Aac for inverter model A1-Fit-6.0-US, 32Aac for A1-Fit-7.0-US, 35Aac for A1-Fit-7.6-US and 41Aac for A1-Fit-8.6-US.

Note 2: depends on the inverters used in the system, 6600VA for A1-Fit-US-6.0, and 7700VA for A1-Fit-US-7.0, 8360VA for A1-Fit-US-7.6, and 9460VA for A1-Fit-US-8.6.



Certificate: 80023775
Project: 80023775

Master Contract: 272687
Date Issued: Jan 7, 2020

Note 3: depends on the battery pack used in the system, 154~235.2Vdc for battery pack models T-BAT H 9.0 and T-BAT H 12.6, 231~352.8Vdc for battery pack models T-BAT H 13.5 and T-BAT H 18.9.

Note 4: depends on the inverters used in the system for max load output current, 25Aac for inverter model A1-Fit-6.0-US, 29Aac for A1-Fit-7.0-US, 32Aac for A1-Fit-7.6-US and 36Aac for A1-Fit-8.6-US.

Note 5: depends on the inverter used in the system, 6000VA for A1-Fit-6.0-US, 7000VA for A1-Fit-7.0-US, 7600VA for A1-Fit-7.6-US and 8600VA for A1-Fit-8.6-US.

Note 6: depends on the inverter used in the system, 7100W for A1-Fit-6.0-US, 8300W for A1-Fit-7.0-US, 9000W for A1-Fit-7.6-US and 10200W for A1-Fit-8.6-US.

Conditions of Acceptability:

1. The acceptability of grid support utility interactive inverters shall be determined by the local electric utility.
2. The installation was not evaluated. The ESS shall be installed in accordance with applicable local installation code.
3. The system was intended for residential use without arc flash risk considered, and is not designed for used in seismic or coastal regions.
4. As the ESS will be shipped out with only battery pack, inverter, and necessary accessory, herein, Grounding and Bonding System Check test may be considered in the installation site, determined by the local AHJ.
5. The AC circuit breaker connected in the grid port will be considered by the end product user when installation.

APPLICABLE REQUIREMENTS

ANSI/CAN/UL-9540:2016, Energy Storage Systems and Equipment- 1st edition

MARKINGS

N/A



Certificate: 80023775
Project: 80023775

Master Contract: 272687
Date Issued: Jan 7, 2020

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
80023775	2020-01-07	Original certification for battery energy storage system, models A1-ESS-Hybrid and A1-ESS-Fit series. (Applicable Requirement: ANSI /UL-9540:2016, 1st Edition) Class No. 3701-84