

Certificate of Conformity

No. ESY 073342 0427 Rev. 00

Holder of Certificate: **Sungrow Power Supply Co., Ltd.**

No. 1699 Xiyou Road, New & High
Technology Industrial Development Zone,
230088 Hefei, Anhui
PEOPLE'S REPUBLIC OF CHINA

Product: **Converter**
(Energy Storage Inverter)

Model(s): **SC125CX, SC110CX**


Parameters: See page 2 to 3

Applicable standards: VDE-AR-N 4110:2023
FGW TR3:2022
FGW TR4:2022
FGW TR8:2019

This Certificate of Conformity confirms the compliance with the above listed standards on a voluntary basis. It refers only to the sample submitted to TÜV SÜD Product Service GmbH and does not certify the quality or safety of the serial products. It was issued according to TÜV SÜD Product Service certification program Photovoltaics and Grid Integration. For details see: www.tuvsud.com/ps-cert

Test report no.: 64290243124301

Date, 2025-03-28



(Billy Qiu)

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Parameters:

General and Output values	
Manufacturer	Sungrow Power Supply Co., Ltd.
Type name	SC125CX
No. of phases	3 phases
Rated apparent power	125000 VA
Rated active power	125000 W
Rated AC-voltage	230/400 V _{AC} , 3W+N+PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	263.505 A _{AC}
Battery input/output	
Min. Battery voltage	600 V _{DC}
Max. Battery voltage	1000 V _{DC}
Max. Battery current	212.5 A _{DC}
Max. Charge/Discharge power	137500 W
Converter-Power section	
Manufacturer	Sungrow Power Supply Co., Ltd.
Type name	SC125CX
Rated apparent power	125000 VA
Generic type	MV/LV transformer is not included in the inverter
Pulse rated of inverter	16 kHz
Generic type of power control	PQ control
Software version	DSP: MDSP_DIOPSIDE-B_V11_V01_A ARM: LCD_DIOPSIDE-B_V11_V01_A CMU: ARM_BCMU_007_V00_V01_000_10

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General and Output values	
Manufacturer	Sungrow Power Supply Co., Ltd.
Type name	SC110CX
No. of phases	3 phases
Rated apparent power	110000 VA
Rated active power	110000 W
Rated AC-voltage	230/400 V _{AC} , 3W+N+PE
Rated frequency	50 Hz
Contribution to short circuit current (RMS)	263.505 A _{AC}
Battery input/output	
Min. Battery voltage	600 V _{DC}
Max. Battery voltage	1000 V _{DC}
Max. Battery current	205.8 A _{DC}
Max. Charge/Discharge power	121000 W
Converter-Power section	
Manufacturer	Sungrow Power Supply Co., Ltd.
Type name	SC110CX
Rated apparent power	110000 VA
Generic type	MV/LV transformer is not included in the inverter
Pulse rated of inverter	16 kHz
Generic type of power control	PQ control
Software version	DSP: MDSP_DIOPSIDE-B_V11_V01_A ARM: LCD_DIOPSIDE-B_V11_V01_A CMU: ARM_BCMU_007_V00_V01_000_10

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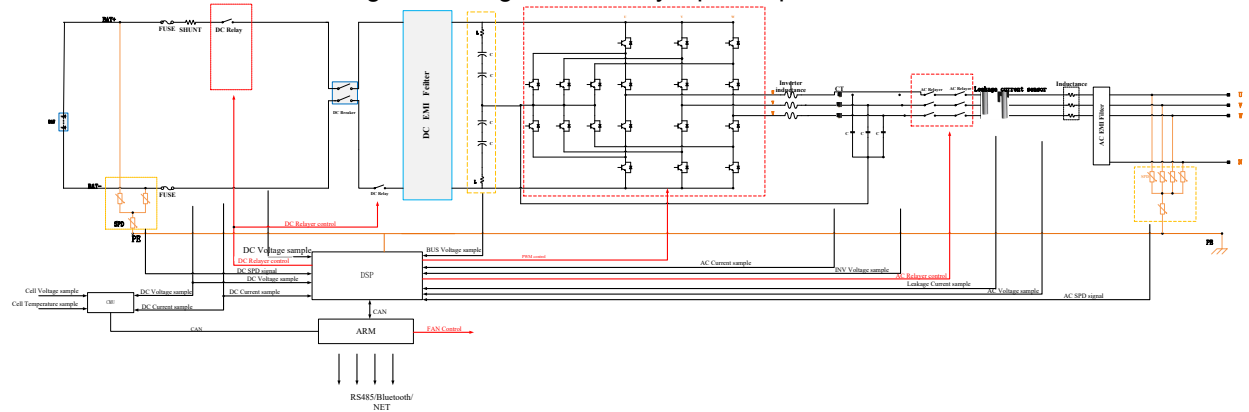
Unit Certificate			
Manufacturer	Sungrow Power Supply Co., Ltd.		
Power generation unit type	Energy Storage Inverter, type 2		
Technical data	Rated active power:	SC125CX	125000 W
		SC110CX	110000 W
	Rated voltage:	230/400 V _{AC}	
	Nominal frequency:	50 Hz	
Network connection rule	VDE-AR-N 4110:2023-09 “TCR Medium-voltage” Technical requirements for the connection and operation of customer installations to the medium voltage network		
Certification program	FGW Technical guideline No 8 (Revision 9)		
Standards/guidelines which are also applicable	FGW Technical guideline No 3 (Revision 26)		
	FGW Technical guideline No 4 (Revision 10)		
<p>The power generating unit designated above meets the requirements of the VDE application guide listed above.</p> <p>The following restriction(s) and deviation(s) apply:</p> <p>The computer simulation model is validated with the built environment DigSilent Powerfactory 2022 SP9 (x64) and with the identity number:</p> <p>1) For the model SC125CX: MD5 code: 4117587CAFD3D1FC9B5A4D9550E5251</p> <p>2) For the model SC110CX: MD5 code: 30970F6818958820F19CC508EAEA35E6</p> <p>The integrated voltage/frequency protection is provided but without test terminal strips for function tests on-site for power generation system according to Clause 6.3.4.5 of VDE-AR-N 4110:2023. The coupling switch for the integrated voltage/frequency protection mentioned above is realized with AC relays and solid state switches in the inverter to achieve the rated switching capacity. It should be considered during the planning of power generation system.</p> <p>The manufacturer has provided proof of certification of the quality management system of his production facility in accordance with ISO 9001.</p>			
<p>The certificate includes the following:</p> <ul style="list-style-type: none">– technical data of the power generating unit, the auxiliary equipment used and the software version used (See Page 2 to 3);– schematic set-up of the power generation unit (See Page 5 to 6);– summarized information on the properties of the power generating unit (Technical report 64.290.24.31243.01 for the full evaluation according to FGW TR8 guideline).			
Certificate expiry date	2030-03-27		

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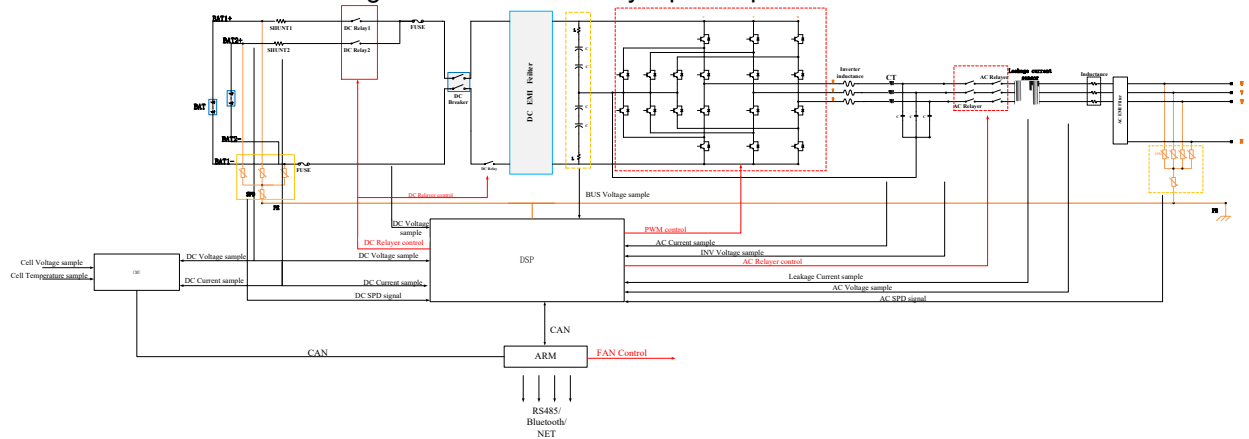
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Schematic design of the power generation unit

Schematic overview circuit diagram of single DC battery input/output branch version inverters:



Schematic overview circuit diagram of two DC battery input/output branches version inverters:



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Function module and control signal of DSP & ARM & CMU:

