

Dichiarazione di conformità CEI-021

Tipo di dispositivo indicato nella dichiarazione						
Produttore	Sineng Electric Co., Ltd. 6, Hehui Road, Huishan Economic Development Zone, Wuxi, Cina					
Tipo di dispositivo	Dispositivo di conversione statica					
Modello	SN12PT-X	SN15PT	SN17PT	SN20PT	SN23PT	SN25PT
Firmware	V000B045D000					
Numero di fasi	3/N/PE 230/400V, 50Hz					
Potenza nominale in kW	12kW	15kW	17kW	20kW	23kW	25kW
Corrente di cortocircuito (I _{cc} [A])	43A	43A	43A	43A	43A	43A
Potenza massima in termini di energia solare (kW)	18kW	22.5kW	25kW	30kW	34.5kW	37.5kW
Corrente nominale (I _n [A])	17.3A	21.6A	24.5A	28.9A	33.2A	36.1A
Compatibilità dei sistemi di archiviazione	Non applicabile					

Nota:

Il dispositivo può limitare il IdC al 0,5% della corrente nominale.

L'inverter è adatto a sistemi di qualsiasi potenza.

Riferimenti normativi e laboratori che hanno effettuato i test	
Standard e numero del certificato:	CEI 0-21:2022 CEI 0-21/V1:2022 CEI 0-21/V2:2024 Numero del certificato: 6216421.01COC, data 2025-03-03 Numero del rapporto: 6216421.50, data: 2025-03-03
Riferimento: ente di certificazione:	DEKRA Testing and Certification (Shanghai) Ltd. • No.250, Jiangchangshan Road, Jing'an District, Shanghai, 200436 • Cina

Caratteristiche tecniche del DDI (Dispositivo per Interfaccia Diretta) *	
Brand	Songchuan
Modello	220BH-1AHT-F-C M03
Tipo	Rilevatore di trasmissione (Relay)
Numero	6
operazione interblocco	No
Standard di riferimento	CEI-021; CEI EN 61810-1

Il dispositivo è completamente integrato nell'inverter.

Caratteristiche tecniche del sistema SPI (System Interface Protection)		
Modelli	SN12PT-X, SN15PT, SN17PT, SN20PT, SN23PT, SN25PT	
Firmware	D S P: V000B045D000	A R M: V000B045D000

*** Il dispositivo è completamente integrato nell'inverter**

Nota:

Questa serie di inverter è progettata solo per impianti fotovoltaici e non supporta sistemi di accumulo a batteria.

Dichiarazione di conformità alle normative:

CEI 0-21:2022, CEI 0-21/V1:2022, CEI 0-21/V2:2024

Con la presente dichiarazione, redatta ai sensi dell'articolo 47 DPR n. 445 del 28 dicembre 2000, consapevole delle responsabilità penali e delle sanzioni previste dall'articolo 76 del citato DPR per false attestazioni e dichiarazioni mendaci. Io, il firmatario Zhang Jian, passaporto n.EJ1323114, in qualità di Responsabile dei Prodotti all'estero della Sineng Electric Co., Ltd., con sede a Wuxi, n. 6, via Hehui, Zona di Sviluppo Economico di Huishan, Cina.

Dichiara

Che l'inverter di produzione propria specificato nel punto "Tipo di dispositivo a cui si riferisce la dichiarazione" è conforme ai requisiti stabiliti dalle seguenti norme **CEI 0-21:2022, CEI 0-21/V1:2022, CEI 0-21/V2:2024**

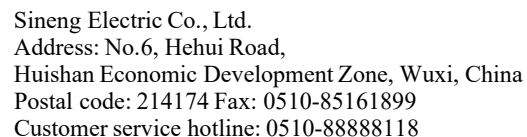
Wuxi, Cina, 11/03/2026

Sineng Electric Co., Ltd.

Responsabile dei prodotti all'estero



NOTA INFORMATIVA IN BASE ALL'ARTICOLO 13 DEL DECRETO LEGISLATIVO 196/2003: I dati sopra indicati sono forniti esclusivamente per l'uso previsto dal procedimento amministrativo per il quale sono stati richiesti ai sensi delle attuali norme giuridiche e possono essere utilizzati esclusivamente a tale scopo specifico.





CERTIFICATE OF CONFORMITY

CERTIFICATO DI CONFORMITÀ

Issued to: SINENG ELECTRIC CO., LTD.
Rilasciato a: No.6, Hehui Road, Huishan District, Wuxi China

For the product: GRID-CONNECTED PV INVERTER
Tipo prodotto:

Trade name:  **SINENG**
Marchio:

Type/Model: SN12PT-X, SN15PT, SN17PT, SN20PT, SN23PT, SN25PT
Riferimento modello:

Ratings: See Annex
Dati di targa:

Manufactured by: SINENG ELECTRIC CO., LTD.
Costruttore: No.6, Hehui Road, Huishan District, Wuxi China

Requirements: CEI 0-21:2022-03+V1:2022-11+V2:2024-01
Requisiti: *Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti BT delle imprese distributrici di energia elettrica*

The tested models are suitable for installation in systems with a total power greater than 11.08 kW.
I modelli testati sono adatti per l'installazione in sistemi con potenza di uscita maggiore di 11.08 kW.
This Test Certificate is granted on account of an examination by DEKRA, the results of which are laid down in a confidential file no. 6216421.50
Il presente certificato è rilasciato a causa di un esame da parte di DEKRA, i cui risultati sono riportati in un file riservato n. 6216421.50

The examination has been carried out on one single specimen of the product. The certificate does not include an assessment of the manufacturer's production. Conformity of his production with the specimen tested by DEKRA is not the responsibility of DEKRA.

L'esame è stato effettuato su un unico esemplare del prodotto. Questo attestato di conformità è rilasciato sulla base dei risultati di prova riferiti nel rapporto sopra menzionato. La valutazione non include una verifica della produzione di serie né del luogo di produzione.

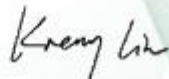
This Test Certificate expires at the latest on 2030-03-03 or expires upon withdrawal of one of the above mentioned standards.

Il presente certificato di prova scade al più tardi il 2030-03-03 o scade al momento del ritiro di uno dei suddetti standard.

Shanghai, 3 March 2025

Certificate Number: 6216421.01COC

DEKRA Testing and Certification (Shanghai) Ltd.


Kreny Lin
Certification Manager

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DEKRA Testing and Certification (Shanghai) Ltd.
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ESA-CER-F021 v4.1



PCA-141

Annex



Document no. : 6216421.01COC

Ratings of the testing Hybrid Inverter:

Valutazioni dell'invertitore ibrido di prova:

Operating temperature range: - 25°C to + 60°C

Protective class: I

Ingress protection rating: IP66

Power factor range (adjustable): 0.8 leading...0.8 lagging

SN12PT-X:

PV input: Max. 1100 Vdc, MPPT voltage range: 140-1000 Vdc, max 32/20 A, Isc PV: 50/25 A

Output: 3/N/PE, 230 Vac / 400 Vac, 50/ 60 Hz, rated 12000 W, max. 13200 VA, max 19.1 A

SN15PT:

PV input: Max. 1100 Vdc, MPPT voltage range: 140-1000 Vdc, max 32/20 A, Isc PV: 50/25 A

Output: 3/N/PE, 230 Vac / 400 Vac, 50/ 60 Hz, rated 15000 W, max. 16500 VA, max 23.9 A

SN17PT:

PV input: Max. 1100 Vdc, MPPT voltage range: 140-1000 Vdc, max 32/32 A, Isc PV: 50/50 A

Output: 3/N/PE, 230 Vac / 400 Vac, 50/ 60 Hz, rated 17000 W, max. 18700 VA, max 27.1 A

SN20PT:

PV input: Max. 1100 Vdc, MPPT voltage range: 140-1000 Vdc, max 32/32 A, Isc PV: 50/50 A

Output: 3/N/PE, 230 Vac / 400 Vac, 50/ 60 Hz, rated 20000 W, max. 22000 VA, max 31.9 A

SN23PT:

PV input: Max. 1100 Vdc, MPPT voltage range: 140-1000 Vdc, max 40/32 A, Isc PV: 50/50 A

Output: 3/N/PE, 230 Vac / 400 Vac, 50/ 60 Hz, rated 23000 W, max. 25300 VA, max 36.7 A

SN25PT:

PV input: Max. 1100 Vdc, MPPT voltage range: 140-1000 Vdc, max 40/32 A, Isc PV: 50/50 A

Output: 3/N/PE, 230 Vac / 400 Vac, 50/ 60 Hz, rated 25000 W, max. 27500 VA, max 39.9 A

Annex



Document no. : 6216421.01COC

Type of generating unit:

Tipologia di apparato:

Static Conversion Device <i>Dispositivo di conversione statica</i>	Interface Protection <i>Protezione di interfaccia</i>	Interface Protection Device <i>Dispositivo di interfaccia</i>	Rotating Generator Device <i>Dispositivo di generazione rotante</i>
Yes/Sì	Yes/Sì	Yes/Sì	No/No

REMARK: the device is capable to limit the I_{dc} to 0.5% of the nominal current

NOTA: Il dispositivo è in grado di limitare la I_{dc} allo 0.5% della corrente nominale

Hardware version: A01

Versione hardware: A01

Software version: A01

Versione software: A01

Testing Laboratory:

Laboratorio prove:

Testing Laboratory for CEI 0-21:2022-03+V1:2022-11+V2:2024-01

DEKRA Testing and Certification (Suzhou) Co., Ltd.

No. 99, Hongye Road, Suzhou Industrial Park Suzhou, 215006, P.R. China

Accreditation Number: L5313 (CNAS-ILAC)

Testing Laboratory for EMC:

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch

5/F & East of 8/F., Communication Building, No.163, Pingyun Road, West of Huangpu Avenue, Guangzhou, China

Accreditation Number: L3584 (CNAS-ILAC)

--- End ---



Test Report issued under the responsibility of:

Page 1 of 140



TEST REPORT CEI 0-21 Reference technical rules for the connection of active and passive users to the LV networks of electrical distribution companies	
Report	
Report Number	6216421.50
Date of issue.....	2025-03-03
Total number of pages	140 pages
Testing Laboratory	
DEKRA Testing and Certification (Suzhou) Co., Ltd.	
Address	No. 99, Hongye Road, Suzhou Industrial Park Suzhou, 215006, P.R. China
Applicant's name	
SINENG ELECTRIC CO., LTD.	
Address	No.6, Hehui Road, Huishan District, Wuxi China
Test specification:	
Standard.....	CEI 0-21:2022-03+V1:2022-11+V2:2024-01
Test procedure	Type test
Non-standard test method.....	N/A
Test Report Form No.	
CEI 0-21_V3.0	
Test Report Form(s) Originator	DEKRA Testing and Certification (Suzhou) Co., Ltd.
Master TRF	Dated 2022-04
Test item description	
GRID-CONNECTED PV INVERTER	
Trade Mark	
Manufacturer	SINENG ELECTRIC CO., LTD.
	No.6, Hehui Road, Huishan District, Wuxi China
Model/Type reference	SN12PT-X, SN15PT, SN17PT, SN20PT, SN23PT, SN25PT

TRF No. CEI 0-21_V3.0

Ratings	Operating temperature range: - 25°C to + 60°C Protective class: I Ingress protection rating: IP66 Power factor range (adjustable): 0.8 leading...0.8 lagging SN12PT-X: PV input: Max. 1100 Vdc, MPPT voltage range: 140-1000 Vdc, max 32/20 A, Isc PV: 50/25 A Output: 3/N/PE, 230 Vac / 400 Vac, 50/ 60 Hz, rated 12000 W, max. 13200 VA, max 19.1 A SN15PT: PV input: Max. 1100 Vdc, MPPT voltage range: 140-1000 Vdc, max 32/20 A, Isc PV: 50/25 A Output: 3/N/PE, 230 Vac / 400 Vac, 50/ 60 Hz, rated 15000 W, max. 16500 VA, max 23.9 A SN17PT: PV input: Max. 1100 Vdc, MPPT voltage range: 140-1000 Vdc, max 32/32 A, Isc PV: 50/50 A Output: 3/N/PE, 230 Vac / 400 Vac, 50/ 60 Hz, rated 17000 W, max. 18700 VA, max 27.1 A SN20PT: PV input: Max. 1100 Vdc, MPPT voltage range: 140-1000 Vdc, max 32/32 A, Isc PV: 50/50 A Output: 3/N/PE, 230 Vac / 400 Vac, 50/ 60 Hz, rated 20000 W, max. 22000 VA, max 31.9 A SN23PT: PV input: Max. 1100 Vdc, MPPT voltage range: 140-1000 Vdc, max 40/32 A, Isc PV: 50/50 A Output: 3/N/PE, 230 Vac / 400 Vac, 50/ 60 Hz, rated 23000 W, max. 25300 VA, max 36.7 A SN25PT: PV input: Max. 1100 Vdc, MPPT voltage range: 140-1000 Vdc, max 40/32 A, Isc PV: 50/50 A Output: 3/N/PE, 230 Vac / 400 Vac, 50/ 60 Hz, rated 25000 W, max. 27500 VA, max 39.9 A
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Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
☒	Testing Laboratory:	DEKRA Testing and Certification (Suzhou) Co., Ltd.
Testing location/ address..... :		No. 99, Hongye Road, Suzhou Industrial Park Suzhou, 215006, P.R. China
☐	Associated Testing Laboratory:	
Testing location/ address..... :		
Tested by (name, function, signature)		Shine Yan (ENG) <i>Shine Yan</i>
Approved by (name, function, signature) .. :		Sandy Qian (ENG) <i>Sandy Qian</i>
☐	Testing procedure: CTF Stage 1:	
Testing location/ address..... :		
Tested by (name, function, signature)		
Approved by (name, function, signature) .. :		
☐	Testing procedure: CTF Stage 2:	
Testing location/ address..... :		
Tested by (name + signature)		
Witnessed by (name, function, signature) .. :		
Approved by (name, function, signature) .. :		
☐	Testing procedure: CTF Stage 3:	
☐	Testing procedure: CTF Stage 4:	
Testing location/ address..... :		
Tested by (name, function, signature)		
Witnessed by (name, function, signature) .. :		
Approved by (name, function, signature) .. :		
Supervised by (name, function, signature) .. :		

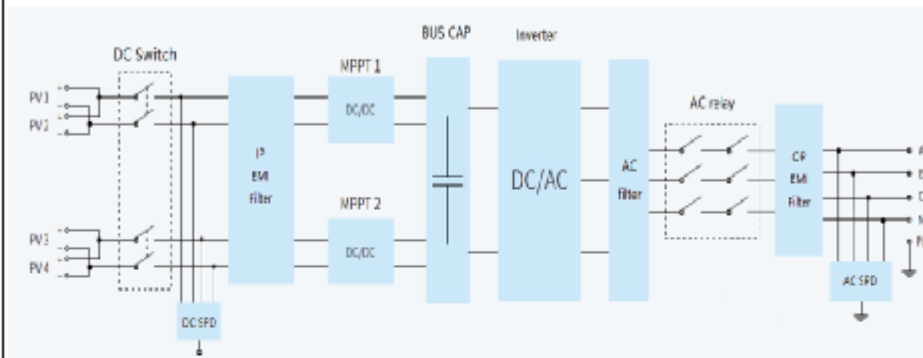
List of Attachments (including a total number of pages in each attachment): Annex 1: ISO 9001 certificate (1 pages) Annex 2: Datasheet of the relay (11 pages) Annex 3: Pictures of the unit (4 pages)	
Summary of testing:	
Tests performed (name of test and test clause):	Testing location:
All tests (except clause 4.6 EMC tests) Amendment 1 Clause B.1.2.5	DEKRA Testing and Certification (Suzhou) Co., Ltd. No.99, Hongye Road, Suzhou Industrial Park, Suzhou, Jiangsu, P.R. China
4.6 EMC tests (The EMC test reports provided by the customer)	TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch 5/F & East of 8/F., Communication Building, No.163, Pingyun Road, West of Huangpu Avenue, Guangzhou, China Report No.: 64.772.23.80020.01 Accreditation Number: L3584 (CNAS-ILAC)

Test item particulars:				
Equipment mobility	movable <u>fixed</u>	hand-held transportable	stationary for building-in	
Connection to the mains	pluggable equipment <u>permanent connection</u>		direct plug-in for building-in	
Environmental category	<u>outdoor</u>	indoor unconditional	indoor conditional	
Over voltage category Mains.....	OVC I	OVC II	<u>OVC III</u>	OVC IV
Over voltage category PV	OVC I	<u>OVC II</u>	OVC III	OVC IV
Mains supply tolerance (%)	-90 / +110 %			
Tested for power systems	TN			
IT testing, phase-phase voltage (V)	N/A			
Class of equipment.....	<u>Class I</u> Not classified	Class II	Class III	
Mass of equipment (kg)	SN12PT-X, SN15PT, SN17PT: 24kg SN20PT, SN23PT, SN25PT: 25kg			
Pollution degree	Outside PD3; Inside PD2			
IP protection class	IP66			
Possible test case verdicts:				
- test case does not apply to the test object				
- test object does meet the requirement.....				
- test object does not meet the requirement				
- this clause is information reference for installation.....				
Testing:				
Date of receipt of test item				
Date (s) of performance of tests				
General remarks:				
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report a ☐ comma / ☒ point is used as the decimal separator. Determination of the test result includes consideration of measurement uncertainty from the test equipment and methods.				
Name and address of factory (ies):				
SINENG ELECTRIC CO., LTD. No.6, Hehui Road, Huishan District, Wuxi China				

General product information:

The PCE under test (EUT) is a three-phase non-isolated (transformerless) Grid-Tied PV Inverter which utilizes the advanced power electronics conversion components to convert the variable DC power generated from the photovoltaic (PV) arrays to the stable utility AC power which can be fed into the commercial electrical grid.

Block Diagram



Model difference:

SN12PT-X, SN15PT, SN17PT, SN20PT, SN23PT, SN25PT are family design products with same hardware and structure except AC current hall sensor and the capacitance of bus capacitor. Output power and current are derated and limited by software.

The product was tested on:

Unless otherwise specified, all tests were performed on the representative model of SN25PT and applicable for other models since they are similar in hardware and just power derating by software.

Hardware version: A01

Software version: V000B045D000

Static Conversion Device	Interface Protection	Interface Protection Device	Rotating Generator Device
Yes	No	No	No

Amendment 1:

The report 6216421.50 was based on the report 6148046.50 issued by DEKRA Testing and Certification (Suzhou) Co., Ltd., issued on 2024-03-25, and COC No.: 6148046.01 issued by DEKRA Testing and Certification (Shanghai) Ltd., issued on 2024-03-26. It was issued due to below modifications:

---Update the standard.

---Update the data of the clause of B.1.2.5.

After technical review, test of clause B.1.2.5 was considered necessary.