

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	SN50PT, SN50PT-B	SN60PT
Firmware	V000B051D008	
Numero di fasi	3/N/PE 230/400V, 50Hz	
Potenza nominale in kW	50kW	60kW
Corrente di cortocircuito (I_{cc} [A])	104.4A	104.4A
Potenza massima in termini di energia solare (kW)	75kW	90kW
Corrente nominale (I_n [A])	72.5A	87A
Compatibilità dei sistemi di archiviazione	Non applicabile	

Nota:

Il dispositivo può limitare il I_{dC} 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 Numero del certificato: No. D 091566 0047 Rev. 00, data 2023-02-20 Numero del rapporto: 70.409.22.302.19-00, data: 2023-02-07
Riferimento: ente di certificazione:	TÜV SÜD Product Service GmbH • Ridlerstraße 65 • 80339 Munich • Germany
Standard e numero del certificato:	CEI 0-16:2022-03 CEI 0-16/V1:2022-11 CEI 0-16/V2:2023-05 Numero del certificato: U24-0559, data 2024-08-05 Numero del rapporto: CMWR-ESH-P23101215, data: 2024-07-25
Riferimento: ente di certificazione:	Bureau Veritas Consumer Products Services Germany GmbH • Businesspark A96 86842 Tuerkheim • Germany

Caratteristiche tecniche del DDI (Dispositivo per Interfaccia Diretta) *	
Brand	Songchuan
Modello	515H-1AH-F-C12
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	SN50PT, SN50PT-B, SN60PT	
Firmware	D S P: V000B051D008	A R M: V000B051D008

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

Dichiarazione di conformità alle normative:

CEI 0-21:2022, CEI 0-16:2022-03, CEI 0-16/V1:2022-11, CEI 0-16/V2:2023-05

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 0-16:2022-03, CEI 0-16/V1:2022-11, CEI 0-16/V2:2023-05**

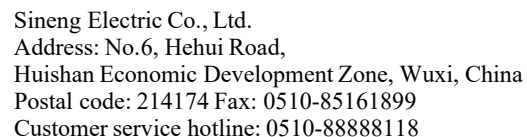
Wuxi, Cina, 11/03/2026

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.





ZERTIFIKAT ♦ CERTIFICATE ♦ 認證證書 ♦ CERTIFICADO ♦ CERTIFICAT

Compliance Document

No. D 091566 0047 Rev. 00

Holder of Certificate: **SINENG ELECTRIC CO.,LTD.**

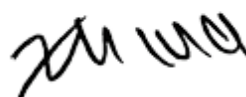
No.6 Hehui Road, Huishan District
214174 Wuxi City
PEOPLE'S REPUBLIC OF CHINA

Product: **Converter**
Grid-connected PV Inverter

This Compliance document confirms the compliance with the listed standards on a voluntary basis. It refers only to the sample submitted for testing and certification and does not certify the quality or safety of the serial products. For details see: www.tuvsud.com/ps-cert

Test report no.: 704092230219-00

Date, 2023-02-20


(Zhengdong Ma)

Compliance Document

No. D 091566 0047 Rev. 00

Model(s): SN50PT, SN50PT-B, SN60PT

Parameters:

The following generators meet the requirements of CEI 0-21:2022		
Section A	Manufacturer	Sineng Electric Co., Ltd. No.6 Hehui Road, Huishan District 214174 Wuxi City PEOPLE'S REPUBLIC OF CHINA
	Equipment type	Grid-Connected PV Inverter
	Brand	SINENG
	Number of phase	☐ Single phase ☒ Three phase Frequency: 50Hz Voltage: 3/N/PE~ 230/400Va.c.
	Primary energy used	☒ Solar ☐ Storage ☐ Wind ☐ Hydroelectric ☐ CHP ☐ Other:
	Generator model	SN50PT-B, SN50PT SN60PT
	Rated power	50kW / 55kVA 60kW / 66kVA
	The generator:	☒ is suitable for installation in systems with an output power of more than 11.08 kW ☒ is capable of limiting Idc to 0.5% of rated current ☒ uses a DC-sensitive protection function ☐ uses a transformer operating at mains frequency
Section B	Characteristics of the interface protection system	
	Manufacturer	--
	Model	--
	Type	☐ Integrated ☒ Not integrated Remark: a dedicated device (protection relay) shall be installed for production plants with a total power exceeding 11.08 kW

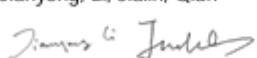
Compliance Document

No. D 091566 0047 Rev. 00

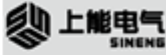
Section C	Characteristics of inverter(s)		
	Model of inverter	SN50PT-B, SN50PT	SN60PT
	Rated power of inverter (P _{NINV})	50kW	60kW
	Manufacturer of inverter	Sineng Electric Co., Ltd.	
	Firmware version	V000B051D008	
Section I	References of the laboratories that performed the tests and their test reports (RdP)		
	Selected method	☑ Tests performed under the supervision of a certification body	
	Test Reports (RdP)	1) Test report according to Annex B: 70.409.22.302.19-00	
	Issued by	Testing lab: Sineng Electric Co., Ltd. Tests performed under supervision of certifier from TÜV SÜD Product Service GmbH	
	Accreditation No.	D-ZE-11321-01-00	
	Accreditation body reference	DAKKS	
Section M	Reference of the certification body		
	Certification Body	TÜV SÜD Product Service GmbH DAKKS accreditation certificate D-ZE-11321-01-00 according to DIN EN ISO/IEC 17065:2013	

**Tested
according to:**

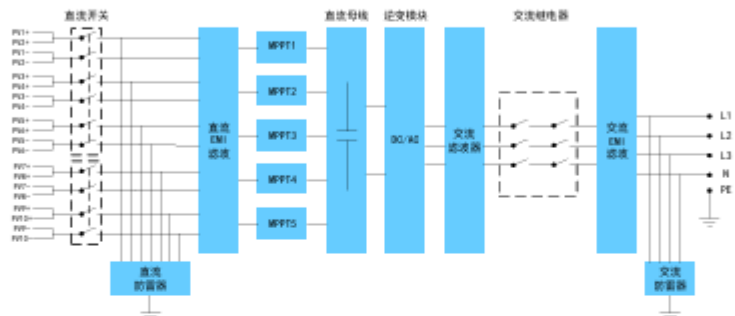
CEI 0-21:2022

TEST REPORT Standard CEI 0-21:2022 Reference technical rules for the connection of active and passive users to the LV electrical Utilities			
Report No.:	70.409.22.302.19-00		
Date of issue:	2023-02-07		
Project handler:	Jialin Qian, Jianyong Li		
Testing laboratory:	TUV SUD New Energy Vehicle Testing (Jiangsu) Co., Ltd.		
Address:	Building A, No.15 Factory, Jintong International Industrial Park, No.8 Xihu Road, Wujin National Hi-tech Industrial Development Zone, Changzhou City, Jiangsu Province, P.R. China		
Testing location:	Sineng Electric Co., Ltd. No.6 Hehui Road, Huishan District 214174 Wuxi City PEOPLE'S REPUBLIC OF CHINA		
Client:	Sineng Electric Co., Ltd.		
Client number:	91566		
Address:	No.6 Hehui Road, Huishan District 214174 Wuxi City PEOPLE'S REPUBLIC OF CHINA		
Contact person:	Mr. Wu Yaping		
Standard:	This TUV SUD test report form is based on the following requirements: CEI 0-21:2022		
TRF number and revision:	TRF CEI 0-21:2022 rev.0 /2022		
TRF originated by:	TUV SUD Product Service, Mr. Kai Zhao		
Copyright blank test report:	This test report is based on the content of the standard (see above). The test report considered selected clauses of the a.m. standard(s) and experience gained with product testing. It was prepared by TUV SUD Product Service. TUV SUD Group takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.		
General disclaimer:	This test report may only be quoted in full. Any use for advertising purposes must be granted in writing. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production.		
Scheme:	☐ TUV Mark ☐ without certification ☐ AoC/CoC for EU-Directive / EU-Regulation: ☐ GS Mark ☐ NRTL Mark ☒ other: Compliance Document		
Non-standard test method:	☒ No ☐ Yes, see details under <i>Summary of testing</i>		
National deviations:	N/A		
Number of pages (Report):	98		
Number of pages (Attachments):	details see page 5		
Compiled by:	Jianyong, Li; Jialin, Qian	Approved by:	Kai Zhao
(+ signature)		(+ signature)	



Test sample:	Engineering sample
Type of test object:	Grid-Connected PV Inverter
Trademark:	
Model and/ or type reference:	SN50PT, SN50PT-B, SN60PT
Rating(s):	See rating labels on page 6 to 7.
Manufacturer:	Sineng Electric Co., Ltd.
Manufacturer number:	91566
Address:	No.6 Hehui Road, Huishan District 214174 Wuxi City PEOPLE'S REPUBLIC OF CHINA
Name and address of factory(ies)	
Factory name: Sineng Electric Co., Ltd.	
Address: No.6 Hehui Road, Huishan District 214174 Wuxi City PEOPLE'S REPUBLIC OF CHINA	
Sub-contractors / tests (clause):	N/A
Name:	N/A
Order description:	☒ Complete test according to TRF
	☐ Partial test according to manufacturer's specifications
	☐ Preliminary test
	☐ Spot check
	☐ Others:
Date of order:	2022-11-08
Date of receipt of test item:	2022-11-08
Date(s) of performance of test:	2022-11-08 to 2023-02-07
Test item particulars:	
Equipment mobility : ☐ movable ☐ hand-held ☐ stationary ☒ fixed ☐ transportable ☐ for building-in	
Connection to the mains..... : ☐ pluggable equipment ☐ direct plug-in ☒ permanent connection ☐ for building-in	
Environmental category..... : ☒ outdoor ☐ indoor unconditional ☐ indoor conditional	
Over voltage category Mains : ☐ OVC I ☐ OVC II ☒ OVC III ☐ OVC IV	
Over voltage category PV : ☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV	
Mains supply tolerance (%) : $\pm 10\%$	
Tested for power systems : TN-C-S	
IT testing, phase-phase voltage (V)..... : - - -	
Class of equipment..... : ☒ Class I ☐ Class II ☐ Class III ☐ Not classified	



Mass of equipment (kg)	Max. 50kg		
Pollution degree	3 (external), 2 (internal)		
IP protection class	IP66		
Purpose of the product (description of intended use): These devices are transformer-less grid-connected PV inverters which converts direct current optimized by photovoltaic DC conditioner to alternating current, and they are intended to be connected in parallel with the low-voltage mains to supply common load. They are intended for professional incorporation into PV system, and they are assessed on a component test basis.			
 Typical application diagram			
Model differences: SN60PT: basic model. SN50PT, SN50PT-B, SN60PT are the same family design products, that share the same control electronics, with the same firmware, with the same construction solutions including the power part, with the same number of phases, with power electronics, filters and transducers sized on different voltage and/or current sizes.. All family design inverters considered as Static Conversion Devices for plant power greater than 11.08 kW.			
DISPOSITIVO DI INTERFACCIA Interface Device	PROTEZIONE DI INTERFACCIA Interface Protection Device	DISPOSITIVO DI CONVERSIONE STATICA Static Conversion Device	DISPOSITIVO DI GENERAZIONE TOTANTE Rotating Device
☐	☐	☒	☐



Product Service

Characteristic data (not shown on the marking plate):

The following generators meet the requirements of CEI 0-21:2022		
Section A	Manufacturer	Sineng Electric Co., Ltd. No.6 Hehui Road, Huishan District 214174 Wuxi City PEOPLE'S REPUBLIC OF CHINA
	Equipment type	Grid-Connected PV Inverter
	Brand	SINENG
	Number of phase	☐ Single phase ☒ Three phase Frequency: 50Hz Voltage: 3/N/PE- 230/400Va.c.
	Primary energy used	☒ Solar ☐ Storage ☐ Wind ☐ Hydroelectric ☐ CHP ☐ Other:
	Generator model	SN50PT-B, SN50PT SN60PT
	Rated power	50kW / 55kVA 60kW / 66kVA
	The generator:	☒ is suitable for installation in systems with an output power of more than 11.08 kW ☒ is capable of limiting Idc to 0.5% of rated current ☒ uses a DC-sensitive protection function ☐ uses a transformer operating at mains frequency
Section B	Characteristics of the interface protection system	
	Manufacturer	--
	Model	--
	Type	☐ Integrated ☒ Not integrated Remark: a dedicated device (protection relay) shall be installed for production plants with a total power exceeding 11.08 kW
Section C	Characteristics of inverter(s)	
	Model of inverter	SN50PT-B, SN50PT SN60PT
	Rated power of inverter (P _{MNV})	50kW 60kW
	Manufacturer of inverter	Sineng Electric Co., Ltd.
	Firmware version	V000B051D008
Section I	References of the laboratories that performed the tests and their test reports (RdP)	
	Selected method	☒ Tests performed under the supervision of a certification body
	Test Reports (RdP)	1) Test report according to Annex B: 70.409.22.302.19-00
	Issued by	Testing lab:

Project No: 70.409.22.302.19-00
Rev.: 00
Date: 2023-02-07
Page: 4 of 98

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<http://www.tuv-sud.cn>

TÜV SÜD New Energy Vehicle Testing (Jiangsu) Co., Ltd.,
TÜV SÜD Group
Building A, No.15 Factory, Jintong International Industrial
Park, No.8 Xihu Road, Wujin National Hi-tech Industrial
Development Zone, Changzhou City, Jiangsu Province,
P.R. China



Section M		Sineng Electric Co., Ltd. Tests performed under supervision of certifier from TÜV SÜD Product Service GmbH			
	Accreditation No.	D-ZE-11321-01-00			
	Accreditation body reference	DAKKS			
	Reference of the certification body				
	Certification Body	TÜV SÜD Product Service GmbH DAKKS accreditation certificate D-ZE-11321-01-00 according to DIN EN ISO/IEC 17065:2013			
Attachments:					
	Item	Description	Certificate No.	Issue by	Model
	1	CE-LVD certificate	AN 50569341	TÜVRh	SN50PT, SN50PT-B, SN60PT
	2	CE-EMC certificate	AE 50571951	TÜVRh	SN50PT, SN50PT-B, SN60PT
If additional information is necessary, please provide					
N/A					
Copy of marking plate:					



Certificato di conformità alle prescrizioni alla Norma CEI 0-16

Nome organismo
certificatore

Bureau Veritas Consumer Products Services Germany GmbH
Accreditamento a DAkKS, D-ZE-12024-01-00, Rif. DIN EN ISO/IEC 17065

Oggetto

CEI 0-16: 2022-03 / V1: 2022-11 / V2: 2023
Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti AT ed MT delle
imprese distributrici di energia elettrica, Allegato N: Prove sui generatori statici, eolici FC e DFIG

Tipologia di apparato cui si riferisce la dichiarazione

Dispositivo di interfaccia	Protezione di interfaccia	Dispositivo di conversione statica	Dispositivo di generazione rotante
		X	

Costruttore

Sineng Electric Co., Ltd.
NO.6, Hehui Road, Huishan District, Wuxi City, Jiangsu Province
P.R.China

Energia primaria utilizzata	Solare			
Tipo apparecchiatura	Inverter Fotovoltaici			
Modello del generatore	SN60PT	SN50PT	SN50PT-B	..
Potenza nominale [kW]	60	50	50	..

Versione firmware

V000B051D008

Numero di fasi

Trifase con neutro / Frequenza 50Hz / Tensione 230/400V

Nota il generatore:

Il dispositivo è idoneo per installazione in impianti con potenza inferiore o uguale a 400 kW
Gli inverter "Sineng Electric Co., Ltd." hanno un limite di potenza apparente massima. Nel caso in cui un impianto debba poter raggiungere in ogni
condizione di lavoro un determinato fattore di potenza, è necessario settare la potenza attiva massima in modo tale, da poter raggiungere in ogni
momento il cos ϕ voluto.

RIFERIMENTI DEI LABORATORI CHE HANNO ESEGUITO LE PROVE:

Bureau Veritas Consumer Products Services Germany GmbH

Accreditamento a DAkKS, D-PL-12024-03-04, Rif. DIN EN ISO/IEC 17025

Esaminato il certificato ISO 9001 del costruttore n°02021Q2114R3M, emesso dal ZDHY. Esaminati i fascicoli prove n°CMWR-ESH-P23101215, emessi dal laboratorio Bureau Veritas Consumer Products Services Germany GmbH. Esaminata la dichiarazione di conformità CE del costruttore con i relativi rapporti di prova n°TW202307-022 emesso dal laboratorio Jiangsu TEM-Wave Testing Service Ltd. con accreditamento riconosciuto da CNAS (n. L15153) Si dichiara che il prodotto indicato è conforme alle prescrizioni CEI 0-16: 2022-03, V1: 2022-11, V2: 2023-05, allegato N.

Numero di certificato: U24-0559

Programma di certificazione:

NSOP-0032-DEU-ZE-V01

Data di emissione: 2024-08-05

Organismo di certificazione


Dominik Kott
Head of Energy Systems



Una rappresentazione parziale del certificato richiede l'approvazione scritta di Bureau Veritas Consumer Products Services Germany GmbH



**Allegato Dichiarazione di conformità alle prescrizioni alla Norma CEI 0-16
 n. U24-0559**

Allegato				
Estratto dal rapporto di prova secondo la norma CEI 0-16			n. CMWR-ESH-P23101215	
CEI 0-16: 2022-03 / V1: 2022-11 / V2: 2023-05				
Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti AT ed MT delle imprese distributrici di energia elettrica, Allegato N: Prove sui generatori statici, eolici FC e DFIG				
Costruttore del convertitore statico	Sineng Electric Co., Ltd. NO.6, Hehui Road, Huishan District, Wuxi City, Jiangsu Province P.R.China			
Caratteristiche del convertitore statico				
Tipo apparecchiatura	Inverter Fotovoltaici			
Modello del convertitore statico	SN60PT	SN50PT	SN50PT-B	..
Ingresso (FV CC)				
Range di tensione MPP [V]	200-1000	200-1000	200-1000	..
Tensione di ingresso max. [V]	1100	1100	1100	..
Corrente d'ingresso max. utilizzabile per inseguitore MPP [A]	32/32/32/32/40	32/32/32/32/32	32/32/32/40	..
Collegamento (CA)				
Tensione nominale CA [V]	3L/N/PE, 230/400 V.a.c., 50/60 Hz	3L/N/PE, 230/400 V.a.c., 50/60 Hz	3L/N/PE, 230/400 V.a.c., 50/60 Hz	..
Corrente d'uscita nominale [A]	87,0	72,5	72,5	..
Corrente d'uscita max. [A]	95,7	79,7	79,7	..
Potenza nominale convertitore (P _{inv}) [W]	60000	50000	50000	..
Potenza apparente nominale convertitore [VA]	66000	55000	55000	..



**BUREAU
VERITAS**

TEST REPORT CEI 0-16

Reference technical rules for the connection of active and passive
users to the HV and MV electrical networks distribution company

Report No.	CMWR-ESH-P23101215
Date of issue	2024-07-25
Total number of pages	134
Testing laboratory name	Bureau Veritas Consumer Products Services Germany GmbH
Address	Businesspark A96 86842 Türkheim Germany
Accreditation	  Deutsche Akkreditierungsstelle D-PL-12024-03-00
Applicant's name	Sineng Electric Co., Ltd.
Address	NO.6, Hehui Road, Huishan District, Wuxi City, Jiangsu Province, P.R.China
Test specification	
Standard	CEI 0-16:2022-03 + V1:2022 + V2:2023 is suitable for installation in systems with an output power of 400 kW or less
Certificate	Certificate of compliance
Template number standard	CEI 0-16_01
Master TRF originator	Bureau Veritas Consumer Products Services Germany GmbH
Test item description	GRID-CONNECTED PV INVERTER
Trademark	 SINENG
Model / Type	SN60PT, SN50PT, SN50PT-B

Bureau Veritas Consumer Products Services Germany GmbH
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 Tel.: +49 (0)40 – 740 41 – 0
 Managing Director: Sebastian Dose / Stefan Kischka
 VAT-No.: DE164793120
 Reg.No.: Schwerin HRB 3554

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 TEMP-0058-TG-EAW-ES-V01



Static converter characteristics			
Static converter model	SN60PT	SN50PT	SN50PT-B
Input (PV DC)			
MPP voltage range [V]	200-1000		
Max. input voltage [V]	1100		
Max. input current per MPP tracker [A]	32/32/32/32/40	32/32/32/32/32	32/32/32/40
AC connection			
Nominal AC voltage [V]	3L/N/PE, 230/400 V a.c., 50/60 Hz		
Rated output current [A]	87,0	72,5	72,5
Max. output current [A]	95,7	79,7	79,7
Nominal output power converter (PNINV) [W]	60000	50000	50000
Rated apparent output power converter [VA]	66000	55000	55000



Testing Location:	Wuxi institute of supervision & testing on product quality.		
Address	No.8 Chun Xin Road, Dong Ting, Wuxi, Jiangsu P.R.CHINA		
Tested by (name, function and signature).....:	Joell Qin	<i>Joell Qin</i>	
Approved by (name, function and signature).....:	Robin Wu	<i>Robin Wu</i>	
Manufacturer's name	Sineng Electric Co., Ltd.		
Factory address:	NO.6, Hehui Road, Huishan District, Wuxi City, Jiangsu Province, P.R.China		

Document History			
Date	Internal reference	Modification / Change / Status	Revision
2024-07-25	Joell Qin	Initial report was written	0
Supplementary information:			



Test items particulars	
Equipment mobility	Permanent connection
Operating condition	Continuous
Class of equipment.....	Class I
Protection against ingress of water.....	IP66 according to EN 60529
Mass of equipment [kg]	50 kg for all models
Test case verdicts	
Test case does not apply to the test object	N/A
Test item does meet the requirement	P(ass)
Test item does not meet the requirement	F(ail)
Testing	
Date of receipt of test item.....	2024-03-15
Date(s) of performance of test.....	2024-03-18 to 2024-05-29