

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	SN100PT, SN100PT-X	SN110PT, SN110PT-B	SN125PT
Firmware	100000001		
Numero di fasi	3/N/PE 230/400V, 50Hz		
Potenza nominale in kW	100kW	110kW	125kW
Corrente di cortocircuito (I _{cc} [A])	216A	216A	216A
Potenza massima in termini di energia solare (kW)	150kW	165kW	187.5kW
Corrente nominale (I _n [A])	144.9A	159.42 A	181.16A
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 0-21:2022-03 CEI 0-21;V1:2022-11 CEI 0-21;V2:2024-01 Numero del certificato: A3 50666690 0001, data 2025-03-10 Numero del rapporto: CN240J39 003, data: 2025-02-27
Riferimento: ente di certificazione:	TÜV Rheinland LGA Products GmbH • Tillystraße 2 • 90431 Nürnberg • Germany
Standard e numero del certificato:	CEI 0-16:2022-03 CEI 0-16;V1:2022-11 CEI 0-16;V2:2023 CEI 0-16;V3:2024-01 Numero del certificato: A3 50666687 0001, data 2025-03-27 Numero del rapporto: CN249OUS 003, data: 2025-05-08
Riferimento: ente di certificazione:	TÜV Rheinland LGA Products GmbH • Tillystraße 2 • 90431 Nürnberg • Germany

Caratteristiche tecniche del DDI (Dispositivo per Interfaccia Diretta) *	
Brand	Hongfa
Modello	HFD3-V12
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	SN100PT, SN110PT, SN110PT-B, SN125PT, SN100PT-X	
Firmware	D S P: 100000001	A R M: 100000001

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

Dichiarazione di conformità alle normative:

CEI 0-21:2022-03, CEI 0-21;V1:2022-11, CEI 0-21;V2:2024-01, CEI 0-16:2022-03, CEI 0-16;V1:2022-11, CEI 0-16;V2:2023,V3:2024-01

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 0-21:2022-03, CEI 0-21;V1:2022-11, CEI 0-21;V2:2024-01, CEI 0-16:2022-03, CEI 0-16;V1:2022-11, CEI 0-16;V2:2023, CEI 0-16;V3:2024-01**

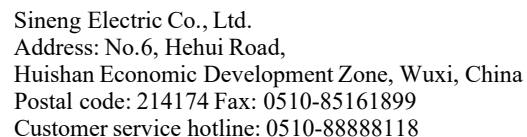
Wuxi, Cina, 11/03/2026

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

Registration No.: A3 50666690 0001

Report No.: CN240J39 003

Holder: **SINENG ELECTRIC CO., LTD.**
No.6, Hehui Road,
Huishan District,
Wuxi
214174 Jiangsu
P.R. China

Product: **PV-Inverter**
(Grid-connected PV inverter)

Identification: Type Designation : SN100PT, SN110PT, SN110PT-B,
SN125PT, SN100PT-X
Software Version : 100000001
Remark : Refer to test report CN240J39 003
for details.

Tested acc. to: CEI 0-21:2022-03
CEI 0-21:V1:2022-11
CEI 0-21:V2:2024-01

The certificate of conformity refers to the above mentioned product. This is to certify that the specimen is in conformity with the assessment requirement mentioned above. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity.

Durch die DAkkS nach
DIN EN ISO/IEC 17065:2013
akkreditierte Zertifizierungsstelle.
Die Akkreditierung gilt nur für den in der
Urkundenanlage D-ZE-14169-01-02
aufgeführten Akkreditierungsumfang.

Certification Body

Date 10.03.2025


A. Chen



TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

www.tuv.com

 **TÜVRheinland®**
Precisely Right.

OGGETTO: Dichiarazione di conformità alla normative CEI 0-21:2022-03, CEI 0-21; V1:2022-11, CEI 0-21; V2:2024-01 "Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti BT delle imprese distributrici di energia elettrica"
SUBJECT: Declaration of Conformity to CEI 0-21: 2022-03, CEI 0-21; V1:2022-11, CEI 0-21; V2:2024-01 "Reference technical rules for the connection of active and passive users to the LV electrical Utilities"

Certificate No.: A3 50666690 0001

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TIPOLOGIA DI APPARATO A CUI SI RIFERISCE LA DICHIARAZIONE:
 TYPE OF APPARATUS WHICH THE DECLARATION IS REFERED TO:

DISPOSITIVO DI INTERFACCIA Interface Device	PROTEZIONE DI INTERFACCIA Interface Protection Device	DISPOSITIVO DI CONVERSIONE STATICA Static Conversion Device	DISPOSITIVO DI GENERAZIONE ROTANTE Rotating Device
☐	☐	☒	☐

Costruttore
 Manufacturer

SINENG ELECTRIC CO., LTD.
 No.6, Hehui Road, Huishan District, Wuxi 214174 Jiangsu P.R. China

Modello/Tipo
 Model/Type

Potenza Attiva Nominale (P_{NNV})
 Nominal Power
 [kW]

Max. Potenza Apparente (S_{MAX})
 Maximum Apparent Power
 [kVA]

SN100PT

100

110

SN110PT-B

110

121

SN110PT

110

121

SN125PT

125

137.5

SN100PT-X

100

110

☐ The inverter have a PV input and AC output with the batteries system and it's compliant to Annex A, B and Bbis of standard CEI 0-21
 The nominal charging and discharging power can be reached only according with a minimum number of battery modules connected to the inverter with limitation of the inverter's capability.

Firmware release
 Firmware

100000001

Numero di Fasi
 Number of phases

Trifase / Three phase

Note
 Remarks

Il dispositivo è in grado di limitare la Idc allo 0,5% della corrente nominale.
 The device is capable to limit the Idc to 0.5% of the nominal current.

laboratorio di prova
 Test laboratory

TÜV Rheinland (Shanghai) Co., Ltd.
 Accreditation CNAS no. L3038



Certificate No.: A3 50666690 0001

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Esaminati i Fascicoli Prove N.: CN240J39 003 emesso da TÜV Rheinland (Shanghai) S.r.l.
Having assessed the Test Files N. CN240J39 003 issued by TÜV Rheinland (Shanghai) Co., Ltd.

Si dichiara che i prodotti indicati soddisfano i requisiti della CEI 0-21:2022-03, CEI 0-21: V1:2022-11, CEI 0-21: V2:2024-01 **"Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti BT delle imprese distributrici di energia elettrica"**
We declare that the products indicated meet the requirements laid down by CEI 0-21:2022-03, CEI 0-21: V1:2022-11, CEI 0-21: V2:2024-01 **"Reference technical rules for the connection of active and passive users to the LV electrical UNWires"**

Validità della Dichiarazione
Validity of the Declaration

Questa Dichiarazione è valida per i prodotti indicate, così come descritti nei Fascicoli citati.
Nuovi requisiti o emendamenti a requisiti esistenti, così come modifiche al prodotto, possono implicare nuove verifiche e certificazioni.
This Declaration is valid only for the products indicated herein, as described in the Files mentioned. New requirements or amendment to existing ones, or modifications to the product, may imply re-verification and re-certification.

Datato: 10.03.2025
Date:

Firma: 
Signature: A. Chen



TÜV Rheinland LGA Products GmbH
Am Grauen Stein 29 · 51105 Köln · Germany



Prüfbericht-Nr.: Test report no.:	CN240J39 003	Auftrags-Nr.: Order no.:	168537329	Seite 1 von 144 Page 1 of 144
Kunden-Referenz-Nr.: Client reference no.:	2004599	Auftragsdatum: Order date:	2025-01-24	
Auftraggeber: Client:	SINENG ELECTRIC CO., LTD. No.6, Hehui Road, Huishan District, Wuxi 214174 Jiangsu P.R. China			
Prüfgegenstand: Test item:	Gird-connected PV Inverter			
Bezeichnung / Typ-Nr.: Identification / Type no.:	SN100PT, SN110PT, SN110PT-B, SN125PT, SN100PT-X			
Auftrags-Inhalt: Order content:	A3 approval			
Prüfgrundlage: Test specification:	CEI 0-21:2022-03 CEI 0-21;V1:2022-11 CEI 0-21;V2:2024-01			
Wareneingangsdatum: Date of sample receipt:	2025-01-25			
Prüfmuster-Nr.: Test sample no.:	A003928220			
Prüfzeitraum: Testing period:	2025-01-25 - 2025-02-19			
Ort der Prüfung: Place of testing:	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
erstellt von: created by:	 Theo Tang Project Engineer		genehmigt von: authorized by:	 Allen Hu Authorizer
Datum: Date:	2025-02-27		Ausstellungsdatum: Issue date:	2025-02-27
Stellung / Position:	Project Engineer		Stellung / Position:	Authorizer
Sonstiges / Other:	This report is based on CN240J39 001, CN240J39 002 to update the standard: CEI 0-21;V2:2024-01. This report does not evidence compliance of the provided sample with the relevant standards but only with the referred tests. This test report documents the findings of examination conducted on the delivered product mentioned above only. This report does not entitle the applicant to carry any safety mark on this or similar products. Further for sales or other application purposes of the tested product, any reference to TÜV Rheinland or a test through TÜV Rheinland is only permissible with prior written consent of TÜV Rheinland.			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged			
* Legende: P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet * Legend: P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.				

Prüfbericht-Nr.: CN240J39 003
Test report no.:

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Anmerkungen
 Remarks

1	Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfbedingungen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden. <i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i>
2	Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben. Informationen zur Verifizierung der Authentizität unserer Dokumente erhalten Sie auf folgender Webseite: go.tuv.com/digital-signature <i>As contractually agreed, this document has been signed digitally only. TUV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TUV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged. For information on verifying the authenticity of our documents, please visit the following website: go.tuv.com/digital-signature</i>
3	Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt. <i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.</i> <i>Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i>
4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. <i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i>

TEST REPORT	
☒	CEI 0-21:2022-03
☒	CEI 0-21;V1:2022-11
☒	CEI 0-21;V2:2024-01
Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti BT delle imprese distributrici di energia elettrica <i>/Reference technical rules for the connection of active and passive users to the LV electrical Utilities</i>	
Report reference no.	CN240J39 003
Tested by (name + signature)	See cover page
Approved by (name + signature)	See cover page
Date of issue	See cover page
Total number of pages	See cover page
Testing Laboratory	TÜV Rheinland (Shanghai) Co., Ltd.
Address	No.177, 178, Lane 777 West Guangzhong Road, Jing'an District, Shanghai, China
Applicant's name	SINENG ELECTRIC CO., LTD.
Address	No.6, Hehui Road, Huishan District, Wuxi 214174 Jiangsu P.R. China
Test item description	Gird-connected PV Inverter
Trade Mark	 SINENG
Manufacturer	Same as applicant
Model/Type reference	SN100PT, SN110PT, SN110PT-B, SN125PT, SN100PT-X
Ratings	See following pages.
Sample	N/A
Samples received on	N/A
TUV reference samples	N/A
Samples tested n.	N/A
Testing	
Start Date:	See cover page
End Date:	See cover page
I risultati del rapporto di prova si riferiscono esclusivamente ai campioni sotto test. Senza l'autorizzazione scritta di TÜV Rheinland Italia S.r.l., questo documento può essere riprodotto solo integralmente <i>The results in this Test Report are exclusively referred to the tested samples. Without the written authorization of TÜV Rheinland Italia S.r.l., this document can be reproduced only integrally</i>	

Testing procedure and testing location:	
☒ Testing Laboratory:	TÜV Rheinland (Shanghai) Co., Ltd. No.177, 178, Lane 777 West Guangzhong Road, Jing'an District, Shanghai, China
Testing location/ address	
☐ Associated Laboratory:	
Testing location/ address	
Tested by (name + signature)	
Approved by (+ signature)	
☐ Testing procedure: TMP	
Testing location/ address	
Tested by (name + signature)	
Approved by (+ signature)	
☐ Testing procedure: WMT	
Testing location/ address	
Tested by (name + signature)	
Witnessed by (+ signature)	
Approved by (+ signature)	
☐ Testing procedure: SMT	
Testing location/ address	
Tested by (name + signature)	
Approved by (+ signature)	
Supervised by (+ signature)	
☐ Testing procedure: RMT	
Testing location/ address	
Tested by (name + signature)	
Approved by (+ signature)	
Supervised by (+ signature)	

Reference Standard:

CEI 0-21:2022-03

Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti BT delle imprese distributrici di energia elettrica

/Reference technical rules for the connection of active and passive users to the LV electrical Utilities.

CEI 0-21;V1:2022-11

Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti BT delle imprese distributrici di energia elettrica

/Reference technical rules for the connection of active and passive users to the LV electrical Utilities.

CEI 0-21;V2:2024-01

Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti BT delle imprese distributrici di energia elettrica

/Reference technical rules for the connection of active and passive users to the LV electrical Utilities.

The standard refers to the following standards:

Allienamento al Regolamento UE 2016/631, UE 2016/1388 e UE 2016/1447 (RfG)

/ Allignment with the Regulation UE 2016/631, UE 2016/1388 e UE 2016/1447 (Requirements for Generators - RfG)

CEI EN 60068-2-2:2008-11

Prove ambientali - Parte 2-2: Prove - Prova B: Caldo secco

/Environmental testing - Part 2-2: Tests - Test B: Dry heat

CEI EN 60068-2-78:2002-03

Prove ambientali - Parte 2-78: Prove - Prova Cab: Caldo umido, regime stazionario

/Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state

CEI EN 60068-2-1:2007-11

Prove ambientali - Parte 2-1: Prove - Prova A: Freddo

/Environmental testing - Part 2-1: Tests - Test A: Cold

CEI EN 60068-2-14:2010

Prove ambientali - Parte 2-14: Prove - Prova N: Cambio di temperatura

/Environmental testing - Part 2-14: Tests - Test N: Change of temperature

CEI EN 60255-5:2001-11

Parte 5: Coordinamento dell'isolamento per i relè di misura e per i dispositivi di protezione

Prescrizioni e prove

/Electrical Relays - Part 5: Insulation coordination for measuring relays and protection equipment – Requirements and tests

CEI EN 61000-3-2:2007-04 + CEI EN 61000-3-2/A1/A2:2011-09

Compatibilità elettromagnetica (EMC)

Parte 3-2: Limiti - Limiti per le emissioni di corrente armonica (apparecchiature con corrente di ingresso ≤ 16 A per fase)

/Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per 1

CEI EN 61000-3-3:2009-09

Compatibilità elettromagnetica (EMC)

Parte 3-3: Limiti - Limitazione delle variazioni di tensioni, fluttuazioni di tensione e del flicker in sistemi di alimentazione in bassa tensione per apparecchiature con corrente nominale ≤ 16 A per fase e non soggette ad allacciamento su condizione

/Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection.

CEI EN 61000-3-12:2012

Compatibilità elettromagnetica (EMC)

Limiti per le correnti armoniche prodotte da apparecchiature collegate alla rete pubblica a bassa tensione aventi correnti di ingresso > 16 A e ≤ 75 A per fase

/ Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)

CEI EN 61000-3-11:2011

Compatibilità elettromagnetica (EMC)

Limitazione delle variazioni di tensione, delle fluttuazioni di tensione e del flicker in sistemi di alimentazione pubblici a bassa tensione - Apparecchiature con correnti nominali < 75 A e soggetti ad allacciamento su condizione

/ Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection

CEI EN 60146-1-1:1997 + A1:1998

Convertitori a semiconduttori - Prescrizioni generali e convertitori commutati dalla linea

Prove di isolamento (§ 4.2.1).

/ Semiconductor converters - General requirements and line commutated converters - Part 1-1: Specification of basic requirements

Insulation tests (§. 4.2.1).

Document not attached recalled into this test report:

Appendix No.	Description	Page(s)
1	Photo documentation	13
2		
3		
4		
5		
6		

Informazioni generali sul prodotto / General product information:	
Product:	☒ Static generator (Photovoltaic grid tied inverter) ☐ Energy Storage System (EES) ☐ Synchronous generator ☐ Asynchronous generator ☐ Wind Full converter (FC) ☐ Wind Doubly Fed Induction Generator
License Holder: Address:	SINENG ELECTRIC CO., LTD. No.6, Hehui Road, Huishan District, Wuxi 214174 Jiangsu P.R. China
Manufacturing plant: Address:	SINENG ELECTRIC CO., LTD. No.6, Hehui Road, Huishan District, Wuxi 214174 Jiangsu P.R. China
Model(s):	For Complete list of product see 'General Product information' Section
N°serie / Serial n°:	N/A
Testing Location: Address:	§. N.1 Esecuzione delle prove – accreditamento N.1 Testing - Accreditation ☒ EA - ISO/EN 17025 testing Laboratory (See testing laboratory address) ☐ Manufacturing Plant / Customer facility EA - ISO/EN 17025 testing Laboratory (witnessing) (see Manufacturing plant address)
Testing Laboratory: Address:	See page 4
Input Voltage (Rated):	See following model list.
Output Voltage (Rated):	See following model list.
Software version:	100000001

Test item particulars:	
Equipment mobility.....:	☒ Stationary ☒ fixed
Connection to the mains.....:	☒ permanent connection
Environmental category.....:	☒ outdoor
Over voltage category Mains.....:	☒ OVC III
Over voltage category PV.....:	☒ OVC II
Mains supply tolerance (%).....:	According to the specified supply range
Tested for power systems.....:	TN
IT testing, phase-phase voltage (V).....:	- - -
Class of equipment.....:	☒ Class I
Pollution degree.....:	☐ PD 1 ☐ PD 2 ☒ PD 3 (internal reduced to PD 2)

Test case verdicts:	
Test case does not apply to the test object.....:	N/A
Test object does meet the requirement.....:	P(Pass)
Test object does not meet the requirement.....:	F(Fail)

Testing:	
Date of receipt of test item.....:	See cover page
Date (s) of performance of tests.....:	See cover page

General remarks:	
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. The test results presented in this report relate only to the items tested. "(see remark #)" refers to a remark appended to the report. "(see annex #)" refers to an annex appended to the report. "(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 point is used as the decimal separator.	

General product information:

DISPOSITIVO DI INTERFACCIA	PROTEZIONE DI INTERFACCIA	DISPOSITIVO DI CONVERSIONE STATICA	DISPOSITIVO DI GENERAZIONE ROTANTE
☐	☐	☒	☐

Description of tested item:
Product Description:

The equipments with model SN100PT, SN110PT, SN110PT-B, SN125PT, SN100PT-X are three-phase public Grid-connected PV inverter, which will be installed and connected to the grid after installation. In final installation the equipment shall be fixed to suitable concrete ground as specified in the installation instruction.

The EUTs contains filters for smoothing the output voltage and for EMC, switching and control circuits. Electronic circuits are mounted on a number of PCBs interconnected by appropriate connectors and wires. Power board including electronics components is mounted on the heat sink to earthing by metal screw and spring washer.

The PV input combine 5 string MPPT tracers for models SN110PT, SN125PT, SN100PT-X and 4 string MPPT tracers for model SN100PT, SN100PT-B, each MPPT tracer including 4 pair of PV input terminals. The AC output direct connected to grid and protective Earthing are provided by dedicated earthing terminals. Grid is protected combination with a two series of relays as redundant build for ensure the inverter can independent disconnected from grid while a relay was fault.

During fault condition defined in this standard, after the DSP receives the abnormal signal from the relevant protective detection circuit, the relays will operate to disconnect the DC active lines from grid automatically. The master DSP and slaver MCU have capacity independently to disconnect from grid, when any grid fault had happened.

Model difference:

The models SN100PT, SN110PT, SN110PT-B, SN125PT, SN100PT-X are same as the construction, hardware and software, expect the components are description as below table and output power is different due to be adjusted by software.

Model	SN100PT	SN110PT-B	SN110PT	SN125PT	SN100PT-X
Difference					
Inverter inductance	154uH		140uH		
Number of MPPT trackers	4		5		

History of amendments and modifications:

Ref. No. CN240J39 001, dated 2024-01-11(Original report)

Ref. No. CN240J39 002, dated 2024-05-13(Add new model)

Description of changes:

1. Update the standard: CEI 0-21;V2:2024-01.

Change	Testing	Comment
1	B.1.2.5	Update the standard: CEI 0-21;V2:2024-01. B.1.2.5 were considered for testing.

Verified Sample:

Descrizione /Description:	Gird-connected PV Inverter
Costruttore / Manufacturer:	SINENG ELECTRIC CO., LTD. No.6, Hehui Road, Huishan District, Wuxi 214174 Jiangsu P.R. China
Modello/ Model	SN100PT, SN110PT, SN110PT-B, SN125PT, SN100PT-X
N°serie / Serial n°	N/A
Number of phases	Three-phase

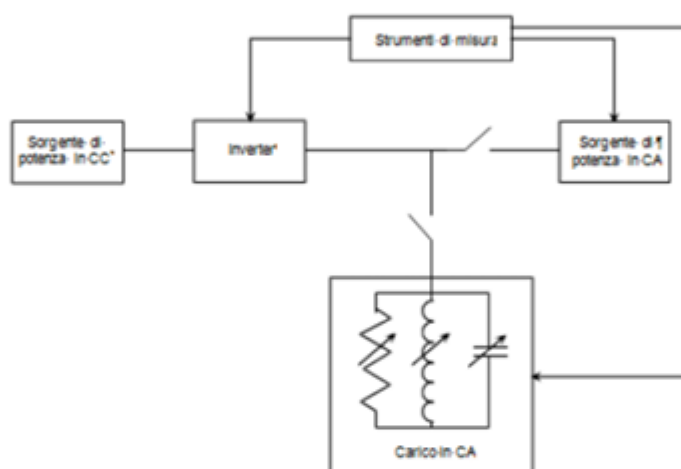
Test Setup:


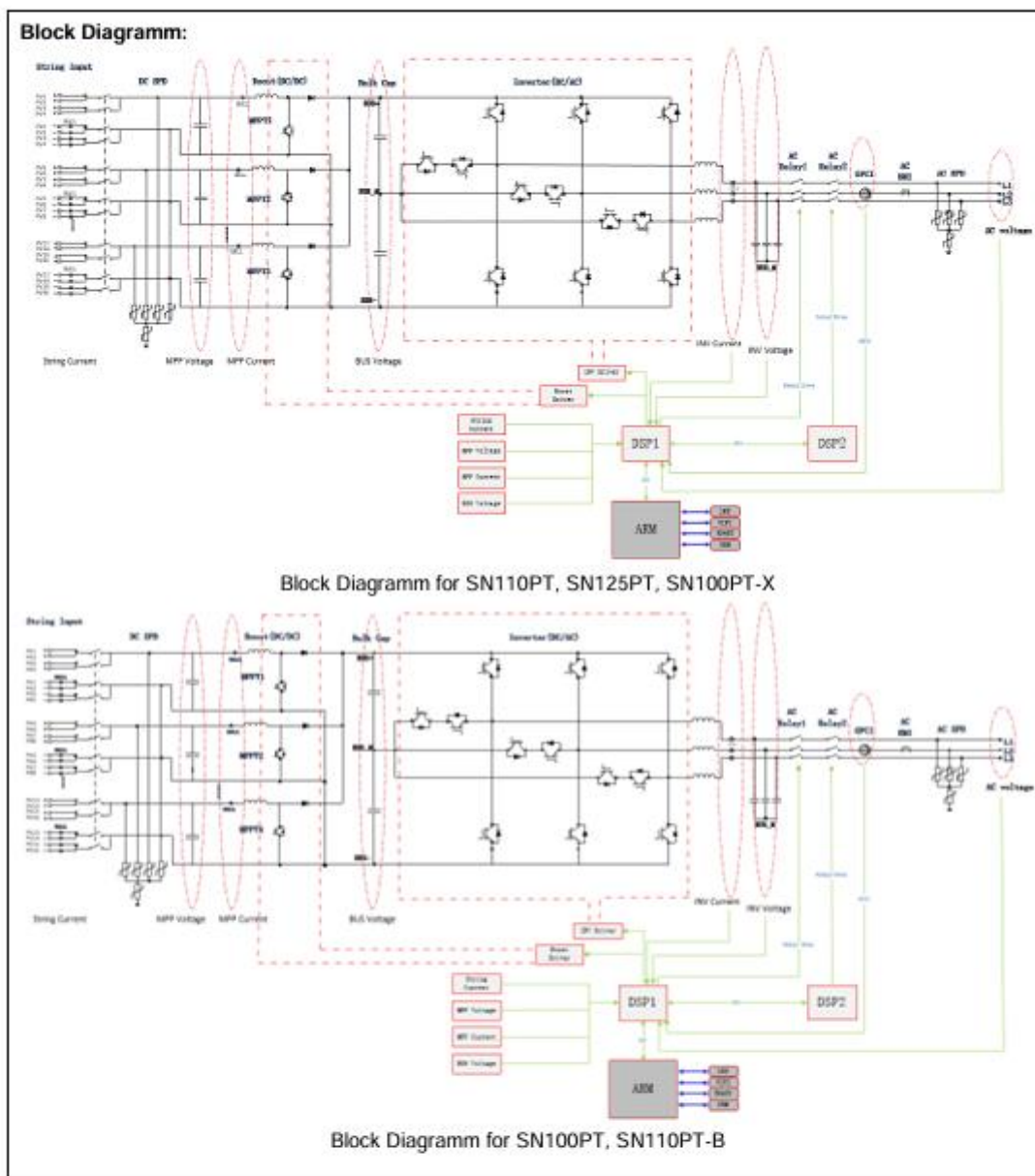
Figura 20 – Simulatore di rete BT

Technical Information:

MODELS LIST		SN100PT	SN110PT-B	SN110PT	SN125PT
PV INPUT	V _{MAX PV} [Vdc]	1100			
	I _{SC PV} [A]	100*4		100*5	
	MPP Voltage Range V _{MPP} [Vdc]	200~1000			
	Full load MPP Voltage Range V _{MPP} [Vdc]	550~850			
	Max. Input Current I _{MAX} [A]	64*4		64*5	
	No.of MPPT trackers	4		5	
	Overvoltage Category (OVC)	II			
	AC OUTPUT	Rated Output Voltage [Vac]	230, 3L+N+PE		
Rated Output Frequency F _n [Hz]		50/60			
Rated Active Power P _n [W]		100000	110000	110000	125000
Max. Active Power P _{E_{max}} [W]		110000	121000	121000	137500
Rated Apparent power S _n [VA]		110000	121000	121000	137500
Max. Apparent power S _{E_{max}} [VA]		110000	121000	121000	137500
Rated Output Current [A]		144.93	159.42	159.42	181.16
Max. Output Current I _{max} [A]		159.42	175.36	175.36	199.28
Power Factor Range cosφ [A]		0.80un...0.80ov			
Overvoltage Category (OVC)	III				
SYSTEM	Hardware version	V02			
	Firmware version	100000001			
	Type of inverter	Non-isolated			
	Type of NS Protection	Integrated			
	Protective Class	Class I			
	Enclosure Protection (IP)	IP66			
	Operating Temperature Range [°C]	-25 to +60			
	Pollution degree (PD)	PD3(External), PD2(Internal)			
	Altitude [m]	4000			
	Size [mm] Width* Height*Depth	1008*700*362			
	Weight [kg]	75			

MODELS LIST		SN100PT-X
PV INPUT	V _{MAX PV} [Vdc]	1100
	I _{SC PV} [A]	100*5
	MPP Voltage Range V _{MPP} [Vdc]	200~1000
	Full load MPP Voltage Range V _{MPP} [Vdc]	550~850
	Max. Input Current I _{MAX} [A]	64*5

	No.of MPPT trackers	5
	Overvoltage Category (OVC)	II
AC OUTPUT	Rated Output Voltage [Vac]	230, 3L+N+PE
	Rated Output Frequency Fn [Hz]	50/60
	Rated Active Power Pn [W]	100
	Max. Active Power PEmax [W]	110
	Rated Apparent power Sn [VA]	110
	Max. Apparent power SEmax [VA]	110
	Rated Output Current [A]	144.9
	Max. Output Current Imax [A]	159.4
	Power Factor Range cosφ [λ]	0.80un...0.80ov
	Overvoltage Category (OVC)	III
SYSTEM	Hardware version	V02
	Firmware version	100000001
	Type of inverter	Non-isolated
	Type of NS Protection	Integrated
	Protective Class	Class I
	Enclosure Protection (IP)	IP66
	Operating Temperature Range [°C]	-25 to +60
	Pollution degree (PD)	PD3(External), PD2(Internal)
	Altitude [m]	4000
	Size [mm] Width* Height*Depth	1008*700*362
	Weight [kg]	75



CERTIFICATE of Conformity

Registration No.: A3 50666687 0001

Report No.: CN249OUS 003

Holder: **SINENG ELECTRIC CO., LTD.**
No.6, Hehui Road,
Huishan District,
Wuxi
214174 Jiangsu
P.R. China

Product: PV-Inverter
(Grid-connected PV inverter)

Identification: Type Designation : SN100PT, SN110PT-B, SN110PT,
SN125PT, SN100PT-X
Firmware Version : 100000001
Remark : Refer to test report CN249OUS 003
for details.

Tested acc. to: CEI 0-16:2022-03
CEI 0-16;V1:2022-11
CEI 0-16;V2:2023
CEI 0-16;V3:2024-01



The certificate of conformity refers to the above mentioned product. This is to certify that the specimen is in conformity with the assessment requirement mentioned above. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity.

Date 27.03.2025

Durch die DAkkS nach
DIN EN ISO/IEC 17065:2013
akkreditierte Zertifizierungsstelle.
Die Akkreditierung gilt nur für den in der
Urkundenanlage D-ZE-14169-01-02
aufgeführten Akkreditierungsumfang.

Certification Body


A. Chen

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

www.tuv.com

 **TÜVRheinland®**
Precisely Right.

OGGETTO: Dichiarazione di conformità alla normativa CEI 0-16:2022-03, CEI 0-16: V1:2022-11, CEI 0-16 V2:2023 e CEI 0-16:V3:2024-01

"Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti AT ed MT delle imprese distributrici di energia elettrica"

SUBJECT: Declaration of Conformity to CEI 0-16: 2022-03, CEI 0-16: V1:2022-11, CEI 0-16 V2:2023 e CEI 0-16:V3:2024-01

"Reference technical rules for the connection of active and passive consumers to the HV and MV electrical networks of distribution Company"

Certificate No.: A3 50666687 0001

Page 1/2

TIPOLOGIA DI APPARATO A CUI SI RIFERISCE LA DICHIARAZIONE:

TYPE OF APPARATUS WHICH THE DECLARATION IS REFERED TO:

DISPOSITIVO DI INTERFACCIA Interface Device	PROTEZIONE DI INTERFACCIA Interface Protection Device	DISPOSITIVO DI CONVERSIONE STATICA Static Conversion Device	DISPOSITIVO DI GENERAZIONE ROTANTE Rotating Device
☐	☐	☒	☐

Costruttore
Manufacturer

SINENG ELECTRIC CO., LTD.
 No.6, Hehui Road, Huishan District, Wuxi 214174 Jiangsu P.R. China

Modello/Tipo
Model/Type

Potenza Attiva Nominale (P_{NINV})
Nominal Power
[kW]

Max. Potenza Apparente (S_{MAX})
Maximum Apparent Power
[kVA]

SN100PT

100

110

SN100PT-X

100

110

SN110PT-B

110

121

SN110PT

110

121

SN125PT

125

137.5

Firmware release
Firmware

100000001

Numero di Fasi
Number of phases

Trifase / Three phase

Potenza massima
dell'impianto di destinazione:
Maximum power of the
destination plant:

☒ $P_{plant} < 400$ kW
☒ $P_{plant} \geq 400$ kW

laboratorio di prova
Test laboratory

TÜV Rheinland (Shanghai) Co., Ltd.
 Accreditation CNAS no. L3038



Certificate No.: A3 50666687 0001

Page 2/2

Esaminati i Fascicoli Prove N.: CN249OUS 003 emesso da TÜV Rheinland (Shanghai) S.r.l.
Having assessed the Test Files N. CN249OUS 003 issued by TÜV Rheinland (Shanghai) Co., Ltd.

Si dichiara che i prodotti indicati soddisfano i requisiti della CEI 0-16:2022-03, CEI 0-16; V1:2022-11, CEI 0-16 V2:2023 e CEI 0-16;V3:2024-01

"Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti AT ed MT delle imprese distributrici di energia elettrica"

We declare that the products indicated meet the requirements laid down by CEI 0-16:2022-03, CEI 0-16; V1:2022-11, CEI 0-16 V2:2023 e CEI 0-16;V3:2024-01

"Reference technical rules for the connection of active and passive consumers to the HV and MV electrical networks of distribution Company"

Validità della Dichiarazione
Validity of the Declaration

Questa Dichiarazione è valida per i prodotti indicate, così come descritti nei Fascicoli citati. Nuovi requisiti o emendamenti a requisiti esistenti, così come modifiche al prodotto, possono implicare nuove verifiche e certificazioni.

This Declaration is valid only for the products indicated herein, as described in the Files mentioned. New requirements or amendment to existing ones, or modifications to the product, may imply re-verification and re-certification.

Datiero: 27.03.2025
Date:

Firma:

Signature:



A. Chen



Prüfbericht - Produkte
Test Report - Products



Prüfbericht-Nr.: Test report no.:	CN249OUS 003	Auftrags-Nr.: Order no.:	168537329	Seite 1 von 121 Page 1 of 121
Kunden-Referenz-Nr.: Client reference no.:	2004599	Auftragsdatum: Order date:	2025-01-24	
Auftraggeber: Client:	SINENG ELECTRIC CO., LTD. No.6, Hehui Road, Huishan District, Wuxi 214174 Jiangsu P.R. China			
Prüfgegenstand: Test item:	Gird-connected PV Inverter			
Bezeichnung / Typ-Nr.: Identification / Type no.:	SN100PT, SN110PT, SN110PT-B, SN125PT, SN100PT-X			
Auftrags-Inhalt: Order content:	A3 approval			
Prüfgrundlage: Test specification:	CEI 0-16:2022-03 CEI 0-16; V1:2022-11 CEI 0-16; V2:2023 CEI 0-16; V3:2024-01			
Wareneingangsdatum: Date of sample receipt:	2025-01-25			
Prüfmuster-Nr.: Test sample no.:	A003928220-001			
Prüfzeitraum: Testing period:	2025-01-25 - 2025-02-19			
Ort der Prüfung: Place of testing:	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
erstellt von: created by:	<i>Qi Liang</i>		genehmigt von: authorized by:	<i>Theo Tang</i>
Datum: Date:	2025-05-08		Ausstellungsdatum: Issue date:	2025-05-08
Stellung / Position:	Qi Liang Project Engineer		Stellung / Position:	Theo Tang Authorizer
Sonstiges / Other:	This report is based on CN249OUS 001, CN249OUS 002 to update the standard.			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged			
* Legende: P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet * Legend: P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.				

Prüfbericht-Nr.: CN249OUS 003
 Test report no.:

Seite 2 von 121
 Page 2 of 121

Anmerkungen
 Remarks

1	Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden. <i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i>
2	Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben. Informationen zur Verifizierung der Authentizität unserer Dokumente erhalten Sie auf folgender Webseite: go.tuv.com/digital-signature <i>As contractually agreed, this document has been signed digitally only. TÜV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TÜV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged. For information on verifying the authenticity of our documents, please visit the following website: go.tuv.com/digital-signature</i>
3	Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt. <i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i>
4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. <i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i>

TEST REPORT	
☒ CEI 0-16:2022-03	
☒ CEI 0-16; V1:2022-11	
☒ CEI 0-16; V2:2023	
☒ CEI 0-16; V3:2024-01	
Reference technical rules for the connection of active and passive consumers to the HV and MV electrical networks of distribution Company	
Report reference no.	CN249OUS 003
Tested by (name + signature).....	See cover page
Approved by (name + signature).....	See cover page
Date of issue.....	See cover page
Total number of pages.....	See cover page
Testing Laboratory	TÜV Rheinland (Shanghai) Co., Ltd.
Address.....	No. 177/178, Lane 777, West Guangzhong Road, Jing'an District, Shanghai 200072, P. R. China
Applicant's name	SINENG ELECTRIC CO., LTD.
Address.....	No.6, Hehui Road, Huishan District, Wuxi 214174 Jiangsu P.R. China
Test item description	Gird-connected PV Inverter
Trade Mark	 SINENG
Manufacturer	Same as applicant
Model/Type reference.....	SN100PT, SN110PT, SN110PT-B, SN125PT, SN100PT-X
Ratings.....	See following pages.
Sample	N/A
Samples received on	N/A
TUV reference samples.....	N/A
Samples tested n.....	N/A
Testing	
Start Date:	See cover page
End Date:	See cover page
I risultati del rapporto di prova si riferiscono esclusivamente ai campioni sotto test. Senza l'autorizzazione scritta di TÜV Rheinland Italia S.r.l., questo documento può essere riprodotto solo integralmente The results in this Test Report are exclusively referred to the tested samples. Without the written authorization of TÜV Rheinland Italia S.r.l., this document can be reproduced only integrally	

Testing procedure and testing location:	
☒ Testing Laboratory:	TÜV Rheinland (Shanghai) Co., Ltd.
Testing location/ address	No. 177/178, Lane 777, West Guangzhong Road, Jing'an District, Shanghai 200072, P. R. China
☐ Associated Laboratory:	
Testing location/ address	
Tested by (name + signature)	
Approved by (+ signature)	
☐ Testing procedure: TMP	
Testing location/ address	
Tested by (name + signature)	
Approved by (+ signature)	
☐ Testing procedure: WMT	
Testing location/ address	
Tested by (name + signature)	
Witnessed by (+ signature)	
Approved by (+ signature)	
☐ Testing procedure: SMT	
Testing location/ address	
Tested by (name + signature)	
Approved by (+ signature)	
Supervised by (+ signature)	
☐ Testing procedure: RMT	
Testing location/ address	
Tested by (name + signature)	
Approved by (+ signature)	
Supervised by (+ signature)	

Reference Standard:

CEI 0-16:2022-03

Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti AT ed MT delle imprese distributrici di energia elettrica

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

CEI 0-16;V1:2022-11

Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti AT ed MT delle imprese distributrici di energia elettrica

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

CEI 0-16;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

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

CEI 0-16;V3:2024-01

Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti AT ed MT delle imprese distributrici di energia elettrica

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

The standard refers to the following standards:

IEC 61400-21:2008-08 Ed.2 (§. 7.4)

Wind turbines

Part 21: Measurement and assessment of power quality characteristics of grid connected wind turbines

FGW TR3

Technical Guidelines for Power Generating Units - Part 3

Determination of electrical characteristics of power generating units connected to MV, HV and EHV grids

Document not attached recalled into this test report:

Appendix No.	Description	Page(s)
1	Photo documentation	13
2		
3		
4		
5		
6		

Test item particulars:	
Equipment mobility.....:	☐ Stationary ☒ Fixed
Connection to the mains.....:	☒ Permanent connection
Environmental category.....:	☒ Outdoor
Over voltage category Mains.....:	☒ OVC III (when used in TT or TN system) ☐ OVC II (when used in IT system)
Over voltage category PV.....:	☒ OVC II
Mains supply tolerance (%).....:	According to the specified supply range
Tested for power systems.....:	TN system
IT testing, phase-phase voltage (V).....:	N/A
Class of equipment.....:	☒ Class I
Mass of equipment (kg).....:	See model list
Pollution degree.....:	III
IP protection class.....:	66
Testing:	
Date of receipt of test item(s).....:	Type Test
Dates tests performed.....:	See cover page
Possible test case verdicts:	
test case does not apply to the test object.....:	N/A
test object does meet the requirement.....:	Pass (P)
test object does not meet the requirement.....:	Fail (F)
General remarks:	
"(see Attachment #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report. The tests 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 testing laboratory. List of test equipment must be kept on file and available for review. Additional test data and/or information provided in the attachments to this report. Throughout this report a point is used as the decimal separator. Definitions: • (RI) Reinforced insulation; (BI) Basic insulation; (FI) Functional Insulation	

General Product information:
Product Description:

The equipments with model SN100PT, SN110PT, SN110PT-B, SN125PT, SN100PT-X are three-phase public Grid-connected PV inverter, which will be installed and connected to the grid after installation. In final installation the equipment shall be fixed to suitable concrete ground as specified in the installation instruction.

The EUTs contains filters for smoothing the output voltage and for EMC, switching and control circuits. Electronic circuits are mounted on a number of PCBs interconnected by appropriate connectors and wires. Power board including electronics components is mounted on the heat sink to earthing by metal screw and spring washer.

The PV input combine 5 string MPPT tracers for models SN110PT, SN125PT, SN100PT-X and 4 string MPPT tracers for model SN100PT, SN110PT-B, each MPPT tracer including 4 pair of PV input terminals. The AC output direct connected to grid and protective Earthing are provided by dedicated earthing terminals. Grid is protected combination with a two series of relays as redundant build for ensure the inverter can independent disconnected from grid while a relay was fault.

During fault condition defined in this standard, after the DSP receives the abnormal signal from the relevant protective detection circuit, the relays will operate to disconnect the DC active lines from grid automatically.

The master DSP and slaver MCU have capacity independently to disconnect from grid, when any grid fault had happened.

Model difference:

The models SN100PT, SN110PT, SN110PT-B, SN125PT, SN100PT-X are same as the construction, hardware and software, except the components are description as below table and output power is different due to be adjusted by software.

Model	SN100PT	SN110PT-B	SN110PT	SN125PT	SN100PT-X
Difference					
Inverter inductance	154uH		140uH		
Number of MPPT trackers	4		5		

History of amendments and modifications:

Ref. No. CN249OUS 001, dated 2024-01-11(Original report)

Ref. No. CN249OUS 002, dated 2024-05-13(Add new model)

Description of changes:

1. Update the standard.

Change	Testing	Comment
1	N.6.3	Update the standard. N.6.3 were considered for testing.

Informazioni generali sul prodotto / General product information:	
Product:	☒ Static generator (Solar Grid tied inverter) ☐ Wind Full converter (FC) ☐ Wind Doubly Fed Induction Generator ☐ Energy Storage System
License Holder: Address:	SINENG ELECTRIC CO., LTD. No.6, Hehui Road, Huishan District, Wuxi 214174 Jiangsu P.R. China
Manufacturing plant: Address:	SINENG ELECTRIC CO., LTD. No.6, Hehui Road, Huishan District, Wuxi 214174 Jiangsu P.R. China
Model(s):	For Complete list of product see 'General Product information' Section
N°serie / Serial n°:	A003928220-001
Testing Location: Address:	§. N.1 Esecuzione delle prove – accreditamento N.1 Testing - Accreditation ☒ CEI UNI EN ISO/IEC 17025:2005 testing Laboratory (See testing laboratory address) ☐ Manufacturing Plant / Customer facility CEI UNI EN ISO/IEC 17025:2005 testing Laboratory (see Manufacturing plant address)
Testing Laboratory: Address:	TÜV Rheinland (Shanghai) Co., Ltd. No.177/178, Lane 777, West Guangzhong Road, Jing'an District, Shanghai 200072, P.R. China
Potenza massima dell'impianto di destinazione: Maximum power of the destination plant:	☒ $P_{plant} < 400 \text{ KW} *$ ☒ $P_{plant} \geq 400 \text{ KW} *$ <i>* Only for static generator (wind converter not included)</i>
Input Voltage (Rated):	See following model list.
Output Voltage (Rated):	See following model list.
Firmware version:	100000001

TECHNICAL INFORMATION:					
MODELS LIST		SN100PT	SN110PT-B	SN110PT	SN125PT
PV INPUT	V _{MAX} PV [Vdc]	1100			
	I _{SC} PV [A]	100*4		100*5	
	MPP Voltage Range V _{MPP} [Vdc]	200-1000			
	Full load MPP Voltage Range V _{MPP} [Vdc]	550-850			
	Max. Input Current I _{MAX} [A]	64*4		64*5	
	No.of MPPT trackers	4		5	
	Overvoltage Category (OVC)	II			
AC OUTPUT	Rated Output Voltage [Vac]	230, 3L+N+PE			
	Rated Output Frequency F _n [Hz]	50/60			
	Rated Active Power P _n [W]	100000	110000	110000	125000
	Max. Active Power P _E max [W]	110000	121000	121000	137500
	Rated Apparent power S _n [VA]	100000	110000	110000	125000
	Max. Apparent power S _E max [VA]	110000	121000	121000	137500
	Rated Output Current [A]	144.93	159.42	159.42	181.16
	Max. Output Current I _{max} [A]	159.42	175.36	175.36	199.28
	Power Factor Range cosφ [A]	0.80un...0.80ov			
	Overvoltage Category (OVC)	III			
SYSTEM	Hardware version	V02			
	Firmware version	100000001			
	Type of inverter	Non-isolated			
	Type of NS Protection	Integrated			
	Protective Class	Class I			
	Enclosure Protection (IP)	IP66			
	Operating Temperature Range [°C]	-25 to +60			
	Pollution degree (PD)	PD3(External), PD2(Internal)			
	Altitude [m]	4000			
	Size [mm] Width* Height*Depth	1008*700*362			
	Weight [kg]	75			

MODELS LIST		SN100PT-X
PV INPUT	V _{MAX} PV [Vdc]	1100
	I _{SC} PV [A]	100*5
	MPP Voltage Range V _{MPP} [Vdc]	200-1000
	Full load MPP Voltage Range V _{MPP} [Vdc]	550-850
	Max. Input Current I _{MAX} [A]	64*5

	No. of MPPT trackers	5
	Overvoltage Category (OVC)	II
AC OUTPUT	Rated Output Voltage [Vac]	230, 3L+N+PE
	Rated Output Frequency Fn [Hz]	50/60
	Rated Active Power Pn [W]	100000
	Max. Active Power PEmax [W]	110000
	Rated Apparent power Sn [VA]	100000
	Max. Apparent power SEmax [VA]	110000
	Rated Output Current [A]	144.9
	Max. Output Current Imax [A]	159.4
	Power Factor Range cosφ [λ]	0.80un...0.80ov
	Overvoltage Category (OVC)	III
SYSTEM	Hardware version	V02
	Firmware version	100000001
	Type of inverter	Non-isolated
	Type of NS Protection	Integrated
	Protective Class	Class I
	Enclosure Protection (IP)	IP66
	Operating Temperature Range [°C]	-25 to +60
	Pollution degree (PD)	PD3(External), PD2(Internal)
	Altitude [m]	4000
	Size [mm] Width* Height*Depth	1008*700*362
	Weight [kg]	75

