



SolaX Power Network Technology (Zhejiang) Co., Ltd.
No.288,Shizhu Road, Tonglu Economic Development Zone,
Tonglu City, Zhejiang Province, 310000 P. R. CHINA
Tel. +86 571 56260011
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Dichiarazione di conformità alle prescrizioni della Norma CEI 0-21
Declaration of conformity to the requirements of the standard CEI 0-21

TIPOLOGIA DEL SISTEMA DI ACCUMULO CUI SI RIFERISCE LA DICHIARAZIONE:
TYPE OF STORAGE SYSTEM TO WHICH THIS DECLARATION REFERS:

DISPOSITIVO DI INTERFACCIA <i>INTERFACE DEVICE</i>	PROTEZIONE DI INTERFACCIA <i>INTERFACE PROTECTION</i>	DISPOSITIVO DI CONVERSIONE STATICA <i>STATIC CONVERSION DEVICE</i>	DISPOSITIVO DI GENERAZIONE ROTANTE <i>ROTARY GENERATING DEVICE</i>
Sì/Yes	Sì/Yes	Sì/Yes	No

COSTRUTTORE: <i>MANUFACTURER</i>	MODELLO DI INVERTER: <i>INVERTER MODEL</i>	VERSIONE FIRMWARE: <i>FIRMWARE VERSION:</i>	NUMERO DI FASI (monofase/trifase) <i>NUMBER OF PHASE</i>	POTENZA NOMINALE: <i>RATED POWER [W]</i>
SolaX Power Network Technology (Zhejiang) Co., Ltd. No.288,Shizhu Road, Tonglu Economic Development Zone, Tonglu City, Zhejiang Province, 310000 P. R. CHINA	X1-MINI-0.7K-G4	Master : 1.00 Manage:1.00	monofase <i>one-phase</i>	700
	X1-MINI-1.1K-G4			1100
	X1-MINI-1.5K-G4			1500
	X1-MINI-2.0K-G4			2000
	X1-MINI-2.5K-G4			2500
	X1-MINI-3.0K-G4			3000
	X1-MINI-3.3K-G4			3300

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



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Esaminati i Fascicoli Prove n°U23-0228, emessi dal laboratorio BUREAU VEITAS con accreditamento CNAS N. L3038.

Ai sensi dell'articolo 76 del DPR 28 Dicembre 2000, n° 445, il sottoscritto Li Xinfu, in qualità di legale rappresentante di Solax Power Co. Ltd, 288 Shizhu Rd. Tonglu, Zhejiang Province, China, dichiara che il prodotto indicato è conforme alle prescrizioni CEI-0-21: 2022

*Taken into account test report No. U23-0228 issued by test lab BUREAU VEITAS with CNAS accreditation (No. L3038).
According with the article 76 of Italian DPR 28 December 2000, n° 445, the undersigned Li Xinfu, as legal representative of SolaX Power Network Technology (Zhejiang) Co., Ltd., 288 Shizhu Rd. Tonglu, Zhejiang Province, China, herewith declare that the product complies with the requirements of CEI-0-21: 2022*

DATA 21/04/2023
DATE 21/04/2024

FIRMA LEGALE RAPPRESENTANTE
SIGNATURE LEGAL REPRESENTATIVE
Li Xinfu

浙江艾罗网络能源技术股份有限公司
SOLAX POWER NETWORK TECHNOLOGY (ZHEJIANG) CO., LTD.

A handwritten signature in black ink, appearing to be 'Li Xinfu' in Chinese characters, written in a cursive style.

The Ministry of Foreign Affairs of the People's Republic of China requests all civil and military authorities of foreign countries to allow the bearer of this passport to pass freely and afford assistance in case of need.

PEOPLE'S REPUBLIC OF CHINA



类型/Type

國家碼 / Country Code

护照号码/Passport No.

P

CHN

ED5062714

4.5% / Naroc

李新富
LI, XINFU



性別/Sex

国籍/Nationality

出生日期/Date of birth

男/M

中国/CHINESE

12 FEB 1966

出生地点/Place of birth

签发日期/Date of issue

浙江/ZHEJIANG

07 6月/JUN 2018

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有效期至/Date of expiry

浙江/ZHEJIANG

06 6月/JUN 2028

審定机关 / Authority

持照人签名/Beleza's signature

公安部出入境管理局

MPS Exit & Entry Administration

李新富

1367754103

[illegible]

ED50627148CHN6602129M2806066MA00NAMCLILLA930



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Certificate of compliance

with the requirements of the standard CEI 0-21

Certification
Organization

Bureau Veritas Consumer Products Services Germany GmbH
Accreditation to DAkkS, D-ZE-12024-01-00, ref. to DIN EN ISO/IEC 17065

Standard / Guide

CEI 0-21: 2022-03 / V1: 2022-11
Reference technical rules for the connection of active and passive users to the LV electrical Utilities,
Annex A: Features and tests for the System Protection Interface (SPI), Annex B: Testing of
generators connected to the grid via static converters

Type Of System Declared:

Interface Device	Protection Interface	Static Electronic Inverter	Rotating Generation Machine
X	X	X	

Manufacturer SolaX Power Network Technology (Zhe jiang) Co., Ltd.
No.288,Shizhu Road, Tonglu Economic Development Zone,
Tonglu City, Zhejiang Province, 310000
P.R. CHINA

Primary Energy Used	Solar			
Equipment Type	Photovoltaic Inverter			
Generator Model	X1-MINI-0.7K-G4	X1-MINI-1.1K-G4	X1-MINI-1.5K-G4	X1-MINI-2.0K-G4
Rated Power [W]	700	1100	1500	2000
Generator Model	X1-MINI-2.5K-G4	X1-MINI-3.0K-G4	X1-MINI-3.3K-G4	--
Rated Power [W]	2500	3000	3300	--

Firmware Version Master:1.00 Manager:1.00

Phase Number Single Phase / Frequency 50Hz / Voltage 230V

Note:

The device is capable of limiting the Idc to 0,5 % of the rated current.

The device uses a DC-sensitive protection function

The device is for systems up to 11,08kW

The inverters of "SolaX Power Network Technology (Zhe jiang) Co., Ltd." have a maximum apparent power limit. In the case where a system should be able to reach in every working condition a determined power factor, it is necessary to set the maximum active power in such a way, that you can reach at any time the cos ϕ wanted.

REFERENCES OF THE LABORATORIES THAT PERFORMED THE TESTS:

Bureau Veritas Consumer Products Services Germany GmbH
Accreditation to DAkkS, D-PL-12024-03-03, ref. to DIN EN ISO/IEC 17025

After verifying the ISO 9001 of the Manufacturer with No. 15/22Q0689R00, issued by Hangzhou WT Assesment Co., Ltd. and verifying the test reports according to CEI 0-21 with No. SXP-ESH-P23020040, issued by the laboratory Bureau Veritas Consumer Products Services Germany GmbH and verifying the EMC test report with No. ENB2207270194E00201R, issued laboratory EMTEK (Ningbo) Co., Ltd. accredited by CNAS (No. L6666), the listed product(s) are conform with the requirements according to CEI 0-21:2022:03, V1:2022-11, Annex A and Annex B.

Certificate number: U23-0228

Certification Program:

NSOP-0032-DEU-ZE-V01

Date of issue: 2023-04-21

Certification Body

Georg Lortz



A partial representation of the certificate requires the written approval of Bureau Veritas Consumer Products Services Germany GmbH



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Annex to the Certificate of Compliance to the Requirements of CEI 0-21 n. U23-0228

Annex

Extract from the test report according to CEI 0-21 standard

n. SXP-ESH-P23020040

CEI 0-21: 2022-03 / V1: 2022-11

Reference Technical Rule for the Connection of Active and Passive Users to the LV Networks of Electricity Distribution Companies, Annex A: Features and tests for the System Protection Interface (SPI)

Manufacturer of the System Protection Interface (SPI)	SolaX Power Network Technology (Zhe jiang) Co., Ltd.
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Assigned to generation unit type	X1-MINI-0.7K-G4, X1-MINI-1.1K-G4, X1-MINI-1.5K-G4, X1-MINI-2.0K-G4, X1-MINI-2.5K-G4, X1-MINI-3.0K-G4, X1-MINI-3.3K-G4
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Type	Integrated
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Characteristics of the interface protection system

Temperature Ambient		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [V]	Requested [V] $\pm 1\%$	Detected [ms]	Requested [ms]	Detected	Requested	Detected [ms]	Requested [ms]
Voltage Threshold	Min	195,3	195,5	1490	1500 ± 20	N/A	$1,03 \leq r \leq 1,05$	N/A	$40 \leq tr \leq 100$
	Max	264,7	264,5	198	200 ± 20	N/A	$0,95 \geq r \geq 0,97$	N/A	$40 \leq tr \leq 100$

Temperature -10°C		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [V]	Requested [V] $\pm 1\%$	Detected [ms]	Requested [ms]	Detected	Requested	Detected [ms]	Requested [ms]
Voltage Threshold	Min	195,3	195,5	1490	1500 ± 20	N/A	$1,03 \leq r \leq 1,05$	N/A	$40 \leq tr \leq 100$
	Max	264,7	264,5	198	200 ± 20	N/A	$0,95 \geq r \geq 0,97$	N/A	$40 \leq tr \leq 100$

Temperature +55°C		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [V]	Requested [V] $\pm 1\%$	Detected [ms]	Requested [ms]	Detected	Requested	Detected [ms]	Requested [ms]
Voltage Threshold	Min	195,3	195,5	1490	1500 ± 20	N/A	$1,03 \leq r \leq 1,05$	N/A	$40 \leq tr \leq 100$
	Max	264,7	264,5	194	200 ± 20	N/A	$0,95 \geq r \geq 0,97$	N/A	$40 \leq tr \leq 100$

Note:

$\leq 1\%$ for the voltage thresholds

$\leq 3\% \pm 20$ ms for the times of intervention

variation of the error during the repetition of the tests

$\leq 2\%$ for the tensions

$\leq 1\% \pm 20$ ms for the times of intervention



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Annex

Extract from the test report according to CEI 0-21 standard

n. SXP-ESH-P23020040

Frequency 49,8Hz ... 50,2Hz

Temperature Ambient		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [Hz]	Requested [Hz] $\pm$ 20 mHz	Detected [ms]	Requested [ms]	Detected	Requested	Detected [ms]	Requested [ms]
Frequency Threshold	Min	49,82	93	97	100 $\pm$ 20 ms	N/A	$1,001 \leq r \leq 1,003$	N/A	$40 \leq tr \leq 100$
	Max	50,20	94	95	100 $\pm$ 20 ms	N/A	$0,997 \geq r \geq 0,999$	N/A	$40 \leq tr \leq 100$
Temperature -25 °C		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [Hz]	Requested [Hz] $\pm$ 20 mHz	Detected [ms]	Requested [ms]	Detected	Requested	Detected [ms]	Requested [ms]
Frequency Threshold	Min	49,82	49,8	90	100 $\pm$ 20 ms	N/A	$1,001 \leq r \leq 1,003$	N/A	$40 \leq tr \leq 100$
	Max	50,20	50,2	99	100 $\pm$ 20 ms	N/A	$0,997 \geq r \geq 0,999$	N/A	$40 \leq tr \leq 100$
Temperature +60 °C		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [Hz]	Requested [Hz] $\pm$ 20 mHz	Detected [ms]	Requested [ms]	Detected	Requested	Detected [ms]	Requested [ms]
Frequency Threshold	Min	49,80	49,8	99	100 $\pm$ 20 ms	N/A	$1,001 \leq r \leq 1,003$	N/A	$40 \leq tr \leq 100$
	Max	50,20	50,2	98	100 $\pm$ 20 ms	N/A	$0,997 \geq r \geq 0,999$	N/A	$40 \leq tr \leq 100$



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Annex to the Certificate of Compliance to the Requirements of CEI 0-21 n. U23-0228

Annex

Extract from the test report according to CEI 0-21 standard

n. SXP-ESH-P23020040

Frequency 47,5Hz ... 51,5Hz

Temperature Ambient		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [Hz]	Requested [Hz] $\pm$ 20 mHz	Detected [ms]	Requested [ms]	Detected	Requested	Detected [ms]	Requested [ms]
Frequency Threshold	Min	47,49	47,5	99	100 $\pm$ 20 ms	N/A	$1,001 \leq r \leq 1,003$	N/A	$40 \leq tr \leq 100$
	Max	51,50	51,5	95	100 $\pm$ 20 ms	N/A	$0,997 \geq r \geq 0,999$	N/A	$40 \leq tr \leq 100$
Temperature -25 °C		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [Hz]	Requested [Hz] $\pm$ 20 mHz	Detected [ms]	Requested [ms]	Detected	Requested	Detected [ms]	Requested [ms]
Frequency Threshold	Min	47,50	47,5	96	100 $\pm$ 20 ms	N/A	$1,001 \leq r \leq 1,003$	N/A	$40 \leq tr \leq 100$
	Max	51,50	51,5	87	100 $\pm$ 20 ms	N/A	$0,997 \geq r \geq 0,999$	N/A	$40 \leq tr \leq 100$
Temperature +60 °C		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [Hz]	Requested [Hz] $\pm$ 20 mHz	Detected [ms]	Requested [ms]	Detected	Requested	Detected [ms]	Requested [ms]
Frequency Threshold	Min	47,50	47,5	97	100 $\pm$ 20 ms	N/A	$1,001 \leq r \leq 1,003$	N/A	$40 \leq tr \leq 100$
	Max	51,50	51,5	98	100 $\pm$ 20 ms	N/A	$0,997 \geq r \geq 0,999$	N/A	$40 \leq tr \leq 100$

Note:

$\pm$ 20 mHz for the frequency thresholds

$\leq 3 \% \pm 20$ ms for the times of intervention

variation of the error during the repetition of the tests

- $\leq 1 \% \pm 20$ ms for the times of intervention



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Extract from the test report according to CEI 0-21 standard

n. SXP-ESH-P23020040

CEI 0-21: 2022-03 / V1: 2022-11

Reference Technical Rule for the Connection of Active and Passive Users to the LV Networks of Electricity Distribution Companies, Annex B: Testing of generators connected to the grid via static converters

Manufacturer of the static converter	SolaX Power Network Technology (Zhe jiang) Co., Ltd. No.288,Shizhu Road, Tonglu Economic Development Zone, Tonglu City, Zhejiang Province, 310000 P. R. CHINA
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Characteristics of the static converter

Equipment Type	Photovoltaic inverter			
Static converter model	X1-MINI-0.7K-G4	X1-MINI-1.1K-G4	X1-MINI-1.5K-G4	--
Input PV DC				
MPP voltage range [V]	40-450			--
Max. input voltage [V]	450			--
Max. usable input current for MPP tracker [A]	16			--
Output AC				
Rated AC voltage [V]	220/230/240 Va.c., 50/60 Hz			--
Rated output current [A]	3,1	4,8	6,5	--
Max. output current [A]	3,5	5,5	7,5	--
Nominal converter output (P _{NINV}) [W]	700	1100	1500	--
Rated apparent power [VA]	770	1210	1650	--

Equipment Type	Photovoltaic inverter			
Static converter model	X1-MINI-2.0K-G4	X1-MINI-2.5K-G4	X1-MINI-3.0K-G4	X1-MINI-3.3K-G4
Input PV DC				
MPP voltage range [V]	40-450			
Max. input voltage [V]	450	550	550	550
Max. usable input current for MPP tracker [A]	16			
Output AC				
Rated AC voltage [V]	220/230/240 Va.c., 50/60 Hz			
Rated output current [A]	8,7	10,9	13,1	14,4
Max. output current [A]	10	12,5	15	15
Nominal converter output (P _{NINV}) [W]	2000	2500	3000	3300
Rated apparent power [VA]	2200	2750	3300	3300