



## Dichiarazione di conformità del generatore

<b>Sez A: I seguenti generatori rispettano le prescrizioni della norma CEI 0-21:2022-03</b>			
<b>Costruttore</b>	SMA Solar Technology AG, Sonnenallee 1, 34266 Niestetal, Germany		
<b>Tipo apparecchiatura</b>	Inverter per accumulo di energia		
<b>Marca</b>	Sunny Boy Storage		
<b>N. fasi</b>	Monofase - Frequenza: 50 Hz - Tensione: 230 V		
<b>Energia primaria utilizzata</b>	Accumulo (v. RdP All. Bbis)		
<b>Modello</b>	SBS3.7-10	SBS5.0-10	SBS6.0-10
<b>Potenza nominale</b>	3.680 W	5.000 W	6.000 W
<b>Il generatore</b>	<ul style="list-style-type: none"> <li>• È idoneo per installazione in impianti con potenza superiore a 11,08 kW</li> <li>• È in grado di limitare la Idc allo 0,5% della corrente nominale</li> <li>• Utilizza una funzione di protezione sensibile alla corrente continua</li> <li>• È conforme ai profili di OVRT definiti nel capitolo 8.5.1.</li> </ul>		

<b>Sez. B: Caratteristiche del sistema di protezione di interfaccia</b>			
<b>Costruttore</b>	SMA Solar Technology AG		
<b>Modello</b>	SBS3.7-10	SBS5.0-10	SBS6.0-10
<b>Tipo</b>	Integrata		

<b>Sez. C: Caratteristiche del convertitore statico</b>			
<b>Modello</b>	SBS3.7-10	SBS5.0-10	SBS6.0-10
<b>Costruttore</b>	SMA Solar Technology AG		
<b>Versione FW</b>	3.12.06.R e superiore		
<b>Potenza nominale (<math>P_{NINV}</math>)</b>	3.680 W	5.000 W	6.000 W



<b>Sez. E: Caratteristiche del Sistema di Accumulo (SdA)</b>			
<b>Modello</b>	SBS3.7-10	SBS5.0-10	SBS6.0-10
<b>P<sub>sn</sub> (potenza di scarica nom.)</b>	3.680 W	5.000 W	6.000 W
<b>P<sub>cn</sub> (potenza di carica nom.)</b>	3.680 W	5.000 W	6.000 W
<b>P<sub>smax</sub> (potenza di scarica max.)</b>	3.680 W	5.000 W	6.000 W
<b>P<sub>cmax</sub> (potenza di carica max.)</b>	3.680 W	5.000 W	6.000 W
<b>Tipologia</b>	Bidirezionale		

<b>Sez. E: Batterie utilizzabili con i convertitori statici sopra riportati</b>					
<b>Marca</b>	LG Chem				
<b>Tecnologia</b>	Ioni di Litio (Li-Ion)				
<b>Modelli</b>	RESU10M*	RESU10H-C	RESU10H Prime	RESU16H Prime	
<b>CUS (kWh)</b>	9.8	9.8	9.8	16	
<b>Versione firmware BMS</b>	≥1.01.1.R	≥19.18.6.R	≥23.12.0.R	≥23.12.0.R	
<b>N.moduli</b>	2	1	2	2	
<b>Note</b>	Modelli utilizzabili per il collegamento "multistringa" Le batterie non sono integrate nell'inverter e devono essere installate secondo le normative locali. *Data la limitazione massima della potenza, questa batteria è raccomandata con SBS3.7-10				
<b>Marca</b>	BYD Company Limited				
<b>Tecnologia</b>	Ioni di Litio (Li-Ion)				
<b>Modelli</b>	Battery Box HV H5.1	Battery Box HV H6.40	Battery Box HV H7.7	Battery Box HV H9.0	Battery Box HV H10.2
<b>CUS (kWh)</b>	5.12	6.40	7.68	8.96	10.24
<b>Versione firmware BMS</b>	≥3.0004.R				
<b>N.moduli</b>	4	5	6	7	8
<b>Note</b>	Modelli utilizzabili per il collegamento "multistringa" Le batterie non sono integrate nell'inverter e devono essere installate secondo le				



	normative locali.					
<b>Marca</b>	BYD Company Limited					
<b>Tecnologia</b>	Ioni di Litio (Li-Ion)					
<b>Modelli</b>	Battery-Box Premium					
	HVS 5.1 *	HVS 7.7		HVS 10.2		
<b>CUS (kWh)</b>	5,12	7,68		10,24		
<b>Versione firmware BMS</b>	≥BMU 3.13   ≥BMS 3.19					
<b>N.moduli</b>	2	3		4		
<b>Note</b>	Modelli utilizzabili per il collegamento "multistringa" Le batterie non sono integrate nell'inverter e devono essere installate secondo le normative locali. *Data la limitazione massima della potenza, questa batteria è raccomandata con SBS3.7-10.					
<b>Marca</b>	BYD Company Limited					
<b>Tecnologia</b>	Ioni di Litio (Li-Ion)					
<b>Modelli</b>	Battery-Box Premium					
	HVM 8.3 *	HVM 11.0 **	HVM 13.8	HVM 16.6	HVM 19.3	HVM 22.1
<b>CUS (kWh)</b>	8.28	11.04	13.8	16.56	19.32	22.08
<b>Versione firmware BMS</b>	≥BMU 3.13   ≥BMS -3.19					
<b>N.moduli</b>	3	4	5	6	7	8
<b>Note</b>	Modelli utilizzabili per il collegamento "multistringa" Le batterie non sono integrate nell'inverter e devono essere installate secondo le normative locali. *Data la limitazione massima della potenza, questa batteria è raccomandata con SBS3.7-10 **Data la limitazione massima della potenza, questa batteria è raccomandata con SBS3.7-10 e SBS5.0-10					
<b>Marca</b>	BMZ					
<b>Tecnologia</b>	Ioni di Litio (Li-Ion)					
<b>Modelli</b>	Hyperion 3 *	Hyperion 4	Hyperion 5	Hyperion 6		
<b>CUS (kWh)</b>	7.5	10	12.5	15		
<b>Versione firmware BMS</b>	≥0.03.07.R					



N.moduli	3	4	5	6
<b>Note</b>	Le batterie non sono integrate nell'inverter e devono essere installate secondo le normative locali. *Data la limitazione massima della potenza, questa batteria è raccomandata con SBS3.7-10			
<b>Marca</b>	AXITEC Energy			
<b>Tecnologia</b>	Ioni di Litio (Li-Ion)			
<b>Modelli</b>	AXIstorage Li SH 3 Powerpack*	AXIstorage Li SH 4 Powerpack	AXIstorage Li SH 5 Powerpack	AXIstorage Li SH 6 Powerpack
<b>CUS (kWh)</b>	7,5	10	12,5	15
<b>Versione firmware BMS</b>	≥0.03.07.R			
N.moduli	3	4	5	6
<b>Note</b>	Le batterie non sono integrate nell'inverter e devono essere installate secondo le normative locali. *Data la limitazione massima della potenza, questa batteria è raccomandata con SBS3.7-10			

I convertitori statici per accumulo di energia indicati nella Dichiarazione di conformità sono testati ed approvati per il collegamento "multistringa".

Sono quindi idonei a sostenere fino a tre batterie ad alta tensione direttamente ai propri morsetti CC.

Fare riferimento alle "Note" di ciascun modello di batterie per la possibilità di impiego in "multistringa".

Per le modalità di installazione si vedano le istruzioni riportate nei manuali d'uso del prodotto.



<b>Sez. I: Riferimenti dei laboratori che hanno eseguito le prove e dei relativi rapporti di prova</b>	
<b>Metodo prescelto</b>	Prove eseguite da laboratorio accreditato
<b>Rapporti di prova (RdP)</b>	17TH0338-CEI 0-21:2019_1***
<b>Emessi da</b>	Bureau Veritas Consumer Products Services Germany GmbH
<b>N. accreditamento</b>	Accreditamento a DAkkS, D-PL-12024-03-03
<b>Rif. ente accreditamento</b>	Rif. DIN EN ISO / IEC 17025
*** Per la certificazione delle apparecchiature di cui sopra, non è necessario ripetere le prove già effettuate con riferimento alle precedenti edizioni della norma CEI 0-21: 2022-03.	
<b>Sez. L: Dichiarazione di conformità alle prescrizioni CEI 0-21</b>	
Con la presente dichiarazione, redatta ai sensi dell'articolo 47 del DPR 28 dicembre 2000, n° 445, il sottoscritto Sven Bremicker, persona autorizzata ai sensi del §§ 54 segg. HGB della società SMA Solar Technology AG, con sede in Sonnenallee 1, Niestetal, Hessen, Germania,	
<b>DICHIARA</b>	
che i prodotti di propria costruzione sono conformi alle prescrizioni contenute nelle Norme:	
<b>CEI 0-21:2022-03</b>	
Attesta altresì che la produzione dei dispositivi avviene in regime di qualità (secondo ISO 9001, ed. 2000 e s.m.i.)	

Niestetal, 01.09.2022

**SMA Solar Technology AG**

i.V. Sven Bremicker

Head of Technology Development Center

/bk

- UVZ-Nr. 542 für 2022-

I hereby certify, that the above is the true signature, subscribed in my presence, of

**Mr. Sven Bremicker, born on 2th of February 1975  
business address Sonnenallee 1, 34266 Niestetal,  
- personally known by the notary -**

acting on behalf of SMA Solar Technology AG, D-34266 Niestetal Sonnenallee 1  
under the document ZE\_CEI021\_SBS-10\_it\_15 5/5.

I asked Mr. Bremicker whether I or any member of my firm had acted in the matter which is the subject of this instrument, except in a notarial capacity. He replied in the negative. I am able to state as well that I have not been involved in the matter before.

Kassel, 01.09.2022



  
Stephan Keil  
Notary



**BUREAU  
VERITAS**

# Declaration of conformity

## to the requirements of the Standard CEI 0-21

**CERTIFICATION  
ORGANIZATION:**

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

**STANDARD / GUIDE:**

**CEI 0-21: 2019-04**  
**CEI 0-21: V1: 2020-12 Edition December 2020**  
Technical reference rule for the connection of active and passive users to the LV electricity distribution networks of companies

**TYPE OF SYSTEM DECLARED:**

INTERFACE DEVICE	PROTECTION INTERFACE	STATIC ELECTRONIC INVERTER	ROTATING GENERATION MACHINE
X	X	X	

**MANUFACTURER:** **SMA Solar Technology AG**  
Sonnenallee 1  
34266 Niestetal  
Germania

<b>PRODUCT TYPE:</b>	<b>Inverters for storage systems (comply with Annex B bis)</b>		
<b>MODEL:</b>	<b>SBS3.7-10</b>	<b>SBS5.0-10</b>	<b>SBS6.0-10</b>
<b>NOMINAL POWER:</b>	<b>3680W</b>	<b>5000W</b>	<b>6000W</b>

**FIRMWARE VERSION:** **03.12.06.R and above**

**PHASE NUMBER:** **single-phase**

**NOTE:**

The device is able to limit the Idc to 0.5% of the nominal current.

The device is for plants of each power.

The inverters of manufacturer SMA Solar Technology AG 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-phi wanted.

**LABORATORY THAT HAS DONE THE TESTING:**

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

After verifying the ISO 9001 of the Manufacturer with No. 08100971814, issued by TÜV NORD and verifying the test reports according to CEI 0-21 with No. 17TH0338-CEI 0-21:2019\_1, issued by the laboratory Bureau Veritas Consumer Products Services Germany GmbH and verifying the EMC test report with No. SBS6.0-10-MOW-810:LE0918, SBS6.0-MOW-EM-510:LE0918 and SBS6.0-10-MOW-IM-510:LE0418 issued laboratory SMA Solar Technology AG accredited by DAkkS (No. D-PL-12074-01-00), the listed products are conform with the requirements according to CEI 0-21: 2019-04.

**Certificate number:** **U21-0508**

**Certification Program:** **NSOP-0032-DEU-ZE-V01**

**Data of issue:** **2021-06-08**

**Certification body**

Thomas Lammel

Certification body Bureau Veritas Consumer Products Services Germany GmbH accreditation to DIN EN ISO/IEC 17065  
A partial representation of the certificate requires the written approval of Bureau Veritas Consumer Products Services Germany GmbH

**Table Interface Protection System (SPI)**

Extract of the test report

No. 17TH0338-CEI 0-21:2019\_1

**Inverter for storage systems (comply with Annex B bis)**

<b>Manufacturer:</b>	SMA Solar Technology AG Sonnenallee 1 34266 Niestetal Germany		
<b>Model:</b>	SBS3.7-10	SBS5.0-10	SBS6.0-10
<b>Nominal Power[W]:</b>	3680	5000	6000
<b>Firmware version:</b>	03.12.06.R and above		
<b>Number of phases (single-phase/three-phase):</b>	single-phase		

The inverters listed above may be installed with the following batteries:

<b>Manufacturer</b>	LG Chem			
<b>Battery Model</b>	RESU10M*	RESU10H-C	RESU10H Prime	RESU16H Prime
<b>Capacity of each battery module (kWh)</b>	9.8	9.8	9.8	16.0
<b>Number(s) of battery modules recommended by the manufacturer</b>	2	1	2	2

Information:

\*Due to the maximum power limitation this battery is recommended with the SBS3.7-10

<b>Manufacturer</b>	BYD Company Limited			
<b>Battery Model</b>	Battery-Box HV H5.1	Battery-Box HV H6.4	Battery-Box HV H7.7	Battery-Box HV H9.0
<b>Capacity of each battery module (kWh)</b>	5.12	6.40	7.68	8.96
<b>Number(s) of battery modules recommended by the manufacturer</b>	4	5	6	7

<b>Battery Model</b>	Battery-Box HV H10.2	--	--	--
<b>Capacity of each battery module (kWh)</b>	10.24	--	--	--
<b>Number(s) of battery modules recommended by the manufacturer</b>	8	--	--	--

<b>Manufacturer</b>	BYD Company Limited			
<b>Battery Model</b>	HVS 5.1*	HVS 7.7	HVS 10.2	--
<b>Capacity of each battery module (kWh)</b>	5.12	7.68	10.24	--
<b>Number(s) of battery modules recommended by the manufacturer</b>	2	3	4	--

Information:

\*Due to the maximum power limitation this battery is recommended with the SBS3.7-10



Table Interface Protection System (SPI)				
Extract of the test report			No. 17TH0338-CEI 0-21:2019_1	
<b>Manufacturer</b>	BYD Company Limited			
<b>Battery Model</b>	HVM 8.3*	HVM 11.0**	HVM 13.8	HVM 16.6
<b>Capacity of each battery module (kWh)</b>	8.28	11.04	13.8	16.56
<b>Number(s) of battery modules recommended by the manufacturer</b>	3	4	5	6
<b>Battery Model</b>	HVM 19.3	HVM 22.1	--	--
<b>Capacity of each battery module (kWh)</b>	19.32	22.08	--	--
<b>Number(s) of battery modules recommended by the manufacturer</b>	7	8	--	--
Information: *Due to the maximum power limitation this battery is recommended with the SBS3.7-10 **Due to the maximum power limitation this battery is recommended with the SBS3.7-10 and SBS5.0-10				
<b>Manufacturer</b>	BMZ			
<b>Battery Model</b>	Hyperion 3*	Hyperion 4	Hyperion 5	Hyperion 6
<b>Capacity of each battery module (kWh)</b>	7.5	10	12.5	15
<b>Number(s) of battery modules recommended by the manufacturer</b>	3	4	5	6
Information: *Due to the maximum power limitation this battery is recommended with the SBS3.7-10				
<b>Manufacturer</b>	AXITEC Energy			
<b>Battery Model</b>	AXIstorage Li SH 3 Powerpack*	AXIstorage Li SH 4 Powerpack	AXIstorage Li SH 5 Powerpack	AXIstorage Li SH 6 Powerpack
<b>Capacity of each battery module (kWh)</b>	7.5	10	12.5	15
<b>Number(s) of battery modules recommended by the manufacturer</b>	3	4	5	6
Information: *Due to the maximum power limitation this battery is recommended with the SBS3.7-10				
<b>Note:</b> The batteries are not integrated into the inverter and must be installed according to the local regulations.				



**Table Interface Protection System (SPI)**

Extract of the test report No. 17TH0338-CEI 0-21:2019\_1

**Interface Protection System (SPI)**

Temperature Ambient		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [V]	Requested [V] ± 1%	Detected [ms]	Requested [ms]	Detected	Requested	Detected [ms]	Requested [ms]
Voltage Threshold	Min	195,0	195,5	1506	1500 ± 20	N/A	1,03 ≤ r ≤ 1,05	N/A	40 ≤ tr ≤ 100
	Max	264,5	264,5	206	200 ± 20	N/A	0,95 ≥ r ≥ 0,97	N/A	40 ≤ tr ≤ 100
Temperature -10 °C		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [V]	Requested [V] ± 1%	Detected [ms]	Requested [ms]	Detected	Requested	Detected [ms]	Requested [ms]
Voltage Threshold	Min	194,5	195,5	1507	1500 ± 20	N/A	1,03 ≤ r ≤ 1,05	N/A	40 ≤ tr ≤ 100
	Max	264,0	264,5	207	200 ± 20	N/A	0,95 ≥ r ≥ 0,97	N/A	40 ≤ tr ≤ 100
Temperature +55 °C		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [V]	Requested [V] ± 1%	Detected [ms]	Requested [ms]	Detected	Requested	Detected [ms]	Requested [ms]
Voltage Threshold	Min	194,5	195,5	1507	1500 ± 20	N/A	1,03 ≤ r ≤ 1,05	N/A	40 ≤ tr ≤ 100
	Max	264,5	264,5	207	200 ± 20	N/A	0,95 ≥ r ≥ 0,97	N/A	40 ≤ tr ≤ 100

**Note:**  
 ≤ 1 % for the voltage thresholds  
 ≤ 3 % ± 20 ms for the times of intervention  
 variation of the error during the repetition of the tests  
 ≤ 2 % for the tensions  
 ≤ 1 % ± 20 ms for the times of intervention



**Table Interface Protection System (SPI)**

Extract of the test report

No. 17TH0338-CEI 0-21:2019\_1

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

Temperature Ambient		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [Hz]	Requested [Hz] ± 20 mHz	Detected [ms]	Requested [ms]	Detected	Requested	Detected [ms]	Requested [ms]
Frequency Threshold	Min	49,79	49,8	97	100 ± 20 ms	N/A	1,001 ≤ r ≤ 1,003	N/A	40 ≤ tr ≤ 100
	Max	50,20	50,2	95	100 ± 20 ms	N/A	0,997 ≥ r ≥ 0,999	N/A	40 ≤ tr ≤ 100

Temperature -10 °C		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [Hz]	Requested [Hz] ± 20 mHz	Detected [ms]	Requested [ms]	Detected [Hz]	Requested [Hz] ± 20 mHz	Detected [ms]	Requested [ms]
Frequency Threshold	Min	49,79	49,8	87	100 ± 20 ms	N/A	1,001 ≤ r ≤ 1,003	N/A	40 ≤ tr ≤ 100
	Max	50,20	50,2	96	100 ± 20 ms	N/A	0,997 ≥ r ≥ 0,999	N/A	40 ≤ tr ≤ 100

Temperature +55 °C		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [Hz]	Requested [Hz] ± 20 mHz	Detected [ms]	Requested [ms]	Detected [Hz]	Requested [Hz] ± 20 mHz	Detected [ms]	Requested [ms]
Frequency Threshold	Min	49,79	49,8	98	100 ± 20 ms	N/A	1,001 ≤ r ≤ 1,003	N/A	40 ≤ tr ≤ 100
	Max	50,20	50,2	96	100 ± 20 ms	N/A	0,997 ≥ r ≥ 0,999	N/A	40 ≤ tr ≤ 100

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

Temperature Ambient		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [Hz]	Requested [Hz] ± 20 mHz	Detected [ms]	Requested [ms]	Detected [Hz]	Requested [Hz] ± 20 mHz	Detected [ms]	Requested [ms]
Frequency Threshold	Min	47,49	47,5	103	100 ± 20 ms	N/A	1,001 ≤ r ≤ 1,003	N/A	40 ≤ tr ≤ 100
	Max	51,50	51,5	95	100 ± 20 ms	N/A	0,997 ≥ r ≥ 0,999	N/A	40 ≤ tr ≤ 100

Temperature -10 °C		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [Hz]	Requested [Hz] ± 20 mHz	Detected [ms]	Requested [ms]	Detected [Hz]	Requested [Hz] ± 20 mHz	Detected [ms]	Requested [ms]
Frequency Threshold	Min	47,49	47,5	102	100 ± 20 ms	N/A	1,001 ≤ r ≤ 1,003	N/A	40 ≤ tr ≤ 100
	Max	51,50	51,5	102	100 ± 20 ms	N/A	0,997 ≥ r ≥ 0,999	N/A	40 ≤ tr ≤ 100

Temperature +55 °C		Intervention thresholds		Time of intervention		Reset Ratio		Time of relapse	
		Detected [Hz]	Requested [Hz] ± 20 mHz	Detected [ms]	Requested [ms]	Detected [Hz]	Requested [Hz] ± 20 mHz	Detected [ms]	Requested [ms]
Frequency Threshold	Min	47,49	47,5	102	100 ± 20 ms	N/A	1,001 ≤ r ≤ 1,003	N/A	40 ≤ tr ≤ 100
	Max	51,50	51,5	102	100 ± 20 ms	N/A	0,997 ≥ r ≥ 0,999	N/A	40 ≤ tr ≤ 100

**Nota:**

- ± 20 mHz for the frequency thresholds
- ≤ 3 % ± 20 ms for the times of intervention
- variation of the error during the repetition of the tests
- ≤ 1 % ± 20 ms for the times of intervention

# CERTIFICATE

Management system as per  
**DIN EN ISO 9001 : 2015**

The Certification Body TÜV NORD CERT GmbH hereby confirms as a result of the audit, assessment and certification decision according to ISO/IEC 17021-1:2015, that the organization

**SMA Solar Technology AG**  
Sonnenallee 1  
34266 Niestetal  
Germany



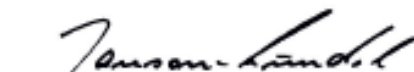
operates a management system in accordance with the requirements of ISO 9001 : 2015 and will be assessed for conformity within the 3 year term of validity of the certificate.

#### Scope

The realization of tasks as well as the production and the distribution of products in the areas of Common Measurement and Close Loop Control Technology, the Microprocessor Technology, the power electronics, the electrical energy power supply as well as the Data System Technology, in particular, in the area of photovoltaic industry. All these activities involve consulting, development, sales and production of software and hardware.

Certificate Registration No. 08 100 971 814  
Audit Report No. 3528 8488

Valid from 2021-10-01  
Valid until 2024-09-30  
Initial certification 1997



Certification Body  
at TÜV NORD CERT GmbH

Essen, 2021-08-10

Validity can be verified at <https://www.tuev-nord.de/de/unternehmen/zertifizierung/zertifikatsdatenbank>.

TÜV NORD CERT GmbH

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45141 Essen

[www.tuev-nord-cert.com](http://www.tuev-nord-cert.com)



Deutsche  
Akkreditierungsstelle  
D-ZM-12007-01-00