

Certificate No.: A3 50555469 0001

# Certyfikat zgodności

<b>Posiadacz licencji:</b> <i>License holder:</i>	FOXESS CO., LTD. No.939, Jinhai Third Road, New Airport Industry Area, Longwan District, Wenzhou, 325025 Zhejiang, P.R. China	
<b>Producent:</b> <i>Manufacturer:</i>	Tak samo jak posiadacz licencji <i>Same as license holder</i>	
<b>Typ produktu:</b> <i>Type of product:</i>	Hybrid Inverter (Power Park Module Type A) <i>Inwerter hybrydowy (moduł Power Park typu A)</i>	
<b>Model:</b> <i>Model:</i>	H1-6.0-E, H1-5.0-E, H1-4.6-E, H1-3.7-E, H1-3.0-E AC1-6.0-E, AC1-5.0-E, AC1-4.6-E, AC1-3.7-E, AC1-3.0-E AIO-H1-6.0, AIO-H1-5.0, AIO-H1-4.6, AIO-H1-3.7, AIO-H1-3.0 AIO-AC1-6.0, AIO-AC1-5.0, AIO-AC1-4.6, AIO-AC1-3.7, AIO-AC1-3.0	
<b>Wersja oprogramowania:</b> <i>Firmware version:</i>	master: V1.47 slave: V1.02 manager: V1.45	
<b>Standard:</b> <i>Standard:</i>	2016/631 EU (NC RfG) Rozporządzenie Komisji (UE) 2016/631 z dnia 14 kwietnia 2016 r. ustanawiające kodeks sieci dotyczący wymogów w zakresie przyłączenia jednostek wytwórczych do sieci, Dz.U. UE z 27.4.2016 L112/1 (NC RfG) PSE 2018-12-18 Wymogi ogólnego stosowania wynikające z Rozporządzenia Komisji (UE) 2016/631 z dnia 14 kwietnia 2016 r. ustanawiającego kodeks sieci dotyczący wymogów w zakresie przyłączenia jednostek wytwórczych do sieci	
<b>Raport nr.:</b> <i>Report No.:</i>	CN22N1IG 001	
<b>Data wydania:</b> <i>Date of issue:</i>	18.08.2022	<b>Data wygaśnięcia:</b> 17.08.2025 <i>Expiry Date:</i>

*This certificate of conformity refers to the above mentioned product acc. to the certification program MS-0022957 Zertifizierung: Grundsätze und Aufgabenbereiche der Zertifizierung (Grid Code Certificate A3), which recognizes requirement for certification bodies as in PTPIREE:2021-04-28: Conditions and procedures for the use of certificates in the process of connecting power generation modules to power grids, and is an ISO/IEC 17067 Type 1a certification scheme. This is to verify that the above identified specimen is in conformity with the assessment requirement mentioned above. This verification does not imply assessment of the manufacturing process and does not permit the use of a TÜV Rheinland mark of conformity.*

  
**Weichun Li**  
Certyfikator



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**Załącznik**  
*Appendix*

<b>Oceny produktów:</b> <i>Product ratings:</i>						
<b>Posiadacz licencji:</b> <i>License holder:</i>		FOXESS CO., LTD. No.939, Jinhai Third Road, New Airport Industry Area, Longwan District, Wenzhou, 325025 Zhejiang, P.R. China				
<b>Producent:</b> <i>Manufacturer:</i>		Tak samo jak posiadacz licencji				
<b>Typ generatora:</b> <i>Generator Type:</i>		Inwerter hybrydowy (moduł Power Park typu A)				
<b>Model:</b> <i>Model:</i>		H1-3.0-E AIO-H1-3.0	H1-3.7-E AIO-H1-3.7	H1-4.6-E AIO-H1-4.6	H1-5.0-E AIO-H1-5.0	H1-6.0-E AIO-H1-6.0
PV INPUT	V <sub>MAX</sub> PV [Vdc]	600				
	I <sub>sc</sub> PV [A]	2*15				
	Max. Input Current I <sub>max</sub> [A]	2*13.5				
	MPP Power Voltage Range [Vdc]	80-550				
	Overvoltage Category (OVC)	II				
BATTERY	Battery type	Lithium-Ion				
	Battery Voltage Range [Vdc]	H1- series: 85-450 AIO-H1- series: 80-233.6				
	Max. Charge Current [A]	40				
	Max. Discharge Current [A]	40				
AC OUTPUT	Rated Output Voltage U <sub>r</sub> [Vac]	220/230/240				
	Rated Output Frequency F <sub>NETZ</sub> [Hz]	50/60				
	Rated Output Power P <sub>E</sub> [kW]	3.0	3.7	4.6	5.0	6.0
	Max. apparent AC power [VA]	3300	4048	5060	5500	6600
	Max. Output Current I <sub>max</sub> [A]	14.4	17.6	22.0	23.9	28.7
	Power Factor cosφ [λ]	[-0.8, +0.8 ]				
	Overvoltage Category (OVC)	III				
AC INPUT	Max. Input Power [VA]	7000	7680	9600	10000	12000
	Max. Input Current [A]	31.8	34.9	43.7	45.5	54.6
	Rated Input Voltage [Vac]	220/230/240				
	Rated Input Frequency [Hz]	50/60				
EPS OUTPUT	Rated Voltage [VA]	220/230/240				
	Max. Output Current [A]	21.7	21.7	26.1	26.1	26.1
	Rated Output Frequency [Hz]	50/60				
	Max. Apparent Power [VA]	5000	5000	6000	6000	6000
<b>Model:</b> <i>Model:</i>		AC1-3.0-E AIO-AC1-3.0	AC1-3.7-E AIO-AC1-3.7	AC1-4.6-E AIO-AC1-4.6	AC1-5.0-E AIO-AC1-5.0	AC1-6.0-E AIO-AC1-6.0
BATTERY	Battery type	Lithium-Ion				
	Battery Voltage Range [Vdc]	AC1- series: 85-450 AIO-AC1- series: 80-233.6				
	Max. Charge Current [A]	40				

	Max. Discharge Current [A]	40				
AC OUTPUT	Rated Output Voltage $U_r$ [Vac]	220/230/240				
	Rated Output Frequency $F_{NETZ}$ [Hz]	50/60				
	Rated Output Power $P_E$ [kW]	3.0	3.7	4.6	5.0	6.0
	Max. apparent AC power [VA]	3300	4048	5060	5500	6600
	Max. Output Current $I_{max}$ [A]	14.4	17.6	22.0	23.9	28.7
	Power Factor $\cos\phi$ [ $\lambda$ ]	[-0.8, +0.8]				
	Overvoltage Category (OVC)	III				
AC INPUT	Max. Input Power [VA]	7000	7680	9600	10000	12000
	Max. Input Current [A]	31.8	34.9	43.7	45.5	54.6
	Rated Input Voltage [Vac]	220/230/240				
	Rated Input Frequency [Hz]	50/60				
EPS OUTPUT	Rated Voltage [VA]	220/230/240				
	Max. Output Current [A]	21.7	21.7	26.1	26.1	26.1
	Rated Output Frequency [Hz]	50/60				
	Max. Apparent Power [VA]	5000	5000	6000	6000	6000

**Description of the structure of the power generation unit:**

*Opis budowy bloku energetycznego:*

Testowany komputer PCE to falownik, który wykorzystuje zaawansowane komponenty do konwersji elektroniki mocy, takie jak MOSFET, IGBT, do konwersji zmiennej mocy prądu stałego generowanego z paneli fotowoltaicznych (PV), a także baterii do stabilnego zasilania sieciowego AC, które może być dostarczane do komercyjna sieć elektryczna.

*The PCE under test is an inverter which utilizes the advanced power electronics conversion components such as MOSFET, IGBT to convert the variable DC power generated from the photovoltaic (PV) arrays as well as batteries to the stable utility AC power which can be fed into the commercial electrical grid.*