

## VERIFICATION OF COMPLIANCE

No.:	GZES2404006349PV
Applicant:	Shenzhen GivEnergy Co., Ltd. 6#-1001, 1002, 1003, 1004, Building 6, Chuangwei Innovation Valley, No. 8 Tangtou 1st Road, Tangtou Community, Shiyan Sub-district, Bao'an District, Shenzhen, China
Manufacturer:	Shenzhen GivEnergy Co., Ltd. 6#-1001, 1002, 1003, 1004, Building 6, Chuangwei Innovation Valley, No. 8 Tangtou 1st Road, Tangtou Community, Shiyan Sub-district, Bao'an District, Shenzhen, China
Product Name:	PV Hybrid inverter
Product Description:	Inverter used in PV system
Model No.:	GIV-3HY-15.0-HV, GIV-3HY-20.0-HV
Trade Mark:	GivEnergy®
Rating:	Refer to page 2
Protection against Electric Shock:	Class I
Degree of Protection:	IP 65
Additional Information:	Software version: ZA1.0 Hardware version: V1.0
Sufficient samples of the product have been tested and found to be in conformity with	
Test Standard:	ENA Engineering Recommendation G99 Issue 1 Amendment 9, 3 October 2022
as shown in the	
Test Report Number(s):	GZES240400634901

This Verification of Compliance has been granted to the applicant based on the results of tests, performed by Laboratory of SGS-CSTC Standards Technical Services Co., Ltd. on sample of the above-mentioned product in accordance with the provisions of the relevant specific standards.

David Guo

Technical Manager

SGS-CSTC Standards Technical Services Co., Ltd.

2024-05-17

This document is issued by the Company under its General Conditions of Service accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS-CSTC Standards Technical Services Co., Ltd.  
16F, Century Yu Hui Mansion, No.73, Fucheng Road, Haidian District, Beijing, 100142, CHINA  
[www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)  
Member of the SGS Group (SGS SA)

No.:

GZES2404006349PV

Other information added:

Rating:

Model	GIV-3HY-15.0-HV	GIV-3HY-20.0-HV
Input Data (PV)		
Max. DC Input Power	22500 W	30000 W
Start-up Voltage	200 V d.c.	
Max. PV Open-circuit Voltage	1000 V d.c.	
Max. PV Short-circuit Current	2*37.5 A d.c.	
Max. PV Input Current	2*30 A d.c.	
PV Input Voltage Range	200~1000 V d.c.	
MPPT voltage range	200~850 V d.c.	
Number of MPPT Trackers	2	
Battery Input		
Battery Type	Li-ion	
Rated Voltage	450 V d.c.	
Operating Voltage Range	200~800 V d.c.	
Rated Charging / Discharging Current	50 A d.c. / 50 A d.c.	
Rated Charging / Discharging Power	15000 W / 15000 W	20000 W / 20000 W
AC Output (Grid)		
Nominal grid voltage	3 W/N/PE, 400/380 V a.c.	
Nominal grid frequency	50 Hz	
Rated AC Output Power	15000 W	20000 W
Max. AC power	15000 V A	20000 V A
Rated Output Current	21.7 A a.c.	29 A a.c.
Power factor range	0.8 lagging-0.8 leading	
Backup (AC)		
Rated AC Output Power	15000 W	20000 W
Rated Apparent power	15000 V A	20000 V A
Nominal AC Voltage	400/380 V a.c.	
Nominal AC Frequency	50 Hz	
Rated Output Current	21.7 A a.c.	29 A a.c.
General Data		
Operating temperature range	-25 °C ~ +60 °C (>45°C derate)	
Protection degree	IP 65	
Protective class	Class I	
Altitude	4000 m (Derating above 2000 m)	
Cooling method	FAN Cooling	
Inverter Topology	Transformerless	

David Guo

Technical Manager

SGS-CSTC Standards Technical Services Co., Ltd.

2024-05-17

This document is issued by the Company under its General Conditions of Service accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS-CSTC Standards Technical Services Co., Ltd.  
16F, Century Yu Hui Mansion, No.73, Fucheng Road, Haidian District, Beijing, 100142, CHINA  
[www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)  
Member of the SGS Group (SGS SA)