

# Certificate

**BRASS & FITTINGS S.L.**  
**AVDA ALCALDE CABALLERO, 16 50014-ZARAGOZA,**  
**SPAIN**

Type of unit	Hybrid Solar Inverter (Type 2)	
Description of unit	GH-IHV 6 2M ADVANCED	
Technical data	Detail see the ANNEX	
Certification scheme	P30VA01 Rev. 11/10.25	TÜV NORD: Certification Process for Grid Integration Certification
Standard	NTS Version 2.1 2021-07 UNE 217002 2020-10	Technical standard for monitoring the conformity of electricity generation modules according to EU Regulation 2016/631. Inverters for connection to the distribution network Testing of requirements for direct current injection into the network, surge generation and islanding detection system.

Certificate Registration No. 44 876 23053403  
Audit Report No. 3542 1199

Valid from 2026-04-24  
Type 1a Certificate

The generating unit complies with the requirements contained in the certification programmer and standards and directives listed above, with restrictions. Further details and technical data can be found in the annex 1, consisting of 5 pages.

Essen, 2026-04-24  
Rev.1.0

*Iris Zhang*

Certification Body at TÜV NORD CERT GmbH



# Annex

to Certificate Registration No. 44 876 23053403

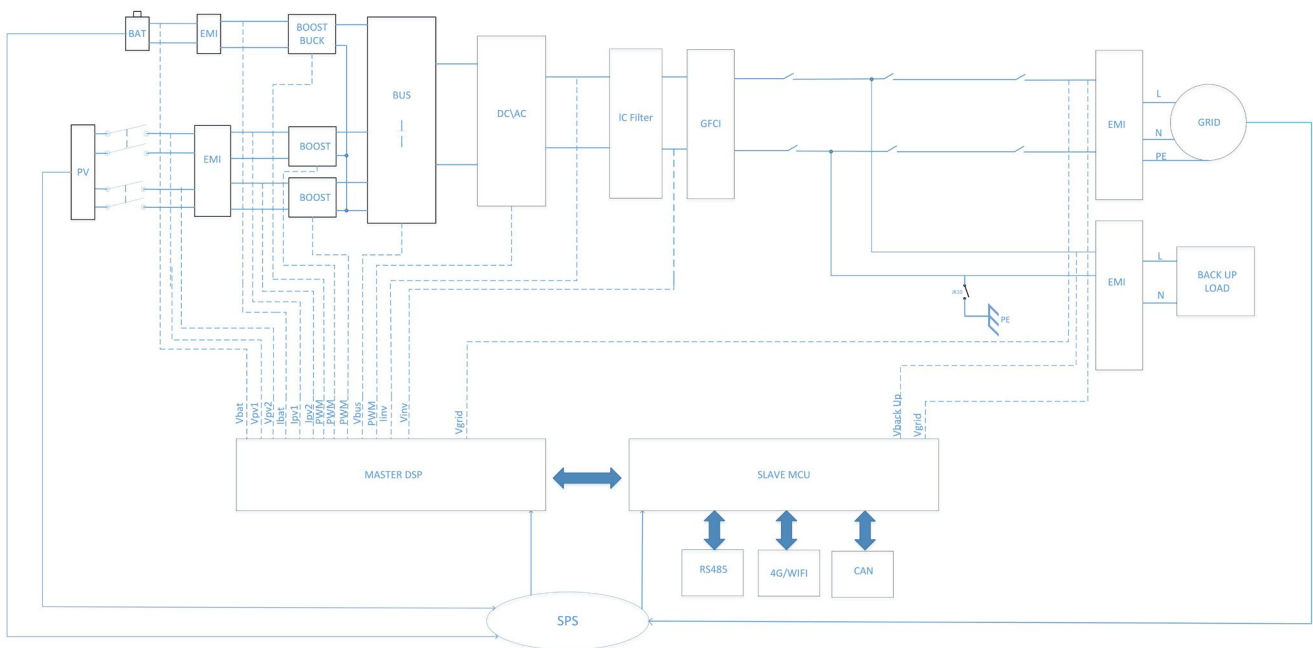
**NTS Version 2.1: 2021**

**UNE 217002:2020**

Rev.1.0

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## Schematic structure



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**UNE 217002:2020**

## Technical Data

### General information

General	
Type of EZE	Type 2 / Hybrid Solar Inverter
Designation	GH-IHV 6 2M ADVANCED
On-grid variables	
Rated apparent power $S_{rE}$	6000 VA 6000 VA (max)
Rated effective power $P_{rE}$	6000 W 6000 W (max)
Rated voltage $U_r$	230 V
Rated current $I_r$	26.1 A
Reactive power adjustment range $\cos \varphi$	0.8 leading~0.8 lagging
Rated frequency $f_n$	50/60 Hz
PV – Input Variables	
Min. MPP voltage	90 V
Max. MPP voltage	500 V
Max. DC input voltage	550 V
Number of MPPT	2
Max. input current	16A/16A
Isc PV	19.2A/19.2A
DC – Input variables	
Type IGBT module	IKW75N65EH5
Quantity DC Link Capacitor	6
Clock frequency	30-100KHz
Type of power	PWM

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control	
Max. Output current (only for IGBT)	20.5A
Software versions	Control board: V1.005, Display: V6.009
Generation unit Control	
Manufacturer	BRASS & FITTINGS S.L.
Software version	Control board: V1.005, Display: V6.009
Protection device	
Manufacturer	Xiamen Hongfa Electroacoustic Co., Ltd
Type	Integrated guard
Switch-off unit (AC)	HF176F
Software versions	Control board: V1.005, Display: V6.009

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Scope and evaluation based on the applicable standard of NTS Version 2.1			
Requirement	Type	Clause of NTS	Assessment
Limited power-frequency control mode overfrequency (MRPFL-O)	≥A	5.1	P
Remote active power control capability and control range	≥C	5.5	NA
Power-frequency control	≥C	5.4	NA
Power-frequency regulation mode (MRPF)	≥C	5.3	NA
Power-frequency limited underfrequency regulation mode (MRPFL-U)	≥C	5.2	NA
Recovery of active power after a fault	≥B	5.11	NA
Ability to withstand voltage dips of synchronous generators connected below 110 kV	≥B	5.11	NA
Ability to withstand voltage dips of connected synchronous generators above 110 kV	D	5.11	NA
Recovery of active power after a fault	≥B	5.11	NA
Ability to withstand voltage dips of connected MPEs below 110 kV	≥B	5.11	NA
Ability to withstand voltage dips of connected MPEs above 110 kV	D	5.11	NA
Fast fault current injection at the point of fault connection in case of symmetrical (three-phase) faults	≥B	5.11	NA
Reactive power capacity at maximum capacity	≥B	5.7	NA
Reactive power capacity below maximum capacity	≥B	5.7	NA
Reactive power control modes	≥B	5.8	NA

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**Notes**

The manufacturer has proven for the manufacturing facility of the Unit a certification of its quality management system according to ISO 9001. The manufacturer confirmed in a manufacturer declaration that the certification of the management system will be valid parallel to the period of this unit certification.

Additional technical data, according to NTS Version 2.1: 2021 Type A, UNE 217002:2020, are given in the assessment report (appendix A1).

The use of other firmware and software version numbers is allowed if the differences are proved and confirmed by TÜV NORD CERT GmbH beforehand. Validity of a new software version is attested by written confirmation and becomes part of the certificate.

**Restrictions**

None

**Appendix to the certificate**

A1 Assessment report no. 35421199 version V1.0

End of the List



Essen, 2026-04-24

Certification Body at TÜV NORD CERT GmbH