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|---------------|--------------|---------------|------------|
| Number        | 15532 Rev.0  | Replaces      | -          |
| Issued        | 26/03/2018   | First edition | 26/03/2018 |
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## Certificate of Type Testing Conformity

|                  |   |
|------------------|---|
| License holder:  | Ingeteam Power Technology S.A.<br>Avda. Ciudad de la Innovación, 13 - 31621 Sarriguren (Navarra), Spain |
| Production site: | Ingeteam Power Technology S.A.<br>Avda. Ciudad de la Innovación, 13 - 31621 Sarriguren (Navarra), Spain |
| Product:         | DC/AC single-phase bidirectional converter for Hybrid Power Plant (HPP)                                 |
| Models:          | Ingecon Sun Storage 3TL; Ingecon Sun Storage 6TL  |

The products can be considered complying to the type testing based upon the following aspects:

- CEI 0-21:2016-07 + CEI 0-21;V1:2017-07  
Reference technical rules for the connection of active and passive users to the LV electrical utilities.  
Remarks:  
The product complies only with ANNEX Bbis of the standard CEI 0-21;V1.  
Full compliance verified with the following configuration:
  - Ingecon Sun Storage 6TL with Freedom Won Lite Home 10/7 HV 10 kWh Lithium Iron Phosphate battery system;
  - Ingecon Sun Storage 6TL with Freedom Won Lite Home 5/4 LV 5 kWh Lithium Iron Phosphate battery system;
  - Ingecon Sun Storage 3TL with Freedom Won Lite Home 5/4 LV 5 kWh Lithium Iron Phosphate battery system.

The firmware implemented on the converter is able to manage: different battery storage capacities, also different from the batteries used in the tests (family Freedom Won Lite Home HV from 5 kWh up to 80 kWh and family Freedom Won Lite Home LV from 2,5 kWh up to 80 kWh).  
 $P_{Smax}$  and  $P_{Cmax}$  values of the batteries are settable as parameters and the converter adapts the functions in order to remain within its own capability, according to the batteries performance.

This type testing certificate is valid for the configuration described on the test report with extension in battery storage capacities (family Freedom Won Lite Home LV from 2,5 kWh up to 80 kWh and family Freedom Won Lite Home HV from 5 kWh up to 80 kWh).

This type testing certificate does not include the Initial and the Periodic Inspection of the production samples.

*This certificate is issued in accordance with the Kiwa Cermet Italia regulations for Product Certification. Publication of the certificate is allowed.*

Chief Operating Officer  
Gianpiero Belcredi

Member of the IECCE CB-Scheme

Kiwa Cermet Italia S.p.A.

Società con socio unico, soggetta all'attività di direzione e coordinamento di Kiwa Italia Holding Srl

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## Certificate of Type Testing Conformity

### Annex

Declaration of Conformity to CEI 0-21:2016-07 + CEI 0-21;V1:2017-07

"Reference technical rules for the connection of active and passive users to the LV electrical Utilities".

TYPE OF APPARATUS WHICH THE DECLARATION IS REFERRED TO:

| Interface Device                    | Interface Protection Device         | Static Conversion Device            | Rotating Device          |
|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

|                  |  |
|------------------|--|
| Manufacturer     | Ingeteam Power Technology S.A.<br>Avda. Ciudad de la Innovación, 13 – 31621 Sarriguren (Navarra), Spain  |
| Product type     | DC/AC single-phase bidirectional converter for Hybrid Power Plant (HPP)  |
| Model name       | Ingecon Sun Storage 3TL; Ingecon Sun Storage 6TL   |
| Firmware release | ABH1002IJK01_X   |
| Number of Phases | Single-phase   |
| Nominal Power    | 2700 W; 5400 W   |
| Remarks          | <input checked="" type="checkbox"/> The device is capable to limit the $I_{dc}$ to 0.5% of the nominal current<br><input type="checkbox"/> The device needs to be coupled with an external insulation transformer<br><input type="checkbox"/> The device is equipped with a low frequency insulation transformer |
| Test laboratory  | Crei Ven S.c.a.r.l. (EA accredited laboratory Accredia n° 0259)  |

Having assessed the Test Files n° 180205LP, 180206LP and 180207LP issued by Crei Ven S.c.a.r.l. (EA accredited laboratory Accredia n° 0259).

Having examined the ISO 9001 certificate of the manufacturer n° 0.04.12149.

We declare that the products indicated meet the requirements laid down by CEI 0-21:2016-07 + CEI 0-21;V1:2017-07 "Reference technical rules for the connection of active and passive users to the LV electrical Utilities".

Date of issue: 26/03/2018

Chief Operating Officer  
Giampiero Belcredi

Kiwa Cermet Italia S.p.A.

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