

**SGS Tecnos, S.A.**, Electrical Testing Laboratory of “SAFETY OF ELECTRICAL / ELECTRONICS, ME & IT EQUIPMENTS”.

**CERTIFIES** that the next products:

Equipments Description.....:	<b>SOLAR INVERTERS</b>
Trade Mark / Models .....	<b>INGECON SUN 3Play TL M and 3Play TL Series</b> (See references indicated in “Ratings”)
Control version .....	ABI1000 (3Play TL M Family) / ABI1004 (3Play TL Family)
Ratings.....:	(See page 2 for full model list and ratings)
Applicant & Manufacturer .....	<b>INGETEAM POWER TECHNOLOGY</b>
Address .....	Av. Ciudad de la innovación, 13 Sarriguren (Navarra) Spain

Were tested and found to be in **CONFORMITY** with the applicable requirements of the following standards:

- **IEC 61000-3-11: 2000 / UNE - EN 61000-3-11: 2002.** Limits. Limitations of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems. equipment with rated current  $\leq 75$  A and subject to conditional connection. Chapter 5: Limits.
- **IEC 61000-3-12: 2011 / UNE - EN 61000-3-12: 2012.** Limits. Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current  $> 16$  A and  $\leq 75$  A per phase. Chapter 5.2: Limits.

This test certificate cancels and supersedes the test certificate number 2214/0325-EXT/3-E1-CER. This test certificate, issued by SGS Tecnos, is laid down upon results, analysis and verifications detailed in the reference Test Reports n° 2214/0325 – F3 – EXT – E3. This certificate will expire in 5 years from the release date of the first release of the test report (23/07/2015).

Madrid, 05<sup>th</sup> May, 2016



**FERNANDO MONTES CLAVER**  
Technical Manager of the E&E Lab

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Model list and ratings	
Ratings.....:	<b>INGECON SUN 20 TL M S/N: 330014240001</b> Input: 200-820 V <sub>dc</sub> (1000V <sub>max</sub> ); I <sub>dcMAX</sub> = 30 / 20A Output: 380 / 400 V <sub>ac</sub> ; I <sub>ac</sub> =29A; 3 ~NPE ; 50 / 60 Hz; 20 kW
	<b>EXTENSION MODEL: INGECON SUN 10TL M;</b> Input: 200-820 V <sub>dc</sub> (1000V <sub>max</sub> ); I <sub>dcMAX</sub> = 20 / 20A Output: 380 / 400 V <sub>ac</sub> ; I <sub>ac</sub> =15A; 3 ~NPE ; 50 / 60 Hz; 10 kW
	<b>EXTENSION MODEL: INGECON SUN 12.5TL M;</b> Input: 200-820 V <sub>dc</sub> (1000V <sub>max</sub> ); I <sub>dcMAX</sub> = 20 / 20A Output: 380 / 400 V <sub>ac</sub> ; I <sub>ac</sub> =19A; 3 ~NPE ; 50 / 60 Hz; 12,5 kW
	<b>EXTENSION MODEL: INGECON SUN 15TL M;</b> Input: 200-820 V <sub>dc</sub> (1000V <sub>max</sub> ); I <sub>dcMAX</sub> = 30 / 20A Output: 380 / 400 V <sub>ac</sub> ; I <sub>ac</sub> =22A; 3 ~NPE ; 50 / 60 Hz; 15 kW
	<b>EXTENSION MODEL: INGECON SUN 28TL M;</b> Input: 200-820 V <sub>dc</sub> (1000V <sub>max</sub> ); I <sub>dcMAX</sub> = 40 / 40A Output: 380 / 400 V <sub>ac</sub> ; I <sub>ac</sub> =41A; 3 ~NPE ; 50 / 60 Hz; 28 kW
	<b>EXTENSION MODEL: INGECON SUN 33TL M;</b> Input: 200-820 V <sub>dc</sub> (1000V <sub>max</sub> ); I <sub>dcMAX</sub> = 40 / 40A Output: 380 / 400 V <sub>ac</sub> ; I <sub>ac</sub> =48A; 3 ~NPE ; 50 / 60 Hz; 33 kW
	<b>EXTENSION MODEL: INGECON SUN 24TL M480;</b> Input: 200-820 V <sub>dc</sub> (1000V <sub>max</sub> ); I <sub>dcMAX</sub> = 30 / 20A Output: 480 V <sub>ac</sub> ; I <sub>ac</sub> =29A; 3 ~NPE ; 50 / 60 Hz; 24 kW
	<b>EXTENSION MODEL: INGECON SUN 40TL M480;</b> Input: 200-820 V <sub>dc</sub> (1000V <sub>max</sub> ); I <sub>dcMAX</sub> = 40 / 40A Output: 480 V <sub>ac</sub> ; I <sub>ac</sub> =48A; 3 ~NPE ; 50 / 60 Hz; 40 kW
	<b>EXTENSION MODEL: INGECON SUN 10TL;</b> Input: 580-820 V <sub>dc</sub> (1000V <sub>max</sub> ); I <sub>dcMAX</sub> = 18A Output: 380 / 400 V <sub>ac</sub> ; I <sub>ac</sub> =15A; 3 ~NPE ; 50 / 60 Hz; 10 kW
	<b>EXTENSION MODEL: INGECON SUN 12.5TL;</b> Input: 580-820 V <sub>dc</sub> (1000V <sub>max</sub> ); I <sub>dcMAX</sub> = 22,5A Output: 380 / 400 V <sub>ac</sub> ; I <sub>ac</sub> =19A; 3 ~NPE ; 50 / 60 Hz; 12,5 kW
	<b>EXTENSION MODEL: INGECON SUN 15TL;</b> Input: 580-820 V <sub>dc</sub> (1000V <sub>max</sub> ); I <sub>dcMAX</sub> =27 A Output: 380 / 400 V <sub>ac</sub> ; I <sub>ac</sub> =22A; 3 ~NPE ; 50 / 60 Hz; 15 kW
	<b>EXTENSION MODEL: INGECON SUN 20TL.</b> Input: 580-820 V <sub>dc</sub> (1000V <sub>max</sub> ); I <sub>dcMAX</sub> =36 A Output: 380 / 400 V <sub>ac</sub> ; I <sub>ac</sub> =29A; 3 ~NPE ; 50 / 60 Hz; 20 kW
	<b>EXTENSION MODEL: INGECON SUN 28TL;</b> Input: 580-820 V <sub>dc</sub> (1000V <sub>max</sub> ); I <sub>dcMAX</sub> =52 A Output: 380 / 400 V <sub>ac</sub> ; I <sub>ac</sub> =41A; 3 ~NPE ; 50 / 60 Hz; 28 kW
	<b>EXTENSION MODEL: INGECON SUN 33TL.</b> Input: 580-820 V <sub>dc</sub> (1000V <sub>max</sub> ); I <sub>dcMAX</sub> =61 A Output: 380 / 400 V <sub>ac</sub> ; I <sub>ac</sub> =48A; 3 ~NPE ; 50 / 60 Hz; 33 kW

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