

SGS Tecnos, S.A., Electrical Testing Laboratory of "SAFETY OF ELECTRICAL / ELECTRONICS, ME & IT EQUIPMENTS" and "ELECTROMAGNETIC COMPATIBILITY".

CERTIFIES that the next products:

Equipments Description.....:	SOLAR INVERTERS
Trade Mark / Models	INGECON SUN Series (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	INGETEAM POWER TECHNOLOGY
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-60068-2-1:2007** (Environmental testing- Part 2-1: Tests. Test A: Cold)
- **IEC-60068-2-2:2008** (Environmental testing- Part 2-2: Tests. Test B: Dry heat)
- **IEC-60068-2-14:2011** (Environmental testing- Part 2-14: Tests. Test N: Change of temperature)
- **IEC-60068-2-30:2006** (Environmental testing- Part 2-30: Tests. Test Db: Damp heat, cyclic (12 h + 12 h cycle))

This certificate, issued by SGS Tecnos, is laid down upon results, analysis and verifications detailed in the reference Test Reports n° 2114/1136. This certificate will expire in 5 years from the release date of this test report, on the 27th January 2015, when the model was tested.

This test certificate cancels and supersedes the test certificate 2114/1136-CER. This test certificate only adds new variant models in relation with the previous one.

Madrid, 22th December, 2015



FERNANDO MONTES CLAVER
 Technical Manager of the E&E Lab

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Model list and ratings	
Ratings.....:	INGECON SUN 20 TL M S/N: 330014240001 Input: 200-820 V _{dc} (1000V _{max}); I _{dcMAX} = 30 / 20 A Output: 380/400 V _{ac} ; I _{ac} =29A; 3 ~NPE ; 50 / 60 Hz; 20 kW
	EXTENSION MODEL: INGECON SUN 10TL M; Input: 200-820 V _{dc} (1000V _{max}); I _{dcMAX} = 20 / 20 A Output: 380/400 V _{ac} ; I _{ac} =15 A; 3 ~NPE ; 50 / 60 Hz; 10 kW
	EXTENSION MODEL: INGECON SUN 12.5TL M; Input: 200-820 V _{dc} (1000V _{max}); I _{dcMAX} = 20 / 20 A Output: 380/400 V _{ac} ; I _{ac} =19 A; 3 ~NPE ; 50 / 60 Hz; 12,5 kW
	EXTENSION MODEL: INGECON SUN 15TL M; Input: 200-820 V _{dc} (1000V _{max}); I _{dcMAX} = 30 / 20 A Output: 380/400 V _{ac} ; I _{ac} =22 A; 3 ~NPE ; 50 / 60 Hz; 15 kW
	EXTENSION MODEL: INGECON SUN 28TL M; Input: 200-820 V _{dc} (1000V _{max}); I _{dcMAX} = 40 / 40A Output: 380/400 V _{ac} ; I _{ac} =41 A; 3 ~NPE ; 50 / 60 Hz; 28 kW
	EXTENSION MODEL: INGECON SUN 33TL M; Input: 200-820 V _{dc} (1000V _{max}); I _{dcMAX} = 40 / 40 A Output: 380/400 V _{ac} ; I _{ac} =48 A; 3 ~NPE ; 50 / 60 Hz; 33 kW
	EXTENSION MODEL: INGECON SUN 24TL M480; Input: 200-820 V _{dc} (1000V _{max}); I _{dcMAX} = 30 / 20 A Output: 380/400 V _{ac} ; I _{ac} =29 A; 3 ~NPE ; 50 / 60 Hz; 24 kW
	EXTENSION MODEL: INGECON SUN 40TL M480; Input: 200-820 V _{dc} (1000V _{max}); I _{dcMAX} = 40 / 40 A Output: 400 V _{ac} ; I _{ac} =48 A; 3 ~NPE ; 50 / 60 Hz; 40 kW
	EXTENSION MODEL: INGECON SUN 10TL; Input: 580-820 V _{dc} (1000V _{max}); I _{dcMAX} = 19 A Output: 380/400 V _{ac} ; I _{ac} =15 A; 3 ~NPE ; 50 / 60 Hz; 10 kW
	EXTENSION MODEL: INGECON SUN 12.5TL; Input: 580-820 V _{dc} (1000V _{max}); I _{dcMAX} = 24 A Output: 380/400 V _{ac} ; I _{ac} =19 A; 3 ~NPE ; 50 / 60 Hz; 12,5 kW
	EXTENSION MODEL: INGECON SUN 15TL; Input: 580-820 V _{dc} (1000V _{max}); I _{dcMAX} =28 A Output: 380/400 V _{ac} ; I _{ac} =22 A; 3 ~NPE ; 50 / 60 Hz; 15 kW
	EXTENSION MODEL: INGECON SUN 20TL. Input: 580-820 V _{dc} (1000V _{max}); I _{dcMAX} =37 A Output: 380/400 V _{ac} ; I _{ac} =29 A; 3 ~NPE ; 50 / 60 Hz; 20 kW
	EXTENSION MODEL: INGECON SUN 28TL; Input: 580-820 V _{dc} (1000V _{max}); I _{dcMAX} =52 A Output: 380/400 V _{ac} ; I _{ac} =41 A; 3 ~NPE ; 50 / 60 Hz; 28 kW
	EXTENSION MODEL: INGECON SUN 33TL. Input: 580-820 V _{dc} (1000V _{max}); I _{dcMAX} =61 A Output: 380/400 V _{ac} ; I _{ac} =48 A; 3 ~NPE ; 50 / 60 Hz; 33 kW

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