TÜV INTER CERT SAAR

CERTIFICATE

Certificate No. 15-PPV-0000008/01-W01-TIC

WE HEREBY CERTIFY THAT THE PHOTOVOLTAIC MODULES WITH THE MODEL

Cigs-3150A1 & Cigs-3450A1
(Tested Types)

And with Types extended for similarity(*)
- See Annex –

MANUFACTURER & LICENSE HOLDER
ETERBRIGHT SOLAR CORPORATION
No. 442-1, Zhonghua Rd., Toufen City, Miaoli County 351, Taiwan

IS IN COMPLIANCE WITH THE REQUIREMENTS SET OUT IN CERTIFICATION PROGRAM
TIC-PR-PC-08-Annex 13 Product certification scheme PV

DIN EN 61646:2009-03 (IEC 61646 : 2008)
Thin-film terrestrial photovoltaic (PV) modules - Design qualification and type approval

DIN EN 61730-2:2012-11 (IEC 61730-2:2004 + A1:2011)(**)
Photovoltaic (PV) module safety qualification - Part 2: Requirements for testing
To be used in plants at a total voltage up to : 1000 Vdc (application Class A)

AS RESULT OF THE TEST CARRIED OUT BY TERTEC LAB ACCREDITED BY TAF no. 1126

REPORT No. TIC-PVT20150009-R, TIC-PVT20150009-S, TIC-PVT20150009-T
TIC-PVR20170004-R, TIC-PVR20170004-S, TIC-PVR20170004-T
TIC-PVR20170006-R, TIC-PVR20170006-S, TIC-PVR20170006-T
&
THE FOLLOW UP INSPECTION ON THE DATE 20th OCTOBER 2016 WITH REPORT No. RFF-1016-PPV-TIC-PC-0000008-15

First issuing **09.10.2015** ***Expiring date*** **08.10.2020**
(Providing that the testing basis continues unchanged)

Notes: (*) The manufacturer declares that these products are constructed using the same materials, components and processes as the tested type Cigs-3450A1. Further details on certified models are reported on the annex. Technical data, materials and components description are into the indicated test reports. Any changes of the design, materials, components or processing may require the repetition of some of the qualification tests in order to retain type approval. The certification is performed on tested model as retest for junction box modification. (**) The Fire Test (IEC 61730-2 / MST 23) with test report no FPSRC-PV0588-IEC-F-01 was performed by the NCKU Fire Protection and Safety Research Center. Fire class C is assessed. This certificate is for type approval and based on voluntarily product test and with Factory Inspection. This certificate is valid and can be used only with its annex.

DAkkS
Deutsche
Akkreditierungsstelle
D-ZE-16012-01-00

Bonn, 07.05.2019

Ing. K. Lindenblatt
TÜV INTERCERT Certification Body

TÜV INTERCERT GmbH - Group of TÜV Saarland · Am Bonner Bogen 2 · 53227 Bonn GERMANY
www.tuv-intercert.org

TIC-F-PC-97-en Rev. 0.0-04-2017 Thin Film PV Certificate

TÜV INTER CERT SAAR

CERTIFICATE

Annex 1 of

Certificate No. 15-PPV-0000008/01-W01-TIC

THE PHOTOVOLTAIC MODULES WITH THE MODELS

Tested Type	Cell Number	Cell Size	Cell Technology	Power [W]
Cigs-3150A1	330	1204x5.5mm	CIGS Thin Film	315

Types extended for similarity* with CIGS Thin Film technology without need of re-testing
(according to IECEE "Retesting guideline"):

Type	Cell Number	Cell Size	Power [W]
CIGS-XXXXA1* XXXX from 2850 to 3450 with 25 step	330	1204x5.5 mm	from 285W to 345W with 2.5W step
CIGS-XXXXE1* XXXX from 2850 to 3450 with 25 step	330	1204x5.5 mm	from 285W to 345W with 2.5W step
CIGS-XXXXA1* XXXX from 1900 to 2300 with 25 step	220	1204x5.5 mm	from 190W to 230W with 2.5W step
CIGS-XXXXE1* XXXX from 1900 to 2300 with 25 step	220	1204x5.5 mm	from 190W to 230W with 2.5W step
CIGS-XXXXA1* XXXX from 0950 to 1150 with 25 step	110	1204x5.5 mm	from 95W to 115W with 2.5W step
CIGS-XXXXE1* XXXX from 0950 to 1150 with 25 step	110	1204x5.5 mm	from 95W to 115W with 2.5W step

Notes: (*) The manufacturer declares that these products are constructed using the same materials, components and processes as the tested type Cigs-3450A1. Technical data, materials and components description are into the indicated test reports. Any changes of the design, materials, components or processing may require the repetition of some of the qualification tests in order to retain type approval. The certification is performed on tested model as retest for junction box modification. (**) The Fire Test (IEC 61730-2 / MST 23) with test report no FPSRC-PV0588-IEC-F-01 was performed by the NCKU Fire Protection and Safety Research Center. Fire class C is assessed. This certificate is for type approval and based on voluntarily product test and with Factory Inspection. This annex is valid and can be used only with its certificate.

DAkkS Deutsche Akkreditierungsstelle D-ZE-16012-01-00

Bonn, 07.05.2019

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TÜV INTER CERT SAAR

CERTIFICATE

Annex 2 of

Certificate No. 15-PPV-0000008/01-W01-TIC

THE PHOTOVOLTAIC MODULES WITH THE MODELS

Tested Type	Cell Number	Cell Size	Cell Technology	Power [W]
CIGS-3450A1	330	1204x5.5mm	CIGS Thin Film	345

Types extended for similarity* with CIGS Thin Film Thin Film technology without need of re-testing
(according to IECEE "Retesting guideline"):

Type	Cell Number	Cell Size	Power [W]
CIGS-XXXXA1* XXXX from 3150 to 3750 with 25 step	330	1204x5.5mm	from 315W to 375W with 2.5W step
CIGS-XXXXE1* XXXX from 3150 to 3750 with 25 step	330	1204x5.5mm	from 315W to 375W with 2.5W step
CIGS-XXXXA1* XXXX from 2100 to 2600 with 25 step	220	1204x5.5mm	from 210W to 260W with 2.5W step
CIGS-XXXXE1* XXXX from 2100 to 2600 with 25 step	220	1204x5.5mm	from 210W to 260W with 2.5W step
CIGS-XXXXA1* XXXX from 1050 to 1250 with 25 step	110	1204x5.5mm	from 105W to 125W with 2.5W step
CIGS-XXXXE1* XXXX from 1050 to 1250 with 25 step	110	1204x5.5mm	from 105W to 125W with 2.5W step

Notes: (*) The manufacturer declares that these products are constructed using the same materials, components and processes as the tested type Cigs-3450A1. Technical data, materials and components description are into the indicated test reports. Any changes of the design, materials, components or processing may require the repetition of some of the qualification tests in order to retain type approval. The certification is performed on tested model as retest for junction box modification. (**) The Fire Test (IEC 61730-2 / MST 23) with test report no FPSRC-PV0588-IEC-F-01 was performed by the NCKU Fire Protection and Safety Research Center. Fire class C is assessed. This certificate is for type approval and based on voluntarily product test and with Factory Inspection. This annex is valid and can be used only with its certificate.

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