cere

by UL Solutions

TRACKERS

WWW.CERECERTIFICATION.COM

CERE, by UL Solutions is a Testing, Simulation and Certification body that was originally set up as a Certification Entity in 2015.

CERE, by UL Solutions was created in its beginnings as a Certification Entity for Renewable Energies, with the purpose of being the access key to the different countries where certification of components, full installations certificates, modeling and software validation of components and facilities was required.

Currently CERE, by UL Solutions has expanded its capabilities and is dedicated not only to Renewable Energies, but also to Electric Vehicle chargers, Industrial Machinery, Medical Devices and Electrical and Electronic Products.

cere
by UL Solutions

Accreditations

We have accreditations that verify our technical competences as a Certification Body and Testing Laboratory. This fact ensures a deep knowledge of the international requirements for components and installations.

CERE, by UL Solutions is accredited by ENAC and a2la (IAF/ILAC members) as a Certification Body according to ISO 17065; and as an Accredited Testing Laboratory according to ISO 17025. We also belong to the IEC Scheme being CBTL Testing Laboratory and NCB Certification Entity.

In addition, we can provide solutions to countries such as North America, Israel, Colombia, Korea, Australia, etc.

Our team

Our team has a long-accumulated experience in testing, simulation and certification for all its business areas, including an in-depth knowledge of grid integration standards, design, safety, EMC and grid quality.

All this knowledge is applicable in renewable energy generators and controllers, electric vehicle chargers, photovoltaic trackers, household appliances, industry, industrial machinery, electrical and electronic products and medical devices, among others.

cere

by UL Solutions

cere
by UL Solutions

What’s CERE Trackers?

CERE, by UL Solutions Trackers is a department created to cover the demand of services for transformers inside of CERE (Certification Entity for Renewable Energies)

CERE, by UL Solutions Trackers was created to provide support and trust at any stage of certification and testing oftrackers.

Our services include preliminary meeting, Testing andCertification according Safety, EMC and UL standards.

This process includes testing, certification and verification of trackers and their components.

cere
by UL Solutions

Key Clients

Trinasolar

Gonvarri Industries

FTC SOLAR

IDEEMATEC

MECA SOLAR

ESAsolar

AXIAL structural solutions

TGB GROUP TECHNOLOGIES

PLP PREFORMED LINE PRODUCTS

ZIMMERMANN PV-Tracker

BRAMETAL

soltigua solar tracking since 2007

ArcelorMittal

P4Q PROFESSIONALS FOR QUALITY

ELECTRONIQUE CONCEPT

STInorland

Soltec

cere by UL Solutions

Applicable Standards

Nowadays, CERE, by UL Solutions leads the trackers certification in Spain, working with the main trackers, drives and control unit manufacturers. We are accredited as Certification and Testing body for trackers according the following standard for full tracker Certification:

USA and UL market:

UL 3703: 2015 STANDARD FOR SAFETY. Solar Trackers.

International:

IEC 62817:2014+A1: 2017

Photovoltaic systems. Design qualification of solar trackers

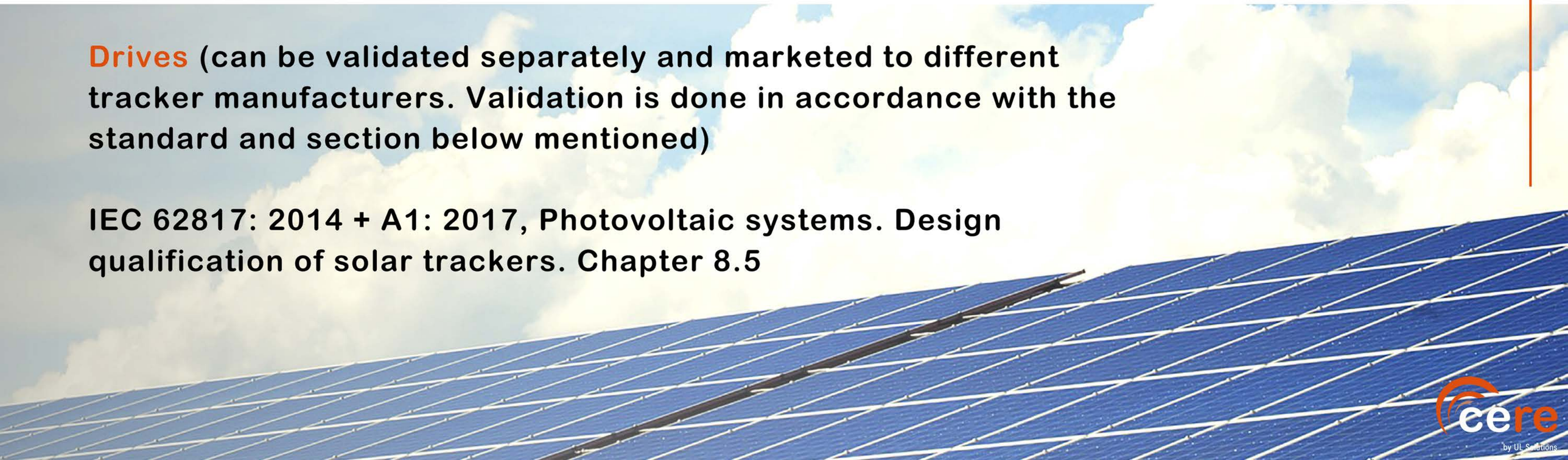
This standard application is for 2 axis trackers. It is also applicable for 1-axis tracker, based on the criteria of the Client, considering optional tests at the customer's choice and the market standards (Test to be found on Chapter 7, Chapter 8.5 and Chapter 9). There shall be performed on a tracker part, a tracker scale representation or on site. From CERE's point of view, the preliminary meeting with the new client is very important to ensure the project fulfils Client's requirements. We can perform the preliminary meeting online or personally.

cere
by UL Solutions

Applicable Standards

CERE, by UL Solutions is accredited as Certification Body and Testing Laboratory for trackers according the following standard:

IEC 62817:2014+A1: 2017
Photovoltaic systems. Design qualification of solar trackers



Drives (can be validated separately and marketed to different tracker manufacturers. Validation is done in accordance with the standard and section below mentioned)

IEC 62817: 2014 + A1: 2017, Photovoltaic systems. Design qualification of solar trackers. Chapter 8.5

Applicable Standards

CERE, by UL Solutions is accredited as Certification Body and Testing Laboratory for trackers according the following standard:

CONTROL SAFETY STANDARDS

IEC 60204-1:2016, Safety of machinery – Electrical equipment of machines – Part 1: General requirements.

IEC 62109-1:2010 Safety of power converters for use in photovoltaic power systems - Part 1: General requirements

IEC 61010-1:2010+AMD1:2016 Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements

Applicable Standards

CERE, by UL Solutions is accredited as Certification Body and Testing Laboratory for trackers according the following standard:

CONTROL EMC STANDARDS

IEC 61000-6-2:2016 Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments

IEC 61000-6-4:2018 Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments

CONTROL UL AND IEC STANDARDS

UL 3703:2015 STANDARD FOR SAFETY. Solar Trackers.

IEC 62817: 2014 + A1: 2017, Photovoltaic systems. Design qualification of solar trackers. Chapter 9.

Resume

CERE, by UL Solutions is accredited as a testing laboratory and certification entity for the tracker solution, both nationally and internationally. In addition to being NCB and CBTL accredited for safety standards:

IEC 60204-1: 2016
IEC 62109-1: 2010
IEC 61010-1: 2010 + AMD1: 2016

In addition, CERE, by UL Solutions has been participating in the development of photovoltaic tracker standards since 2015. The standard “IEC 62817: 2014 + A1: 2017, Photovoltaic systems. Design qualification of solar trackers” is currently under review and we participate in the working group in charge of this development.

Another standard that is being developed and in which CERE is actively participating is the product safety standard for photovoltaic trackers.

cere
by UL Solutions

Laboratory Capabilities

EMC

- Full Anechoic Chamber of 3 meters and up to 6GHz both in emission and radiated immunity.
- Complete test capacity of IEC 61000 in both radiated and conducted.

Test Benches

- ✓ Test bench up to 500kVA for converters
- ✓ 3 test benches up to 166kVA with parallel connection capacity.
- ✓ DC voltage range up to 1500V and AC voltage range up to 800V and 400Hz
- ✓ Passive loads up to 100kVA and electronic load up to 500kVA for island testing.

cere
by UL Solutions

Environmental and Climate Laboratory

TEMPERATURE RANGE FROM -40ºC TO 85ºC WITH 85%RH OR 125ºC WITHOUT HUMIDITY REFERENCE.

- ✓ Low temperature chamber
- ✓ High temperature chamber
- ✓ Temperature chamber
- ✓ Dycometal temperature chamber
- ✓ Binder temperature chamber
- ✓ IP and Nema Camera
- ✓ Vibration table
- ✓ Saline atmospheres chamber

cere
by UL Solutions

References

CERE, by UL Solutions Trackers has a wide expertise in the field of testing.
Some of the most important projects carried out recently are located in Germany, France, Spain and South Africa for the European and North American market. Some examples:

- ✓ **European manufacturer has test and certificate satisfactorily a single axis tracker family and its components, according to the IEC 62817. The testing process for the tracker was performed on his facilities and for the components all the testing process is performed in our laboratory. To complement this certification earth bonding test has been performed to the trackers to confirm the safety of the tracker during operation.**
- ✓ **Earth bonding is a general requirement on operative PV plants. A Client requested this service for more than 150 operating solar trackers, and the earth bonding has been measured on field as request of PV plant owner.**
- ✓ **The behavior of a Spanish tracker against the effects of flutter and galloping has been analyzed and certified. The tests have been successfully performed on a scale model of the tracker in a wind tunnel. The project itself took 4 months to be completed since the acceptance of the offer.**
- ✓ **TCE Marking and verification is a common request for PV trackers manufacturers Under request of the manufacturer for complying with the different directives associated with the CE marking for trackers and components, we have performed the testing and certification process of different standards that give conformity to the directives that apply to these products such as EMC standards, IEC 60204, IEC 62109, etc**
- ✓ **Environmental testing is an important part of the type tests applicable for solar trackers. The E&E testing laboratory has already performed several successfully projects for European manufacturers, according to IEC 62817. Standard for solar trackers, incorporates several environmental tests to the different components which are part of such systems.**

cere
by UL Solutions

Disclaimer

- The proposals referred to herein are tentative and are subject to verification, material updating, revision and amendment. In particular, the information contained in this document is subject to updating, revision and amendment. No representations or warranties, express or implied are given by the company or any person connected with Certification Entity for Renewable Energies(hereafter CERE, by UL Solutions) Partners as to the fairness, accuracy or completeness of the information or opinions contained in this document, any presentation made in conjunction herewith or the accompanying materials and no liability is accepted in respect thereof to the extent permitted by law. The information contained in this document is not to be relied upon by parties other than the intended recipients.
- Neither CERE, by UL Solutionsnor any other party accepts any liability whatsoever (whether in negligence or otherwise) arising directly or indirectly, from the use of this document.
- This document has not been approved by any competent regulatory or supervisory authority.
- This document is being furnished to you solely for your information on a confidential basis and may not be disclosed. reproduced or redistributed in whole or in part by any medium or in any form to any other person for any purpose without CERE, by UL Solutionsprior written consent. You shall treat and safeguard as strictly private and confidential all information contained in this document and take all reasonable steps to preserve such confidentiality. You shall not use this document, or the information contained therein, in any manner detrimental to CERE, by UL Solutions.
- This document has been prepared for information purposes only and should not be relied upon or form the basis of any decision or action by any person.
- This document contains forward-looking statements that involve substantial risks and uncertainties, and actual results are development may differ materially from those expressed or implied by these statements by a variety of actors.
- You should not place undue reliance on statistical data cited in this document.
- By accepting this document and attending the presentation you agree to be bound by the foregoing limitations.

cere
by UL Solutions

Contact

Laboratory
C/Monturiol, 15. Polígono Industrial de San Marcos, Getafe. 28906, Madrid, España.

Contact
www.cerecertification.com
info@cerecertification.com

+34 910 612 614
LinkedIn

Monday - Friday: 7am to 6pm (CET)

cere
by UL Solutions


cere
by UL Solutions
WWW.CERECERTIFICATION.COM