



# IECEE CB Scheme

Towards a single standard for  
electrical products and components



One product test, one quality mark — for many companies wanting access to the global market, this is the longed-for ideal, the single most important thing for making exporting easier. The IECEE CB Scheme brings the manufacturers of electrical equipment and components one step closer to it.

This document explains how the scheme works. It's written for anyone who wants to export an electrical product or an electrical component intended for use in homes, offices, workshops, medical facilities and similar locations, that is, the categories covered by the IECEE CB Scheme.

It follows a 'Frequently Asked Questions' format, and should be seen as an introduction to the scheme rather than a comprehensive or definitive guide. Further information can be obtained from the IEC website or by getting in touch with BSI. Our contact details appear on the back page.



## How does the IECEE CB Scheme differ from CE marking?

The CE Mark is compulsory for certain products, including electrical products, sold in the European Economic Area (the EU member states plus Iceland, Norway and Liechtenstein) and shows a product conforms to the relevant EU directives. The IECEE CB Scheme is wider in geographical 'reach': it's a truly international scheme.

Unlike the CE Mark, the IECEE CB Scheme always requires third-party certification. CB stands for Certification Body. You cannot, as a manufacturer, 'self-declare' that your products conform to the standards of the scheme. Instead, you have to have verification from an independent body such as BSI. More precisely, you have to have verification from a National Certification Body (NCB), accredited by national authorities for the assessment of products against national and international standards. BSI, the world's oldest certification organisation, qualifies as an NCB because it's recognised by the government-backed United Kingdom Accreditation Service (UKAS).

An IECEE CB certificate can be used to support declarations of conformity both in Europe and beyond; a CE Mark, even if verified by a third party, cannot.

## What is the IECEE?



This question is best answered in two parts, by breaking the abbreviation down.

IEC stands for the International Electrotechnical Committee, a not-for-profit organisation that, to quote its website, "prepares and publishes international standards for all electrical, electronic and related technologies". As its name suggests, the IEC is made up of technical committees from around the world. To quote the website again: "Close to 20,000 experts from industry, commerce, government, test and research labs, academia and consumer groups participate in IEC Standardisation work."

The aim of the IEC is to remove barriers to international trade by harmonising standards, ensuring products are tested to the same level of safety wherever they're manufactured.

IEE merely stands for Electrotechnical Equipment. IECEE, then, is an international committee for electrical and electrotechnical equipment that had developed a worldwide conformity assessment scheme.

## So, what exactly is the IECEE CB Scheme?

The IECEE CB Scheme is the IEC's system for conformity testing and certification of electrotechnical equipment and components. The system is based on mutual recognition of CBTCs (Certification Body Test Certificates) by IEC members.

The scheme means that once an electrotechnical product has been tested and certified reliable and safe by one NCB, it doesn't need to be tested by another. Put another way, it enables test reports to 'travel' across regions and borders. A product tested to the standards laid down by the IEC in one country will not usually need further assessment to obtain certification from another IECEE NCB. Re-testing should only be necessary if the product is complex and/or highly innovative. In most cases, 'travelling' will be a matter of simple paperwork.

## How international is 'international'?

Very. There are more than 50 IECEE member countries: CBTCs are recognised all over the world — from America to Australia, Argentina to Vietnam, Belgium to Bahrain. A full list of participating countries can be found on the IEC/IECEE website.

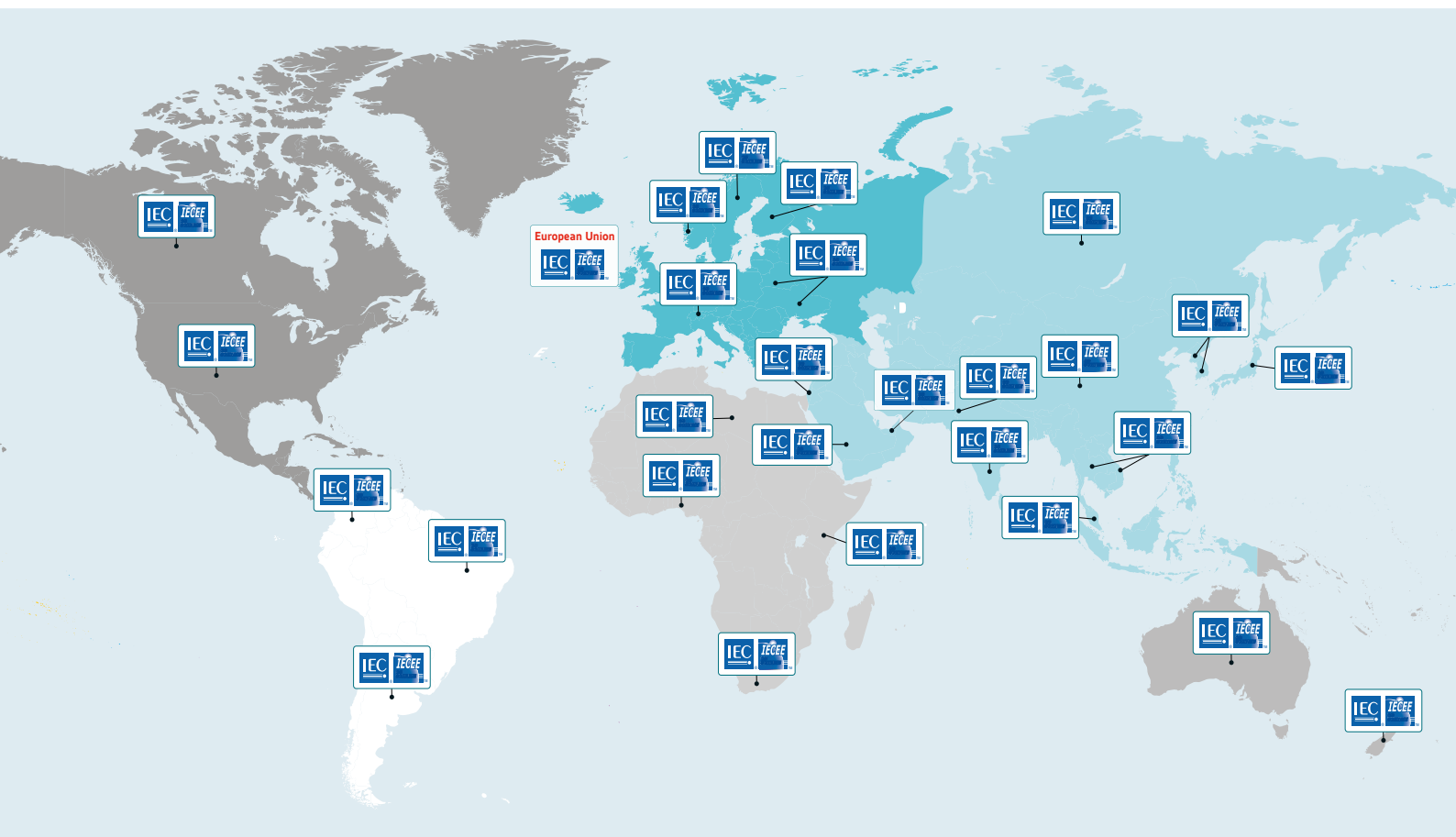
## Who benefits from the IECEE CB Scheme?

**Governments** — the IECEE CB Scheme reduces barriers caused by different certification criteria and promotes free trade

**Businesses** — the IECEE CB Scheme makes exporting cheaper, simpler and quicker by eliminating or reducing the need for multiple or repeat tests

**End users** — the IECEE CB Scheme provides assurance a product has been type-tested and certified to internationally agreed standards and will meet people's expectations for safety.

For businesses and end users there's also the advantage of interoperability: by applying uniform standards, the scheme helps ensure products work or 'interact' with other products, services and installations.



## Does the scheme have its own product mark or symbol?

No. However, CB certification can be used to obtain national certification marks such as the BSI Kitemark for the UK, the S Mark for Sweden, the GS Mark for Germany, the SAFETY Mark for Singapore and the ETL Mark for the USA.

It can also, of course, form part of the technical file on a product and be used to support the declaration for CE Marking conformity.

## Is it a licence, then, to trade internationally?

No, not exactly. It's better thought of as a passport to certification in other countries, a way of speeding up entry to other markets. You may need other permits to sell your product — just as you may need a visa to stay in some countries. It's always worth checking the specific requirements with the country you want to do business with.

## What products does the scheme cover?

The IECEE CB Scheme applies to equipment and components primarily intended for use in homes, offices, workshops, healthcare facilities and similar locations.

It covers **23** categories of electrotechnical equipment:

Batteries

Cables and cords

Capacitors as components

Switches for appliances and automatic controls for electrical household appliances

Electrical Energy Efficiency

Electrical vehicles

Electromagnetic compatibility

Household and similar equipment

Hazardous Substances Testing Service

Industrial automation

Installation accessories and connection devices

Luminaires

Measurement, control and laboratory equipment

Miscellaneous

Electrical equipment for medical use

IT and office equipment

Low voltage, high power switching equipment

Installation protective equipment

Photovoltaics

Safety transformers and similar equipment

Portable tools

Electric toys and electronic equipment

Electronics, entertainment

Source: IEC/IECEE: <http://www.iecee.org/dyn/www/f?p=106:70:0>





## What's the certification process?

There are usually seven key steps:

- 1 **The company applies for a CB Test Certificate and Test Report to an IECEE NCB.**
- 2 **The NCB arranges for testing based on the relevant IEC standards** at a recognised CB Testing Laboratory (CBTL) or an approved facility run by the manufacturer. Importantly, these tests allow for 'national deviations' — for example, different power grid voltages, energy consumption and labelling requirements — to enable a produce to access its target market(s).
- 3 **The CBTL issues a Test Report.**
- 4 **The NCB reviews and validates the Test Report and issues a CB Test Certificate** proving representative samples of the product comply with the requirements of the harmonised IEC standard.
- 5 **The company sends the CB Test Certificate and Test Report to participating NCBs** in countries it wants to do business with.
- 6 **The other countries' NCBs review the Test Certificate and Report** and then issue their own national certification, usually without re-testing of the product.
- 7 **The company (if authorised to do so) affixes the national marks of conformity of the other NCBs to its products** and then starts exporting them to the relevant countries.

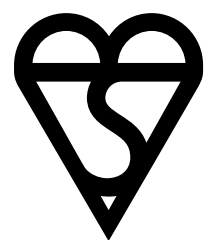
## How can BSI help?

We are an IECEE NCB. A test and certification report from us will be recognised by customs and port authorities and by other National Certification Bodies in the 50-plus countries that are members of the IEC.

What's more, as the scheme becomes more popular — more than 80,000 CBTCs were issued in 2013, more than double the number issued ten years previously — we can help your products stand out from the crowd. The BSI Kitemark is now available for a range of electrical products.

Exclusive to BSI, the BSI Kitemark symbol tells importers, contractors and customers you go the 'extra mile', passing quality, performance and reliability thresholds others don't.

Combined with the CBTC, it can help you win new contracts and new business in rapidly expanding markets. The BSI Kitemark for Luminaires, for example, is very well recognized and specified for contracts in the Middle East.



For more information  
and a CB certification quote

Call: **0800 583 965**  
or visit: **[bsigroup.com/en-nz](https://bsigroup.com/en-nz)**

## More about BSI

**For more than a century BSI has been helping clients make excellence a habit.**

- Having worked with over 70,000 companies of all sizes globally, we have a proven track record.
- BSI works in partnership with industry experts, government bodies, trade associations and consumer groups to gain the widest possible market and industry view to shape our services for the challenges companies face today.
- Our clients reap the benefits of working with BSI teams with a wealth of experience in a wide range of industries. They help cultivate a better understanding of the challenges and share valuable insights.
- We provide end-to-end support, helping our clients monitor and maintain their excellence.
- We talk with and listen to clients every day, asking them what they want and how satisfied they are with our products and services. This way we ensure we respond to the needs of our clients as they arise.

For more information  
and a CB certification quote

Call: **0800 583 965**  
or visit: **[bsigroup.com/en-nz](https://bsigroup.com/en-nz)**



**BSI Group**

Level 10 21 Queen  
Street Auckland 1010  
New Zealand

T: 0800 583 965  
E: [info.nz@bsigroup.com](mailto:info.nz@bsigroup.com)  
W: [bsigroup.com/en-nz](https://bsigroup.com/en-nz)

The trademarks in this material (for example the BSI logo or the word "KITEMARK") are registered and unregistered trademarks owned by The British Standards Institution in UK and certain other countries throughout the world.