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# GCC Conformity Assessment Scheme

## G Marking in the Gulf States for Low-voltage Electrical Products





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## Introduction

The Gulf Cooperation Council (GCC) is, by constitutional agreement, a body consisting of six Arab countries—the State of United Arab Emirates, the Kingdom of Bahrain, the Kingdom of Saudi Arabia, the Sultanate of Oman, the State of Qatar, and the State of Kuwait. With the Republic of Yemen engaged as part of the GSO (Standardization Organization for the Cooperation Council for the Arab States of the Gulf), the GCC and Yemen, by mutual consent, was developed to help support and promote regional economic and political policies.

The Arabian Gulf region in the past 40 years has experienced significant economic and commercial growth, and according to the PriceWaterhouseCoopers Global Economy Watch for 2015, “Since 2000 the GCC has grown at an average rate of 8.1% per annum, faster than most emerging economies...” This has made the region of growing interest for export.

As part of an economic growth policy, the GCC has developed, implemented, and maintained its own standards and technical regulations to ensure conformity of products to safety requirements. The GCC’s standards development organization is the GSO, and, as a means to help reduce technical trade barriers and facilitate the movement of products and commodities across borders within GCC member states, since 2005, the GSO has had in place technical regulations supporting its GCC Conformity programs. This has included the creation of its G Marking, or G Mark. According to the GSO website, “The marking is not a quality mark, but rather a marking that signifies the conformity of products at least to the essential requirements of health, safety and environment.”

For the purposes of harmonization, the G Marking requirement, as with other regulatory and safety requirements from other international or national schemes, is similar in design to regulatory programs such as Europe’s CE marking system following the new approach principals as per Modules A and B. However, G Marking requires a higher degree of third-party intervention from Conformity Assessment Bodies (CABs) and Notified Bodies (NBs).

G Marking initially focused on particular product categories such as toys, whose inclusion in the program became mandatory from 1st January 2011. The GSO is now turning its attention to the G Mark for low-voltage electrical products, and this white paper aims to explain the process of G Marking for low-voltage electrical products.

## Background and Timing

Under the GSO technical regulations for low-voltage electrical products, there are conformity assessment procedures to be applied to relevant products by the manufacturer and for the

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accreditation of a Notified Body (NB). In this context, a Notified Body is third-party accredited by the Gulf Accreditation Center (GAC), whose role is to carry out conformity assessments in accordance to the technical regulations. Conformity Assessment Bodies (CABs) can be outside of the Gulf region such as in the Americas, Asia-Pacific, Europe, Middle East and Africa and can apply for GAC NB accreditation.

For a full, in-depth technical understanding of the G Mark, the GSO has issued on its website for public viewing [the Gulf Regulation on G Marking, BD09100501](#); [the GSO Guide on Notified Bodies, BD09100502](#); [the GSO Guide on Modules of Conformity Assessment, BD09100503](#); and [the General Product Safety Regulation, BD09100504](#).

The G Marking for low-voltage electrical products is regulated in the [Gulf Technical Regulation for Low Voltage Electrical Equipment and Appliances BD-142004-01](#), and it includes definitions and determining obligations regarding economic operators, conformity assessment procedures, and the obligations of any Notified Bodies (NB) involved. It also addresses requirements related to both electrical safety and electromagnetic compatibility (EMC) for low-voltage electrical products. (Note: The document written in the Arabic language is the official version.)

The enforcement of G Marking for low-voltage electrical products is set to begin with a pilot scheme from 1 June 2015, with full enforcement from 1 July 2016. The transitional period between 1 June 2015 and 1 July 2016 is set so any and all manufacturers placing their products into any of the GCC member states can bring said products into conformity with G Marking regulations during that time. All low-voltage electrical products being brought onto and available in the GCC marketplace after 1 July 2016 must have the G Marking.

## Technical Regulations Conformity

The technical regulations for low-voltage electrical products are being split into two lists, thus called List 1 and List 2. For List 1-regulated products, the technical regulations detail a self-declaration conformity assessment procedure, while List 2-regulated products fall under conformity assessment procedures requiring Notified Body (NB) involvement in order to obtain a Gulf Type Examination Certificate.

The products included on List 1 have yet to be announced, but are expected to be within one to two years. For List 2, the products have been announced, and they consist of 13 product categories, primarily in the area of IEC 60335 (home appliances).

The List 2 products are detailed in GSO regulation [TC143307-01](#) and included are: domestic electrical fans; refrigerators, freezers, and other refrigerating or freezing equipment; centrifugal

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clothes dryers and clothes washing machines, including machines which both wash and dry; food grinders and mixers, fruit or vegetable juice extractors; toasters; electro-thermic hair-dressing apparatus and hand dryers; domestic electric heating apparatus; microwave ovens; other ovens, including cookers, cooking plates, boiling rings, grillers, and roasters; electric instantaneous or storage water heaters and immersion heaters; electric smoothing irons; plugs, socket outlets, adapters, cord extension sets, and chargers; and air conditioners.

Presumption of conformity is given with the relevant Gulf GSO standards, but the Gulf States and G Marking also recognize and give presumption of conformity with international standards such as IEC standards when a relevant GSO standard does not exist or has not been published. Also, the GSO will accept the IEC standards when used by the IECEE CB Scheme with the correct national deviations and the G Marking requirements met. A Manufacturer Declaration of Conformity also is required, as well as potentially an Importer Declaration of Conformity. Product registration is then required, and such a registration holds validity for one year. When all the requirements are met, low-voltage electrical equipment made available in the market shall bear the Gulf Conformity Marking (G Marking).

Regarding product conformity, manufacturers shall conduct and document a risk assessment/analysis to meet all hazards electrical equipment may present, as well as an assessment of the potential exposure to such hazards. The List 1 products are subject to the conformity assessment procedure set out in Annex (3) of the Gulf Technical Regulation for Low Voltage Electrical Equipment and Appliances, BD-142004-01. Annex (3) details the necessary technical documentation, manufacturing requirements, and information relating to the applied Gulf Conformity Mark (G Mark) and Manufacturers Declaration of Conformity.

For the products identified in List 2, these are subject to the conformity assessment procedures set out in Annex (4) of the Gulf Technical Regulation for Low Voltage Electrical Equipment and Appliances, BD-142004-01. Annex (4) refers to Notified Body (NB) needs, required technical documents, manufacturing quality control requirements, and information relating to the applied Gulf Conformity Mark (G Mark) and Manufacturers Declaration of Conformity.

Additionally, if a low-voltage electrical product is being sold in just one (or more, but not in all) of the GCC member states, the relevant national deviations only need to be checked for the applicable member state(s) where the product is being put to market. In such cases, the Manufacturers Declaration of Conformity and the Importers Declaration of Conformity must state this condition so it is understood regarding each member states' customs, and the same conditions must be stated in the NB Gulf Type Examination Certificate. This is important to know particularly for EMC testing, as some GCC member states operate with different main voltage and frequency requirements. This means EMC testing for overall coverage of the GCC region

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would actually require multiple EMC tests at various of voltage and frequency settings, unless the product is being tested only for certain member states' national deviations.

## Role of the Manufacturer

In the design and development, the manufacturing of, and subsequent placement onto the market of low-voltage electrical product intended for the GCC marketplace—and therefore requiring the G Mark—all manufacturers shall ensure the product(s) meets the requirements set out in the Technical Regulation BD-1420004-01.

### List 1 Regulated Products

As the products under List 1 are as yet unannounced, the full scope of products to be regulated under these terms is not known. However, the conformity requirements have been drawn up in BD-142004-01. Per Annex (3), in summary, the manufacturer shall:

- Establish a Technical Documentation file for each model or range of product including:
  - a risk analysis/assessment report relating to the products within the series range,
  - third-party test report(s) from a GAC- or ILAC-accredited laboratory,
  - or a CB Test Report (CBTR) and CB Test Certificate (CBTC) through the IECEE system;
- Provide additional documentation, such as a detailed description of the product with conceptual design and manufacturing drawings and addresses of the places of manufacture and storage of the product; and
- List the Gulf or IEC standards applied in full or in part to the product.

Regarding manufacturing procedures and processes, for List 1 products, manufacturers must have a system in place—typically a factory quality control system—in order to ensure products are being manufactured and assembled in a controlled manner that includes production line testing to confirm the product quality and integrity so as to maintain conformity within the design intent.

These regulations are to ensure the manufacturer maintains the proper conformity assessment procedures needed for safe internal product control. Once all these elements have been completed to the satisfaction and the product has been registered in the electronic registration system and approved by the GSO, the manufacturer can affix the proper G Mark, with the proper registration number, to the product and draw up a written Declaration of Conformity.

### List 2 Regulated Products

For List 2 products, manufacturers must choose a single Notified Body (NB) entity, such as Intertek, to examine the technical design of a product and verify that the technical design of the

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product meets the requirements of the applicable Gulf Technical Regulations and for the issuance of an evaluation report with a Gulf Type Examination certificate. The Notified Body (NB) must also ensure the manufacturing has a production quality system implemented in order to confirm that the product is being manufactured in accordance to the technical specifications.

The product manufacturer still must create a Technical Documentation file for each model of a product, and this documentation must still include a risk analysis/assessment report and test reports, among the other additional documentation requirements noted for List 1 products above, but with the additional inclusion of the Notified Body-issued evaluation report with a Type Examination Certificate, as the product registration in the electronic registration system is the responsibility of the Notified Body.

### **Both List 1 and List 2 Regulated Products**

The Technical Documentation must be drawn up in the Arabic language. If this is not possible, documents in English can be submitted after the approval of the Competent National Authorities in the GCC Member States.

Additionally, the manufacturer must keep the Technical Documentation at the disposal of the Competent National Authorities for 10 years after the electrical equipment has been placed on the market.

An example of the Manufacturers Declaration of Conformity document is included in Annex (5) of the [Gulf Technical Regulation for Low Voltage Electrical Equipment and Appliances BD-142004-01](#), and an example of the Importer Declaration of Conformity is provided in Annex (6).

## **G Marking Registration**

Registration aims to ensure the tracking of products bearing the G Marking, and all models of a product seeking G Marking must undergo registration. There is an associated cost, which has been fixed at the amount of 500 SR (Saudi riyals) per model per year, per BD-131705-01.

Initial registration requires the submission of data detailed in Annex (2) of the GSO Guidance document on the Registration of products bearing the “G” Mark to the GSO registration system. This data is targeted at identifying the manufacturer and/or the importer, and the required data is different if the manufacturer is responsible for affixing the G Marking versus if a Notified Body is responsible for affixing a G Mark.

Once the initial registration has been completed, the manufacturer or Notified Body must enter the model’s data detailed in Annex (3) of the Guidance document on the Registration of products bearing the “G” Mark into the GSO Electronic Registration System. This data

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specifically addresses the product model and detailed information about it, such as name, product category, relevant Gulf Technical Regulations, Notified Body (if any), destination markets, and more. Again, the required data for this stage differs based on if the manufacturer is responsible for affixing the G Marking or if the Notified Body is responsible for affixing the G Marking.

The GSO reviews this information, requests any necessary adjustments if needed, and then approves the registration once all requirements are met. With the approved registration comes an assigned registration number for the product model. Each G Marking affixed to a product must include its designated registration number. This registration number will include 13 digits, split into three distinct sequences separated by hyphens (for example, 0000-000-000000).

The first sequence of four numbers symbolizes the identification issued by the GSO for all qualified Notified Bodies. All List 2 products will require the number of the Notified Body they worked with in the conformity assessment process to be included here. If this is a List 1 product, meaning self-assessment and self-registration is required, that sequence of four numbers will then be four zeros (0000). The three digits in the second sequence of numbers in the registration provide the code for the country of origin of a product. All products, no matter if they are List 1 or List 2, require specific digits in this sequence. The correct country code is found with the relevant International Classification. The six numbers in the third sequence of the registration number represent the specific product model. This unique number will be provided by the GSO database registration system, and, again, every product requires unique numbers for this sequence despite their List classification.

This entire registration number must accompany the G Marking on all low-voltage electrical products to be sold in the GCC region, and Annex (4) of the Guidance document on the Registration of products bearing the “G” Mark shows a drawing of how the G Marking and registration number must be included on the product. The artwork for the G Mark itself is available as [a high-resolution PNG file on the GSO website](#), titled “[Shape of GCC Conformity Mark-High Resolution](#)” (74 KB).

It is important to note here that this registration system, with the registration numbering, is now under review by the GSO and may be changed in the future. It is proposed that, instead of having the registration numbering on the product, the registration system would generate a QR code that would need to be included on the Manufacturers Declaration of Conformity and the Importers Declarations of Conformity, as well as on the NB Type Examination Certificate. Currently the registration number system is still the acting system for G Marking, but be aware this could change in the future.

## Choosing a Notified Body or Third-party Lab Partner

Whether a manufacturer or importer is working with a product included on List 1 or List 2, they will likely need to seek out a third-party testing or lab partnership to help them accomplish all the necessary conformity assessment procedures needed to obtain G Marking. While a variety of factors comes into play for such partnerships—including existing relationships, product expertise, location, and more—it would be wise to seek out a partner who is familiar with the GCC and its regulatory and certification environment and the associated procedures.

For example, as a global solutions provider in testing, inspection, and certification services, Intertek is familiar with and can offer support and guidance on the Gulf Technical Regulations and overall G Marking requirements and procedures. Intertek also has pending GAC Notified Body accreditation status for low-voltage electrical equipment and appliance products in Europe, the Americas, and in the Asia-Pacific region.

With its global network of laboratories that offer testing and certification services for electrical and electronic components, equipment, and products, Intertek is likely available to serve product needs locally. Also, as one of the largest issuers of the IECCE CB Scheme and with our well-known third-party certification marks such as ETL, ASTA, BEAB, S Mark, and more, Intertek can provide bundled testing and certification services for international and national certifications plus a Gulf Type Examination Certificate as a product conformity assessment partner.

## Conclusion

Through this work with the GSO and associated bodies, the GCC is harmonizing its technical regulations and conformity assessment procedures among its member states, which helps to ensure better economic flow and cooperation in the region. Additionally, these GSO standards also are harmonizing with international standards, and this effort helps bring a more coherent and cohesive environment to global businesses looking to bring low-voltage electrical products to market in the GCC member states. It is this type of work that is helping to facilitate and encourage more trade without barriers in this region of the world.

## About Intertek

Intertek is a leading quality solutions provider to industries worldwide. From auditing and inspection, to testing, training, advisory, quality assurance, and certification, Intertek adds value for its customers by helping improve the quality and safety of their products, assets, and



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processes. With a network of more than 1,000 laboratories and offices and over 38,000 people in more than 100 countries, Intertek supports companies' success in the global marketplace by helping customers to meet end users' expectations for safety, sustainability, performance, integrity, and desirability in virtually any market worldwide. Visit [www.intertek.com](http://www.intertek.com).

To connect with an expert on this topic, or to discuss a new project, contact Intertek at [gmarkinfo@intertek.com](mailto:gmarkinfo@intertek.com).

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