

GCC Certification Service Manufacturer Guidance (Low-voltage Electrical products)

Global Market Access Center



한국기계전기전자시험연구원
Korea Testing Certification

1. About GCC Certification (G-Mark)

1.1. The certification scheme operated by the GSO is a compulsory certification based on the common technical regulations of the GSO 7 member countries located in the Gulf region, and is also referred to as G mark certification. Requires Gulf Type Examination Certification through a 3rd-party certification body (NB) accredited by the GAC for the target product, and accompanies the manufacturer's Declaration of Conformity (DoC).

* Related Institutions and Terms

- GSO: GCC Standardization Organization
- GCC: Gulf Cooperation Council
- GAC: GCC Accreditation Center
- NB: Notified Body
- DoC: Declaration of Conformity

* GSO member countries

- State of United Arab Emirates
- Kingdom of Bahrain
- Kingdom of Saudi Arabia
- Sultanate of Oman
- State of Qatar
- State of Kuwait
- Republic of Yemen

1.2. GSO documents related to the certification of low voltage electrical equipment appliances are as below.

- Gulf Regulation on G Marking - BD09100501
- GSO Guide On Modules of Conformity Assessment - BD09100503
- General Product Safety Regulation - BD09100504
- Gulf Technical Regulation for Low Voltage Electrical Equipment and Appliances - BD-142004-01
- List No. (2): TC143307-01 Electrical equipment and appliances subjected to CAP in Annex (4) of LV TR
- List (1) To be issued

*GSO Technical Regulations and Guides

<https://www.gso.org.sa/en/conformity/gcc-conformity-assessment-scheme/>

2. Understanding Gulf Technical Regulation for Low-Voltage Electrical Equipment and Appliances.

2.1. Gulf Technical Regulations for Low Voltage Electrical Equipment and Appliances: BD-142004-01 includes the precise definitions and obligations regarding economic operators for meeting product conformity requirements and procedures. Electrical appliances that designed to be used in certain rated voltage range must be sold bearing G mark after being certified by the GCC Notified Body. Requirements to be met for product conformity in the form meeting the Essential Safety Requirements specified within Annex 1 of the Low Voltage Technical Regulation: BD-142004-01 and it also includes requirements for Electromagnetic disturbance,

G Mark is not a quality assurance mark and it a means of confirming that the product meets basic essential requirements, such as the CE mark in Europe. This G marking allows the product to be used freely within the Gulf region. where the size or nature of electrical equipment does not allow it, all the required information shall be provided on the packaging or in a document accompanying the electrical equipment.

2.2. Electrical Equipment and Appliances subjected to Conformity Assessment

Electrical, electronic appliances designed to operate in voltage range (AC 50~1000V, DC 75~1500V). Electrical, electronic appliances are categorized into two groups defined as List(1) and List(2)

List (1) : List (1) is determined to be electrical product which is classified as low risk and so a SELF DECLARATION route by the manufacturer can be made on affixing the “G” and drawing up a Declaration of Conformity before placing the product on the market. List (1) product at the time of this document being written has yet to be issued by the GSO.

List (2) : is a specific defined list of higher risk electrical product which will undergo mandatory Type testing and review of the product Technical File to verify conformity, a recommendation to grant Type Certification is made and on registration of the product, authorization is granted to affix the “G” mark before placing the product onto the market.

*** Equipment and phenomena outside the scope of this technical regulation**

1. Electrical equipment for use in an explosive atmosphere
2. Electrical equipment for radiology and medical purposes
3. Electrical parts for goods and passenger lifts
4. Electricity meters
5. Electric fence controllers
6. Radio-electrical interference
7. Specialized electrical equipment, for use on ships, aircraft or railways, which complies with the safety provisions drawn up by International Bodies in which the Member States participate.

Product name	HS code
Domestic Electrical Fans	84 14 51 00
	84 14 59 00
Refrigerators, freezers and other refrigerating or freezing equipment	84 18 10 00
	84 18 21 00
	84 18 29 00
	84 18 30 00
	84 18 40 00
Centrifugal clothes dryers and Clothes washing machines, including machines which both wash and dry	84 21 12 00
	84 50 11 00
	84 50 12 00
	84 50 19 00
Food grinders and mixers, fruit or vegetable juice extractors.	85 09 40 00
Toasters	85 16 72 00
Electro-thermic hair-dressing apparatus and hand dryers	85 16 31 00
	85 16 32 00
	85 16 33 00
Domestic electric heating apparatus	85 16 29 10

Microwave ovens	85 16 50 00
Other ovens; cookers, cooking plates, boiling rings, grillers and roasters	85 16 60 00
Electric instantaneous or storage water heaters and immersion heaters	85 16 10 00
Electric smoothing irons	85 16 40 00
Plugs, Socket outlets, Adaptors, Cord Extension Sets and chargers	85 44 42 20 85 36 69 10
Air conditioners	84 15 10 00

Table.1 List (2) subjected item and reference HS code

2.3. Summary of Essential requirements

2.3.1. The essential characteristics shall be marked on the electrical equipment clearly and in a way that cannot be removed easily, or, if this is not possible, on an accompanying notice, and shall include the instructions for use, in order to ensure that electrical equipment will be used safely and in applications for which it was made.

2.3.2. The electrical equipment shall be so designed and manufactured as to ensure that protection against the hazards listed below is assured, providing that the electrical equipment is used in applications for which it was made and is adequately maintained

- That persons are adequately protected against the danger of physical injury or other harm which might be caused by direct or indirect contact;
- That temperatures, arcs, radiations or electromagnetic influences which would cause a danger for persons or property or environment, are not produced;
- That persons and property are adequately protected against nonelectrical dangers caused by the electrical equipment which are revealed by experience;
- That the insulation must be suitable for foreseeable conditions of use of the electrical equipment.
- Must be taking into account the voltage and frequency of each Member State, as well as the type and shape of the plugs and socket outlets used in each state.

	United Arab Emirates	Kingdom of Bahrain	Kingdom of Saudi Arabia	Sultanate of Oman	State of Qatar	State of Kuwait	Republic of Yemen
Rated voltage (Volt)	230/400±10%_6%	230/400±6%	127/220±5 For domestic and commercial use 220/380 ±5 For industrial use	240/415±6%	240/415±6%	240/415±6%	220/400±6%
Frequency (Hertz)	50 Hz ±0.5 (1%)	50 Hz ±0.5 (1%)	60 Hz ± 0.1	50 Hz ±0.5 (1%)	50 Hz ±0.5 (1%)	50 Hz ±0.5 (1%)	50 Hz
Type and shape of the plugs and sockets	C/D/G	G	G	C/G	D/G	C/G	A/D/G
Note: Type and shape of the plugs and sockets shall be reviewed from the IEC website www.iec.ch .							

Table.2 GSO member countries plug/socket type and national voltage, Frequency.

2.4. Presumption of conformity is achieved by meeting the relevant Gulf GSO standards, however, the Gulf Accreditation Council (GAC) also recognize other international standards such as IEC standards with inclusion of the national deviations for the Gulf Region. When a relevant GSO standard does not exist or has not been published, the GSO will accept IEC standards.

3. Role and Obligations of the Manufacturer

3.1. When placing electrical equipment on the market, the Manufacturer shall ensure that it has been designed and manufactured in accordance with the requirements

3.2. The Manufacturer shall carry out the applicable conformity assessment procedure in accordance with Article (20) and shall provide the necessary evidence about it. In addition, Manufacturer shall draw up the Manufacturer Declaration of Conformity and kept it for a period of 10 years after the electrical equipment has

been placed on the market.

- 3.3. The Manufacturer shall ensure that procedures are in place for series production to remain in conformity. Changes in electrical equipment design or characteristics and changes in the Gulf Standards or in technical specifications by reference to which conformity of electrical equipment is declared shall be adequately taken into account.
- 3.4. When deemed appropriate with regard to the risks presented by electrical equipment, the Manufacturer shall, to protect the health and safety of consumers and the environment, carry out sample testing of marketed electrical equipment, investigate, and, if necessary, keep a register of complaints, of non-conforming electrical equipment and electrical equipment recalls, and shall keep Distributors informed of any such monitoring.
- 3.5. The Manufacturer shall ensure that electrical equipment bear a type number, and batch or serial number or other element allowing its identification, except, where the size or nature of electrical equipment does not allow it. In addition, the required information shall be provided on the packaging or in a document accompanying the electrical equipment.
- 3.6. The Manufacturer shall indicate his registered trademark on the electrical equipment. In addition, he shall indicate on the electrical equipment, his name or registered trade name, and the address at which he can be contacted, except where it is not possible. All the required information shall be provided on the packaging or in a document accompanying the electrical equipment. Safety information and User manual shall be provided in Arabic language.
- 3.7. A Manufacturer who consider or have reason to believe that electrical equipment, which he has placed on the market, is not in conformity with the Gulf Technical Regulations in force shall immediately take the corrective measures necessary to bring that electrical equipment into conformity, to withdraw it or recall it, if appropriate. Where the electrical equipment presents a risk, the Manufacturer shall immediately inform the Competent National Authorities of the Member States in which he made the electrical equipment available to that effect, giving details, in particular, of the non-compliance and of any corrective measures taken.

3.8. The Manufacturer shall, further to a request from the Competent National Authorities in the Member States, provide those authorities with all the information and documentation necessary to demonstrate the conformity of the electrical equipment, in Arabic language, and if it is not possible, documents in English can be submitted after the approval of those authorities. The said information and documentation shall be provided during a period of time specified by the relevant authorities not to exceed twenty working days.

4. Application procedure

4.1. 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 BD-142004-01. Annex (3) refers, in summary the manufacturer shall:

- Establish a Technical Documentation file for each model or range of product
- Risk analysis / assessment report relating to the products within the series range
- Test report from a third-party laboratory which is accredited from a GAC or ILAC. (requires additional contract with KTC)
- Or test report from a manufacturer's in-house laboratory which is accredited from a GAC or ILAC. (requires additional contract with KTC)
- Or a CB Test Report (CBTR) and CB Test Certificate (CBTC) through the IECEE system
- Additional documentation such as a detailed description of the product with conceptual design and manufacturing drawings
- Address of the places of manufacture and storage of the product (Within GCC Member States.)
- List of the Gulf or IEC standards applied in full or in part to the product.

4.2. For List 2 products, manufacturers must choose a single Notified Body (NB) entity, to examine the technical design of a product and verify that the technical design of the product meets the requirements of the applicable Gulf Technical Regulations and for the issuance of an evaluation report with a Gulf Type Examination certificate and shall be issued certificate from Notified Body (NB) .

- 4.3. The product manufacturer of the products belong to list 2 must create a Technical Documentation file for each model of product, and this documentation must still include below.
- All required document for List (1) (see 4.1)
 - Type Examination Certificate issued by Notified Body (NB).
- 4.4. Technical Documentation Contents
- 4.5. 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.
- 4.6. Where reasonable requests are made by the regulatory authorities (the follow-up service institution), The manufacturer shall provide some or all of the technical documentation in Arabic. The regulatory authorities may set a deadline for submission (or translation) to these requests (20 working days) and may be requested shorter depending on the urgency of the matter.

5. Certification Procedure and Submission Materials for Notified Body KTC

- 5.1. Korea Testing Certification(KTC) is a GSO Notified Body accredited by the GAC under ISO / IEC 17065 for the scope of electrical, electronic appliances and Toy for authorization to issue the G mark.
- 5.2. The certification process to be followed by the KTC will be in line with the work flow as described under ISO / IEC 17065:
- a. Quotation (Based upon customer requirements and supplied information)
 - b. Certification Application Review (Review of application and produce Certification Plan)
 - c. Evaluation (Testing conducted in accordance to ISO / IEC 17025)
 - d. Certification Review (Technical Review of Test Reports and Technical File)
 - e. Final Decision (Grant of Certification, update GSO Registration Database)
- 5.3. KTC provides certification service by recognizing IECEE CB certificates, test reports

and ISO / IEC 17025 ILAC designated laboratories issued test reports. All submitted reports must be issued within 3 years and include the National Deviation of the Gulf member countries. The reference standards used for the test report is to be the latest version.

6. Certificate Registration, Modification and Renewal, GCTS

6.1. The GTEC (Gulf Type Examination Certificate) issued by the NB has a validity period of up to 3 years and is deemed to be valid only if registered on the GSO online system. The validity of the QR code can be checked through the online system and a separate registration fee incurs in addition to the certification fee. With the introduction of GCTS(GSO Conformity Tracking System), all certificates receive a GCTS(Image including the QR-code) other than the certification number issued by the certification body. The manufacturer must mark the GCTS on the product and on its packaging in accordance with the regulations (size, location, etc.). (Refer to Marking Rules)



Figure.1 GCTS image for Certificate



Figure.2 GCTS image for Products

6.2. The renewal procedure for expired certificate is identical to the initial certificate.

7. Control, misuse of certificate & complaint/appeal procedure

7.1. Manufacturer shall inform the notified body if there are any changes in the certified product or manufacturing process which affect the conformity of the certificate and shall follow the necessary steps(certification review etc.)

7.2. KTC reserve the right to suspend, leading to termination of certification for

misuse of the G Mark for example, but not limited to: ,

- Non - payment of fees
- Placing onto the market a model which has not been type approved and bears the G mark
- Product identified by market surveillance as non-conforming
- non-conforming product placed on the market

Full terms can be found in the Certification Agreement. The manufacturer shall cooperate as necessary with the KTC at reasonable request.

7.3. Complaint and appeal procedure

Complaints or appeal about KTC's G-Mark certification service can be made by phone, fax, visit, homepage, etc. to KTC customer support center

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