



# TÜV Rheinland Global Market Access Global Network Local Services

January 2025

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 **TÜVRheinland®**  
Precisely Right.

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97	Small Appliances	140	RoHS
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110	LED luminaries	152	Major appliances (air conditioners, refrigerators, and washing machine)
115	Wireless Products		

# TÜV Rheinland Trusted

TÜV Rheinland is the world's leading provider of independent inspection services with a 150-year history and more than 20,000 employees in locations around the globe. Our services include industrial services and information security, transport services, product services, management system services, and training and consulting services.

TÜV Rheinland is united in its pursuit of safety and quality, and we aspire to be the world's best provider of testing, inspection, certification, consulting, and training services - sustainably and independently.

TÜV Rheinland has its roots in the "Association for the Supervision of Steam Boilers in Elberfeld and Barmen," which was founded in 1872 to prevent explosions and protect employees and valuable equipment.

In the course of industrialisation - from railways to electric mobility, from steam locomotives to digitalisation - we continue to ensure the highest level of safety with proven and cutting-edge technologies, products and services. At the same time, we support our customers in creating efficient and sustainable products and processes.

Safety and sustainability are the cornerstones of our future. This has been true for the past 150 years, and it will be true for the next 150 years.





# TÜV Rheinland Global Network

**>500** Branches

**56** Countries and regions

**241** Laboratories

**3** IECCE CB National Certification Bodies

**80** CB Testing Laboratories

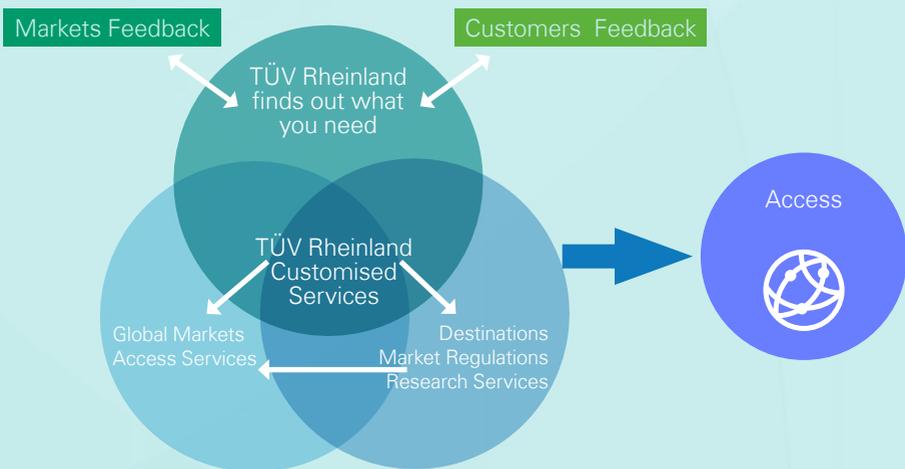
- TÜV Rheinland LGA Products GmbH
- TÜV Rheinland InterCert Kft., MEEI Division
- TÜV Rheinland Japan Ltd.



# Overview of TÜV Rheinland's Market Access Services

As the regulatory environment evolves, most countries and regions are implementing various approval or registration schemes for safety, electromagnetic compatibility, wireless communications, energy efficiency, chemical and environmental labelling to ensure product compliance in order to prevent loss of life and property.

Depending on your needs, TÜV Rheinland helps you develop new markets and meets all of your market access requirements in a one-stop shop.



## Service Portfolio

TÜV Rheinland is a trusted strategic partner to our global marketing clients through consulting and predictive analyses prior to product launches in target markets.

We can provide our customers with mandatory certifications and standards for target markets, regulatory requirements, and labeling certificates before they "go to market".

## What certificates and test marks do I need before my product can be marketed in the target country?



### Safety regulations

Avoidance of electrical hazards to humans and animals



### Electromagnetic compatibility

Electromagnetic interference and electromagnetic resistance



### Wireless Communication Certification Radio/Telecom Approval

Ensures that radio products comply with regulatory requirements in each country



### Energy Efficiency

Using less energy to produce the same result is mandatory in many countries.



### Chemical/Environment

Ensures protection of human health and preservation of the environment.



### Performance & Function

Focus on the overall stability of the product and all the features of the product





Canada

United States

Mexico

El Salvador

Costa Rica

Panama

Colombia

Ecuador

Peru

Brazil

Chile

Argentina

Uruguay

New Zealand



## Global International

Country	Type	Certification name & Mark	Mandatory/ Voluntary
Participating countries	Safety	IECEE CB Scheme 	V
	Safety	IEC IECEx Scheme 	V
Global	ECO	TÜV Green Product Mark 	V

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification



## Europe Union

Nordic Countries  
Serbia

Switzerland  
Ukraine

EAEU

Moldova

TÜV Rheinland is a licensing body / accredited testing laboratory.

European Union

Belarus

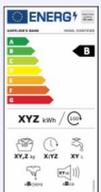
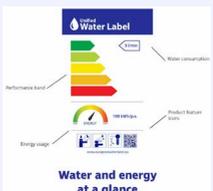
Germany

Russia

United Kingdom



# European Union

Type	Certification name & Mark	Mandatory/ Voluntary
Safety	CE Marking 	M
Safety	ENEC Mark 	V
Safety	ENEC Plus Performance Mark 	V
Energy Efficiency	Energy Label 	M
WEEE	WEEE Label 	M
Water Efficiency	European Water Label 	V

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Moldova



Voltage (V): 220

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	INSM Mark 	M / V*
Wireless	National Radio Frequency Center 	M

Note: M = Mandatory; V = Voluntary.

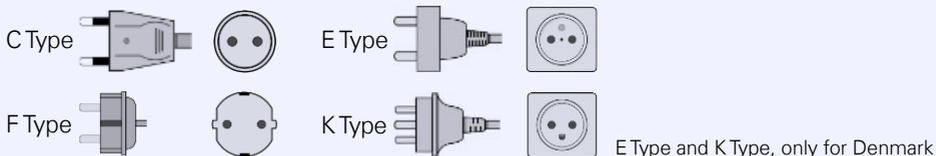
\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Nordic Countries (Finland, Sweden, Norway, Denmark)

Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



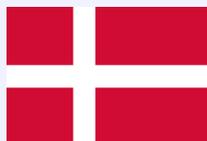
Finland



Norway



Sweden



Denmark

Type	Certification name & Mark	Mandatory/ Voluntary
Safety	F-mark, S-mark, N-mark, D-mark 	V

Note: M = Mandatory; V = Voluntary.

\* = The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Serbia

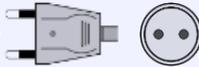


Voltage (V): 230

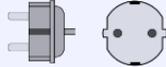
Frequency (Hz): 50

Plug / socket type form:

C Type



F Type



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Serbian Mark of Conformity 	M
Wireless	RATEL CoC 	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Switzerland

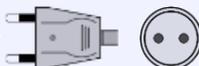


Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:

C Type



J Type



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Swiss Safety Mark 	V

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Ukraine



Voltage (V): 220

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Ukrainian Conformity Mark 	M
Hygienic	Sanitary-epidemiological certificate (hygienic certificate)	M
Energy Efficiency	Energy Efficiency Label 	M
Wireless	RED DoC 	M
RoHS	Ukraine RoHS 	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Germany



Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	TÜV Rheinland GS Mark 	V
Safety	TÜV Rheinland Bauart Mark 	V
EMC	TÜV Rheinland EMC Mark 	V
Functionality and Ergonomics	TÜV Rheinland Ergo Mark 	V
Water Efficiency	Water Efficiency Label (WELL) 	V

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

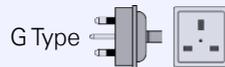
# United Kingdom



Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	UKCA Mark	M
Energy Efficiency	UK Energy Label	M
Water Efficiency	WRAS Product Approval	M
RoHS	UK RoHS	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Eurasian Economic Union EAEU

## including Russia, Belarus, Kazakhstan, Kyrgyzstan, Armenia



Voltage (V): 220, 230 (for Armenia)    Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety/ EMC	EAC Mark 	M
RoHS	EAC Mark (RoHS) 	M
Hygienic	State Hygienic (Sanitary) Registration (SRG)	M
Energy Efficiency	EAC Mark (expected to be implemented by  )	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification



## Russia

Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Gost-R Mark 	M
Wireless	FAC (Federal Communications Agency)	M
Encryption	FSB Notification	M
Energy Efficiency	Energy Efficiency Label 	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification



## Belarus

Type	Certification name & Mark	Mandatory/ Voluntary
Energy Efficiency	Energy Labelling 	V
Wireless	Belarus National Radio/ Telecom Technical Regulation 	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification



## Kazakhstan

Type	Certification name & Mark	Mandatory/ Voluntary
Wireless	Kazakhstan Type Approval	V

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification



## Kyrgyzstan

Type	Certification name & Mark	Mandatory/ Voluntary
Wireless	Kyrgyzstan Type Approval	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

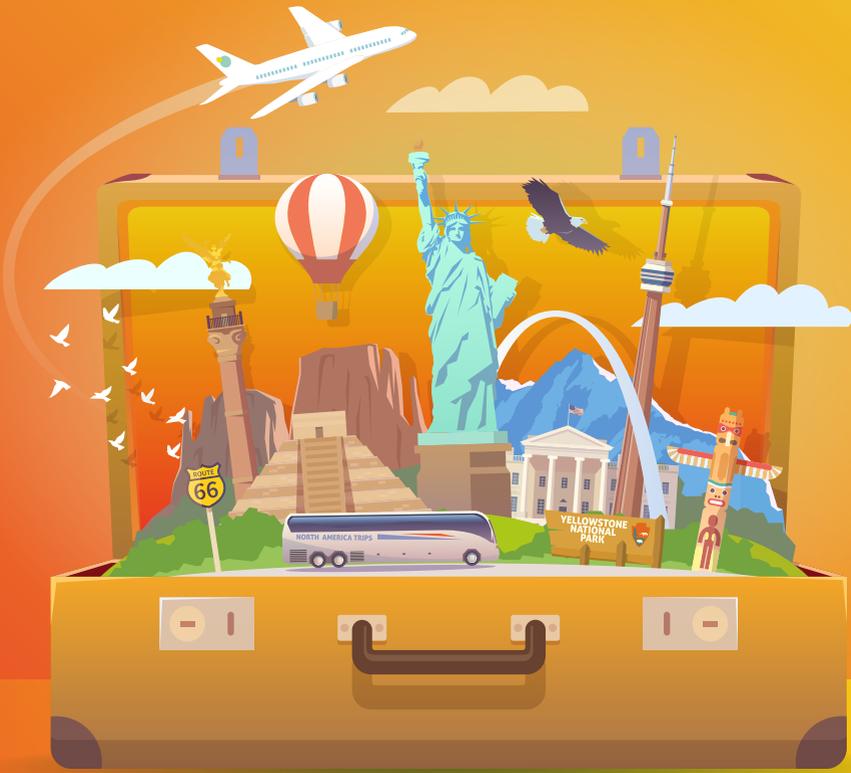


## Armenia

Type	Certification name & Mark	Mandatory/ Voluntary
Wireless	Public Services Regulatory Commission (PSRC)	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification



# NORTH AMERICA

TÜV Rheinland is a licensing body / accredited testing laboratory.

Canada

Mexico

United States

# Canada



Voltage (V): 120

Frequency (Hz): 60

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	cTUVus Mark 	M/V
Water Efficiency	UPC/cUPC Mark (Uniform plumbing code Mark) 	V
Wireless	ISED Canada (Innovation, Science and Economic Development Canada) 	M
Energy Efficiency	The EnerGuide Label 	M
Energy Efficiency	Energy Efficiency Verification Mark (NRcan) 	V

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Mexico



Voltage (V): 127

Frequency (Hz): 60

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	TÜV Rheinland Mexico NOM mark 	M
Energy Consumption	ECL (Energy Consumption Label) 	M
Energy Efficiency	Energy Efficiency Labeling 	M
Wireless	IFETEL Label  (Effective since July 1st, 2025)	M
Other	Commercial Information	M

Note: M = Mandatory; V = Voluntary.

\* = The regulations depending on the type of product, can apply for mandatory or voluntary certification

# United States



Voltage (V): 120

Frequency (Hz): 60

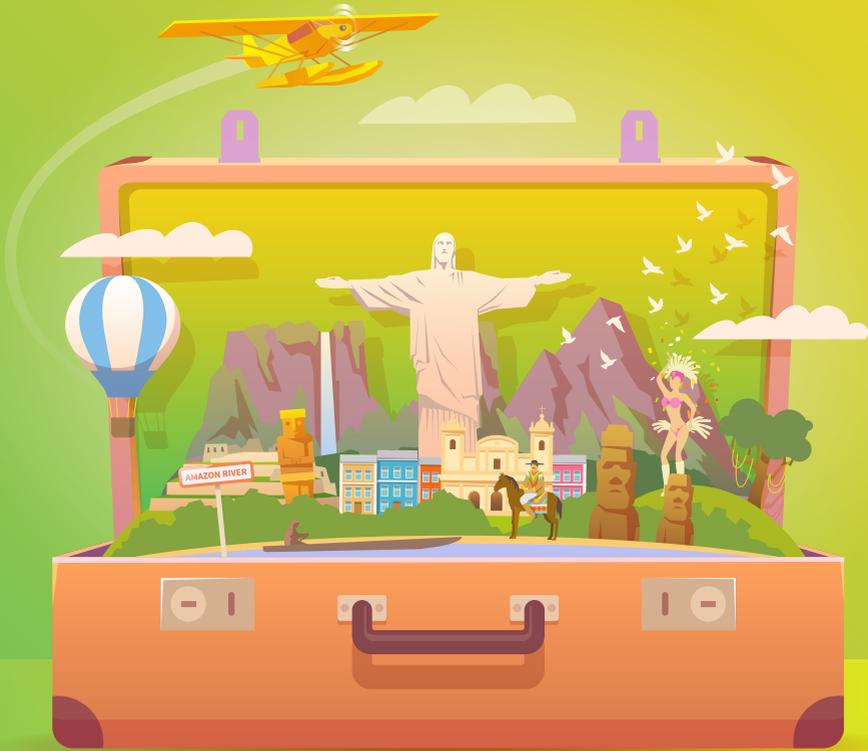
Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	cTUVus Mark 	M/V
Water Efficiency	UPC/cUPC Mark (Uniform plumbing code Mark) 	V
Safety	HAZLOC	M
Wireless	FCC (Federal Communications Commission Mark) 	M
Energy Efficiency	Energy Star 	V
Energy Efficiency	EnergyGuide Label 	M
Water Efficiency	WaterSense Mark 	V
Energy Efficiency/ Water Efficiency	CEC mark (California Energy Commission)	M
RoHS	California RoHS	M
RoHS	California Lighting Efficiency and Toxics Reduction Act	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification



## LATIN AMERICA

Colombia  
Panama

Costa Rica  
Uruguay

El Salvador

TÜV Rheinland is a licensing body / accredited testing laboratory.

Argentina

Brazil

Chile

Ecuador

Peru

# Colombia



Voltage (V): 110

Frequency (Hz): 60

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	RETIE/RETILAP Mark	M

Energy Efficiency	<p><b>Energía</b></p> <p>Consumo de energía 18,5 kWh/año</p> <p>Ahorro energético relativo 40 % (*)</p> <p>El consumo energético depende del lugar de instalación, modo de uso y mantenimiento del equipo.</p> <p>Refrigerador-Compactor</p> <p>Marca RECCO</p> <p>Modelo NFB01</p> <p>Compare este equipo con otros de similares características.</p> <p>Menor consumo: 18 kWh/año (Clase A)</p> <p>Clase <b>B</b> 28 kWh/año</p> <p>Mayor consumo: 40 kWh/año (Clase D)</p> <p>Temperatura ambiente de operación estándar de 18 a 28 °C</p> <p>No utilizar este símbolo hasta que se verifique el consumo real.</p>	M
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Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Costa Rica



Voltage (V): 120

Frequency (Hz): 60

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Energy Efficiency	Energy Efficiency label 	M
Wireless	SUBTEL (Subsecretaria de Telecomunicaciones)	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# El Salvador



Voltage (V): 115

Frequency (Hz): 60

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Energy Efficiency	OSARTEC 	M
Wireless	SIGET (Superintendencia General de Electricidad y Telecomunicaciones)	V

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Panama



Voltage (V): 110

Frequency (Hz): 60

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Energy Efficiency	Energy Efficiency Label 	M
Wireless	ASEP (Autoridad Nacional de los Servicios Publicos)	M / V*

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

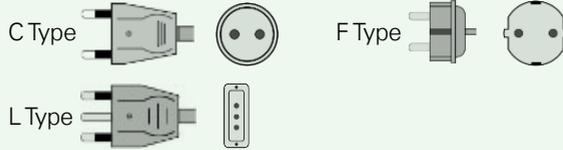
# Uruguay



Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	RSPEBT certificaec	M
Energy Efficiency	Energy Efficiency Label	M
Wireless	ANTEL Approval (PSTN Terminal Equipment)	M
Wireless	URSEC (Unidad Reguladora de los Servicios en Comunicaciones)	M



Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

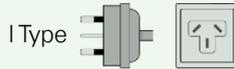
# Argentina



Voltage (V): 220

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
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Safety

TÜV Rheinland Argentina S-Mark



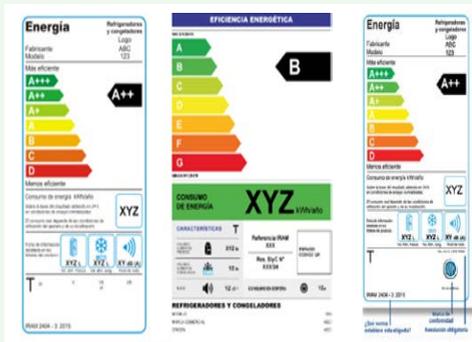
Para el mercado argentino  
Designated  
Argentina certifies



M

Energy Efficiency

Energy Efficiency Label



M

Wireless

ENACOM



M

Note: M = Mandatory; V = Voluntary.

\* = The regulations depending on the type of product, can apply for mandatory or voluntary certification

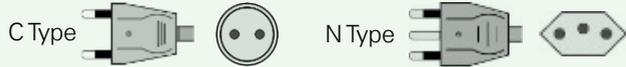
# Brazil



Voltage (V): 127/220

Frequency (Hz): 60

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	TÜV Rheinland Brazil S-Mark 	V
Safety/EMC/ Performance	TÜV Rheinland Brazil INMETRO Mark (for LED lamp and Street light) 	M
Safety/ EMC*	TÜV Rheinland Brazil INMETRO Mark 	M
Safety/EMC/ Energy Efficiency	TÜV Rheinland Brazil INMETRO Mark Full mark on <a href="http://www.tuv.com">www.tuv.com</a> 	V**
Energy Efficiency	PBE Mark (Etiqueta Nacional de Conservação de Energia) 	M
Wireless	Anatel Mark 	M

Note: M = Mandatory; V = Voluntary.

\* = The regulations depending on the type of product, can apply for mandatory or voluntary certification

\*\* = Decree 170 mark for governmental acquisition

# Chile

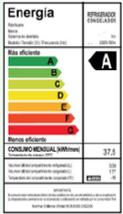


Voltage (V): 220

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	SEC Mark 	M
Energy Efficiency	SEC Mark -Energy Efficiency Label 	M
Wireless	SUBTEL (Subsecretaria de Telecomunicaciones)	M
Water Efficiency	Water Efficient Label 	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Ecuador



Voltage (V): 120

Frequency (Hz): 60

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	RTE CoC 	M
Energy Efficiency	Energy label 	M
Wireless	ARCOTEL (Telecommunications Regulation and Control Agency)	V / M*

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

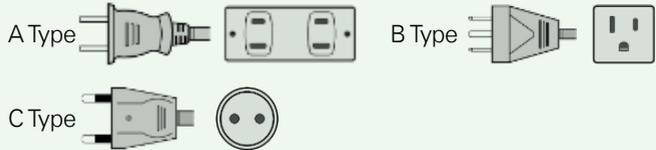
# Peru



Voltage (V): 220

Frequency (Hz): 60

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
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Energy Efficiency

Peru Energy Efficiency label



M

Wireless

MTC (Ministerio de Telecomunicaciones)

M / V\*

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification



# ASIA

Azerbaijan    Bangladesh    Cambodia    China, Hong Kong  
Malaysia    Singapore    South Korea    Thailand    Uzbekistan

TÜV Rheinland is a licensing body / accredited testing laboratory.

China, Taiwan  
Philippines

India  
Vietnam

Indonesia

Japan

# Azerbaijan



Voltage (V): 220

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	AZS Mark 	M
Wireless	MINCOM	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

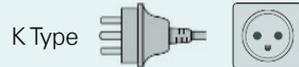
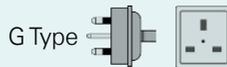
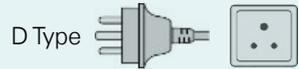
# Bangladesh



Voltage (V): 220

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	BSTI Mandatory Certification Mark 	M
Energy Efficiency	Energy Star Labeling 	V
RoHS	E-waste	M
Wireless	BTRC (Bangladesh Telecommunication Regulatory Commission)	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Cambodia



Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	ISC Safety mark 	M
Wireless	TRC (Telecommunication Regulator of Cambodia)	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

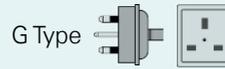
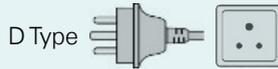
# China Hong Kong



Voltage (V): 220

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Certificate of Compliance	M
Wireless	OFCA Approval 	V / M*
Energy Efficiency	EMSD Energy Label 	V / M*
Energy Efficiency	HK Energy label 	V
Water Efficiency	Water Efficiency Labelling Scheme (WELS) 	V

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Malaysia



Voltage (V): 240

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	ST Certificate of Approval (SIRIM-ST label)	M
Safety	SIRIM Certification Mark	V
Safety	MC Mark (Malaysian Conformity Mark)	M
Wireless	MCMC Mark	M
Energy Efficiency	Energy Efficiency Label	M
Energy Efficiency	Minimum Energy Performance Standards (MEPS) for self ballasted LED lamps for general lighting services	M
Water Efficiency	Water Efficient Products Labeling Scheme	V

Note: M = Mandatory; V = Voluntary.

\* = The regulations depending on the type of product, can apply for mandatory or voluntary certification

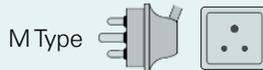
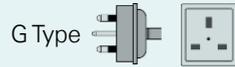
# Singapore



Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Safety Mark	M
Wireless	IMDA Label (Infocomm Media Development Authority)	M
Energy Efficiency	NEA Energy Label	M
Water Efficiency	Water Efficiency Labeling Scheme (WELS)	M/V*
RoHS	Singapore RoHS	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# South Korea



Voltage (V): 220

Frequency (Hz): 60

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	KC Mark 	M
EMC/ Wireless	KC Mark 	M
Energy Efficiency	Energy Efficiency Label and Standard Program (incl. MEPS) 	M
Energy Efficiency	e-Standby Program 	M
Energy Efficiency	High-efficiency Appliance Certification Program 	V
Water Efficiency	Water Supply Grade 	M
RoHS	South Korea RoHS	M

Note: M = Mandatory; V = Voluntary.

\* = The regulations depending on the type of product, can apply for mandatory or voluntary certification

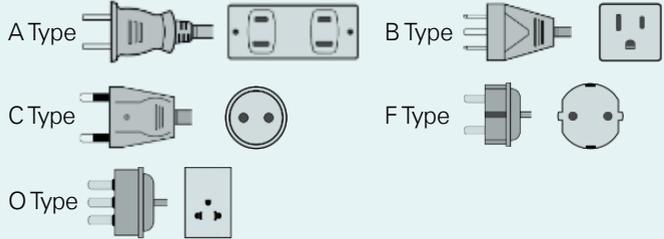
# Thailand



Voltage (V): 220

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety + Water Efficiency	TISI Mark 	M
Safety + Water Efficiency	TISI Mark 	V
Wireless	NBTC (National Broadcasting and Telecommunications Commission) 	M
Energy Efficiency	EGAT label No. 5 	V

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Uzbekistan



Voltage (V): 220

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	STZ Mark 	M
Energy Efficiency	Energy Efficiency Classes Label	M
Wireless	Type Approval 	V

Note: M = Mandatory; V = Voluntary.

\* = The regulations depending on the type of product, can apply for mandatory or voluntary certification

# China Mainland



Voltage (V): 220

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	CCC Mark 	M
Safety	CQC Mark 	V
Wireless	SRRC Approval <span style="border: 1px solid black; padding: 2px;">CMIIT ID: XXXXYZNNNN</span>	M
Wireless	Network Access License (NAL) 	M
Energy Efficiency	China Energy Label 	M
Energy Efficiency/ Water Efficiency	China Energy Conservation Program (CECP) 	V
Water Efficiency	CQC Water Conservation Certification 	V
Water Efficiency	China Water Efficiency Label (CWEL) 	M
RoHS	China RoHS 	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# China Taiwan

Voltage (V): 110

Frequency (Hz): 60

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	BSMI Mark 	M
Wireless	NCC (National Communications Commission)  CCXXxxYYyyyZzW	M
Energy Efficiency	Energy Efficiency Rating Label 	M
Energy Efficiency	Energy Label 	V
Water Efficiency	Water Saving Label (WSL) 	V / M*
RoHS	Taiwan BSMI RoHS 	M

Note: M = Mandatory; V = Voluntary.

\* = The regulations depending on the type of product, can apply for mandatory or voluntary certification

# India



Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	BIS ISI Mark 	V / M*
Safety	BIS CRS Standard Mark 	M
Wireless	WPC Approval	M
Wireless	TEC Mark 	M
Energy Efficiency	BEE Star Label 	V / M*
Chemical	E-Waste	V
Water Efficiency	Water Efficient Products-India (WEP-I) 	V

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Indonesia



Voltage (V): 220 /110

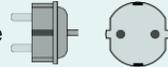
Frequency (Hz): 50

Plug / socket type form:

C Type



F Type



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	SNI Mark 	M
Safety	Technical Verification and Tracing (VPTI)	M
Wireless	SDPPI 	M
Energy Efficiency	Energy Efficiency Label 	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Japan



Voltage (V): 100

Frequency (Hz): 50/60

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	PSE Mark	M
Safety	SCEA S-Mark	V
Safety	PSC Mark	M
EMC	VCCI Mark	V
Wireless	MIC (Ministry of Internal Affairs and Communications)	M
Energy Efficiency	Top Runner Program	M
RoHS	Japan RoHS	M
Water Efficiency	Certification of water supply appliances	V

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

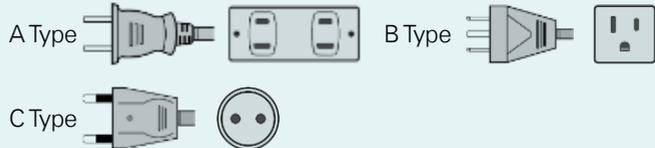
# Philippines

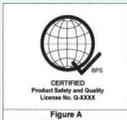
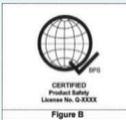


Voltage (V): 220

Frequency (Hz): 60

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary	
	ICC sticker (Import Commodity Clearance Sticker) PS Mark (Philippine Standard Safety Mark)		
Safety	  	M	
Safety	Bulk and Break Bulk Cargo Clearance Enhancement	M	
Wireless	NTC (National Telecommunications Commission)   NTC Type Acceptance Certificate ESD –XXXXXXXX	M	
Energy Efficiency	Philippine Energy Labeling Program (PELP)		M

Note: M = Mandatory; V = Voluntary.

\* = The regulations depending on the type of product, can apply for mandatory or voluntary certification

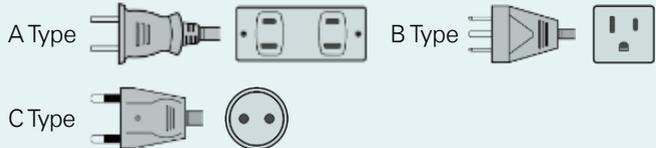
# Vietnam



Voltage (V): 220

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	CR Mark	M
EMC	CR Mark	M
Safety EMC	CR Mark (for LED lighting)	M
Wireless	ICT Mark	M
Energy Efficiency	Energy Efficiency Label	M
Water Efficiency	Water Saving Label	V
RoHS	Vietnam RoHS	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification



# Australia / New Zealand

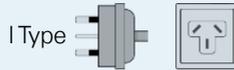


Voltage (V): 240 (Australia); 230 (New Zealand)

Frequency (Hz): 50



Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety/ EMC / Wireless	RCM Mark	M
Safety	TÜV Rheinland Australia Authorised Marking <b>TUV-XXXXXX-EA or TUV-XXXXXX-E</b>	V / M*
Energy Efficiency	Energy Rating Label	M
Energy Efficiency	Minimum Energy Performance Standards	V / M*
Water Efficiency	Water Efficiency Labelling and Standards (WELS)	M
Water Efficiency	WaterMark	M
Water Efficiency	Water Efficiency Labelling Scheme (WELS)	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification



## MIDDLE EAST & AFRICA

Ghana

Iraq

Israel

Jordan

Kenya

Morocco

Nigeria

Tunisia

TÜV Rheinland is a licensing body / accredited testing laboratory.

Bahrain

Kuwait

Oman

Qatar

Saudi Arabia

South Africa

UAE

Yemen

Egypt

Algeria

Botswana

Cameroon

Ethiopia

Libya

Sudan

Tanzania

Uganda

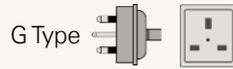
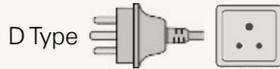
# Ghana



Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Eergy Efficiency	Energy Efficiency Labelling 	M
Wireless	NCA Type Approval (Conformance) 	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

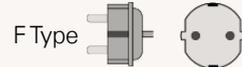
# Iraq



Voltage (V): 220

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	VOC (Verification of Conformity)	M
Safety	COI (Certificate Of Inspection) under IQB scheme	M
Wireless	CMC (Commission of Media & Communications)	M
Energy Efficiency	Energy Efficiency Label 	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

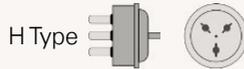
# Israel



Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	SII Test Certificate	M
Safety	SII Standard Mark 	V
Safety	SII Safety Mark 	V
Wireless	MOC (Ministry of Communications)	M
Energy Efficiency	Energy Rating Label 	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

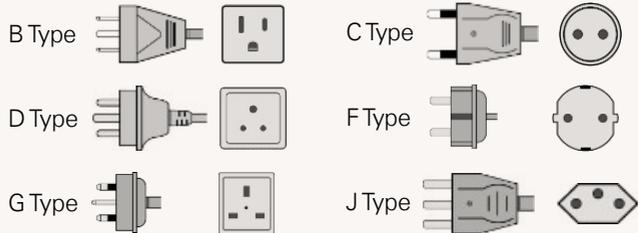
# Jordan



Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Wireless	TRC (Telecommunications Regulatory Commission)	M / V
Energy Efficiency	Energy Efficiency Label (accept EU Energy Label)	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

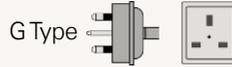
# Kenya

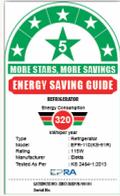


Voltage (V): 240

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Pre-export Verification of Conformity (PVoC) Import Standardization Mark (ISM) sticker 	M
Wireless	Type Approval of CA (The Communications Authority of Kenya)	M
Energy Efficiency	Energy Label 	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Morocco



Voltage (V): 127/220

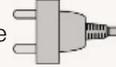
Frequency (Hz): 50

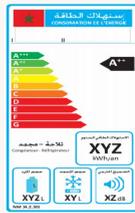
Plug / socket type form:

C Type



E Type



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	CMIM 	M
Energy Efficiency	MEPS (Minimum Energy Performance Standard) 	M
Wireless	National Telecommunications Regulatory Agency (ANRT) Type Approval 	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

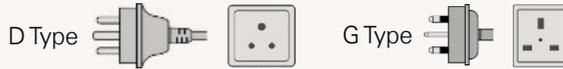
# Nigeria



Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	SONCAP pre-export verification of conformity Product Authentication Mark (PAM)	V
Energy Efficiency	Energy Guide Label	M
Wireless	Type approval of NCC (Nigerian Communications Commission)	M



**Connection and use of this communications equipment is permitted by the Nigerian Communications Commission**

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Tunisia



Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Energy Efficiency	Tunisian Energy Label 	M
Wireless	Type Approval of Centre d'Etudes et de Recherche des Télécommunications (CERT)	M

Note: M = Mandatory; V = Voluntary.

\* = The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Bahrain

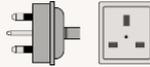


Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:

G Type



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Gulf Conformity Marking (G-mark) (Gulf States, including Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE, Yemen)	 M
Wireless	Directorate of Wireless Licensing Frequency & Monitoring (for SRD, non-cellular device)	M
Wireless	Telecommunications Regulatory Authority (TRA) (for cellular device)	M
Energy Efficiency	Energy Efficiency Rating Label November 2023 will be replaced with the new orange-blue label on the right	 M
Water Efficiency	Water-Consumption Conservation	 M

Note: M = Mandatory; V = Voluntary.

\* = The regulations depending on the type of product, can apply for mandatory or voluntary certification

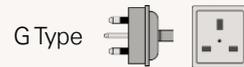
# Kuwait



Voltage (V): 240

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Gulf Conformity Marking (G-mark) (Gulf States, including Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE, Yemen)	 M
Safety	KUCAS (Kuwait Conformity Assurance Scheme)	M
Safety	Kuwait Quality Mark	 V
Wireless	CITRA (Communication and Information Technology Regulatory Authority)	M
Energy Efficiency	Energy Efficiency Label	 M
Water Efficiency	Water-Consumption Conservation	 M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

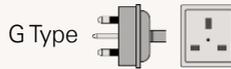
# Oman



Voltage (V): 240

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Gulf Conformity Marking (G-mark) (Gulf States, including Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE, Yemen)	M
Safety	Oman CoC (Omani Conformity Assessment Scheme)	M
Wireless	TRA (Telecommunications Regulatory Authority)	M
Energy Efficiency	Energy Efficiency Label	M
Water Efficiency	Water-Consumption Conservation	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

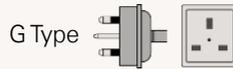
# Qatar



Voltage (V): 240

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Gulf Conformity Marking (G-mark) (Gulf States, including Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE, Yemen)	M
Safety	Certificate for Conformity (for food)	M
Wireless	CRA (Communications Regulatory Authority)	M
Energy Efficiency	Energy Efficiency Label	M
Water Efficiency	Water-Consumption Conservation	M



Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

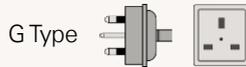
# Saudi Arabia



Voltage (V): 220/230

Frequency (Hz): 60

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Gulf Conformity Marking (G-mark) (Gulf States, including Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE, Yemen)	M
Safety	SIRC (SASO IECEE Recognition Certificate)	M
Safety	SABER CoC	M
Safety	SQM Mark (SASO Quality Mark)	V / M*
Wireless	CST (Communications, Space & Technology Commission)	M
Energy Efficiency	Energy Efficiency Label	M
Water Efficiency	Water-Consumption Conservation Water Efficiency Label	M
RoHS	SASO RoHS	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

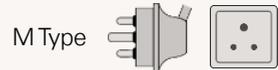
# South Africa



Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	NRCS LoA (Letter of Authority)	M
EMC	SABS CoC (Certificate of Compliance)	M
Energy Efficiency	Energy Efficiency Labelling	M
Wireless	ICASA (Independent Communication Authority of South Africa)	M



Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

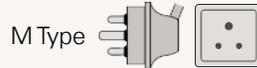
# United Arab Emirates



Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Gulf Conformity Marking (G-mark) (Gulf States, including Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE, Yemen)	M
Safety	ECAS, EQM 	M
Safety	Civil Defence Approval	M
Wireless	TDRA (Telecommunications and Digital Government Regulatory Authority) 	M
Energy Efficiency	Energy Efficiency Label 	M
Water Efficiency	Water Saving Green Label 	V
RoHS	UAE RoHS (Only products with RoHS requirements) (ECAS logo is not required)	M
Energy Efficiency / Water Efficiency	Abu Dhabi Trustmark for Environmental Performance / Water-Consumption Conservation 	V / M Granted to meet the requirements of the Compliance Manufacturers (non-products)

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

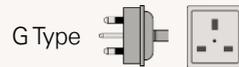
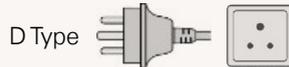
# Yemen



Voltage (V): 240

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Gulf Conformity Marking (G-mark) (Gulf States, including Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE, Yemen)	 M
Wireless	Ministry of Telecommunications & Information Technology (MTIT)	M
Energy Efficiency	Energy Efficiency Label	 M
Water Efficiency	Water-Consumption Conservation	 M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

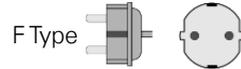
# Egypt



Voltage (V): 220

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Verification of Conformity (VoC) Program	M
Wireless	National Telecom Regulatory Authority (NTRA)	M
Energy Efficiency	Energy Efficiency Label 	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

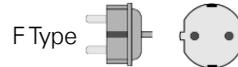
# Algeria



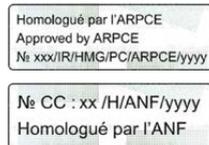
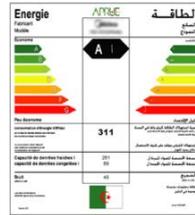
Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Certificat de Contrôle Qualité	M
Energy Efficiency	Energy Efficiency Label	M
Wireless	ARPCE (Regulatory Authority for Post and Electronic Communications) – PSTN ANF (National Frequency Agency) – SRD	M



Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

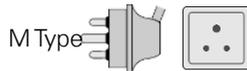
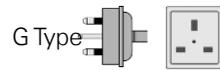
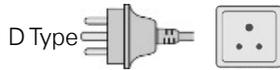
# Botswana



Voltage (V): 230

Frequency (Hz):50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	SIIR - Standards Import Inspection Regulations	M
Wireless	BOCRA (Botswana Communications Regulatory Authority)	M



Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Cameroon



Voltage (V): 220

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Attestation of Conformity (AoC)	M
Wireless	ART (Telecommunications Regulatory Agency)	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Ethiopia



Voltage (V): 220

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Certificate of Conformity	M
Wireless	MIT (Ethiopian Communications Authority)	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

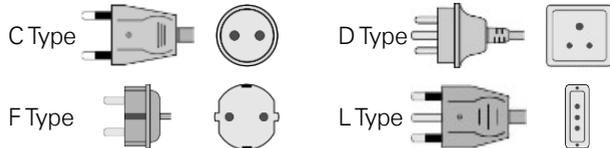
# Libya



Voltage (V): 127V/230V

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Certificate of Inspection	M
Wireless	GACI (General Authority for Communication and Informatics)	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Sudan



Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Certificate of Inspection	M
Wireless	Telecommunications and Post Regulatory Authority (TPTA) South Sudan - NCA (National Communication Authority)	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

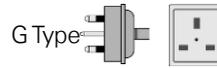
# Tanzania



Voltage (V): 230

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Pre-export Verification of Conformity (PVoC)	M
Wireless	TCRA (Tanzania Communications Regulatory Authority)	M / V*

Note: M = Mandatory; V = Voluntary.

\* = The regulations depending on the type of product, can apply for mandatory or voluntary certification

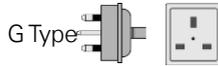
# Uganda



Voltage (V): 240

Frequency (Hz): 50

Plug / socket type form:



Type	Certification name & Mark	Mandatory/ Voluntary
Safety	Pre-export Verification of Conformity (PVoC)	M
Wireless	UCC (Uganda Communications Commission)	M

Note: M = Mandatory; V = Voluntary.

\*= The regulations depending on the type of product, can apply for mandatory or voluntary certification

# Market Entry Requirement for Products





# Power Adapters: Key Global Market Entry Guide



Power adapters require certification in many countries. TÜV Rheinland has obtained a wide range of market access approvals for these products, enabling smooth global entry. This guide highlights the most in-demand markets for power adapters, curated by TÜV Rheinland’s international certification experts to support your global sales strategy.

## Japan

According to the “Japan Electrical Appliance and Material Safety Law” (Densho Act), power adapters are classified as special electrical appliances (Class A) and are required to comply with the technical requirements.



They also fall under the Electrical Safety Law, so a the diamond-shaped PSE certificate needs to be affix on the product before it can be sold in Japan.

**TÜV Rheinland’s three subsidiaries are recognised by the Japanese Ministry of Economy, Trade and Industry (METI) as RCABs, which assess compliance with Japan’s Electrical Safety Law and issue certificates of conformity directly at the local level.**

We provide one-stop service for testing, factory inspection and issuance of certificates.

## Eurasian Economic Union (EAEU)

The Eurasian Economic Union (EEU) includes Russia, Belarus, Kazakhstan, Armenia, and Kyrgyzstan. It enforces a unified tariff policy and standardized technical regulations. Since February 15, 2013, the EEU Certification System has been implementing safety and EMC technical regulations for low-voltage products, including external power adapters. RoHS requirements were enacted on March 1, 2020. External power adapters meeting relevant standards and obtaining the EAEU certificate can be freely sold in EAEU member states.



**TÜV Rheinland has partnered with a leading EAEU certification organization to offer efficient, comprehensive certificate issuance, streamlining the application process for customers.**

## India

Power adapters for electronic equipment, home appliances, and similar devices must be registered in the mandatory BIS registration system of the Bureau of Indian Standards (BIS). To achieve CRS registration from BIS, samples must be tested at local accredited labs, following relevant Indian IS standards.



**TÜV Rheinland India, possessing extensive product qualifications among third-party testing organizations, is an accredited BIS lab. TÜV Rheinland offers comprehensive one-stop services for your products.**

## United Arab Emirates

According to a resolution issued by the UAE Ministry of Industrial Development and Technology (MoIAT), IT/AV products, including power adapters, which are intended for everyday use by end consumers, are required to apply for and obtain a Certificate of Conformity (ECAS or EQM certificate) before entering the UAE market.

**TÜV Rheinland Middle East is authorised by MoIAT as an accredited certification body under the code NB-0009 to issue ECAS or EQM safety certificates as well as RoHS certificates for customers.**



ECAS Certification  
Mark



Emirates Quality Mark  
EQM Certification  
Mark

## South Korea

Power adapters for sale in Korea must comply with mandatory KC Safety Certification and EMC certification. These KC safety certificates are granted by Korean authorized bodies like KTC, KTL, and KTR. Adapters with a rated output power of under 150W are also subject to MEPS energy efficiency standards.



**Since July 2017, an effective MOU has been established between TÜV Rheinland and these authorized bodies. This agreement allows Korean certification bodies to directly transfer KC safety certificates based on CB certificates and TÜV Rheinland's reports. This streamlined process simplifies applications, eliminates the need for sending samples, and eliminates the need for conducting local tests.**

**Benefit from this optimized process through TÜV Rheinland's comprehensive one-stop services.**

## Chile

In December 2020, the Chilean official body SEC (Superintendency of Electricity and Fuel) introduced regulation N°33811/21.12.2020 (corresponding to PE N°8/10:2020), stipulating that external power adapters for mobile phones, laptops, and desktop computers are now mandatorily regulated by the Chilean SEC. The relevant standards are IEC 62368-1:2014 or IEC 62368-1:2018, along with plug size verification (per standards CEI 23-50:2008 or CEI 23-34:1990, also known as EN 50075:1990).



Starting from January 1, 2022, manufacturers and importers selling products in Chile must adhere to SEC certification. Sales will not be permitted without SEC certification.

**TÜV Rheinland Chile is the inaugural global entity officially recognized by the SEC, providing various modes of SEC certification to customers.**

## Australia & New Zealand

Power adapters designated for export to Australia and New Zealand are categorized as Level 3 mandatory products. They must undergo local Australian AS/NZS safety standard testing and EMC magnetic compatibility testing, which may adhere to the Australian EMC standard or international equivalents.



**Upon successful testing, these products acquire a mandatory safety certificate and EMC report issued by TÜV Rheinland. Subsequently, the responsible supplier registers these products within the EESS (Electrical Equipment Safety Systems) database. This registration empowers manufacturers to affix the RCM Compliance Mark onto their products.**

**For streamlined product delivery to Australia, it's imperative to incorporate the RCM mark and authorization number (e.g., TUV 123456-EA) onto product labels. This measure guarantees adherence to the recognition and labeling prerequisites across diverse Australian states and regions.**

## Argentina

Electrical and electronic equipment operating within rated voltages ranging from AC 50V to AC 1000V or DC 75V to DC 1500V, which includes external power adapters, falls under mandatory certification regulations in Argentina. External power adapters, whether domestically manufactured within Argentina or imported, necessitate an Argentine certificate granted by an authorized entity prior to their market clearance and distribution.

**TÜV Rheinland Argentina holds authorization from the OAA and official recognition from the Argentine government as a certification body. TÜV Rheinland Greater China offers a comprehensive one-stop solution for testing, inspection, and certification of your products.**

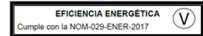


## Mexico

The official test standard in Mexico is the NOM standard, and external power adapters exported to Mexico need to comply with the NOM-001-SCFI-2018 safety section (effective 14 August 2020) and the NOM-029-ENER-2017 energy efficiency section for testing and certification. Testing and certification can utilize CB certificates and reports from TÜV Rheinland, which can be seamlessly integrated into the NOM safety report and the NOM certificate issued by TÜV Rheinland Mexico.



Safety Certification Marks



Energy Efficiency Label

## Brazil

INMETRO serves as Brazil's accreditation body, overseeing the identification and auditing of certification bodies and laboratories, while also facilitating the development and implementation of the Brazilian accreditation system.

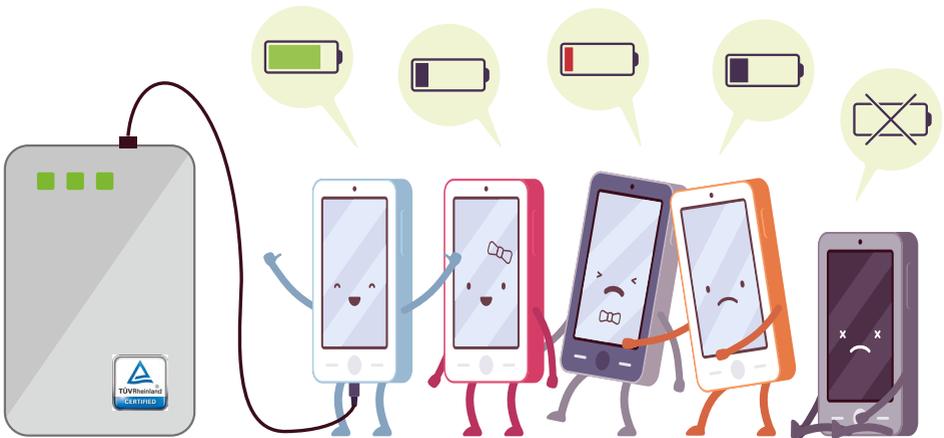
**External power adapters fall within the voluntary INMETRO certification category in Brazil. Manufacturers can pursue S mark certification from TÜV Rheinland tailored to buyer requirements. This certification significantly bolsters product acceptance and recognition within the country, expanding market share and influence locally.**



Furthermore, alongside the listed countries, TÜV Rheinland facilitates market access for power adapter products in the following countries and regions: USA, Canada, Saudi Arabia, Gulf Union, Israel, Malaysia, Cambodia, Thailand, Indonesia, Singapore, Hong Kong, South Africa, Ukraine, Moldova, Uzbekistan, Serbia, Morocco, Hong Kong, China. Please call us for more information.



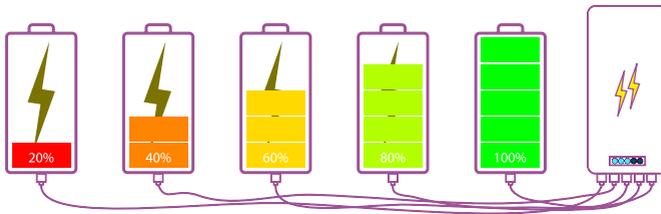
## Global Compliance Made Easy for Rechargeable Batteries



More and more countries are modifying or increasing their controls on the import and export of rechargeable batteries. As a manufacturer, do you want your products to travel without worry? Do you know the local regulatory requirements for rechargeable batteries?



# International Compliance Solutions for Batteries and Portable Power



## Overview of battery and mobile power certification in popular countries and regions:

### Thailand

#### Rechargeable lithium batteries:

If the battery is exported to Thailand alone, it needs to apply for TISI certification, and samples must be sent for local testing.

#### Mobile Power:

Mobile power with DC output voltage not exceeding 6V needs to apply for TISI certification before exporting to Thailand, and samples must be sent for local testing.



## Korea

### Rechargeable lithium batteries:

IEC 62133:2017 or IEC 62133:2017+A1 CB certificate + test report transfer, KC 62133 safety certificate is required.

### Mobile Power:

The mobile power itself is not controlled by KC, but the Li-ion battery pack inside is controlled by KC 62133, and it can be applied according to the Li-ion battery pack.



## Japan

Rechargeable lithium batteries and mobile power must meet the requirements of J62133 or Appendix 9. The round PSE mark must be affixed on the product. Japanese importers are required to make an import record with the official organisation METI.



## China Taiwan

### Rechargeable lithium batteries:

Lithium cells and battery packs need to be certified by BSMI, and samples should be sent to METI for testing and issuance of certificates.

### Mobile Power:

Need to apply for BSMI certification, need to send samples for testing and licensing.



## EAEU Eurasian Economic Union

### Rechargeable lithium batteries:

Lithium cells need to meet the EMC directive, apply for EAC DoC, and can be based on the EMC report for certification. For the testing procedure, no samples are needed.

### Mobile Power:

EMC and RoHS directives need to be met, EMC directive needs to apply for EAC CoC, based on EMC report; EAC CoC is required for EMC directive, based on EMC report; EAC DoC is required for RoHS directive, based on EU RoHS report, without sample.



## India

### Rechargeable lithium batteries:

Cells and packs need to apply for BIS CRS certification separately, and samples need to be sent for local testing; when applying for certification of battery packs, the cells need to be CRS-approved products.

### Mobile Power:

Only mobile power used in removable terminal devices need to apply for BIS CRS certification, and samples need to be sent for local testing; when applying for certification of mobile power, both cells and battery packs must be CRS-approved products.



## Mexico

There is no certification requirement for rechargeable lithium batteries, but mobile power needs to apply for NOM 001, local testing and certification.



## Brazil

### Rechargeable lithium batteries:

Not regulated.

### Mobile Power:

Only mobile power related to mobile phone products need to apply for ANATEL and send to local testing.



## China

### Rechargeable lithium batteries:

CCC certificate needed, send sample for testing

### Mobile Power:

CCC certificate needed, send sample for testing and send to local testing.



## Saudi Arabia

### Rechargeable lithium batteries:

Only rechargeable lithium batteries used in mobile phones need to apply for SIRC certification, which can be based on IEC 62133 CB certificate and a test report.

### Mobile Power:

SIRC certification is required, based on IEC 62368-1 CB certificate and a test report, without certification mark.

(Note: After completing the SIRC certification of Li-ion battery or mobile power supply, it is necessary for the importer to make a self-declaration in the SABER system before exporting.)



# Market Access Requirements for Display Products in Key Global Regions



In an age when display products are everywhere, do you know how to more efficiently sell your products to the world?

Display products refer to all products that contain a screen, including but not limited to:



Laptops



Monitors



All-in-one computers



Projectors



Televisions

TÜV Rheinland's global certification experts have meticulously curated a comprehensive list of popular market access guidelines for display products. This resource aims to provide you with a clear understanding of global requirements.

## Eurasian Economic Union (EAEU)

The Eurasian Economic Union (EAEU) includes Russia, Belarus, Kazakhstan, Armenia, and Kyrgyzstan as member countries with harmonized technical regulations. For display products entering the EAEU, compliance with LVD, EMC, and RoHS specifications is mandatory, and obtaining an EAEU certificate is required prior to sales in all EAEU member states. This EAEU certificate facilitates unrestricted sales across all member countries' markets.



Apart from the MOU with the leading certification organization in the EAEU, TÜV Rheinland maintains effective channels in various EAEU countries, offering customers a range of options for obtaining EAEU certificates in the most efficient and expeditious manner. We prioritize providing customers with diverse options and a streamlined, rapid application process.

## United Arab Emirates

As per the Ministry of Industrial Development and Technology (MoIAT)'s directive, IT/AV products designed for daily consumer use, including all display products, necessitate the procurement of a Certificate of Product Conformity (EC) and a Certificate of Conformity (ECAS LVE + ECAS RoHS or EQM LVE + EQM RoHS) before entering the UAE market.

Starting in mid-September 2022, the UAE has reinstated the utilization of the IEC 62368-1:2014 (second edition) CB certificate and a test report for ECAS or EQM certification.

TÜV Rheinland Middle East, under the authorization of MoIAT (code NB-0009), serves as an accredited certification body capable of providing certification services for the marks beside:



## India

Display products, including laptops, tablets, video monitors, plasma/LCD/LED TVs, and non-plasma/LCD/LED TVs, fall under the CRS mandatory registration system. Samples must comply with Indian IS standards and undergo testing at a local BIS accredited laboratory. Once the CRS registration certificate is obtained, these products can enter the Indian market with the standard mark.

Additionally, color TVs must meet the Indian BEE Energy Efficiency Star Rating. BIS is currently discussing the introduction timeline for IS/IEC 62368-1:2018, expecting a full upgrade by the latter part of 2023.

TÜV Rheinland India is prepared for IS/IEC 62368-1:2018 compliance and qualification through a BIS audit.



standard mark



BEE star label (the BEE logo on the right will be replaced by a round one in the near future).



BEE star label (the BEE logo on the right will be replaced by a round one in the near future).

## Saudi Arabia

Starting from February 2018, SASO, the Saudi Arabian Bureau of Standards, has regulated display products, encompassing laptops, tablets, and TVs.

For exporters and traders, obtaining an IECEE Recognition Certificate (SASO) from SASO is a prerequisite. The Saudi Arabian CoC inspection also mandates a SIRC certificate.

As of December 31, 2022, the new RoHS requirements will be evaluated within the context of applying for an IECEE Accreditation Certificate (SIRC) for the RoHS section. SIRC certificates issued prior to 2022 will remain valid until their original expiration.

**TÜV Rheinland offers support in procuring SIRC accreditation certificates valid for three years. Irrespective of whether the SIRC certificate is for the three-year term or encompasses additional RoHS requirements, TÜV Rheinland is prepared to assist with the application process.**

## Thailand

Starting from December 21, 2022, compliance with TIS 62368 Part 1-2563 (equivalent to IEC 62368-1: 2018) becomes obligatory for TVs intended for public and professional utilization, operating at voltages surpassing 50Vac or 75Vdc. Thai importers are already eligible to initiate the application process.

**TÜV Rheinland has proactively established collaboration with TIS62368-1-qualified laboratories, enabling efficient facilitation of local testing and factory inspection arrangements for our customers.**



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ชื่อผู้รับอนุญาต

## Vietnam

When selling display products like printers, computer monitors, and laptops in Vietnam, adherence to TIS362368-1 is crucial. These products must also meet energy-efficiency standards for sales in the country. The existing energy efficiency standard, TCVN 9536:2012, for video machines is expected to transition to TCVN 9536:2021 by 2025. Additionally, Vietnam plans to mandate energy efficiency certification for desktop PCs and AIOs according to TCVN 13371:2021 by 2025. For expert assistance, TÜV Rheinland Vietnam's proficient team offers comprehensive one-stop service.



## Korea

Korean sales of display products necessitate KC safety and EMC approvals. Monitors, laptops, TVs, and All-In-One PCs demand energy efficiency endorsements. By May 1, 2023, the E-Standby to MEPS shift is scheduled, with automatic MEPS adoption for E-Standby-recognized displays exceeding 200 cd/m<sup>2</sup>. Pre-May 1, 2023, displays retain E-standby labeling; post-May 1, 2023, monitors switch to MEPS labeling.

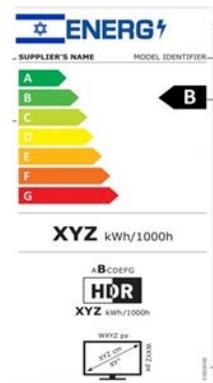


**TÜV Rheinland has signed an MOU with the Korean certification authority, which allows the KC safety certificate to be directly forwarded based on the CB certificate and report issued by TÜV Rheinland, simplifying the application process: no need to send samples or conduct local testing. For EMC electromagnetic compatibility and energy efficiency certification, TÜV Rheinland also cooperates with several local accredited laboratories in Korea to meet customer needs.**

## Israel

Israel imports require SII recognized EMC and energy efficiency certificates. From March 1, 2023, Israel's energy efficiency regulations (e.g., TVs, monitors) mandate compliance with EU standards and energy rating labeling.

TÜV Rheinland's strong partnership with SII offers reliable information and comprehensive services. Our offerings extend to display product safety, EMC, and energy efficiency in various regions.



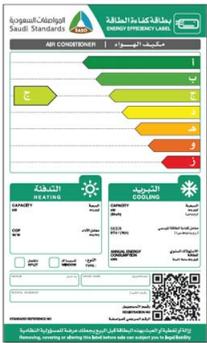
Contact us for details on display product safety, EMC, and energy efficiency requirements in regions including Australia, New Zealand, Indonesia, Singapore, China, Taiwan, Hong Kong, Cambodia, Philippines, Malaysia, USA, Canada, Mexico, Brazil, Serbia, Uzbekistan, Moldova, Ukraine, Morocco, and Zambia.



# Market Access Requirements for Air Conditioning Products in Key Global Markets



## Saudi Arabia



The Saudi Arabian Metrology and Quality Organization (SASO) has issued energy efficiency test standards for high- and low-capacity air conditioning products, according to which manufacturers are required to test, register and apply for energy efficiency labels; You also need to apply for G mark approval according to the security and EMC testing standards published by the GSO.

### Energy efficiency test standards:

SASO 2874:2016, SASO 2663:2021

**TÜV Rheinland Greater China laboratories are authorized test laboratories offering localized testing and commissioned registration.**

### Safety Test Standards:

- Safety: IEC 60335-1:2010+A1+A2  
IEC 60335-2-40:2018 (valid until May 25, 2024) or IEC 60335-2-40:2022
- EMC: CISPR 14-1:2020, CISPR 14-2:2020,  
IEC 61000-3-2:2018+A1, IEC 61000-3-3:2013+A1+A2



**TÜV Rheinland Hong Kong is the official licensing authority and the licensee must be the manufacturer (trademark holder).**

## UAE

The UAE Ministry of Industry Development and Technology (MoIAT) has issued energy efficiency labelling standards for residential and commercial air conditioning products UAE. S 5010-1:2019, UAE. S 5010-5:2019, From January 1, 2023, household air conditioning products will be used.

There also exists a new EER star rating. At the same time, air-conditioned products placed in the UAE market also need to apply for ECAS (LVE+RoHS) or EQM (LVE+RoHS), choose one of the two; Apply for G mark approval based on the security and EMC test standards published by the GSO.



### Energy efficiency test standards:

- Non-ducted air conditioning: UAE.S ISO 5151:2011

- Commercial and central air conditioning:

UAE. S ISO 13253:2011, UAE.S ISO 13256-1:1998, UAE.S ISO 13256-2:1998,

UAE. S AHRI 550/590, UAE.S ISO 15042:2011

**TÜV Rheinland Middle East is an authorized certification body.**

### Safety Test Standards:

Safety: IEC 60335-1:2010+A1+A2

IEC 60335-2-40:2018 (valid until May 25, 2024) or IEC 60335-2-40:2022

EMC: CISPR 14-1:2020, CISPR 14-2:2020,

IEC 61000-3-2:2018+A1, IEC 61000-3-3:2013+A1+A2

**TÜV Rheinland Hong Kong is the official licensing authority and the licensee must be the manufacturer (trademark holder).**

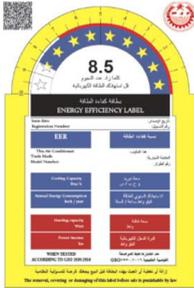


ECAS certification mark



EQM certification mark

## Oman



Oman’s Directorate General of Standardization and Metrology (DGSM) regulates the energy efficiency of air conditioning products up to 70,000 Btu/h (20kW) and below, and applies for LOA and energy labeling according to GSO 2530/2016 assessment.

### Energy efficiency test standards:

ISO 5151:2017, ISO 13253:2017

**TÜV Rheinland Hong Kong is among the pioneers authorized to audit and assess energy-efficient products for conformity with Omani regulations and standards.**

### Safety Test Standards:

Safety: IEC 60335-1:2010+A1+A2

IEC 60335-2-40:2018 (valid until May 25, 2024) or IEC 60335-2-40:2022

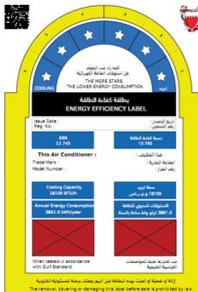
EMC: CISPR 14-1:2020, CISPR 14-2:2020.

IEC 61000-3-2:2018+A1, IEC 61000-3-3:2013+A1+A2

**TÜV Rheinland Hong Kong is the official licensing authority and the licensee must be the manufacturer (trademark holder).**



## Bahrain



The Bahrain Testing and Metrology Department (BTMD) oversees energy efficiency for air-conditioning products up to 70,000 Btu/h (20kW) and processes LOA applications and energy labeling as per Decree No. 70/2015. Bahrain has notified the WTO of an upcoming updated energy efficiency regulation, set to be published in 2022 and enforced by November 2023.

### Energy efficiency test standards:

ISO 5151:2017, ISO 13253:2017

**TÜV Rheinland Hong Kong is among the pioneers authorized to audit and assess energy-efficient products for conformity with Bahraini regulations and standards.**

### Safety Test Standards:

Safety: IEC 60335-1:2010+A1+A2

IEC 60335-2-40:2018 (valid until May 25, 2024) or IEC 60335-2-40:2022

EMC: CISPR 14-1:2020, CISPR 14-2:2020.

IEC 61000-3-2:2018+A1, IEC 61000-3-3:2013+A1+A2

**TÜV Rheinland Hong Kong is the official licensing authority and the licensee must be the manufacturer (trademark holder).**



## Kuwait



The Kuwaiti Ministry of Industry (PAI) requires testing and registration of air-conditioning products of 70,000 Btu/h (20kW) and below, assessed according to KWS 1892/2018.

QR code is obtained to produce energy efficiency labels.

### Energy efficiency test standards:

ISO 5151:2017, ISO 13253:2017

**TÜV Rheinland Kuwait is an authorized auditing and assessment organization.**

### Safety Test Standards:

Safety: IEC 60335-1:2010+A1+A2

IEC 60335-2-40:2018 (valid until May 25, 2024) or IEC 60335-2-40:2022

EMC: CISPR 14-1:2020, CISPR 14-2:2020.

IEC 61000-3-2:2018+A1, IEC 61000-3-3:2013+A1+A2

**TÜV Rheinland Hong Kong is an officially authorized licensing body, and the licensee needs to be a manufacturer (trademark holder).**



## Peru



According to the Supreme Decree 009-2017-EM issued by the Ministry of Energy and Mining (MINEM) of Peru, air conditioning products are included in the scope of mandatory energy efficiency control.

### Energy efficiency test standards:

UNE EN 14511, UNE EN 15218

UNE EN 14825, UNE EN 12102

**TÜV Rheinland Argentina is an authorized Notified Body.**

**TÜV Rheinland Greater China authorized laboratories can provide testing services.**

## Chile

Energía		EQUIPO DE AIRE ACONDICIONADO	
Fabricante Unidad exterior Unidad interior			
		<b>A</b>	
<b>Más eficiente</b> A B C D E F G <b>Menos eficiente</b>			
Consumo de energía (Wh/m³h)	(Consumo en base al uso de una hora al día en modo refrigeración)	64,2	
Capacidad de refrigeración (kW)		6,89	
Índice de eficiencia energética (energía consumida)		3,22	
Tipo de acondicionador de temperatura			
Capacidad de calefacción (kW)		7,35	
Clase de eficiencia energética por modo de operación			
A: más eficiente G: menos eficiente			
ABCDEFG La etiqueta debe permanecer adherida al cuerpo del producto y sólo podrá ser retirada por el consumidor final. Norma Chilena Oficial NCH381:0599			

According to Chilean regulation Resolution N°4-2018, air conditioners are classified as mandatory energy efficiency certified and labeled products.

As of November 7, 2019, only air conditioners with an A rating and higher can be placed on the Chilean market.

### Energy efficiency test standards:

ISO 5151:2017

### Safety test standard:

IEC 60335-1:2001+A1+A2

IEC 60335-2-40:2002+A1+A2



SEC QR

**TÜV Rheinland Chile is an SEC-authorized Notified Body.**

**TÜV Rheinland Greater China authorized laboratories can provide testing services.**

## Australia

ENERGY RATING		Compare models at <a href="http://www.energyrating.gov.au">www.energyrating.gov.au</a>	
<b>COOLING</b> 2.93 kWh per year 2.50 kWh per year		<b>HEATING</b> 2.50 kWh per year 2.15 kWh per year	
Model name: FRIGIDAAR4000 Location changes the efficiency of this appliance.			
The more stars, the more energy efficient.			
4 stars	1101	96	
3 stars	382	596	
2 stars	250	1507	
1 star			
None (GSA)	160		

### Energy efficiency control products:

Air conditioners – single phase  
Mandatory energy efficiency and energy labeling for single phase air conditioners

Air conditioners – three phase  
Mandatory energy efficiency and voluntary energy labeling for three phase air conditioners

Air Conditioners – Single Duct & Portable  
Mandatory energy efficiency and energy labeling

Air conditioners (above 65 kW) (air conditioners exceeding 65 kW)  
October 1, 2022 Mandatory Energy Efficiency.

### Safety Test Standards:

AS/NZS 60335.2.40:2019, AS/NZS 60335.1:2011+A1+A2+A3+A4+A5

AS/NZS CISPR 14.1:2021

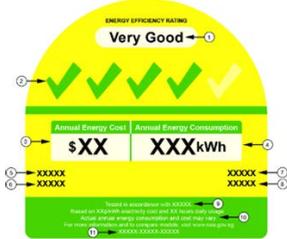
Certification Mark : TUVXXXXXXXXXE ( voluntary ), TUV-XXXXXX-EA ( mandatory )



Safety +EMC/ Wireless

**TÜV Rheinland Australia is the Australian safety certification body. TÜV Rheinland Greater China's authorized laboratories can provide testing, certification and registration services.**

## Singapore



Single-phase non-ducted room air-conditioner.

### Energy efficiency test standards:

ISO 5151:2010, ISO 18326:2018

**TÜV Rheinland Greater China laboratories are NEA-accredited testing laboratories.**

Due to limited space in this e-book, only key countries are highlighted above. However, TÜV Rheinland also offers certification services for air-conditioning products in the following additional countries





# Market Access Requirements Worldwide: Refrigerators, Freezers, and Wine Coolers



## Americas

### Argentina



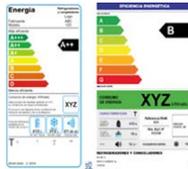
Safety

- Issuing organization: TÜV Rheinland Argentina



- Issuing organization: TÜV Rheinland Argentina

- Testing Laboratory: Local laboratory or in-country factory laboratory



- Energy Efficiency Label:



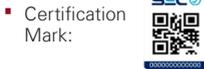
Energy Efficiency

### Chile



Safety

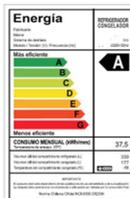
- Certification Body: TÜV Rheinland Chile



- Issuing Organization: TÜV Rheinland Chile

- Testing Laboratory: TÜV Rheinland Greater China

- Local Testing
- Energy Efficiency Labeling: Refrigeration energy efficiency ratings are only accepted above Class A.



Energy Efficiency

### Peru



Energy Efficiency

- Certification Body: TÜV Rheinland Argentina
- Testing Laboratory: TÜV Rheinland Greater China Local Testing
- Energy Efficiency Labeling:



Figure 17: Design of the energy efficiency label for air conditioning systems with variable refrigerant flow

## Asia

### Japan



Safety

- Certification Body: TÜV Rheinland Japan / TÜV Rheinland Hong Kong / TÜV Rheinland Taiwan
- Scope of Product Control
- Domestic refrigerators: Declaration of round PSE mark, voluntary SCEA S-Mark
- Commercial refrigerators: mandatory diamond-shaped PSE mark, voluntary SCEA S-Mark
- Certification Mark:



Energy Efficiency

- Mandatory Retailer Energy Efficiency Labeling Program, applied for by local importers in Japan, local market sampling

### Korea



Safety



EMC

- Issuing organization: KTC, KTL, KTR and other Korean official organizations
- Certification label:



Energy Efficiency

- Certification Body: KEMCO Registry
- Testing Laboratory: Local officially authorized laboratory testing
- Energy Efficiency Label:



## Malaysia



- Issuing Organization: Suruhanjaya Tenaga-Energy Commission, Ministry of Energy, Malaysia

- Certification Mark: ST CoA or SIRIM Mark, either one



- Issuing Organization: Suruhanjaya Tenaga-Energy Commission, Ministry of Energy, Malaysia

- Testing Laboratory: TÜV Rheinland Greater China Local Testing

- Energy Efficiency Label:



## Vietnam



- Issuing Organization: MOST Accredited Organization (Ministry of Science and Technology Vietnam)

- Testing Laboratory: EMC accepts test reports from TÜV Rheinland Greater China.

- Certification Mark:



- Certification Body: MOIT (The Ministry of Industry and Trade)

- Testing Laboratory: Local Authorized Laboratory

- Energy Efficiency Label:



## Australia

## Singapore



- Issuing organization: CAB organization

- Certification Mark:



- Certification Body: National Environment Agency (NEA)

- Testing Laboratory: TÜV Rheinland Greater China, all NEA-accredited laboratories

- Energy Labeling: Mandatory Energy Labelling (MELS), access to refrigerators increased to 2tick in January 2022



## Australia



- Issuing organization: TÜV Rheinland Australia

- Scope of Product Controls : Mandatory: Refrigerators and freezers

- Mandatory: Refrigerators and freezers

- Voluntary: Commercial refrigerators and wine coolers

- Certification Mark:



TUV-XXXXXX-EA

- RCM Mark includes safety certification and EMC reporting requirements

- Certification Body: GEMS organization

- Testing Laboratory: TÜV Rheinland Greater China Local Testing

- Energy Efficiency Labeling:



# Africa

## South Africa



Safety

- Certifying body: RCS organisation (National Regulator for Compulsory Specifications)
- Certification Mark: None
- Remarks: Energy efficiency report is required to be submitted together with LOA application.



EMC

- Issuing organisation:
- SABS (South Africa Bureau of Standards)
- Testing Laboratory: TÜV Rheinland Taicang is an accredited testing laboratory for SABS-accredited testing laboratory



Energy Efficiency

- Issuing organisation: NRCS (National Regulator for Compulsory Specifications)
- Testing Laboratory: TÜV Rheinland Greater China Local Tests
- Energy Efficiency Labelling:



# Middle East

## United Arab Emirates



Safety



EMC

- Certification Body: TÜV Rheinland Hong Kong  
TÜV Rheinland Middle East
- Certification Mark:



Safety

- Certification Body: TÜV Rheinland Middle East FZE
- Certification Mark: ECAS or EQM



ECAS

مستعمل  
COMPLIANT



or EQM

علامة الجودة الإماراتية  
Emirates Quality Mark



Energy Efficiency

- Certification Body: MoIAT
- Test Laboratory: TÜV Rheinland Greater China
- Local Testing



### Energy Efficiency Labelling:

Apart from the mentioned countries, refrigerators (freezers) and other products undergo testing in various global locations including Brazil, Mexico, Colombia, the Gulf Cooperation Council (GCC), Saudi Arabia, Israel, India, Indonesia, the Philippines, Hong Kong, China, and the Eurasian Economic Union (EAEU), encompassing countries like Belarus, Ukraine, and North America, among others. Each region has distinct requirements, and it's worth noting that wine coolers generally lack energy efficiency labeling mandates. For comprehensive information, please reach out to our international certification experts. Contact them for detailed responses tailored to your specific product.



# Market Access for Small Appliances: A Guide to International Marks



## Asia

### Asia

Irons, water heaters, ovens, heaters, hand-held mixers, electric mixers and juicers, instantaneous and gas water heaters, domestic gas stoves, sewing machines and domestic pressure cookers all fall under India's mandatory ISI marking control list, and the general process is as follows:

The Bureau of Indian Standards (BIS) assigns an auditor to do a factory inspection.

-> Factory samples are sent back to the designated laboratory in India for testing -> ISI certificate is issued.

Microwave ovens (mandatory since 2014), rice cookers, and electric induction cookers (mandatory since April 1, 2021) are part of the product list subject to mandatory CRS registration by the BIS. They require testing in local accredited laboratories in India, adhering to relevant IS standards, to secure a CRS registration certificate from the BIS prior to their sale in the Indian market.

**TÜV Rheinland India stands as a BIS-accredited laboratory with extensive product qualifications among third-party testing organizations.**



## Korea

KC safety certification is obligatory for electrical products in South Korea. When shipping to this country, products must display the KC mark, indicating compliance with its safety standards for electronic equipment and components.

**TÜV Rheinland holds MOUs with key Korean certification bodies, enabling direct transfer of KC safety certificates via CB certificates and reports. This streamlines the process, negating sample submission and local testing, thereby reducing certification duration and export expenses to Korea.**



## Japan

Certain home appliances are categorized as Specified Electrical Appliances (Class A) and necessitate a Certificate of Conformity (CoC) from Japan's Ministry of Economy, Trade and Industry (METI)-authorized Registration, Certification and Inspection Agency (RCAB). Once granted, these products can bear the diamond-shaped PSE mark.

Most home appliances fall under Category B, exempt from CoC, but must adhere to the technical mandates of the Electrical Safety Law. Compliance entails attaching the round PSE mark per Japanese regulations.

**TÜV Rheinland is a METI-recognized registered inspector in Japan, Taiwan, and Hong Kong. Our entities in these regions are accredited by METI as inspection organizations, responsible for assessing compliance with Japan's Electrical Safety Law. We issue local CoC and circular PSE reports.**



## United Arab Emirates

Small household appliances are part of the ECAS mandatory control list in the UAE, as established by MoIAT. This encompasses various aspects such as safety (ECAS LVE), chemical compliance (ECAS RoHS), food contact (ECAS FCM), and energy efficiency (ECAS EESL).

**TÜV Rheinland Middle East is an authorized Accredited Certification Body (Certification Body Code NB-0009) by MoIAT. This wide-ranging authorization allows us to directly issue Certificates of Conformity (CoC), also referred to as ECAS certificates, as well as voluntary EQM certificates.**



ECAS Certification  
Mark



EQM Certification  
Mark

## North America

### United States, Canada

TÜV Rheinland holds authorizations and accreditations from key regulatory bodies. We are authorized as a National Recognition Laboratory (NRTL) by the US Occupational Safety and Health Administration (OSHA) and accredited by the Standards Council of Canada (SCC). This recognition enables us to perform comprehensive testing on electrical and electronic products, covering areas such as EMC, chemical substances, energy efficiency, and electrical safety. We issue certifications like cTÜVus, US ENERGY STAR & Canada NRCAN, US FCC & Canada ISED, and FDA for North American safety compliance.

**Our expertise extends to fulfilling specific buyer and manufacturer requirements. This includes diverse aspects like mandatory certifications, reliability testing, functional verification, labeling mandates, and adherence to market access testing protocols. TÜV Rheinland is committed to providing manufacturers with thorough and expert verification services.**



## South America

### Argentina

Electrical and electronic devices with rated voltages spanning AC 50V to 1000V or DC 75V to 1500V, alongside handheld skincare, haircare equipment, and kitchen appliances under 50V, are governed as controlled items mandating certification. Whether manufactured locally or imported to Argentina, these appliances must only be introduced to the market after obtaining an Argentine certificate from an authorized entity.

**TÜV Rheinland Argentina, endorsed by the OAA and acknowledged by the Argentine government, serves as a certification body.**



### Chile

Home appliances have been included in the SEC's mandatory certification scope.

**TÜV Rheinland Chile holds the distinction of being the initial company acknowledged by the SEC and globally recognized as an official body for issuing SEC certificates in all modes.**



### Brazil

Small household appliances largely fall within the scope of Brazil's mandatory INMETRO Decree 148, necessitating Inmetro approval for market entry. Inmetro certificates are obligatory for entering the Brazilian market, with annual maintenance required to uphold their validity.

**TÜV Rheinland Brasil, holding the designation of an INMETRO-authorized certification body (code OCP 0004), stands as the largest and most comprehensive authority in the region for this purpose.**



## Oceania

### Australia, New Zealand

Home appliances must adhere to minimum safety requisites and pertinent state, territory, and national regulations for appliance safety. In the case of heaters, only entities aligned with Australian and New Zealand electrical legislations or certified by JAS-ANZ can grant certificates of conformity.



**TÜV Rheinland Australia stands as a JAS-ANZ accredited certification body. Additionally, responsible suppliers must record their details in the Electrical Equipment Safety System (EESS) database prior to affixing the RCM compliance mark on their products.**

## Other organisations

### Eurasian Economic Union

The Eurasian Economic Union has already implemented relevant technical directives such as LVD, EMC, RoHS, etc., which are mandatory, and the Energy Efficiency Directive is expected to be mandatory by 2025.



**TÜV Rheinland has signed an MOU with the most authoritative certification organisation in the Eurasian Economic Union to provide customers with the most convenient and fastest application process and one-stop service!**

### Seven Gulf States

Manufacturers of small electrical appliances such as electric fans, food grinders/blenders/juice presses, toaster ovens, hair care and hand drying appliances, home heaters, microwave ovens, other oven-type kitchen appliances, water heaters, irons and other small electrical appliances are required to apply for certificates through the GSO-designated certification organisations and apply for a certificate with the GCTS mark on their products before exporting their products to the seven Gulf countries.

**TÜV Rheinland Hong Kong, as a GSO-appointed certification body (issuer code 0007), can provide manufacturers with G-mark certification services for the Gulf States to help ensure that their products meet the requirements of the GCC technical regulations.**



Note: GCC certification does not replace the batch inspection requisites of specific Gulf nations, such as Saudi Arabia's Saber system for PC+SC and Kuwait's TIR certificate. For more information, please contact TÜV Rheinland Government Inspection Department.

**For more information about certification services in other countries, please call TÜV Rheinland's experts!**



# Compliance Essentials for Sweeping Robots Across Leading Markets

(with Charging / Dust Collection Pile)



Sweeping robots make home cleaning effortless—but are you aware of the certification requirements in different countries? TÜV Rheinland’s experts have compiled a guide covering the key global markets for sweeping robots, including their charging and dust collection stations.



## Asia Pacific

### Japan



Safety

- TÜV Rheinland Japan / TÜV Rheinland Hong Kong / TÜV Rheinland Taiwan is the issuing authority for <PS>E
- Sweeping robots: Class III, not covered by the Japanese Electrical Safety Law (DENAN).
- Removable lithium batteries: (PS)E (energy density of single cell not less than 400 Watt-hours/litre), test report issued.



EMC

- Charging post: <PS>E
- Dust collection post: <PS>E & (PS)E
- Certification Mark : <PS>E & (PS)E



Wireless

- JRF Certification
- Certification Mark:



Hazardous Substances

- RoHS Directive:
- J-Moss (6 items), covers 6 major product categories, currently excludes such products



Other Requirements

- For <PS>E products, each importer is required to obtain an Authorised Valid Copy (AVC) issued by the licensing authority.

### South Korea



Safety

- TÜV Rheinland signed an MOU with Korea's main licensing organisation MOU signed
- Sweeping robots: excluded from the mandatory KC Safety Scope of Certification
- Charging piles: KC safety certification
- Dust collector: KC safety certification
- Certification Mark: + Certificate No.



EMC

- KC Certification
- Certification Mark : + Certificate No.



Wireless

- KC Certification
- Wireless Certification Mark: + Certificate No.



Hazardous Substances

- Required for electronic/electrical products and automotive equipment Hazardous Resource Recovery Act, 10 items



Other Requirements

- Charging post / dust collection post (input power < 20W), in the MEPS range, when in Korea. (input power less than 20W), in MEPS range, tested locally in Korea, registered by the importer on the official website.
- Mobile vacuum cleaners (dry type only) with rated input between 800W and 2500W are energy efficiency targets.
- Sweepers with cameras need to undergo IP security testing.

## Singapore



Safety

- Singapore Safety Certification
- Sweeping Robot: Class III, not mandatory for Singapore Safety Certification
- Charging Stake: Not mandatory under Singapore Safety Certification



EMC

- Not mandatory



Wireless

- IMDA

**Complies with  
IMDA Standards  
DB123456**



Hazardous Substances

- No mandatory requirements



Other Requirements

- Singapore Distributor Required

## China Taiwan



Safety

- Sweeper: BSMI ( Safety +EMC )
- Charging post / Dust collector: Not subject to inspection (HS code 8504 40 900 0)
- Adaptor: BSMI (Safety +EMC)



EMC

- EMC certification mark:



Wireless

- NCC Wireless Certification
- Certification Mark:



Hazardous Substances

- CNS 15663 Guidelines for Reducing the Content of Restricted Chemical Substances in Electrical and Electronic Equipment, 6 items BSMI application is to provide an EU RoHS report, RoHS Restricted Substances List can be added to or attached to the specification.



Other Requirements

- A local agent is required BSMI certificate is required for lithium batteries from 2023.01.01 onwards. (CNS 15364 & CNS 62133-2) or CB certificate and report (IEC). CB certificate and report (IEC 62133 series).

## Thailand



Safety

- Sweeper: Not mandatory
- Charging Pile / Dust Collection Pile: Not mandatory



EMC

- Not mandatory



Wireless

- NBTC
- Certification Mark: QR Code + Statement, additional page included in box



Hazardous Substances

- Not mandatory at this time



Other Requirements

- Local agent in Thailand required

## Malaysia



Safety

- Sweeper + Charging Stake / Dust Collection Stake: Mandatory CoA or SIRIM Mark certification, either one of them
- Certification Mark: 
- or SIRIM Mark 



EMC

- Not yet mandatory



Wireless

- SIRIM
- Certification Mark:



Hazardous Substances

- No mandatory requirements



Other Requirements

- The licensee is the local importer

## India



Safety

- Sweeping Robot: No requirement
- Charging / Dust Collection Piles: BIS Approved
- Li-ion battery: BIS certified
- Certification mark: 



EMC

- No mandatory requirements



Wireless

- WPC Wireless Certification



Hazardous Substances

- Not yet mandatory



Other Requirements

- India Local Distributor Required

## Australia



Safety

- TÜV Rheinland Australia is the licensing body
- Sweeping robots: not mandatory for safety certification in Australia, can apply for voluntary certification CoS
- Charging piles: Mandatory safety certification CoA
- Dust collector: Mandatory safety certification CoA
- Certification Mark: TÜVXXXXXXXXXE (voluntary) TÜV-XXXXXX-EA (mandatory)



EMC

- Certification Mark:



Wireless

- ACMA RCM Registration
- Certification Mark:



Hazardous Substances

- No mandatory requirements at this time



Other Requirements

- Local distributor in Australia required
- Safety compliant products need to be registered with EESS.

## Americas

### Argentina



Safety

- TÜV Rheinland Argentina is the licensing authority
- Sweeping robots: Class III, not subject to mandatory certification
- Charging post: S-Mark
- Dust collection stake: S-Mark
- Certification mark:



EMC

- No relevant requirements



Wireless

- RAMATEL Wireless Certification
- Certification Mark:



Hazardous Substances

- No mandatory requirements



Other Requirements

- No relevant requirements

## Brazil



Safety

- TÜV Rheinland Brasil is the Issuing Authority
- Sweeper + Charging / Dust Collection Pile: INMETRO Mandatory Certification 371/2009
- Charging / Dust Collection Piles: Randomized Testing
- Certification mark:



EMC

- Considered for INMETRO certification



Wireless

- ANATEL Wireless Certification
- Certification mark: only the certificate number can be added to the product



Hazardous Substances

- Draft RoHS submitted in 2018, not yet released



Other Requirements

- Sweeping robots and dust collection piles: noise requirements
- INMETRO, ANATEL Licensees are local Brazilian importers.

## Chile



Safety

- Sweeper + charging post / dust collector: SEC mandatory certification SEC Protocol PE N° 1/01 (2021 version mandatory from December 31, 2022)
- Charging post / dust collection post / adapter: random testing or with CB certification
- Certification mark: SEC QR



EMC

- No requirements at this time



Wireless

- SUBTEL



Hazardous Substances

- No requirements



Other Requirements

- Local distributor required
- SEC Certification Modes: System 1, System 2, System 6 selectable based on frequency of shipments.

## Mexico



Safety

- TÜV Rheinland Mexico is the licensing authority
- Sweeping Robot: NOM Certification NOM-003
- Charging / Dust Collection Piles: NOM Certification NOM-001
- Certification mark:

**NOM**



EMC

- NOM-003 Partial construction requires EMC testing



Wireless

- IFETEL wireless certification with label containing IFETEL NO. (Effective since July 1st, 2025)



Hazardous Substances

- No requirements



Other Requirements

- NOM-024 Business Information Requirements
- Charging Pile / Dust Collection Pile: NOM-029 Energy Efficiency Certification
- Local agent required

## Eurasian Economic Union

### Eurasian Economic Union



Safety

- Sweeper + Charging / Dust Collection Pile: EAC CoC
- Charging post / Dust collector: EAC CoC is also required for separate export.



EMC

- Certification Marks.



Wireless

- FAC



Hazardous Substances

- EAC RoHS application required



Other Requirements

- Local Distributor Required
- GLN number or GPS coordinates of manufacturer and factory required.
- As of September 1, 2025, vacuum cleaners beginning with customs code 8508 will need to comply with and apply for CU TR 048 (Energy Efficiency Code) DoC.
- Test samples needed

## Middle East

### Middle East - GSO



Safety

- G mark approval, this product is not currently in the G Mark mandatory product range.



EMC



Hazardous Substances



Wireless



Other Requirements

- No requirements at this time

### Saudi Arabia



Safety

- G mark approval, this product is currently not in the G Mark mandatory product range



EMC

- Not available requirements



Wireless

- None Requirements



Hazardous Substances

- Customer must provide DoC statement



Other Requirements

- Local Saudi importer required

## UAE



Safety

- TÜV Rheinland Middle East is the licensing authority
- Sweeping robots: ECAS or EQM LVE with charging post / dust collection post
- Charging post: ECAS or EQM LVE
- Dust collection post: ECAS or EQM LVE
- Certification mark: ECAS EQM



ECAS



EQM



EMC

- No relevant requirements at this time



Wireless

- TDRA
- Certification Mark: Product:
- Packaging:



Hazardous Substances

- TÜV Rheinland UAE is the licensing body for ECAS or EQM RoHS



Other Requirements

- Local agent required

## Oman



- TÜV Rheinland Hong Kong is the world's first licensing body
- Sweeper + Charging / Dust Collector: CoC
- Certification Mark: None



Wireless

- TRA
- Certification Mark:
- Local importer required



Hazardous Substances

- Not mandatory



Other Requirements

- No relevant requirements

## Israel



- TÜV Rheinland Signs MOU with Israeli Certification Body SII
- Sweeper + Charging / Dust Collection Pile: CoC
- Certification Mark: None



Wireless

- Included in the MOC Exemption List



Hazardous Substances

- No mandatory requirements



Other Requirements

- No relevant requirements

## TÜV Rheinland Allergy Care and Dual certification for no loss of suction power



To support consumers in selecting high-quality allergen filtration products—and to help manufacturers highlight their product value—TÜV Rheinland has introduced the Allergy Care and No Loss of Suction certification services.

TÜV Rheinland was released at CIEE White Paper on Allergy Care for Household Appliances



The stone automatic dust collection charging base was awarded TÜV Rheinland Allergy care and suction power lossless dual certification



About the vacuum cleaner "suction power without loss", Do you have a lot of question marks?



- Explore TÜV Rheinland's Allergy Care and No Suction Loss Certification for Stone's Automatic Dust Collector Charging Cradle Curious about "no loss of suction power" in vacuum cleaners?
- We possess vast expertise in testing and certifying sweeping robots, encompassing charging and dust collection stations.
- Contact our international certification experts for more information!

# LED Lighting Compliance Guide for Key International Markets

In today's era of energy-efficient and eco-friendly lighting, LED lamps have gained strong government support and growing export demand for domestic manufacturers. To ensure product quality, many countries have implemented strict testing and certification requirements for imported LED lighting. TÜV Rheinland's experts offer in-depth guidance on key global LED lamp markets—helping you navigate compliance and unlock valuable business opportunities.



## ○ Vietnam

Vietnam has implemented Circular 36/2016/TT-BCT and QCVN 19:2019/BKHCN for lighting products.

The former addresses energy efficiency requirements for LED light sources, while the latter addresses safety and EMC requirements for LED light sources and luminaires.

**TÜV Rheinland Greater China has taken the lead in realizing domestic testing for safety and EMC, and provides one-stop services for local testing, registration and certification.**



Model: Điện Năng Lượng Tiết kiệm 10000h kWh





## Japan



According to the Japan Electrical Appliance and Material Safety Law (DENSA), lamps and luminaires are classified as non-specified electrical appliances (Class B), and TÜV Rheinland can provide testing services and issue test reports for products that comply with the technical requirements set forth in the DENSA and bear the round PSE mark. **TÜV Rheinland can provide testing services and issue test reports. For customers who wish to obtain certificates, we can also issue TÜV S-mark certificates directly.**

Notably, LED drivers are Specified Electrical Appliances (Class A), requiring a diamond-shaped PSE certificate and mark. TÜV Rheinland, accredited by METI in Japan, provides streamlined testing and licensing services.

## India



Self-ballasted LED light sources, LED modules, various LED luminaires, LED control gear, etc. are all CRS (Compulsory Registration Scheme) regulated products under the Indian BIS (Bureau of Indian Standards). Among them, Self-ballasted LED lamps are also included in the BEE (Bureau of Energy Efficiency) mandatory certification list. **No matter what kind of LED lamps you have, TÜV Rheinland is your one-stop shop!**

## Australia



Some LED luminaires and LED drivers fall within the scope of Australia's mandatory safety certification and require a certificate of safety compliance and registration with the EESS system by an ACMA responsible supplier. In addition, electrical and electronic products are required to meet EMC requirements and are registered with ACMA by an Australian responsible supplier. In addition, electrical and electronic products need to meet EMC requirements and be registered with ACMA by the Australian responsible supplier. Products that meet the requirements need to be labeled with the RCM compliance mark.

**TÜV Rheinland Australia is an accredited safety certification organization in Australia and can provide you with fast and convenient local certification services.**

## Thailand



LED lighting products are required to comply with the EMC standard TIS 1955- 2551 and obtain TISI certification. Among them, LED light source products also need to comply with safety standards TIS 2780-2562 and TIS 2779-2562 and obtain TISI certification.



**TÜV Rheinland can provide customers with one-stop services for local testing, factory inspection and issuance of TISI certification.**

## Malaysia

LED lighting products are required to apply for **ST CoA or ST Mark certification**. TÜV Rheinland's safety and energy efficiency reports are recognized by officials and can assist customers in applying for certificates.



Electrical products regulated by Energy Commission  
Size: 10mm x 25mm



Electrical products regulated by EU Sarawak  
Size: 10mm x 25mm



## Singapore



LED lighting products require Singapore safety certification. TÜV Rheinland's safety and efficiency reports are officially recognized and can assist customers in applying for certification.

## Philippines

E14 and E27 LED light source products and some fixtures need to apply for Philippine safety certification ICC or BPS, and energy efficiency requirements for LED light source products will be mandatory from September 5, 2023. **TÜV Rheinland provides one-stop service.**



## South Korea



LED lighting products require KC certification encompassing safety and EMC requisites, while LED light sources necessitate energy efficiency certification. **TÜV Rheinland holds an MOU with Korea's prominent certification body, facilitating CB reports acceptance and aiding customers in KC certification applications.**

## UAE



According to the UAE Ministry of Industrial Development and Technology (MoIAT) Resolution No. 34, LED light sources, LED drivers and stationary luminaires are required to meet requirements for safety, energy efficiency (for LED light source products) and hazardous substances. LED luminaires that are not covered by Resolution 34 also need to meet RoHS regulations and low voltage regulations. Products within the mandatory scope need to obtain ECAS or EQM certificates in order to enter the UAE market.

**TÜV Rheinland Middle East is qualified to issue certificates based on the corresponding test reports from TÜV Rheinland Greater China.**

## Saudi Arabia

For LED lighting products, manufacturers need to apply for an Energy Efficiency Certificate, then an IECCE (SIRC) Certificate and finally a SABER Shipment Certificate.

The new standards are SASO 2870:2018-AMD 1:2021 and SASO 2902:2018-AMD 1:2021 for light sources, LED drivers and luminaires, and SASO 2927:2019-AMD 1:2021 for street lamps.

**TÜV Rheinland Greater China is a SASO-authorized testing laboratory and a SABER-appointed issuing body, providing one-stop services for local testing and assistance in applying for Energy Efficiency Certificates, SIRC Certificates, and SABER Shipments Certificates.**



## Colombia



According to Resolution 180540 issued by the Colombian Ministry of Energy, lamps and luminaires exported to Colombia must obtain a valid RETILAP certificate before they can be legally circulated in the market, and **TÜV Rheinland Greater China can provide local testing and assist in the issuance of certificates.**

## Peru

According to Supreme Decree No. 009-2017-EM of the Ministry of Energy and Mines of Peru, "Approval of the Technical Regulation on the Labeling of Energy Efficiency of Electrical and Electronic Devices," the mandatory implementation of LED light source products has begun on November 3, 2019.

**TÜV Rheinland Argentina is an authorized certification body, and local testing services and certificates are facilitated through TÜV Rheinland Greater China.**

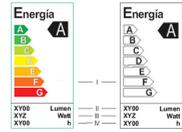


Figure 1.1: Energy Efficiency Label Designs  
Labels that include the translation of the word "Energy" in other languages such as "Energía", "Energie", etc. are also allowed.

The following series define the information to be included:

1. Energy Efficiency Class (letter A-G): (1) shall be determined in accordance with the section "Energy Efficiency Classification" corresponding to the type of lamp to be labeled. In case of the energy efficiency class marked on the product area, including the area of the energy efficiency class of the lamp.
2. Luminous flux of the lamp, in lumens, measured according to the relevant standard.
3. Lamp power, in watt, to be measured according to the test methods of the IEC standard on the IUP agreement at the time of the test, corresponding to the type of lamp to be labeled.
4. Life of the lamp, in hours, measured according to the standard made by the applicant corresponding to the type of lamp to be labeled. If there is information about the life of the lamp on the packaging, it may be omitted from the label.

## Brazil



LED light sources (Directive 69/2022) and street lamps (Directive 62/2022) are obligatory products requiring INMETRO certification in Brazil. This certification encompasses safety, performance, and EMC aspects, and is executed by a recognized Brazilian importer. Importers are mandated to register on INMETRO's portal to acquire a registration number and affix the certification mark on product nameplates, labels, and external packaging. **TÜV Rheinland Brazil is a certification body recognized by INMETRO, and TÜV Rheinland Greater China can provide local testing and assist in certification services.**

## European Union ENEC

ENEC certification signifies compliance with stringent European standards, particularly for lamps and their components, encompassing safety, performance, and photobiological safety where applicable. ENEC+ certification can additionally be pursued for LED modules and luminaires based on ENEC certification. **TÜV Rheinland Hungary serves as an ENEC and ENEC+ certification body, while TÜV Rheinland Greater China boasts ENEC and ENEC+ accredited labs for local testing and certification support.**



If you want to explore global business opportunities for your LED lighting products, please contact us for more information.



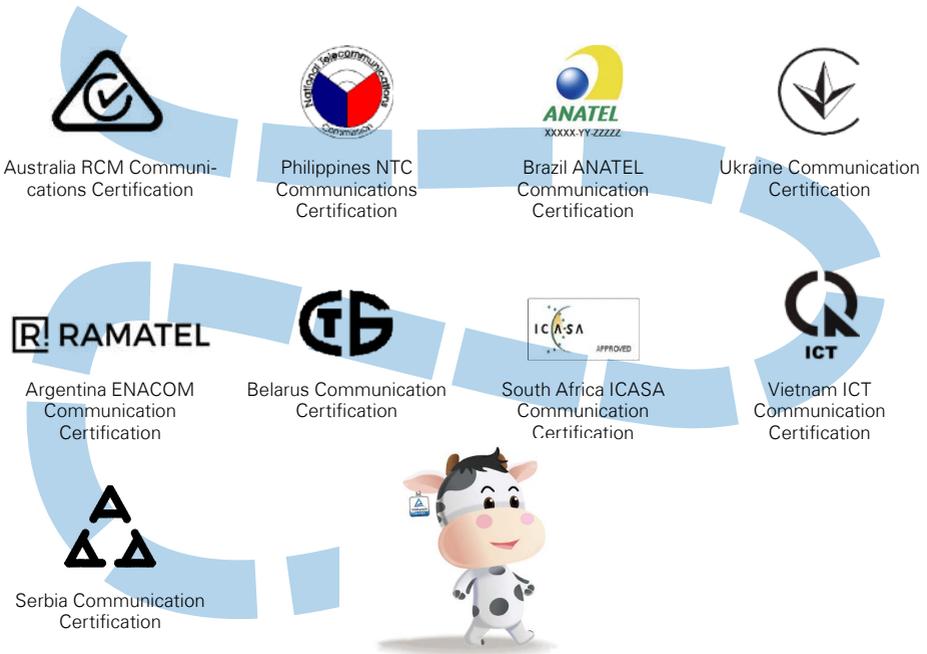
# Going Global with Wireless Products? It's That Simple!



Before placing a wireless communication product on the market, make sure that your product meets the requirements of the appropriate national, regional, or international specifications to avoid the risk of being unmarketable or recalled.

**1** In addition to the EU CE RED and the US FCC, these certification marks are also relevant

- CE**  
EU RED Directive Notified Body Certification
- FCC**  
U.S. FCC certification
- TRF**  
Japan Radio Act and Telecommunications Business Act Type Approval
- KC**  
Korea Communications Certification
- NCC**  
Taiwan NCC Communications Certification
- IMDA**  
Complies with IMDA Standards DB123456  
Singapore IMDA Communication Certification
- MCMC**  
ABGD12345678  
Malaysia SIRIM Communication Certification
- TDR**  
TDR  
UAE TRA Communication Certification



## 2 Choose TÜV Rheinland for full wireless export coverage

### Certification process

STEP  
1

Based on the product information we determine

- Which standards apply for the product?
- Which testings and certifications can be provided by TÜV Rheinland?
- (Note: Separate certification may be mandatory for chargers, batteries and other components.)

STEP  
2

Full testing and preparation of test reports in the laboratory

STEP  
3

You receive the necessary certification

## 3 To Certify or Not to Certify, That is the Question

---

### Do all countries have mandatory certification requirements for wireless products?

---



TÜV Rheinland's wireless experts: Yes, any product that has a wireless module or emits radio waves requires special certification for export.

Most of the countries whose names appear on the map, even the smallest ones, such as the more than 20 countries in the Caribbean, have their own certificates.

---

### We already have a CE RED from TÜV Rheinland or an FCC from the USA. Can I transfer my product to another country?

---



TÜV Rheinland's wireless experts: Most countries accept these reports for direct transfer. However, in some countries, there are special local regulatory requirements, such as China, Japan, Korea, Brazil, Mexico, Argentina, etc., which require samples to be tested locally.

We provide one-stop services for all aspects of our customers' products (including wireless, safety, EMC, energy efficiency, RoHS, lot inspection, etc.), saving time, effort and money!

---

### We hand over all of our international certification applications for wireless products to TÜV Rheinland, what else do you need to know?

---



TÜV Rheinland's wireless experts: The issuing authority for wireless products is usually the national radio control unit of the country.

Customers should understand that sometimes the cycle time cannot be met due to natural disasters, governmental changes, reorganization of state departments, regulatory changes, etc. In the Dominican Republic, for example, in August 2022, TÜV Rheinland will be issuing the certification to the Dominican Republic. For example, the Dominican Republic was hit by a hurricane in August 2022, and the issuing organization resumed the normal issuing work in early February 2023. When encountering this kind of unexpected situation, our international certification specialists will try their best to solve the problem and get the product certificates for the customers as soon as possible.



# AR/VR Glasses: Certification Requirements Across Leading Markets



TÜV Rheinland's international certification experts have prepared a detailed guide for you to gain access to the global market for AR/VR glasses!



## Asia Pacific

### China

**Safety/EMC:** No special requirements

**Wireless:** SRRC sample testing

**Nameplate Requirements:**

CMIIT ID and manufacturer's name added to nameplate



### Japan

\* TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** No special requirements

**Wireless:** JRF\* for sample testing

**Nameplate Requirements:**

JRF logo on nameplate, e.g.



### China Taiwan

\* TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** Depends on the product

**Wireless:** NCC\* for sample testing

**Nameplate Requirements:**

NCC logo and certification information is added to the nameplate, such as



### South Korea

**Safety/EMC:** Rechargeable lithium-ion batteries  
KC certification required

**Wireless:** KC (MSIP) for sample testing

**Nameplate Requirements:**

KC logo and certification information added to nameplate.



### India

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** WPC SDoC# Transfer (RED)

**Nameplate Requirements:**

No special requirements

### Indonesia

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** SDPPI# Transfer Certificate(RED)

**Nameplate Requirements:**

SDPPI information added to the specification, e.g.



### Thailand

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** NTBC SDOC# Transfer Certificate(RED)

**Nameplate Requirements:**

QR code-containing declaration (in Thai) included in the package

### Vietnam

**Safety/EMC/Wireless:** MIC (less than 60mW) exemption

**Nameplate Requirements:**

No special requirements

### Malaysia

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** SIRIM# Transfer Certificate(RED)

**Nameplate Requirements:**

MCMC logo on nameplate, e.g.



## Singapore

\*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** IMDA# Transfer Certificate(RED)

**Nameplate Requirements:**

Certification information added to the outer packaging, such as

Complies with  
IMDA Standards  
DB123456

## Australia

\*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** RCM# Transfer Certificate(RED)

**Nameplate Requirements:**

RCM logo added to nameplate, e.g.



## Americas

### Brazil

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC/Wireless:** ANATEL\* for sample testing

**Nameplate Requirements:**

ANATEL ID (logo voluntary) added to the nameplate, e.g.



### Argentina

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** No special requirements

**Wireless:** EANCOM\* document review

**Nameplate Requirements:**

RAMATEL logo on nameplate, e.g.



## Mexico

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** NOM\*

**Wireless:** IFETEL\* document review

**Nameplate Requirements:**

IFT ID and NOM logo on nameplate



IFT ABCDEF23-123456

## North America

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** No special requirements

**Wireless:** FCC\* for sample testing

**Nameplate Requirements:**

ID added to the nameplate: e.g.  
FCC ID XZZYYNNNNNNN

## Canada

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** No special requirements

**Wireless:** ISED\* for sample testing

**Nameplate Requirements:**

ISED ID added to nameplate

## Middle East & Africa

## Saudi Arabia

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** SABER PC/SC\*

**Wireless:** N/A

## UAE

\* TÜV Rheinland can provide testing and direct licensing services.  
\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** ECAS RoHS\*

**Wireless:** TDRA# Transfer Certificate(RED)

**Nameplate Requirements:**

Add certification information to the outer packaging, e.g:



## South Africa

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** ICASA# Transfer Certificate(RED)

**Nameplate Requirements:**

ICASA logo on nameplate, e.g.



## EU

\* TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC/Wireless:**

RED\* for sample testing

**Nameplate Requirements:**

CE marking on the nameplate



## Russia

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** EAC#

**Wireless:** FAC DOC FSB(FSS)

**Nameplate Requirements:**

EAC marking on nameplate, e.g.



**Want to know more about certification requirements in other countries and regions? Contact our international certification experts!**



# Global Compliance Made Easy for Portable Wireless Speakers



As global demand grows, more manufacturers are focusing on the regulatory requirements for wireless speakers across different countries and regions. To support this, TÜV Rheinland experts have compiled the key “visa” (market access) requirements for the world’s most popular markets—helping you take your wireless speaker products global with confidence.



## Asia Pacific

### China

**Safety/EMC:** CQC (voluntary) sample testing

**Wireless:** SRRC sample testing

**Nameplate Requirements:**

CQC logo, CMIIT ID and manufacturer's name added to the nameplate, e.g.



### Japan

\* TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** No special requirements

**Wireless:** JRF\* for sample testing

**Nameplate Requirements:**

JRF logo on nameplate, e.g.



\* TÜV Rheinland can provide testing and direct licensing services.

### China Taiwan

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** BSMI# for sample testing

**Wireless:** NCC\* for sample testing

**Nameplate Requirements:**

BSMI and NCC logo on nameplate, e.g.



### South Korea

**Safety/EMC:** KC certification required for internal battery

**Wireless:** KC (MSIP) for sample testing

**Nameplate Requirements:**

BSMI and NCC logo on nameplate, e.g.



### India

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** BIS# for sample testing

**Wireless:** WPC SDoC# Transfer Certificate (RED)

**Nameplate Requirements:**

BIS logo on nameplate, e.g.



### Indonesia

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** SNI# for sample testing

**Wireless:** SDPPI# Transfer Certificate (RED)

**Nameplate Requirements:**

SNI and SDPPI information added to the nameplate, e.g.



### Thailand

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** NTBC SDOC#

**Nameplate Requirements:**

QR-marked declaration letter attached to the package.

### Vietnam

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** MIC# for sample testing

**Nameplate Requirements:**

CR mark added to nameplate, e.g. RF output less than 60mW - Customs Exemption Letter



## Malaysia

\*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** ST CoA<sup>#</sup>

**Wireless:** SIRIM<sup>#</sup> Transfer Certificate(RED)

**Nameplate Requirements:**

MCMC logo on nameplate, e.g. safety labeling to be purchased.



## Singapore

\*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** MDA<sup>#</sup> Transfer Certificate(RED)

**Nameplate Requirements:**

Certification information to be added to the nameplate, e.g.



## Australia

\*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** RCM<sup>#</sup> Transfer Certificate(RED)

**Nameplate Requirements:**

RCM logo added to the nameplate, e.g.



## Americas

### Brazil

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC/Wireless:** ANATEL<sup>\*</sup> for sample testing

**Nameplate Requirements:**

ANATEL ID (logo voluntary) on nameplate, e.g.



## Argentina

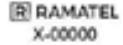
\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** No special requirements

**Wireless:** EANCOC<sup>\*</sup> document review

**Nameplate Requirements:**

RAMATEL logo on the manual, e.g.



## Mexico

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** NOM<sup>\*</sup>

**Wireless:** IFETEL<sup>\*</sup> for sample testing

**Nameplate Requirements:**

IFETEL ID and NOM logo on nameplate



## North America

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** FCC Energy CEC/DoE<sup>\*</sup>

**Wireless:** FCC<sup>\*</sup>

**Nameplate Requirements:**

ID added to nameplate: e.g. FCC ID XZZYNNNNNNN

## Canada

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** Energy NRcan<sup>\*</sup>

**Wireless:** ISED<sup>\*</sup>

**Nameplate Requirements:**

ISED ID and certification logo on nameplate, e.g.



## Middle East & Africa

### Saudi Arabia

\*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** SIRC (IECEE)<sup>#</sup>

**Wireless:** N/A

**Nameplate Requirements:**

No special requirements

\*TÜV Rheinland can provide testing and direct licensing services.

\*TÜV Rheinland can provide testing and certification transfer services

### UAE

**Safety/EMC:** ECAS RoHS\*

**Wireless:** TDRA<sup>#</sup> Transfer Certificate(RED)

**Nameplate Requirements:**

Certification information added to the outer packaging, e.g.:



### South Africa

\*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** LoA<sup>#</sup>

**Wireless:** ICASA<sup>#</sup> Transfer Certificate(RED)

**Nameplate Requirements:**

ICASA logo on nameplate, e.g.



## EU

### EU

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** N/A

**Wireless:** RED\*

**Nameplate Requirements:**

Safety compliance to EN 62368-1 is required CE marking on the nameplate.



### Russia

\*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** EAC

**Wireless:** FAC DoC<sup>#</sup> Transfer Certificate(RED)

**Nameplate Requirements:**

EAC marking on nameplate, e.g.



Want to know more about certification requirements in other countries and regions? Contact our international certification experts!



# Planning to Expand Globally with Your Wireless Headsets?



If you are a manufacturer of wireless headset products, this is the right place to look! TÜV Rheinland’s experts have organized the “visa” requirements for the world’s most popular markets to help you successfully reach your target markets!



## Asia Pacific

### China

**Safety/EMC:** No special requirements

**Wireless:** SRRC sample testing

**Nameplate Requirements:**

CMIIT ID and Manufacturer's Name

### Japan

\* TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** No special requirements

**Wireless:** JRF\* for sample testing

**Nameplate Requirements:**

JRF logo on nameplate, e.g.



### China Taiwan

\* TÜV Rheinland can provide testing and certification transfer services  
\* TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** BSMI sample testing (mandatory on 2024.01.01)

**Wireless:** NCC\* for sample testing

**Nameplate Requirements:**

NCC logo and BSMI logo on nameplate (2024.01.01)



### South Korea

**Safety/EMC:** KC certification required for internal battery

**Wireless:** KC (MSIP) for sample testing

**Nameplate Requirements:**

KC mark added to nameplate, e.g.



### India

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** BIS# for sample testing

**Wireless:** WPC SDoC# Transfer Certificate (RED)

**Nameplate Requirements:**

BIS logo on nameplate, e.g.



### Indonesia

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** SDPPI# Transfer Certificate (RED)

**Nameplate Requirements:**

SDPPI information added to the nameplate, e.g.

1234/SDPPI/yyyy  
123456

### Thailand

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** NTBC SDOC#

**Nameplate Requirements:**

QR-marked declaration letter attached to the package.

### Vietnam

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** Customs exemption letter

**Nameplate Requirements:**

No special requirements

## Malaysia

\*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** SIRIM<sup>#</sup> Transfer Certificate(RED)

**Nameplate Requirements:**

MCMC logo on nameplate, e.g.



## Argentina

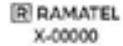
\* TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** No special requirements

**Wireless:** EANCOS<sup>\*</sup> document review

**Nameplate Requirements:**

RMATEL logo on the manual, e.g.



## Singapore

\*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** IMDA<sup>#</sup> Transfer Certificate(RED)

**Nameplate Requirements:**

Certification information added to the nameplate, e.g.



## Mexico

\* TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** NOM<sup>\*</sup>

**Wireless:** IFETEL<sup>\*</sup> for sample testing

**Nameplate Requirements:**

IFETEL ID and NOM logo on nameplate



IFT ABCDEF23-123456

## Australia

\*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** RCM<sup>#</sup> Transfer Certificate(RED)

**Nameplate Requirements:**

RCM logo added to the nameplate, e.g.



## North America

\* TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** FCC Energy CEC/DoE<sup>\*</sup>

**Wireless:** FCC<sup>\*</sup> for sample testing

**Nameplate Requirements:**

ID added to the nameplate: e.g.

FCC ID XZZYNNNNNNNN

## Americas

### Brazil

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC/Wireless:**

ANATEL<sup>\*</sup> for sample testing

**Nameplate Requirements:**

ANATEL ID (logo voluntary) on nameplate, e.g.



### Canada

\* TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** Energy NRcan<sup>\*</sup>

**Wireless:** ISED<sup>\*</sup> for sample testing

**Nameplate Requirements:**

ISED ID and certification logo on nameplate,

e.g.



## Middle East & Africa

**Saudi Arabia** \*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** SIRC(IECEE)#

**Wireless:** N/A

**Nameplate Requirements:**

No special requirements

\* TÜV Rheinland can provide testing and direct licensing services.

\* TÜV Rheinland can provide testing and certification transfer services

## UAE

**Safety/EMC:** ECAS RoHS\*

**Wireless:** TDRA# Transfer Certificate(RED)

**Nameplate Requirements:**

Certification information added to the outer packaging, e.g.:



**South Africa** \*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** ICASA# Transfer Certificate(RED)

**Nameplate Requirements:**

ICASA logo on nameplate, e.g.



## EU

**EU** \*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** N/A

**Wireless:** RED\*

**Nameplate Requirements:**

EN 62368-1 for safety requirements  
CE marking on nameplates



**Russia** \*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** EAC

**Wireless:** FAC DoC# Transfer Certificate(RED)

**Nameplate Requirements:**  
EAC marking on nameplate, e.g.



Want to know more about certification requirements in other countries and regions? Contact our international certification experts!



# Automotive Radar: Compliance Pathways in Leading Global Markets



With the rise of advanced autonomous driving, the global automotive radar market is poised for rapid expansion. To help manufacturers seize this opportunity, TÜV Rheinland experts have compiled a comprehensive guide to the key market access requirements in leading global regions.



## Asia Pacific

### China

**Safety/EMC:** No special requirements

**Wireless:** SRRC sample testing

**Nameplate Requirements:**

CMIIT ID and manufacturer's name or trademark added to the nameplate

Note: Automotive radar certificates for 24GHz will no longer be issued as of March 2022

### Japan

\* TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** No special requirements

**Wireless:** JRF\* for sample testing

**Nameplate Requirements:**

JRF logo on nameplate, e.g.



### China Taiwan

\* TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** No special requirements

**Wireless:** NCC\* for sample testing

**Nameplate Requirements:**

NCC logo and certification information added to the nameplate, e.g.



### South Korea

**Safety/EMC:** No special requirements

**Wireless:** KC (MSIP) for sample testing

**Nameplate Requirements:**

KC logo and certification information added to the nameplate, e.g.



### India

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** WPC SDoC# Transfer Certificate(RED)

**Nameplate Requirements:**

No special requirements

### Indonesia

\* TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** SDPPI# Transfer Certificate(RED)

**Nameplate Requirements:**

SDPPI information added to the nameplate, e.g.

1234/SDPPI/yyyy  
123456

### Thailand

**Safety/EMC:** No special requirements

**Wireless:** NTBC Class A Transfer Certificate(RED)

**Nameplate Requirements:**

Special label purchase required

### Vietnam

**Safety/EMC:** MIC

EMC SDoC -for sample testing

**Wireless:** MIC

EMC SDoC -for sample testing

**Nameplate Requirements:**

No mandatory labeling requirement

## Malaysia

\*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** SIRIM<sup>#</sup> Transfer Certificate(RED)

**Nameplate Requirements:**  
MCMC logo on nameplate, e.g.



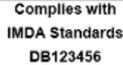
## Singapore

\*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** IMDA<sup>#</sup> Transfer Certificate(RED)

**Nameplate Requirements:**  
Certification information added to the nameplate, e.g.



## Australia

\*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** RCM<sup>#</sup> Transfer Certificate(RED)

**Nameplate Requirements:**  
RCM logo added to the nameplate, e.g.



## Brazil

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC/Wireless:** ANATEL\* for sample testing

**Nameplate Requirements:**  
ANATEL ID (logo voluntary) on nameplate, e.g.



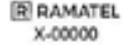
## Argentina

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** No special requirements

**Wireless:** EANCOS\* document review

**Nameplate Requirements:**  
RMATEL logo on the manual, e.g.



## Mexico

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** NOM\*

**Wireless:** IFETEL\* for sample testing

**Nameplate Requirements:**  
IFETEL ID and NOM logo on



## North America

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** No special requirements

**Wireless:** FCC\* for sample testing

**Nameplate Requirements:**  
ID added to nameplate: e.g.  
FCC ID XZZYYNNNNNNN

## Canada

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** No special requirements

**Wireless:** ISED\* for sample testing

**Nameplate Requirements:**  
ID added to nameplate: e.g.  
IC: XXXXXX-YYYYYYYYYYYY

## Middle East & Africa

### Saudi Arabia

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC:** SABER PC/SC\*

**Wireless:** N/A

**Nameplate Requirements:**

No special requirements

\*TÜV Rheinland can provide testing and direct licensing services.

\*TÜV Rheinland can provide testing and certification transfer services

### UAE

**Safety/EMC:** ECAS RoHS\*

**Wireless:** TDRA# Transfer Certificate(RED)

**Nameplate Requirements:**

Certification information added to the outer packaging, e.g.:



### South Africa

\*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** No special requirements

**Wireless:** ICASA# Transfer Certificate(RED)

**Nameplate Requirements:**

ICASA logo on nameplate, e.g.



## EU

### EU

\*TÜV Rheinland can provide testing and direct licensing services.

**Safety/EMC/Wireless:** RED\* for sample testing

**Nameplate Requirements:**  
CE marking on the nameplate



### Russia

\*TÜV Rheinland can provide testing and certification transfer services

**Safety/EMC:** EAC#

**Wireless:** RFCfor sample testing

**Nameplate Requirements:**

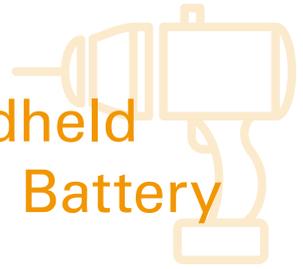
EAC marking on nameplate, e.g.



Want to know more about certification requirements in other countries and regions? Contact our international certification experts!



# Global Market Access Requirements: DC Handheld Power Tools with Li-Ion Battery Packs and Chargers



DC handheld power tools are gaining popularity across global markets thanks to their low-voltage safety and user-friendly design. But are you aware of the mandatory requirements for these tools, along with their lithium-ion battery packs and chargers, in different countries and regions? TÜV Rheinland experts have created a comprehensive guide covering the most in-demand markets worldwide.



# Asia Pacific

## Japan



Safety



EMC

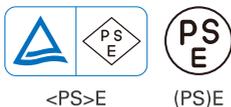


Hazardous Substances



Other Requirements

- TÜV Rheinland is the PSE's certification and testing organization.
- DC Handheld power tools: Not covered by the Japanese Electrical Safety Law (DENAN).
- Li-ion battery packs: (PS)E (Energy density of each cell should not be less than 400Wh/liter)
- Charger: <PS> E
- Certification mark:



EMC



Hazardous Substances



Other Requirements

- Li-ion battery packs: not in the scope of mandatory EMC certification
- Charger: Mandatory EMC
- Certification Certification Mark: + Certificate No.



- Compliance with the Resource Recovery Law for Electronic/Electrical Products and Automotive Equipment is required, 10 items.

- Charger (Input power ≤20W, in MEPS range), tested locally in Korea, registered by the importer on the official website.

## South Korea



Safety

- TÜV Rheinland signed an MOU with a Korean licensing authority.
- DC Handheld power tools: Mostly self-compliant products SDoC
- Li-ion battery packs (less than 500Wh): KC safety confirmation
- Chargers: KC safety certification
- Certification Mark: + Certificate No.
- KC Certified DC Handheld Power Tools: EMC SDoC Registered Certification



EMC



Hazardous Substances



Other Requirements

- DC hand-held power tools: not in BSMI controlled catalogs.
- Li-ion battery packs: mandatory BSMI
- Charger: Mandatory BSMI
- Certification Mark:



- CNS 15663 Guidelines for Reducing the Content of Restricted Chemical Substances in Electrical and Electronic Equipment, 6 items BSMI customers are required to provide a Hazardous Substances Undertaking and to include the RoHS Restricted Substances List in or with the instruction manual.

- Local agent is required. If the customer provides a product with a customs code that is on the BSMI control list, and the product evaluation does not require BSMI certification, an item search/exemption certificate is required.

## China Taiwan

## Malaysia



Safety

- DC Handheld power tools: mandatory ST CoA or SIRIM Mark certification, either one of them
- Li-ion battery packs: No requirement for the time being
- Charger: Mandatory ST CoA or SIRIM Mark certification, either one or the other
- Certification Mark: or SIRIM Mark



Other Requirements

- Local agent required

## Thailand



Safety

- DC Handheld Power Tools and Chargers: No mandatory TISI certification.
- Lithium Battery Packs: Mandatory TISI Certification (Separate Export)
- Certification mark:



Other Requirements

- Local agent required

## India



Safety

- DC Handheld Power Tools: Certification not mandatory at this time
- Li-ion battery packs: mandatory BIS certification
- Charger: Mandatory BIS certification
- Certification Mark: BIS



Other Requirements

- Local agent required

## Australia



Safety

- TÜV Rheinland Australia is the issuing body.
- DC Handheld power tools: Voluntary certification CoS (DC < 120V)
- Lithium battery packs: Voluntary certification CoS
- Chargers: Mandatory safety certification CoA
- Certification Mark: TUVXXXXXXXXXE (voluntary) TUV-XXXXXX-EA (mandatory)



EMC

- EMC certification mark:



Other Requirements

- Local agent required

# Americas

## Argentina



Safety

- TÜV Rheinland Argentina as a Certification Body
- DC handheld power tools: mandatory safety certification (mandatory for DC power tools from October 11, 2022)
- Li-ion battery packs: No mandatory requirements for the time being
- Chargers: mandatory S-Mark certification mark:



Other Requirements

- Local distributor required

## Brazil



Safety

- TÜV Rheinland Brasil is the issuing body.
- DC Handheld power tools and lithium-ion battery packs: Not mandatory yet
- Chargers: Power tool chargers are not regulated.
- Certification mark:



EMC

- No requirements for DC handheld tools



Hazardous Substances

- Draft RoHS submitted in 2018, not yet released.



Other Requirements

- Local importer required

## Chile



Safety

- TÜV Rheinland Chile is the licensing body
- DC hand-held power tools: SEC safety certification (control of some IEC 60745 standard products)
- Li-ion battery packs and their chargers: SEC safety certification is not mandatory.
- Certification Mark: SEC QR



Other Requirements

- Local agent required
- SEC Certification Models: System 1, System 2, System 6 available, depending on customer needs.

## Mexico



Safety

- Li-Ion Battery Pack: No control at this time
- Charger: NOM certified NOM-001- SCFI-2018
- Certification mark:





EMC

- EMC testing is required for NOM-003 products with the following conditions
- Electronic disconnection (ED)
- Standby mode (SBM)
- Protection Electronic Circuit (PEC)



Other Requirements

- NOM-024 Business Information Requirements
- Local Distributor Required

EU

## Eurasian Economic Union



Safety

- DC Handheld power tools: EAC CoC
- Li-ion battery packs: EAC DoC
- Charger: EAC CoC + GOST-R DoC (separate export)



EMC

- Certification Mark:



Hazardous Substances

- EAC RoHS DoC required



Other Requirements

- Local Distributor Required
- Manufacturer and factory GLN number or GPS coordinates required.
- Test samples needed

## Middle East / GSO

### Middle East – GSO



Safety



EMC

- TÜV Rheinland Middle East and TÜV Rheinland Hong Kong is the licensing authority DC Hand-held power tools: currently not in the G Mark mandatory product range
- Lithium battery packs: currently not in the G Mark mandatory product range.
- Charger: G mark approval required (separate export)
- G mark approval (separate export) is required:



Other Requirements

- The licensee needs to be the trademark owner

### Saudi Arabia



Safety



Hazardous Substances



Other Requirements

- SABER CoC: required for every shipment
- RoHS regulations have been enacted for power tool products.
- Enforcement date is June 29, 2023 for power tool products.
- Local agent required

## UAE



Safety

- TÜV Rheinland Middle East is the licensing body
- DC Hand-held power tools: ECAS LVE or EQM LVE (voltage products within the scope of the LVE regulation)
- Li-ion battery packs: Not required at this time
- Charger: either ECAS LVE or EQM LVE
- Certification Mark: ECAS or EQM



Hazardous Substances

- Either ECAS RoHS or EQM RoHS



Other Requirements

- Local agent required

**TÜV Rheinland has extensive program experience with power tool products and accessories. If you have any questions, please feel free to call our international certification experts for answers.**



# Go Green, Go RoHS: Your Gateway to the Next Big Market!

RoHS is a technical trade regulation introduced by the European Union to promote environmental protection and drive the electronics and electrical industry toward “green manufacturing.” As global environmental awareness increases, more countries and regions are integrating RoHS into their regulatory frameworks.

Leverage TÜV Rheinland’s exclusive RoHS strategy to successfully navigate and access emerging national and regional markets—your gateway to the new blue ocean of opportunity.



## European Union

### EU RoHS



Since July 21, 2011, the European Union's Restriction of the use of certain hazardous substances in electrical and electronic equipment (2011/65/EU, i.e. EU RoHS 2.0) has been in force. The EU RoHS 2.0 came into effect, restricting six hazardous substances, including lead, cadmium, mercury, hexavalent chromium, and brominated flame retardants (PBBs/PBDEs) in electrical and electronic equipment, and the 2015 amendment (EU) 2015/863 was published, which brought four phthalate esters (DEHP/BBP/DBP/ DIBP) under control. The amendment came into force on July 22, 2021 for all categories of electrical and electronic products.



Mandatory: DoC



Product Scope: 11 categories of electrical and electronic products, including large household appliances, small household appliances, information technology and communication equipment, consumer equipment, lighting equipment, electrical and electronic tools, toys, leisure and sports equipment, medical equipment, monitoring equipment, vending equipment, and other electrical and electronic equipment.

	<b>Mandatory:</b> DoC	
	<b>Marking:</b> Merged with CE marking	
Restricted substance name	Content limit (%)	
Lead (Pb)	< 0.1	
Mercury (Hg)	< 0.1	
Cadmium (Cd)	< 0.01	
Hexavalent chromium (Cr)	< 0.1	
Polybrominated biphenyls (PBBs)	< 0.1	
Polybrominated diphenyl ethers (PBDES)	< 0.1	
Di(2-ethylhexyl) phthalate (DEHP)	< 0.1	
Butyl benzyl phthalate (BBP)	< 0.1	
Dibutyl phthalate (DBP)	< 0.1	
Diisobutyl phthalate (DIBP)	< 0.1	



## Asia

### China RoHS



Measures for the Administration of Restriction of the Use of Hazardous Substances in Electrical and Electronic Products



Mandatory: Certificate



Product Scope: Electrical and electronic products



Restricted Substances: Pb, Hg, Cd, Cr6+, PBBs, PBDEs six items



Labeling:

In addition, products in the 12 categories of compliance management catalogues must meet the limit requirements, complete the conformity assessment and affix the conformity assessment mark (voluntary certification promoted by the state or self-declaration).

\*On May 19, 2023, the National Standard Amendment No. 1 (Draft for Review) has passed the expert review, adding four new items: DEHP, BBP, DBP, and DIBP (China RoHS 3.0).

### Japan RoHS (J-Moss)



Japanese Recycling Law and JIS C 0950 The marking for presence of the specific chemical substances for electrical and electronic equipment.



Mandatory



Product Scope: Personal computers, air conditioners, televisions, refrigerators, washing machines, microwave ovens, dryers, etc. 7 categories of products



Restricted substances: Pb, Hg, Cd, Cr6+, PBBs, PBDEs six items.

The marking for the presence of the specific chemical substances for electrical and electronic equipment



Labeling:

## Taiwan BSMI RoHS

 CNS 15663 Guidelines for Reducing the Content of Restricted Chemical Substances in Electrical and Electronic Equipment

 Mandatory / Combined certificate: CNS 15663 Section 5 "Labeling of Containment" is incorporated into the "Testable Commodity" standard.

 Restricted substances: Pb, Hg, Cd, Cr6+, PBBs, PBDEs.

 Labeling:

RPC-scheme				
TABI-scheme				
DOC-scheme				

## South Korea RoHS

 Act No. 17848-Resources Recycling of Electrical/Electronic Products and Automobiles

 Mandatory

 Restricted substances: Pb, Hg, Cd, Cr6+, PBBs, PBDEs, DEHP, BBP, DBP, DIBP ten items

Automobiles: Pb, Hg, Cd, Cr 6+ 4 items

 Labeling: None

## Singapore RoHS

 Order 263/2016 (Amendment to Environmental Protection and Management Act,2002)

 Mandatory

 Product Scope: Mobile phones, laptops, refrigerators, air conditioners, flat-screen TVs, washing machines, etc. 6 major categories of products

 Restricted substances: Pb, Hg, Cd, Cr6+, PBBs, PBDEs six items

 Labeling: None

## India E-Waste

 E-Waste (Management) Rule, 2022

 Mandatory

 Product Scope: Information technology and telecommunications equipment, consumer electrical and electronic equipment, large and small electrical and electronic equipment, electrical and electronic tools (except large fixed industrial tools), toys, leisure and sports equipment, medical equipment (except all implantable and infection products), laboratory instruments, etc.

 Restricted substances: Pb, Hg, Cd, Cr6+, PBBs, PBDEs six items

 Labeling: None

## Bangladesh RoHS



Electrical and Electronic Waste (E-waste) Management Rules



Mandatory



Product Scope: Personal computers, air conditioners, televisions, refrigerators, washing machines, microwave ovens, dryers, etc. 7 categories of products



Restricted substances: Pb, Hg, Cd, Cr6+, PBBs, PBDEs, DEHP, BBP, DBP, DIBP ten items



Labeling: None

## Turkey RoHS



Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment



Mandatory



Product Scope: 11 categories of products including large household appliances, small household appliances, IT and telecommunications equipment, consumer equipment, lighting equipment, electrical and electronic tools, toys, leisure and sports equipment, medical equipment\*, monitoring equipment\*, vending equipment, and other electrical and electronic equipment not covered by any of the above categories



Restricted substances: Pb, Hg, Cd, Cr6+, PBBs, PBDEs, DEHP, BBP, DBP, DIBP ten items



Labeling:



(Effective since Jan 1st, 2024)

## Vietnam RoHS



Hazardous Substances in Electrical and Electronic Equipment, Circular No. 30/2011/TT-BCT

Mandatory

Product Scope: Large household appliances, small household appliances, IT and telecommunications equipment, consumer equipment, lighting equipment, electrical and electronic tools, toys, leisure and sports equipment, automatic measuring instruments, etc. 8 categories of products



Restricted Substances: Pb, Hg, Cd, Cr6+, PBBs, PBDEs, DEHP, BBP, DBP, DIBP Ten items



Labeling: None

## Thailand RoHS 2.0



(TIS 2368-2564 Electrical And Electronic Equipment That May Contain Hazardous Substances : Restriction Of The Use Of Certain Hazardous Substances)



Voluntary



Product Scope: 11 categories of products including large household appliances, small household appliances, IT and telecommunications equipment, consumer equipment, lighting equipment, electrical and electronic tools, toys, leisure and sports equipment, medical equipment, monitoring equipment, vending equipment, and other electrical and electronic equipment not covered by any of the above categories



Restricted Substances: Pb, Hg, Cd, Cr6+, PBBs, PBDEs, DEHP\*, BBP\*, DBP\*, DIBP\* 10 items



Labeling: None

## Middle East

### UAE RoHS



UAE RoHS - Decision No. 10/2017



Mandatory: ECAS CoC or EQM mark

Product Scope: 11 categories of products: large household appliances, small household appliances, IT and telecommunications equipment, consumer equipment, lighting equipment, electrical and electronic tools, toys, leisure and sports equipment, medical equipment, monitoring equipment, vending equipment, and other electrical and electronic equipment not covered by any of the above categories



Restricted Substances: Pb, Hg, Cd, Cr6+, PBBs, PBDEs, DEHP, BBP, DBP, DIBP Ten items



Labeling:



ECAS



EQM

### Saudi Arabia SASO RoHS



Technical Regulation for Restriction of hazardous Substances in Electrical and Electronic Equipment



Mandatory: DoC



Product Scope: 7 categories of products including small household appliances, large household appliances, ICT equipment, lighting equipment, electrical and electronic tools, leisure and sports equipment, and monitoring instruments



Restricted Substances: Pb, Hg, Cd, Cr6+, PBBs, PBDEs 6 items



Labeling: None

### Oman



Requirements for Hazardous Substances in Radio and Terminal Equipment



Mandatory: TRA certificate for combined products



Restricted substances: Pb, Hg, Cd, Cr6+, PBBs, PBDEs, DEHP, BBP, DBP, DIBP ten items



Labeling: None



## EAEU EAC RoHS



TR EAEU 037/2016 Restriction of the use of certain hazardous substances in electrical and electronic equipment



Mandatory: DoC or Combined Product CoC



Product Scope: 12 categories of products including household electrical appliances, IT equipment, telecommunication equipment, office equipment, power tools, lighting equipment, electronic musical instruments, game consoles, cash machines and electronic cash registers, cable products, protective closing devices (RCD), fire and safety detectors, etc.



Restricted substances: Pb, Hg, Cd, Cr6+, PBBs, PBDEs six items



Labeling: Combined product certificate



## Ukraine RoHS



Technical Regulation Decree No. 139



Mandatory: Self-declaration (DoC)



Product Scope: 11 categories of products: large household appliances, small household appliances, IT and telecommunications equipment, consumer equipment, lighting equipment, electrical and electronic tools, toys, leisure and sports equipment, medical equipment, monitoring equipment, vending equipment, and other electrical and electronic equipment not covered by any of the above categories



Restricted Substances: Ten items of Pb, Hg, Cd, Cr6+, PBBs, PBDEs, DEHP, BBP, DBP, DIBP.



Labeling:



## UK RoHS



Restriction of Use of Certain Hazardous Substances in Electrical and Electronic Equipment

Regulations, SI 2012/3032 < Restriction of Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations, SI 2012/3032>. 2012/3032



Mandatory: DoC



Product scope: 11 categories of products: large household appliances, small household appliances, IT and telecommunications equipment, consumer equipment, lighting equipment, electrical and electronic tools, toys, leisure and sports equipment, medical equipment, monitoring equipment, vending equipment, and other electrical and electronic equipment not covered by any of the above categories



Restricted Substances: Pb, Hg, Cd, Cr6+, PBBs, PBDEs, DEHP, BBP, DBP, DIBP ten

\* UK RoHS applies only to England, Wales and Scotland, not to Northern Ireland.



Labeling:

Combined Product Certificates



\* UK RoHS only applies to England/Wales/Scotland,

not to Northern Ireland

\* On January 24, 2024, the UK government announced its intention to indefinitely inherit EU requirements in regulations, meaning companies have the flexibility to use UKCA or CE marks to sell products in the UK.

## North America

### California RoHS



California RoHS The Electronic Waste Recycling Act (S.B.20 and its amendment S.B.50) The Electronic Waste Recycling Act



Mandatory



Product Scope: Video display devices with a screen diagonal length exceeding 4 inches



Restricted substances: Pb, Hg, Cd, Cr6+.



Labeling: None



California Lighting Efficiency and Toxics Reduction Act (AB 1109)



Mandatory



Product Scope: Standard Luminaries products



Restricted Substances: Pb, Hg, Cd, Cr6+, PBBs, PBDEs, DEHP, BBP, DBP, DIBP ten items.



Labeling: None

Other U.S. states that have enacted similar RoHS regulations include Colorado, Illinois, Indiana, Minnesota, New Mexico, New York, Rhode Island, and Wisconsin.

In addition, Moldova, Serbia, Cyprus, Montenegro, Switzerland, Bosnia-Herzegovina, and Jordan have mandatory RoHS-like regulations; Thailand and Mexico have voluntary RoHS standards; and Australia, Argentina, Brazil, and Nigeria have draft RoHS-like regulations.



# Compliance Pathways for TVs in Key International Markets



## Argentina

**Product Target:** All TV sets, except Class III products.

### Safety:

Issuing Authority: TÜV Rheinland Argentina Testing Laboratory: Accredited Laboratory authorized by IECEE (CB transfer available, CB issued by TÜV Rheinland Group)

Certification mark:

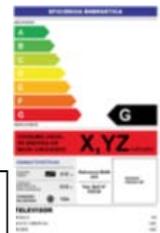


### Energy efficiency:

Issuing organization: TÜV Rheinland Argentina  
 Testing Laboratory: TÜV Rheinland Argentina is the local authorized laboratory.  
 Energy Efficiency Label:

Label 1: According to IRAM 62411, the label displays seven color bands and letters indicating the energy efficiency of the device in the on mode, divided into seven categories ranging from the letter A+ for the highest efficiency to the letter F for the lowest efficiency.

Label 2: According to IRAM 62301, the label shows the energy efficiency in standby mode. (AB, CD fill in the wattage consumed)





## South Korea

### Safety:

Issuing Authority: KTC, KTL, KTR and other Korean authorities Testing Laboratory: IECEE-authorized accredited laboratory (TÜV Rheinland has signed MOUs with three Korean issuing authorities, which can directly forward KC safety certificates based on CB certificates and reports issued by TÜV Rheinland.)

Certification mark:



### EMC:

EMC: Televisions in the frequency range of 9kHz~400GHz Certification Body: RRA Testing Laboratory: Local officially authorized and accredited laboratory testing

Certification mark:



### Energy efficiency:

Televisions with built-in digital tuner, screen diagonal length between 47 and 216 cm, vertical resolution less than 4320 Certification Body: KEMCO Registered Testing Laboratory: Tested by a local officially licensed accredited laboratory

TV Energy Efficiency Label:



(Efficiency Class 1 labeling is used as an example for reference)

## Singapore

**Product Target:** Television sets for domestic use with a rated voltage not exceeding 250 Vac.

### Safety:

Certification Body: Designated Third Party Conformity Assessment Body (CAB) Test Laboratory: Accredited Laboratory authorized by IECEE

Certification mark:



### Energy efficiency:

Certification Body: National Environment Agency (NEA) Testing Laboratory: TÜV Rheinland Greater China are NEA-accredited laboratories.

Energy Efficiency Label:



## Vietnam

**Product Target:** All televisions

### Safety:

Mandatory as of January 1, 2024

### EMC:

Issuing body: MIC (Ministry of Information and Communications)

Test laboratory: Local accredited laboratory

Certification mark:



Energy Efficiency Label:



### Energy efficiency:

For all TV sets up to 1000W Certification Body: MOIT (Ministry of Industry and Trade)

Testing Laboratory: Local Authorized Laboratory

## South Africa

**Product Target:** All TV sets

### Safety:

Certification Body: NRCS (National Regulator for Compulsory Specifications) Test Laboratory: Accredited Laboratory authorized by IECEE

Certification Mark: None Remarks: Energy Efficiency Report is required to be submitted together with LOA application.

### EMC:

Certification Body: SABS (South Africa Bureau of Standards)

Certification Mark: No

### Energy efficiency:

Certification Body: NRCS (National Regulator for Compulsory Specifications)

Efficiency Labeling: No energy labeling requirements for TVs

## UAE

**Product Target:** All TV sets

### Safety+RoHS:

Issuing Body: TÜV Rheinland Middle East (Notified Body) Test Laboratory: Safety: Accredited Laboratory authorized by IECEE; RoHS: ISO 17025 Accredited Laboratory

Certification mark:



### Energy efficiency:

Certification Body: TÜV Rheinland Middle East (Notified Body) Test Laboratory: ISO 17025 Accredited Laboratory or Manufacturer's In-house Laboratory (Performance test report in accordance with UAE Standard 5010-8:2018 can be issued)

Certification mark:



## Australia

**Safety:** Television receiver - CRT or not CRT type

Certification Body: TÜV Rheinland Australia (Issues voluntary Certificate of Suitability) Test Laboratory: NATA/IANZ or NATA/IANZ MRA partner (e.g. (ILAC) MLA member) or with a CB or MRA partner. Test laboratory: NATA/IANZ or NATA/IANZ MRA partner (e.g. (ILAC members)) or by CB (but RMT reports are not accepted)

Certification mark:



**EMC:** All TVs

Regulatory Body: ACMA (Australian Communications and Media Authority) Test Lab: NATA/IANZ or NATA/IANZ MRA partner

Certification mark:



### Energy efficiency:

All TVs, except battery-powered hand-held TVs only and TV display units that do not have a built-in TV tuner and are not sold in modular form with an external TV tuner. Regulatory body: GEMS (Greenhouse Energy Minimum Standards (GEMS))

Test laboratory: All TÜV Rheinland test laboratories or the applicant's private laboratory

Certification mark:



## India

**Product Target:** Plasma/LCD/LED TVs

### Safety:

Issuing authority: Bureau of Indian Standards (BIS)

Test laboratory: TÜV Rheinland India is a BIS-accredited test laboratory

Certification mark:

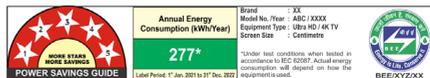


### Energy efficiency:

Issuing Authority: Bureau of Energy Efficiency (BEE) Testing Laboratory: TÜV Rheinland India is a BIS-accredited testing laboratory Note: The Safety BIS CRS-accredited Energy Efficiency Label is required before applying for BEE certification for energy efficiency:



Colour Television  
Mandatory Certification



Ultra-High Definition Televisions  
Voluntary Certification

## Mexico

**Product Target:** All televisions

### Safety:

Issuing Authority: TÜV Rheinland Mexico

Testing Laboratory: Accredited Laboratory authorized by IECEE (CB transfer is possible, must be CB issued by TÜV Rheinland Group)

Certification mark:

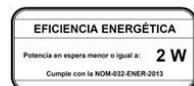


### Energy efficiency:

Certification Body: TÜV Rheinland Mexico Testing Laboratory: ANCE or NYCE

Note: Energy Efficiency is only required if there is a "standby function".

Certification mark:



## Thailand

**Product Target:** All TV sets

### Safety:

Issuing Authority: The Secretary-General of the Thai Industrial Standards Institute

Testing Laboratory: Local officially authorized accredited laboratory

Inspection Body: Local officially authorized accredited factory inspection body

**Certification mark:**



มาตรฐานผลิตภัณฑ์อุตสาหกรรม  
ที่ผู้รับอนุญาต

## Malaysia

### Safety:

Issuing Authority: Suruhanjaya Tenaga

Testing Laboratory: Accredited Laboratory authorized by IECEE

Certification mark:



### MEPS:

Maximum or equal to 70 inches TV size and TV type Certification Body: Suruhanjaya Tenaga

Testing Laboratory: IECEE Authorized Accredited Laboratory

Certification mark:



Due to space constraints, TÜV Rheinland can also provide services for the energy efficiency requirements of TV products in the following countries in addition to those mentioned above.





## Market Access Requirements for Large Appliances in Key Global Markets (Air Conditioners, Refrigerators, Washing Machines)

Large home appliances—such as air conditioners, refrigerators, and washing machines—are subject to mandatory safety, EMC, and energy efficiency regulations in many countries. TÜV Rheinland’s international certification experts have compiled key certification requirements across select countries and regions to help you better understand how these products can successfully enter global markets.







# Singapore



## Safety

Certification Body: CAB  
Organization  
Certification mark:



## Energy Efficiency

Certification Body:  
National Environment  
Agency (NEA)  
Certification mark:



## Energy Efficiency

Certification Body:  
National Environment  
Agency (NEA)  
Certification mark:



## Safety

Certification Body: CAB  
Organization  
Certification mark:



## Energy Efficiency

Certification Body:  
National Environment  
Agency (NEA)  
Certification mark:



## Water Efficiency

Certification Body: PUB, Singapore's National Water Agency

Certification  
mark:



## Vietnam

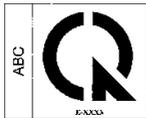


Air  
Conditioning

### EMC

**Certification Body:**  
MOST Organization (Ministry of Science  
and Technology Vietnam)

**Certification mark:**



### Energy Efficiency

**Certification Body:**  
MOIT Organization (The Ministry of  
Industry and Trade)

**Certification mark:**

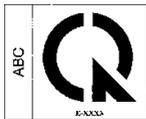


Refrigerators

### EMC

**Certification Body:**  
MOST Organization (Ministry of Science  
and Technology Vietnam)

**Certification mark:**



### Energy Efficiency

**Certification Body:**  
MOIT Organization (The Ministry of  
Industry and Trade)

**Certification mark:**

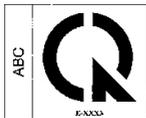


Washing  
Machines

### EMC

**Certification Body:**  
MOST Organization (Ministry of Science  
and Technology Vietnam)

**Certification mark:**



### Energy Efficiency

**Certification Body:**  
MOIT Organization (The Ministry of  
Industry and Trade)

**Certification mark:**



# Australia



Air Conditioning

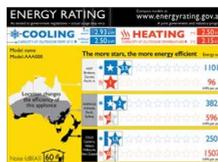
**Safety& EMC**

**Certification Body:**  
TÜV Rheinland Australia  
**Certification mark:**  
RCM Mark & Approval No. 1



**Energy Efficiency**

**Certification Body:** GEMS Agency  
**Certification mark:**



Refrigerators

**Safety& EMC**

**Certification Body:**  
TÜV Rheinland Australia  
**Certification mark:**  
RCM Mark & Approval No. 1



**Energy Efficiency**

**Certification Body:** GEMS Agency  
**Certification mark:**



Washing Machines

**Safety& EMC**

**Certification Body:**  
TÜV Rheinland Australia  
**Certification mark:**  
RCM Mark & Approval No. 1



**Energy Efficiency**

**Certification Body:** GEMS Agency  
**Certification mark:**



**Water Efficiency**

**Certification Body:**  
WELS  
**Certification mark:**  
6.5 litres per minute



## EU



Air  
Conditioning

**Safety& EMC**

**Certification Body:**

EAEU National Authorized  
Certification Body

**Certification mark:**



**Energy Efficiency**

Deferred to September 1, 2025



Refrigerators

**Safety& EMC**

**Certification Body:**

EAEU National Authorized  
Certification Body

**Certification mark:**



**Energy Efficiency**

Deferred to September 1, 2025



Washing  
Machines

**Safety& EMC**

**Certification Body:**

EAEU National Authorized  
Certification Body

**Certification mark:**



**Energy Efficiency**

Deferred to September 1, 2025

## Gulf Alliance G-mark



Air  
Conditioning

### Safety& EMC

#### Certification Body:

TÜV Rheinland Hong Kong  
TÜV Rheinland Middle East



### Safety& Energy Efficiency

The Gulf Alliance includes Saudi Arabia, UAE, Oman, Qatar, Kuwait, Bahrain and Yemen. The Gulf Alliance includes Saudi Arabia, UAE, Oman, Qatar, Kuwait, Bahrain, and Yemen. For air conditioning products with different safety and energy efficiency requirements, please call our international certification experts to answer your questions.



Refrigerators

### Safety& EMC

#### Certification Body:

TÜV Rheinland Hong Kong  
TÜV Rheinland Middle East



### Safety& Energy Efficiency

Safety & Energy Efficiency The Gulf Alliance includes Saudi Arabia, the United Arab Emirates, Oman, Qatar, Kuwait, Bahrain, and Yemen. The Gulf Alliance includes Saudi Arabia, the United Arab Emirates, Oman, Qatar, Kuwait, Bahrain and Yemen. As for refrigerators, there are also different safety and energy efficiency requirements, please call our international certification experts to answer your questions.

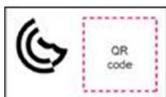


Washing  
Machines

### Safety& EMC

#### Certification Body:

TÜV Rheinland Hong Kong  
TÜV Rheinland Middle East



### Safety& Energy Efficiency

Safety & Energy Efficiency The Gulf Alliance includes Saudi Arabia, the United Arab Emirates, Oman, Qatar, Kuwait, Bahrain and Yemen. The Gulf Alliance includes Saudi Arabia, the United Arab Emirates, Oman, Qatar, Kuwait, Bahrain and Yemen. For more information on the safety and energy efficiency requirements for washing machines, please call our international certification experts to answer your questions.



# Global Compliance Guide for Cloth Cleaning Equipment

Multi-function cleaning machines are widely used and have become essential tools for household cleaning. But are you familiar with the mandatory regulations for these products in different countries?



## Asia Pacific

### Japan

**Safety/EMC:**

- TÜV Rheinland Greater China is an accredited testing agency
- (PS)E  
J60335-1(H27), J60335-2-2(2022)  
J60335-2-54(2021) Surface cleaning function,  
J60335-2-85(2021) Garment ironing function

- Certification mark:



**Wireless:**

- JRF
- Certification mark:



**Harmful Substance:**

RoHS Legal: J-Moss (6 Items) , including 6 Large category products, currently does not include this type of product

**Other request:**

The agent ( Reporting Supplier ) information needs to be printed next to the logo

### Singapore

**Safety:**

- Singapore Safety Certification IEC 60335-2-2
- Certification mark:



**EMC:** No mandatory requirements

**Wireless:** IMDA



**Harmful Substance:**

No. 263/2016 Decree ( Amending the Environmental Protection and Management Law, 2002 2010), 6 item

**Other request:** local agent required

### South Korea

**Safety:**

- TÜVTÜV Rheinland signs MOU with major Korean certification agency safety certificate
  - 1) Pressure not exceeding 2.5 Mpa : KC 60335-1, KC 60335-2-2, and KC 60335-2-54
  - 2) Pressure over 2.5 Mpa : KC 60335-2-79
- Certification mark:



+ Certificate No

**EMC:**

- KC Certification
- Certification mark:



+ Certificate No

**Wireless:**

- KC Certification (products with wireless modules, EMC+ wireless certification)
- Certification mark:



+ Certificate No +

Certificate number, tested by a local authorized laboratory in South Korea

**Harmful Substance:** Resource Recovery Act for Electronic / Electrical Products and Automotive Equipment, 10 item

**Other request:** KC Safety certification requires factory inspection

### India

**Safety:** No relevant requirements yet

**EMC:** No relevant requirements yet

**Wireless:** WPC Certification

**Harmful Substance:** No relevant requirements yet

**Other request:** Local agents are required

## Taiwan, China

### Safety/EMC:

- BSMI Certification
- CNS 60335-1 (103 2000 edition), CNS 60335-2-2 (104 2000 edition), CNS 60335-2-85 (109Year Edition) Hanging ironing function, CNS 13783-1 (102 2000 edition ), CNS 15663 (cl. 5)
- Plug / power cord: BSMI required
- Certification mark:



### Wireless:

- NCC
- Certification mark:



### Harmful Substance:

- CNS 15663 Guidelines for Reducing the Content of Restricted Chemical Substances in Electrical and Electronic Equipment , 6 item
- Apply for BSMI EU RoHS Report , add Declaration to the instruction manual

**Other request:** local agent required

## Malaysia

### Safety:

- Mandatory CoA or SIRIM Mark Certification, choose one
- Certification mark:



**EMC:** No relevant requirements

### Wireless:

- SIRIM Certification
- Certification mark:



**Harmful Substance:** No mandatory requirements

**Other request:** Local agent required

## Thailand

**Safety:** No mandatory requirements

**EMC:** No mandatory requirements

### Wireless:

- NBTC SDoC
- Certification mark: QR is included in the package mark declaration letter

### Harmful Substance:

- self declaration
- TIS 2368-2564

**Other request:** Local agent required

## The Philippines

**Safety:** No relevant requirements yet

**EMC:** No relevant requirements yet

### Wireless:

- NCC Certification
- Certification mark:



**Harmful Substance:** No relevant requirements yet

**Other request:** No relevant requirements yet

## Vietnam

**Safety:** No relevant requirements yet

**EMC:**

- TÜV Rheinland Greater China is a recognized testing laboratory
- CR Mark Certification (output power greater than 1500W Can be exempted)

- Certification mark:



**Wireless:**

- MIC Certification
  - Output power Less than 60mW EIRP: Voluntary certification
  - Output power higher than 60mW EIRP: should send samples to local laboratory for testing

- Certification mark:



**Harmful Substance:** No relevant requirements yet

**Other request:** No relevant requirements yet

## Australia

**Safety:**

- TÜV Rhine Australia is the issuing agency for safety certification CoA
- Certification mark: TUV-XXXXXX-EA



**EMC/Wireless:**

- RCM Registered
- Certification mark:



**Hazardous substances:** No mandatory requirements

**Other request:** Products mandated by safety regulations need to be in the EESS Register

## Indonesia

**Safety:**

- TÜV Rheinland Indonesia is a testing laboratory
- K3L Product Registration SNI IEC 60335-2-2: 2012

**EMC:** No relevant requirements yet

**Wireless:**

- SDPPI Wireless certification
- Certification mark:



**Harmful Substance:** No relevant requirements yet

**Other request:** Local agent required



## Argentina

**Safety:**

- TÜV Rheinland Argentina is the issuing authority
- S-Mark

- Certification mark:



**EMC:** No relevant requirements yet

**Wireless:**

- ENACOM Certification
- Certification mark:



**Harmful Substance:** No relevant requirements yet

**Other request:** Local agent required

## Brazil

### Safety:

- TÜV Rheinland Brazil is the INMETRO issuing agency
- Compulsory Certification Inmetro ordinance n. 148/22

- Certification mark:



EMC: Considered during INMETRO certification

### Wireless:

- ANATEL Certification
- Certification mark:



Harmful Substance: RoHS: Submitted a draft in 2018, not released yet

Other request: Local agent required

## Chile

### Safety:

- SEC Mandatory certification  
SEC Protocol PE N°1/35:2019

- Certification mark: SEC QR



EMC: No relevant requirements yet

Wireless: SUBTEL Certification

Harmful Substance: No relevant requirements yet

### Other request:

- Need a local agent
- SEC Authentication mode: System 1. System 2. System 6 is optional, select according to the delivery frequency

## Mexico

### Safety/EMC:

- TÜVTÜV Rheinland Mexico is the issuing authority for NOM certification NOM-003
- The following functions require EMC test  
Electronic Disconnection (ED)  
Standby mode (SBM)  
Protection Electronic Circuit (PEC)

- Certification mark:



### Wireless:

- IFETEL Certification
- Certification mark: IFETEL ID



Harmful Substance: No relevant requirements yet

### Other request:

- NOM-024 Business information requests
- Local agent required



## Eurasian Economic Union

### Safety/EMC:

- EAC Certification
- Certification mark:



Wireless: Varies by country

Harmful Substance: EAC RoHS( C U T R 037) DoC

### Other request:

- Local agent required
- The GLN of the manufacturer and factory is required Number or GPS coordinate

## Ukraine

### Safety/EMC:

- UA DoC
- Certification mark:



### Wireless:

- UkrCEPRO
- Certification mark:



### Harmful Substance:

- UA RoHS DoC
- Certification mark:



### Other request:

No relevant requirements yet

## Saudi Arabia

### Safety:

- TÜV Rheinland is the CoC certification body
- SIRC: This product is not currently in the mandatory scope
- SABRE CoC : Each batch of goods needs to apply for

EMC: No relevant requirements yet

Wireless: CITC (according to customs code)

### Harmful Substance:

- RoHS The regulations have been promulgated, and the implementation date for small household appliances is July 5 , 2022
- Accept EU RoHS Report, apply for SABER CoC Provided when

Other request: A local agent in Saudi Arabia is required

## Middle East

## Middle East – GSO

### Safety:

- G mark approval , this product is currently not in G Mark mandatory product range

EMC: No relevant requirements yet

Wireless: No relevant requirements yet

Harmful Substance: No relevant requirements yet

Other request: No relevant requirements yet

## United Arab Emirates

### Safety:

- TÜV Rheinland Middle East is the issuing authority ECAS or EQM LVE

- Certification mark:



EMC: No mandatory requirements

### Wireless:

- TDRA
- Certification mark:



### Harmful Substance:

- TÜV Rheinland Middle East is the issuing authority ECAS or EQM RoHS

Other request: Local agent required

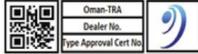
## Oman

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### Safety/EMC:

- TÜV Rheinland Hong Kong is the issuing authority for Oman CoC

### Wireless: TRA Certification



### Harmful Substance: No relevant requirements yet

### Other request: Local agent required

## Kuwait

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### Safety/EMC:

- TÜV Rheinland is the issuing agency KUCAS TER/TIR

### Wireless: CITRA Certification

### Harmful Substance: No relevant requirements yet

### Other request: No relevant requirements yet

## Israel

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### Safety/EMC:

- TÜV Rheinland and Israel Certification Agency
- SII Sign MOU Prototype approval

### Wireless: Vacuum cleaners are exempted

### Harmful Substance: No relevant requirements yet

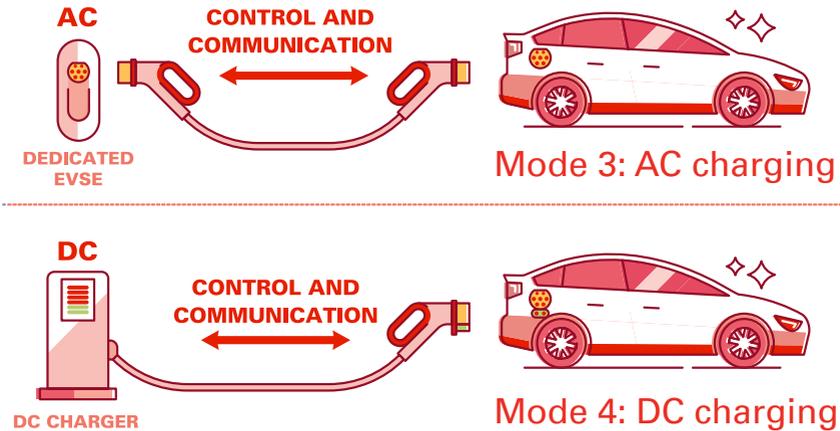
### Other request: Name plate and instruction manual must be provided in Hebrew (when actually imported)



# Market Access Requirements for Charging Stations in Key Global Markets



With the global surge in demand for electric vehicles (EVs), the need for reliable charging infrastructure is skyrocketing. Yet, each region comes with its own unique standards and requirements for market access. To navigate these complexities, TÜV Rheinland's experts in Germany have crafted a comprehensive guide tailored to the global market access requirements for EV charging pile products. This resource empowers manufacturers to tackle challenges with confidence and accelerate their journey to international market success.





## Europe

## Asia Pacific

### EU

#### Safety / EMC/Wireless:

- CE Certification
- Directive 2014/35/EU
- Directive 2014/30/EU
- Directive 2014/53/EU

- Certification mark:



#### Harmful Substance:

- REACH Regulation (EC) No 1907/2006
- RoHS Directive 2011/65/EU

### U.K.

#### Safety / EMC/Wireless:

- UKCA Certification

- Certification mark:



#### Other request:

- PEN Regulatory requirements: electric vehicle smart charge points

### China

#### Safety/EMC:

- CQC Certification

- Certification mark:



#### Wireless:

- SRRC/NAL Certification
- Certification mark: CMIIT ID: XXXXX

### Japan

#### Safety/EMC:

- Charging piles are not within the mandatory scope
- Plugs, input lines, control boxes, output lines, power cables, socket-outlets, plugs, connectors require <PSE> certification
- Voluntary certification:
  - JET or EVSE Certification
  - (JARI) CHAdeMO

#### Wireless:

- JRF Certification
- Certification mark:



## South Korea

### Safety:

- TÜV Rheinland signs MOU with major Korean certification authority
- KC Safety certification

▪ Certification mark:  + Certificate No

### EMC/Wireless:

- KC Certification
- Certification mark:  + Certificate No
- Korean authorized laboratory testing

### Other request:

- Metering certification: mandatory for charging stations with payment system

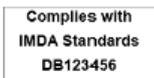
## Singapore

### Safety/EMC:

- TR 25 CoC

### Wireless:

- IMDA



Other request: Local agent required

## Thailand

Safety/EMC: No mandatory requirements

### Wireless:

- NBTC Certification
- Certification mark:  (With cellular products) 
- The package contains QR code mark Declaration letter (All products with wireless function)

Other request: Local agent required

## Malaysia

### Safety/EMC:

ST CoA (Currently only for Mode 3 Product mandatory)

### Wireless:

- SIRIM Certification
- Cellular products need to be sent to local sites for networking testing and IPV 6 test reports are required

▪ Certification mark: 

### Other request:

- Pattern Approval (NMIM)
- PCS
- eco labelling & RoHS
- Mahijan (Malaysia's green recognition scheme)
- EVCS Installer license
- Local agent required

## India

Safety/EMC: No relevant requirements

Wireless: WPC Certification

Other request: Local agent required

## Vietnam

Safety/EMC: No relevant requirements yet

### Wireless:

- MIC Certification
  - Output power Less than 60mW EIRP: Exempted from certification
  - Greater than 60mW EIRP : Samples need to be sent to a local laboratory for testing

▪ Certification mark: 

Other request: Local agent required

## The Philippines

### Safety:

- ICC/PSCertification
- Accept DTI accredited laboratory test report

- Certification mark:



### Wireless:

- NTCCertification

- Certification mark:



**EMC:** No relevant requirements yet

**Other request:** Local agent required

## Australia

### Safety:

- TÜV Rheinland Australia is the issuing agency
- Security Certification: CoS
- Certification mark: TUV-XXXXXX



### EMC/Wireless:

- RCM Certification
- Certification mark:



**Other request:** Local agent required

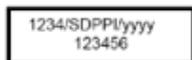
## Indonesia

**Safety/EMC:** No relevant requirements yet

### Wireless:

- SDPPI Wireless certification

- Certification mark:



**Other request:** Local agent required

## Americas

### USA/Canada

#### Safety:

- cTUVus Certification

- Certification mark:



#### EMC/Wireless:

- US: FCC
- Canada: ICES

#### Other request:

- Local importer needed
- Energy efficiency requirements: Energy Star
- California Metrology: CTEP
- California Environmental Protection: TP65

## Argentina

#### Safety:

- TÜV Rheinland Argentina is the notified body for S- Mark (products above 50V AC, or 75V DC are within the mandatory scope)

- Certification mark: refer to the Chinese e-book version



- Requires a valid TÜV mark Certificate

**EMC:** No relevant requirements yet

#### Wireless:

- ENACOM Certification

- Certification mark:



**Other request:** Local agent required

## Brazil

**Safety/EMC:** No mandatory requirements

### Wireless:

- ANATEL Certification
- Accept whole device/module certification, need to send samples for local testing
- Certification mark:  (Logo is voluntary)



**Other request:** Local agent required

## Chile

### Safety:

- SEC Authorization scheme
- Shall comply with SEC Resolution N ° 33.675 requirements. Importers shall do self-registration by providing ILAC test reports and certificates issued by accredited laboratories.

**EMC:** No relevant requirements yet

**Wireless:** SUBTEL Certification

**Other request:** Local agent required

## Mexico

### Safety/EMC:

- NOM Certification
- Certification mark: 



### Wireless:

- IFETEL Certification
- Certification mark: IFETEL ID



### Other request:

- NOM-024 Commercial information for electrical and electronic products
- Local agent required

## Middle East

### Saudi Arabia

#### Safety:

- TÜV Rheinland is the CoC certification agency
- SIRC: Currently this product is not in scope
- SABER CoC: Mandatory for every batch of products

**EMC:** No relevant requirements yet

**Wireless:** CITC (Based on customs code)

#### Other request:

- Need a local agent in Saudi Arabia and need Arabic instructions

### United Arab Emirates

#### Safety:

- ADQCC (required by the Emirate of Abu Dhabi)

Certification mark: 



**EMC:** No relevant requirements yet

#### Wireless:

- TDRA
- Certification mark: 



#### Other request:

- Local agent required
- RoHS:
  - TUV Middle East is Certification Body
  - ECAS or EQM RoHS

### Israel

#### Safety/EMC:

- TÜV Rheinland signed MOU with Israel Certification Agency SII
- Prototype approval

#### Wireless:

- MOC (without cellular products)
- TLE (with cellular products)
- Certificate Number / Importer ID and statement (in Hebrew) must be added on the outer packaging or instructions

#### Other request:

Name plate and instruction manual must be provided in Hebrew (upon actual time of import)

## Global grid connection



(Applicable to AC charging station only)

Austria	TOR Erzeuger TypA , R25
Belgium	C10/11 based upon EN 50549
Denmark	TRLV, TR3.3.1
Germany	VDE-AR-N 4105, VDE-AR-N 4100
Finland	SFS EN 50549-1 based upon EN 50549-1
France	VDE 0126-1-1, VFR 2019, CARE, SEI REF
Greece	EN 50549-1
Iceland	EN 50549-1
Italy	CEI 0-21
The Netherlands	EN 50549-1
Norway	RENblad342+EN 50549-1
Portugal	EN 50549-1
Romania	EN 50549-1
Sweden	EN 50549-1
Switzerland	NA-EEA based upon 4105
Serbia	EN 50549-1
Slovakia	EN 50549-1
Slovenia	EN 50549-1
Spain	RD647, RD1699, UNE 217001, UNE 217002, NTS typeA
Czech Republic	EN 50549-1+PPDS
Singapore	IEC 61727, 62116
Malaysia	IEC 61727, 62116
India	IEC 61727, 62116
The Philippines	IEC 61727, 62116
Thailand	PEA, MEA
Australia	AS 4777.2
USA	IEEE 1547.1
Brazil	IEC 61727, 62116
Chile	NTSyCS-2019 & NTCO-2019
Mexico	IEEE 1547.1
Saudi Arabia	VDE 0126-1-1
Arab Emirates	DEWA based upon CEI 0-21
Israel	AS 4777.2

# Powering Into Chile: Your PV Market Opportunity

## Key points for SEC certification for PV modules and inverters



As of April 22, 2024, Chile's Electrical and Inflammables Supervisory Commission (SEC) has made it mandatory for all photovoltaic modules (PV modules) and photovoltaic inverters (PV inverters) to undergo their official authorization program, as outlined by Res. Ex. N° 32427/2020.

To ensure compliance and seamless entry into the Chilean market, model registration must be completed prior to importing or using these products.

Partner with us to streamline the approval process and help your PV solutions shine in Chile's growing renewable energy sector!

### SEC authorization process



Document preparation



Online submission



SEC audit



Complete SEC authorization registration, obtain SEC authorization letter



Print SEC mark on product, export to Chile

Leadtime: approximately 2-3 months after full set documents submission

## Precautions:

1) The test report must be tested and issued by a laboratory recognized by ILAC, and the approval certificate must be issued by an IAF member. The test report and certificate of TÜV Rheinland will optimize the entire certification process and eliminate barriers to one-stop service communication.

2) Test standards:

### Photovoltaic modules

- Test and procedure certification in accordance with IEC 61730 and IEC 61215 or IEC 61646 is required
- If the module is installed in a coastal area and exposed to salty environments, proof of testing and procedures in accordance with IEC 61701 is required

### Photovoltaic inverter

- Requires certification of tests and procedures in accordance with IEC 62109 and IEC 62116 standards
  - Proof of harmonic pollution in accordance with IEC 61000-3-2, IEC61000-3-4 or IEC 61000-3-12 is required
  - Demonstration of rapid voltage changes and flicker in accordance with IEC 61000-3-3 or IEC61000-3-11 is required
- 3) The model must be fixed and there must be no variations.

## Q&A



Can SEC mark be displayed after obtaining the SEC authorization letter ?



Is there any time limit for SEC authorization?

Is annual renewal or updates required?

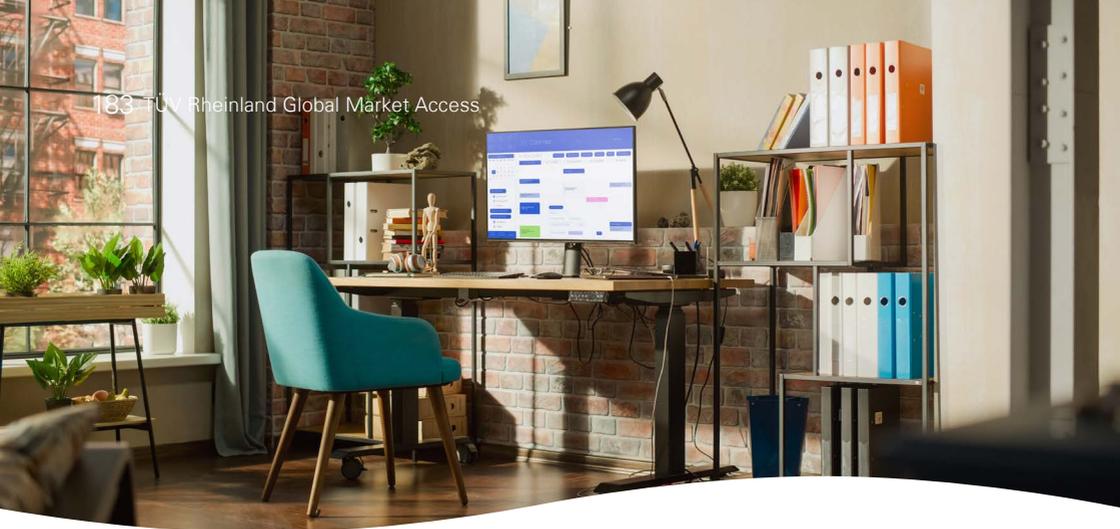
Or does it need to be updated whenever the product is modified ?

SEC does not require a certification mark, but suppliers can use the mark and mention "SEC Authorized Panel resolution N° XXXX" on the product (example below)



Yes, it is valid for 6 years.  
Please note that if the product changes, a new SEC authorization will be required.





## Market Access Requirements for Motorized Lift Tables in Key Global Markets



As technology evolves and product innovation accelerates, the demand for office furniture is increasingly focused on high functionality and ergonomic design. Electric height-adjustable tables are gaining popularity for their benefits in enhancing productivity and promoting workplace health, positioning them as a leading trend in the office furniture market.

With strong international growth potential for manufacturers and exporters, TÜV Rheinland experts offer an in-depth analysis of the electrical components of these tables, along with the key market access requirements across Europe, the Americas, Asia-Pacific, and other major global regions.

## Europe



Certification Body:  
All TÜV Rheinland locations

Certification requirements:  
CE certification mark



### Safety

EN60335-1, EN60335-1 Appendix R+Function Safety  
EN13849-1, IEC60335-2-116 Software evaluation,  
EN 527-1, EN 527-2, DIN EN ISO 12100:2001

### EMC

EN IEC 55014-1, EN IEC 55014-2, EN IEC 61000-3-2,  
EN IEC 61000-3-3

Key parts such as power supplies and plugs should  
comply with local certification requirements.

### Chemicals

- RoHS Directive (2011/65/EU and Directive (EU) 2015/863)
- WEEE Directive (2012/19/EU and its amendments)
- REACH Regulation (EC) No. 1907/2006 and its amendments
- POP Regulations (EU) 2019/1021 and its amendments

## North America



Certification Body:  
TÜV Rheinland North America

Certification:  
cTUVus



Standards:  
UL962, CSA C22.2 No. 68

Key parts such as power supplies and plugs should  
comply with local certification requirements.

### PROP 65

If the product is sold in California, it should comply  
with California Proposition 65.

Make sure the product does not  
contain harmful chemicals, or provide  
appropriate warning labels.



## Japan



Certification Body:  
TÜV Rheinland Japan

Certification requirements:  
SCEA S-mark (Voluntary)



Test mark requirement:  
Circle PSE (Mandatory)



### Standards

Appendix 8, Sec. 1&2(107); Appendix 10, Sec.5

Key components such as adapters, plugs, etc. need  
to meet local certification requirements.

## South Korea



**Certification Body:**  
Korean local official agency

**Certification requirements:**  
KC EMC is mandatory for USB & ITAV functional interface. Only the lifting module is not subject to mandatory certification.



Key components such as adapters and plugs need to comply with local certification requirements.

## Mexico



**Certification Body:**  
TÜV Rheinland Mexico



**Certification:**  
NOM

**Reports:**  
NOM-003 , NOM-024 and NOM- 050

(Commercial information standards)

Key components such as adapters and plugs need to comply with local certification requirements.

## U.A.E



**Certification Body:**  
TÜV Rheinland UAE

**Certification:**  
ECAS RoHS or EQM RoHS



**Accreditation:**  
ECAS RoHS or EQM RoHS

**Report:**  
EU RoHS 10 restricted substances report

Key components such as adapters and plugs need to comply with local certification requirements.

## Australia



**Certification Body:**  
TÜV Rheinland Australia

**Certification:**  
RCM Mark

**Report:**  
Safety report + EMC report

Key components such as adapters and plugs need to comply with local certification requirements.



## Israel



Certification Body:  
Israeli local authority

Certification:  
SII COC

Report:  
CB Report + EMC Report

Adapter needs to be provided IEC 61558-2-16 Report certificate, plugs and other key components need to comply with local certification requirements.

## Ukraine



Certification Body:  
Ukrainian authority

Certification requirements:  
Ukraine LVE CoC,  
EMC CoC



Certification:  
Ukraine LVE CoC , EMC CoC

Report:  
CB Report



Certification:  
RoHS DOC

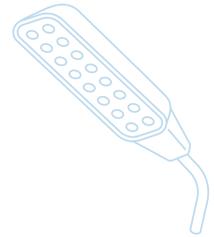
Report:  
EU RoHS 10 restricted substances report

On top of additional functions that require further evaluation, key components such as adapters and plugs need to comply with local certification requirements.

If it has wireless functions such as Bluetooth and Wi-Fi , the wireless part needs to meet local certification requirements for wireless products .



# Comprehensive Guide to LED Lighting Product Certification in Thailand



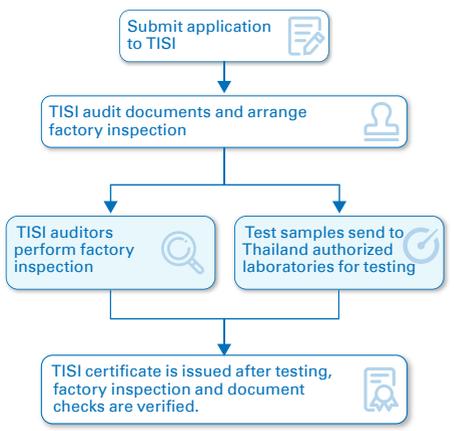
LED light sources and LED lamps entering Thailand? How to apply? Are there any special requirements for product nameplates? TÜV Rheinland's international certification experts will answer your questions one by one.

TISI The certification is a mandatory certification controlled by the Thai Industrial Standards Association. The lighting products have the following standards:

Standards	Products Scope	Requirements
TIS 1955-2551	All Luminaries	Radio frequency interference limit requirements
TIS 2779-2562 (2019)	Double-ended LED tubes	Safety
TIS 2780-2562 (2019)	Self-ballasted LED lamps for general lighting purposes, voltage > 50 V	Safety



## TISI Certification Process



## Others



1. If the product has wireless function, then the product also needs to apply for Thailand wireless certification NBTC
2. Product plugs must comply with TIS 166 size requirements.

## Marks requirements

What are the requirements for name plates of TISI- certified products?

TIS 1955-2551 Certificate as an example

The product needs to be marked:

- Importer Name
- Product Name
- Electrical parameters
  - Rated voltage, power



มอก. xxx-xxxx  
ชื่อผู้รับอนุญาต

for the TIS mark:

1. The product body needs to be marked with TIS Logo and QR code  
(If the product is too small to be labeled, it can also be marked on the product packaging)
2. TIS The logo size should be adapted to and proportional to the product size and should not be less than 3mm. TIS The height of the standard number should not be less than 1mm and should be placed on the TIS Below the logo
3. The size of the QR code should not be less than 10x10mm
4. Importer name needs to be close to TIS Logo

# National entry requirements





# Thailand TISI Certification Overview: Household Appliances and Lighting Products



Since Thailand added smart phone and tablets to TISI mandatory certification scheme in 2023, TÜV Rheinland closely follows the market trend and has successfully helped many well-known domestic manufacturers pass this authoritative certification to meet the Thai market access requirements. We will continue to provide TISI certification for major home appliances and lighting products.

## Product Scope and TISI standards

### Household appliances



Skin or hair care products  
TIS 1985-2549 (2006) (S)



AC fan  
TIS 934-2558 (2015) (S)



Electric iron  
TIS 366-2547 (2004) (S)



Grills, toasters and similar  
portable cooking appliances  
TIS 1641-2552 (2009) (S)



Rice Cooker  
TIS 1039-2547 (2004) (S)



Electric fryer  
TIS 1509-2547 (2004) (S)



Electric kettle  
TIS 2062-2558 (2015) (S)



Micro-wave oven  
TIS 1773-2548 (2005) (S)



Air conditioner  
TIS 1529-2561 (2018) (S)  
TIS 2134-2553 (2010) (EE)



Home washing machines  
TIS 1463-2556 (2013) (S)  
TIS 1462-2562 (2019) (EE)



Home refrigerator  
TIS 2214-2561 (2018) (S)  
TIS 2186-2561 (2018) (EE)



Dryer  
TIS 1389-2559 (2016) (S)



Personal massage devices  
TIS 60335 Part 2(32)-2564  
(2021) (S)



Donut Fryer  
TIS 60335 Part 2(37)-2564  
(2021) (S)



Household pressure washers  
and steam cleaners  
TIS 60335 Part 2(79)-2563  
(2020) (S)



Home Air Purifier  
TIS 60335 Part 2(65)-2564  
(2021) (S)

## Luminaries or LED products

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Incandescent light bulbs  
TIS 4 Part 1-2558 (2015) (S)



Fluorescent lamp starter  
TIS 183-2562 (2019) (S)



Double head fluorescent lamp  
TIS 956-2557 (2014) (S)



Self-ballasted lamps for  
general lighting  
TIS 2234-2557 (2014) (S)



Single head fluorescent lamp  
TIS 2235-2557 (2014) (S)



Ballasts for tubular fluorescent  
lamps  
TIS 2337-2557 (2014) (EE)



Double-ended LED tube lamp  
TIS 2779-2562 (2019) (S)



Self-ballasted LEDs for general  
lighting Light ( voltage >50V)  
TIS 2780-2562 (2019) (S)

## Batteries and Chargers



Power bank  
TIS 2879-2560 (2017) (S)



Mobile Phone and Tablet Charger  
TIS 62368 Part 1-2563 (2020) (S)



Rechargeable batteries and  
battery packs with alkaline or  
non-acid electrolytes  
TIS 2217-2548 (2005) (S)

## Certification process and requirements



## Certification mark



มอก. xxx-xxxx  
ชื่อผู้รับอนุญาต

## Special Reminder

- a. TISI does not accept CB conversion certificate, but providing the corresponding model CB reports facilitate the review process.
- b. TISI certificate holder must be local Thai importer. If the same product is produced by the same factory but imported by different people, the factory inspection needs to be rescheduled in principle.
- c. For household appliances with non-detachable input cords and plugs, the plug-in power supply and plug pins must meet the size requirements of the Thai plug standard TIS 166-2549 .



**2 pins**



**3 pins**

- d. A key requirement for TISI certification is the inclusion of a QR code on the product label. Typically, the QR code is required after the TISI license has been issued, and the application is completed through the TISI online system.

TÜV Rheinland offers comprehensive support to Thai importers by assisting with the QR code application process.

**Choose TÜV Rheinland to accelerate your Thailand strategy**

**TÜV Rheinland and Thailand's TISI collaborate directly with qualified laboratories, enabling fast sample testing and on-site factory inspections. This helps customers save both time and costs. For urgent requests, TÜV Rheinland also offers expedited services.**



# Business opportunities in Vietnam market



As Chinese companies expand into the Southeast Asian market, the demand for Chinese products in Vietnam has been steadily increasing. As a certified overseas laboratory recognized by Vietnam's certification authority, TÜV Rheinland Greater China offers localized testing and certification services. Successfully assisting domestic companies in obtaining Vietnam's CR Product certification for a smooth and fast entry into the Vietnamese market. Now, let's explore the access requirements that electronic and electrical products must meet to enter Vietnam

## Product Scope and standards

# 1

### EMC Electronic and electrical products controlled by regulations

Regulation: QCVN 9:2012/BKHCN + A1:2018



Air conditioner  
TCVN 7492-1:2018  
(CISPR 14-1:2016)



Instant Electric Water Heater  
TCVN 7492-1:2018  
(CISPR 14-1:2016)

	Refrigerators and freezers TCVN 7492-1:2018 (CISPR 14-1:2016)		Vacuum cleaner TCVN 7492-1:2018 (CISPR 14-1:2016)
	Washing machine TCVN 7492-1:2018 (CISPR 14-1:2016)		Handheld electric drill TCVN 7492-1:2018 (CISPR 14-1:2016)
	Hair dryer TCVN 7492-1:2018 (CISPR 14-1:2016)		Electric stoves (including induction cookers ) TCVN 7492-1:2018 (CISPR 14-1:2016)
	Electric juicer, electric meat grinder, electric mixer, electric egg beater TCVN 7492-1:2018 (CISPR 14-1:2016)		
	Microwave ovens (including combination types) TCVN 6988:2018 (CISPR 11:2015+A1)		Self-ballasted lamps (excluding LEDs) TCVN 7186:2018 (CISPR 15:2018)

## 2 LED Products controlled by lighting regulations

Regulation: QCVN 19: 2019/BKHCHN

The main scope includes, but is not limited to, the following:

In general, general-purpose LED lighting products that connect directly or indirectly to a power source fall within the scope of control. For specific details, refer to the regulatory appendix.

(In general, LED lighting products designed for general-purpose use, whether connected directly or indirectly to a power source, are subject to regulatory control. For further details and specific requirements, please consult the regulatory appendix.)

Self-ballasted LED lamp  
TCVN 8782:2017 (IEC 62560:2015) for Electrical Safety  
TCVN 7186:2018 (CISPR 15:2018) for EMI  
IEC 61547:2009 for EMS  
IEC 62471:2006 for Photobiological Safety

Fixed General LED Lighting  
TCVN7722-1:2017(IEC 60598-1:2017)  
TCVN 7722-2-1 (IEC 60598-2-1) for Electrical Safety  
TCVN 7186:2018 (CISPR 15:2018) for EMI  
IEC 61547:2009 for EMS  
IEC 62471:2006 for Photobiological Safety



Portable General LED Lighting  
 TCVN 7722-1:2017(IEC 60598-1:2017)  
 TCVN 7722-2-4 (IEC 60598-2-4) for Electrical Safety  
 TCVN 7186:2018 (CISPR 15:2018) for EMI  
 IEC 61547:2009 for EMS  
 IEC 62471:2006 for Photobiological Safety



Double-ended LED Lighting  
 TCVN 11846:2017 (IEC 62776:2014) for Electrical Safety  
 TCVN 7186:2018 (CISPR 15:2018) for EMI  
 IEC 61547:2009 for EMS  
 IEC 62471:2006 for Photobiological Safety

### 3 Electronic and electrical products under safety regulations (Safety-Scheme 5 or Safety-Scheme 7) Regulation: QCVN 4:2009/BKHCN + A1:2016



Instant Electric Water Heater  
 TCVN 5699-2-35:2013  
 (IEC 60335-2-35:2012)



Storage type electric water heater  
 TCVN 5699-2-21:2013  
 (IEC 60335-2-21:2012)



Hair dryer and other hairdressing appliances  
 TCVN 5699-2-23:2013  
 (IEC 60335-2-23:2012)



Electric kettle  
 TCVN 5699-2-15:2013  
 (IEC 60335-2-15:2012)



Rice Cooker  
 TCVN 5699-2-15:2013  
 (IEC 60335-2-15:2012)



Electric fan  
 TCVN 5699-2-80:2007  
 (IEC 60335-2-80:2005)



Electric iron  
 TCVN 5699-2-3:2010  
 (IEC 60335-2-3:2008)



Micro-wave oven  
 TCVN 5699-2-25:2007  
 (IEC 60335-2-25:2005)



Electric ovens and rotisserie machines (portable )  
 TCVN 5699-2-9:2017  
 (IEC 60335-2-9:2016)



Immersion water heater  
 TCVN 5699-2-74:2010  
 (IEC 60335-2-74:2009)



Coffee or tea machine  
TCVN 5699-2-15:2013  
(IEC 60335-2-15:2012)



Hand Dryer  
TCVN 5699-2-23:2013  
(IEC 60335-2-23:2012)



cable  
Depends on wire type

# 4

## Electrical and electronic products within the scope of energy efficiency requirements

Guide: Circular 36/2016/TT-BCT



Compact fluorescent lamp



Linear tube



electronic ballast



LED Lights



LED Street Lamp



Air conditioner



Washing machine



TV



Refrigerator



Freezer



Refrigeration Appliances



Rice Cooker



Fan



Motors



Storage Water Heaters



Copier



Printer



Computer Monitor



Laptop



Infrared Heating Oven



Induction cooker



Desktop computer

For applicable standards, please refer to relevant laws and regulations.

Standards for certain products will be effective since Jan of year 4

# 5

## Products regulated by food contact materials regulations

Regulation: Decree 15/2018/ND-CP

### Product Range:

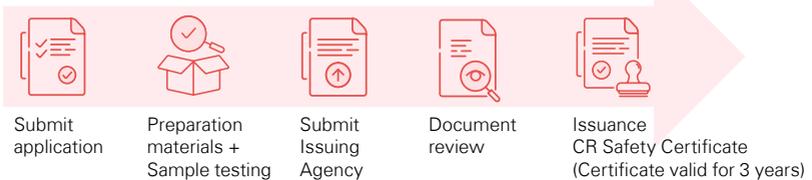
Food contact materials need to meet Vietnam FCM Material requirements, which also apply to food contact parts of kitchen electrical and electronic products .

## Certification Process and requirements

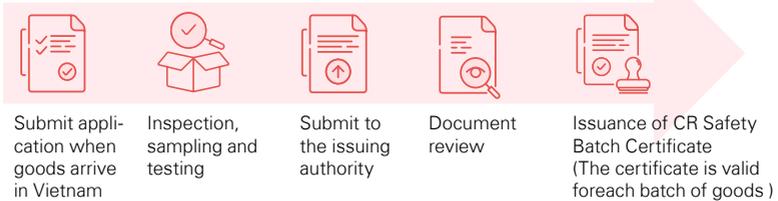
### EMC & LED Certification Process



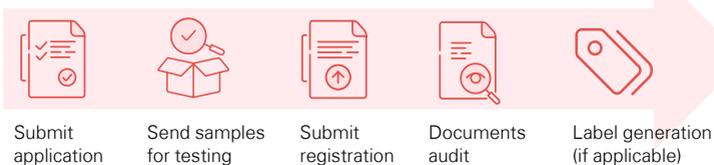
### Safety-Scheme 5 Certification Process



### Safety-Scheme 7 Certification Process



### Energy Efficiency Certification Process



## Certification Mark

### EMC/LED/Safety Certification: CR mark



### Energy efficiency certification: Star label



## Special reminder

1. Different CR Certificate holders have varying requirements in certificate mode, energy efficiency, and FCM. When planning your project, consult TÜV Rheinland experts in advance for guidance.
2. With the rise of multifunctional home appliances, customers can provide custom codes to verify specific certification requirements.
3. Some products may require wireless certification based on their capabilities. Ensure your product complies with the necessary wireless certification regulations.



# Comprehensive Guide to PS/ICC Certification and Energy Efficiency Certification in the Philippines

China's Export Surge in Southeast Asia: Growing Demand for Philippine Product Certification. As Chinese companies expand their presence in the Southeast Asian market, the demand for product certification in the Philippines is on the rise. TÜV Rheinland has partnered with the Philippine Bureau of Standards and the Philippine Department of Energy to assist numerous well-known domestic companies in successfully obtaining Philippine product certification. Let's explore the market access requirements in the Philippines!

## Product Scope and standards

### Safety PS/ICC Control of household appliances



Fan  
PNS IEC 60335-2-80:2016  
(IEC Pub. 2015)



Electric iron  
PNS IEC 60335-2-3:2018  
(IEC Pub. 2015)



Electric mixer  
PNS IEC 60335-2-14:2019  
(IEC Pub.2016+AMD1:2019)



Electric juicer  
PNS IEC 60335-2-14:2019  
(IEC Pub.2016+AMD1:2019)



Electric food mixer  
PNS IEC 60335-2-14:2019  
(IEC Pub.2016+AMD1:2019)



Electric food processor  
PNS IEC 60335-2-14:2019  
(IEC Pub.2016+AMD1:2019)



Electric kettle  
PNS IEC 60335-2-15:2019  
(IEC Pub. 2018)



Rice Cooker  
PNS IEC 60335-2-15:2019  
(IEC Pub. 2018)



Electric thermos  
PNS IEC 60335-2-15:2019  
(IEC Pub. 2018)



Electric coffee machine  
PNS IEC 60335-2-15:2019  
(IEC Pub. 2018)



Electric pressure cooker  
PNS IEC 60335-2-15:2019  
(IEC Pub. 2018)



Electric slow cooker  
PNS IEC 60335-2-15:2019  
(IEC Pub. 2018)



Multifunctional electric cooker  
PNS IEC 60335-2-15:2019  
(IEC Pub. 2018)



Toaster  
PNS IEC 60335-2-9:2021  
(IEC Pub. 2019)



Electric furnace  
PNS IEC 60335-2-9:2021  
(IEC Pub. 2019)



Heating plate  
PNS IEC 60335-2-9:2021  
(IEC Pub. 2019)



Electric grill  
PNS IEC 60335-2-9:2021  
(IEC Pub. 2019)



Electric oven  
PNS IEC 60335-2-9:2021  
(IEC Pub. 2019)



Turbo Convection Glass Oven  
PNS IEC 60335-2-9:2021  
(IEC Pub. 2019)



Induction cooker  
PNS IEC 60335-2-9:2021  
(IEC Pub. 2019)



Micro-wave oven  
PNS IEC 60335-2-25:2015  
(IEC Pub. 2014)



Washing machine  
PNS IEC 60335-2-7:2018  
(IEC Pub. 2016)



Dehydrator  
PNS IEC 60335-2-4:2018  
(IEC Pub. 2017)



Refrigerator  
PNS IEC 60335-2-24:2018  
(IEC Pub. 2017)



Air conditioner  
PNS 2133-2-40:2018  
(IEC 60335-2-40:2018,MOD)

## Safety PS/ICC Controlling consumer electronics (Total 4 Category, where electronic cigarette systems and cigarette lighter systems are not listed)



Television  
PNS IEC 60065:2013  
(IEC Pub. 2011)



CD/VCD/DVD/Blu-ray player  
PNS IEC 60065:2013  
(IEC Pub. 2011)

## Safety PS/ICC Control lamps



Self-ballasted LED lamp  
PNS IEC 62560:2016  
(IEC Pub. 2015)



Self -ballasted lamps /  
Compact fluorescent lamps  
PNS IEC 60968:2016  
(IEC Pub. 2015)



Single head fluorescent lamp  
PNS IEC 61199:2019  
(IEC Pub. 2014)



Double head fluorescent lamp  
PNS IEC 61195:2017  
(IEC Pub. 1999)



Christmas lights / light strings  
PNS IEC 60598-2-20:2019  
(IEC Pub. 2014)



Incandescent lamp  
PNS IEC 60432-1:2019  
(IEC Pub. 2012)

## Products within the scope of energy efficiency requirements

(Note: \*\* Energy efficiency requirements for products to take effect)



Air conditioner  
PNS ISO 5151  
PNS ISO 16358-1



Refrigerator  
PNS IEC 62552-1  
PNS IEC 62552-2  
PNS IEC 62552-3



Television  
PNS IEC 62087  
PNS 378  
PNS IEC 62301



Lighting  
PNS IEC 60969  
CIE 84 1st edition 1989  
PNS IEC 60081  
PNS IEC 60901  
ANSI C78.377-2015  
CIE S 025/E:2015  
CIE 13.3:1995  
IES LM 79-08  
IES LM 80-15  
PNS IEC 62612  
PNS IEC 61000-3-2  
IEC-60838-2-3 ED. 1.0 B:2016

Note: Different types of lamps require different standards



Monitor \*\*  
 PNS IEC 62087-1  
 IEC 62087-2  
 PNS IEC 62087-7  
 PNS 378  
 PNS IEC 62301



Energy saving device / low  
 voltage energy saving device \*\*  
 PNS 2080:2010  
 PNS IEC 62301:2021



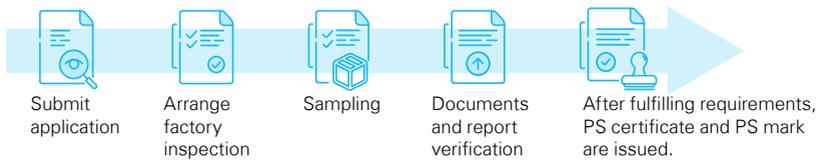
Washing machine \*\*  
 PNS IEC 60456:2013



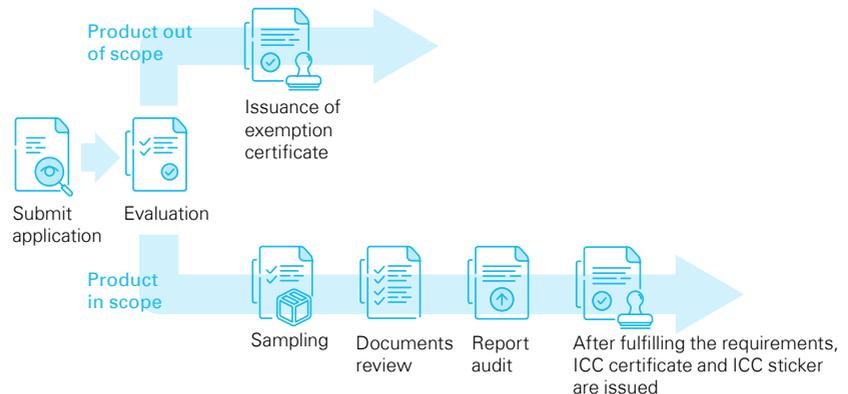
Fan \*\*  
 PNS IEC 60879:2020

## Certification process and requirements

### PS certification process:



### ICC certification process:



### Energy efficiency certification process:



## Certification marks



Energy efficiency label  
(star label example)

## Special reminder

1. After obtaining PS certificate, which is valid for 3 years, the factory needs to undergo surveillance audit every year. The ICC certificate is a batch certificate and is valid only for the batch.
2. The registration validity period of the energy efficiency label is 1 Year.
3. As electronic and electrical products become increasingly multifunctional and intelligent, customers can provide product specifications and related information before opening a case. TÜV Rheinland experts will evaluate product certification requirements in a targeted manner.



# Essential Standards and Certification Requirements for Exporting to Indonesia



With the deployment of Chinese enterprises in the Southeast Asian market in recent years, the demand for Chinese products exported to the Indonesian market has been growing. As a certification body and accredited laboratory, TÜV Rheinland Indonesia can provide local testing and certification services and has successfully helped many well-known domestic companies obtain Indonesian SNI Product certification, fast entry into the Indonesian market. Let's take a look at the entry requirements that electronic and electrical products need to meet to enter the Indonesian market.

## Product Scope and standards

### Products in Safety Regulations (SNI)

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#### Regulation:

MoEMR Reg. No. 7/2021;  
Directorate General of IUBTT Mol No. 30/IUBTT/PER/12/2013;  
Directorate General of IUBTT Mol No. 14/IUBTT/PER/3/2012;  
Mol Reg. No. 58/2020: Mol Reg. No. 15/2018;  
Perindustrian No.84/M-IND/PER/10/2014;  
Permen ESDM No. 2 Tahun 2021\_TTD Menteri;  
05/BIM/PER/1/2015, Permenperin No.6 2017



Air conditioner  
SNI IEC 60335-1:2009 &  
SNI IEC 60335-2-40:2009



Refrigerator  
SNI IEC 60335-1:2009 &  
SNI IEC 60335-2-24:2009



Washing machine  
SNI IEC 60335-1:2009 &  
SNI IEC 60335-2-7:2009



Fan  
SNI IEC 60335-1:2009 &  
SNI 7609:2011



Electric iron  
SNI 7958:2013 &  
SNI 04-6292.2.3-2003



Water Pump  
SNI 7958:2013 &  
SNI 04-6292.2.41-2003(1)



Electric juicer, electric blender  
SNI 7958:2013 &  
SNI IEC 60335-2-14:2011



Heating appliances (rice cookers, portable water heaters, water dispensers, electric kettles)  
SNI 7958:2013 &  
SNI IEC 60335-2-15:2011 + Yes  
Special standard



TV set  
SNI 04-6253-2003



DVD and Blu-ray Disc player  
SNI 04-6253-2003



Car Headphones  
SNI 04-6253-2003



Active speakers  
SNI 04-6253-2003



Set-top Box  
SNI 04-6253-2003



Lighting ( fixed lighting, recessed lighting, portable lighting, street lighting, floodlights, Night lights, light strings)  
SNI IEC 60598-1:2016 +  
corresponding special standard  
SNI 04-6629.5- 2006



PVC cable  
SNI 04-6629.1-2011  
SNI 04-6629.2-2006  
SNI 04-6629.3-2006  
SNI 04-6629.4-2006  
SNI 04-6629.5-2006



Power Cable  
SNI IEC60502-1:2009  
SNI IEC60502-2:2009



Switch  
SNI IEC 60669-1:2013



**Plug**  
SNI IEC 60884-1:2014  
SNI 04-3892.1.1-2003



**Socket**  
SNI IEC 60884-1:2014  
SNI 04-3892.1.1-2003



**Photovoltaic modules**  
SNI IEC 61215-1:2016  
SNI IEC 61215-2:2016  
SNI IEC 61215-1-1:2016



**Residual Current Circuit Breaker (RCCB)**  
SNI IEC 61008-1:2017  
(IEC 61008-1:2013,IDT)  
SNI 04-6956.2.1-2005



**Miniature Circuit Breaker (MCB)**  
SNI 8528-1:2018  
(IEC 60898-1:2015,MOD)

## Electrical and electronic products within the scope of energy efficiency requirements



### Product Range:

Air conditioners, refrigerators, fans, rice cookers, self-ballasted LEDs Light bulbs and tubes, LED Street lamps, refrigerated display cabinets / showcases, TVs, etc. For applicable standards, please refer to relevant regulations, and motors and water dispenser products will also be gradually included in the scope of energy efficiency certification.



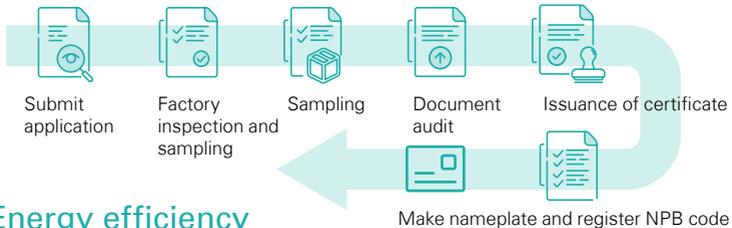
### Regulation:

MoEMR Reg. No. 14/2021;

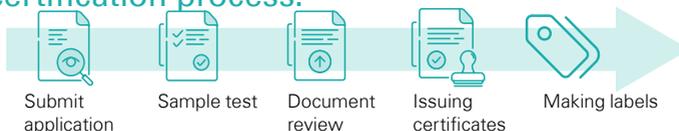
MoEMR Decree No. 135.K/EK.07/DJE/2022

## Certification process

### SNI certification process:



### Energy efficiency certification process:



## Certification marks

### SNI Logo + NPB coding



#### Applicable Regulation:

Regulation Mol Reg. No.58/2020

#### Applicable Regulation:

Regulation Directorate General of IUBTT Mol No. 30/IUBTT/PER/12/2013

Regulation Directorate General of IUBTT Mol No. 14/IUBTT/PER/3/2012



SNI Standard  
NPB No.



Cert. Reg. No.

#### Applicable Regulation:

Regulation MoEMR Reg. No.7/2021

### Energy efficiency label



## Others

### K3L (Security, Safety, Health and Environmental Regulation)

#### Regulation:

MoTReg. No. 21/2023& Directorate General of Consumer Protection & Orderly Commerce MoTDecree No. 36/2023

#### Certification process:



#### Product Range:

Vacuum cleaners, ovens, hair dryers, microwave ovens, shavers, massagers, food processors, grinders, etc



### Wireless Product Certification (SDPPI)

#### Regulation:

Ministry of Telecommunication & Informatics Regulations No. 13 / 2021

#### Product Range:

Wireless and public network communication products

#### Certification process:



#### Certification mark:

Certificate number + PLG Code + QR code + warning label



XXXX/SDPPI/20XX

XXXX



## Electronic and electrical product registration certificate (MKG)

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### Regulation:

PERMENDAG NOMOR 26 TAHUN 2021

### Product Range:

Recording equipment, amplifiers, speakers, monitors, keyboards, mobile phones, televisions, computers, fans, hair dryers,



Rice cookers, water dispensers, vacuum cleaners, etc. Total 74 Category products.



## Products regulated by food contact materials regulations

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### Regulation:

Regulation of The National Agency of Drug and Food Control Number 20, Year 2019 on Food Packaging

### Product Range:

Food contact materials need to meet Indonesian FCM Material requirements, which also apply to food contact parts of kitchen electrical and electronic products .

## Special reminder

1. SNI New regulatory requirements are about to be released, and the certification process and requirements may change significantly. It is recommended to contact TÜV Rheinland experts for consultation in advance when planning a project .
2. With the development trend of multifunctional household appliances, customers can provide customs codes to specifically confirm relevant certification requirements.

Tested and certified by  
TÜVRheinland

**TÜV Rheinland of North America**

400 Beaver Brook Rd.  
Boxborough, MA 01719  
info@tuv.com

[www.tuv.com](http://www.tuv.com)

