



**Asia-Pacific
Economic Cooperation**

2017/SOM3/SCSC/JRAC/010

Agenda Item: 6a

**Mutual Recognition Arrangement on Conformity
Assessment of Electrical and Electronic Equipment -
APEC EEMRA Information Interchange Format Part
1 – Thailand**

Purpose: Information
Submitted by: Thailand



**22nd Joint Regulatory Advisory Committee on
Electrical and Electronic Equipment Meeting
Ho Chi Minh City, Viet Nam
20 August 2017**

**MUTUAL RECOGNITION ARRANGEMENT ON CONFORMITY
ASSESSMENT OF ELECTRICAL AND ELECTRONIC EQUIPMENT**

**APEC EEMRA
Information Interchange Format**

PART 1

Introduction

This format is being prepared to assist member economies participating in the APEC MRA to prepare documentation required for participation in a consistent format.

It is expected that each participating member economy would submit their information in the recommended format to the APEC Secretariat as required by the MRA.

The format is based on the Information Notes on Good Practice for Technical Regulation and therefore provides for information to be supplied for each of the regulatory regimes identified in the notes. There are 7 regimes, they are for products requiring inspection, products requiring licensing, products requiring batch testing, products requiring approval (or certification), products requiring listing or registration, supplier declarations and essential safety requirements. Participating member economies need only provide information relating to the regimes which are in force in their economy. The regimes that are not enforced by the economy need to be noted also, please indicate this by placing 'none' in the standards table on the front of each regime.

Where more than one regulatory system applies within a participating member economy information on each regulatory system should be provided separately.

The format also draws upon the survey on Conformity Assessment of Electrical and Electronic Equipment conducted by the APEC SCSC. The format includes reference to applicable international standards and uses the international convention for describing the relationship of national and international standards, i.e. IDT for identical, MOD for modified, and NEQ for not equal.

When information makes reference to documents or legislation, the documents or legislation should be available on a website for that economy or provided as part of the information supplied to the APEC Secretariat.

ECONOMY – THAILAND

APEC EEMRA Information Interchange Format

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PART I – INFORMATION EXCHANGE

Regime Overview

Legislative References

Legislation Applicable	Government Agency
Industrial Product Standards Act B.E. 2511 (1968) Industrial Product Standards Act(No.2), B.E. 2522 (1997) Industrial Product Standards Act(No.3), B.E. 2522 (1997) Industrial Product Standards Act(No.4), B.E. 2531 (1989) Industrial Product Standards Act(No.5), B.E. 2535 (1992) Industrial Product Standards Act(No.6), B.E. 2548 (2005) Industrial Product Standards Act(No.7), B.E. 2558 (2015)	Thai Industrial standards Institute (TISI) Ministry of Industry

Products covered by approvals (or certification)

Product type or grouping	Standards			
	Domestic Standards	Please tick box if mandatory	Relevant International Standards	Extent of Alignment
Incandescent lamps	TIS 4 Part 1-2529 (1986)	√	IEC 60064 (1993) IEC 60432-1 (1999)	NEQ
PVC insulated Copper cables	TIS 11 Part 1-2553 (2010) TIS 11 Part 2-2553 (2010) TIS 11 Part 3-2553 (2010) TIS 11 Part 4-2553 (2010) TIS 11 Part 5-2553 (2010) TIS 11 Part 101-2553 (2010)	√	IEC 60227-1 Ed 3.0 (2007) IEC 60227-2 Ed 2.0 (1997) Am 1 (2003) IEC 60227-3 Ed 2.1 (1997) IEC 60227-4 Ed 2.1 (1997) IEC 60227-5 Ed 2.2 (2003) All Parts of IEC 60227	MOD MOD IDT IDT IDT MOD
Ballast for fluorescent lamps	TISI 23-2558 (2015)	√	IEC 61347-2-8 (2002), Am 1 (2006)	MOD
Starters for fluorescent lamps	TIS 183-2547 (2004)	√	IEC 60155 Ed 4.0 (1993), Am.1 (1995)	IDT
PVC insulated aluminium cables	TIS 293-2541 (1998)	√	No IEC standard available	-
Lampholders for tubular fluorescent lamps and starterholders	TIS 344-2549 (2006)	√	IEC 60400 Ed 6.2 (2004)	IDT

Product type or grouping	Standards			
	Domestic Standards	Please tick box if mandatory	Relevant International Standards	Extent of Alignment
Electric irons	TIS 366-2547 (2004)	√	IEC 60335-2-3 (2002)	IDT
Motor-compressors : safety requirements	TIS 812-2558 (2015)	√	IEC 60335-2-34 Ed 5.0 (2012)	IDT
Electrical Switches	TIS 824-2551 (2008)	√	IEC 60669-1 Ed 3.1 (2000) and Am 2 (2006)	IDT
Grills, toasters and similar portable cooking appliances	TIS 1641-2552(2009)	√	IEC 60335-2-9 Ed 5.2 (2006)	MOD
Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs)	TIS 909-2548 (2005)	√	IEC 61009-1 (2003)	MOD
AC electric fans : safety requirements	TIS 934-2558 (2015)	√	IEC 60335-2-80 Ed 2.2 (2008)	IDT
Double-Capped Fluorescent lamps : safety specification	TIS 956-2557 (2014)	√	IEC 61195 (1999) Am 1(2012)	MOD
Electric rice-cookers : safety requirements	TIS 1039-2547 (2004)	√	IEC 60335-2-15 (2002-07)	MOD
Mains operated electronic and related apparatus for household and similar general use : safety requirements	TIS 1195-2536 (1993)	√	IEC 60065 (1985) Am.1 (1989)	MOD
Uninterruptible power system	TIS 1291 Part 1-2553 (2010) TIS 1291 Part 2-2553 (2010) TIS 1291 Part 3-2555 (2012)	√	IEC 62040-1 Ed 1.0 (2008) IEC 62040-2 Ed 2.0 (2005) IEC 62040-3 Ed 1.0 (1999)	IDT IDT IDT
Tumbler dryers : safety requirements	TIS 1389-2559 (2016)	√	IEC 60335-2-11 Ed 7.1 (2012)	IDT
Washing machines : safety requirements	TIS1463-2556 (2013)	√	IEC 60335-2-7 Ed 7.0 (2008-06)	IDT
Electric fryers: safety requirements	TIS 1509-2547 (2004)	√	IEC 60335-2-13 Ed 5.0 (2002) IEC 60335-2-15 Ed5.0 (2002)	MOD MOD

Product type or grouping	Standards			
	Domestic Standards	Please tick box if mandatory	Relevant International Standards	Extent of Alignment
Instantaneous water heaters :safety requirements	TIS 1693-2547 (2004)	√	IEC 60335-2-35 (2002-10)	IDT
Microwave ovens safety requirements	TIS 1773-2548 (2005)	√	IEC 60335-2-25 Ed.5.0 (2002)	IDT
Lighting and similar equipment : radio disturbance limits	TIS 1955-2551 (2008)	√	CISPR 15 Ed 7.1 (2007)	MOD
Appliances for skin or hair care : safety requirement	TIS 1985-2549 (2006)	√	IEC 60335-2-23 Ed 5-0 (2005)	IDT
Electric thermo pots	TIS 2062-2558 (2015)	√	IEC 60335-2-15 Ed 6 (2012)	MOD
Room Air Conditioners Environment Requirement : Energy Efficiency	TIS 2134-2553(2002)	√	No Reference	-
Household refrigerators : environmental requirements : energy efficiency	TIS 2186-2547 (2004)	√	No Reference	-
Household refrigerators : safety requirements	TIS 2214-2548 (2005)	√	IEC 60335-2-24 Ed 6.0 (2002)	MOD
Secondary cells and batteries containing alkaline or other non-acid electrolytes - safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications	TIS 2217-2548 (2005)	√	IEC 62133 Ed.1.0 (2002)	IDT
Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) - Part 1 : general rules	TIS 2425-2552 (2009)	√	IEC 61008-1 Ed.2.1 (2002)	MOD
Ballasts for tubular fluorescent lamps: energy efficiency requirements	TIS 2337-2557 (2014)	√	IEC 62442-1 (2011)	NEQ
Self-Ballasts for general Lighting service	TIS 2234-2557 (2014)	√	IEC 60968 (2012)	MOD

Product type or grouping	Standards			
	Domestic Standards	Please tick box if mandatory	Relevant International Standards	Extent of Alignment
Single-capped fluorescent lamps	TIS 2235-2557 (2014)	√	IEC 61199 (2011)	MOD
Cord extension sets	TIS 2432-2555 (2012)	√	IEC 60884-2-7 (2011)	MOD

Description of the Regime

TYPES OF CONFORMITY ASSESSMENT REGIMES – Certification

Product Certification System of TISI consists of two phases:

1. License Granting

Granting a license is based on:

1.1 The results of tests which are conducted on products in accordance with the application standards.

Consideration on this matter may be:

- (1) Product testing by designated laboratories, or
- (2) Product testing by testing laboratories accredited according to ISO/IEC 17025, or
- (3) Product testing by testing at manufacturer's premises under supervision of TISI.

1.2 The results of manufacturer's quality control system assessment according to specified conditions.

Consideration on this matter may be:

- (1) Factory visit for quality control system assessment, or
- (2) Acceptation of quality system certificates, or
- (3) Acceptation of CoC from the ASEAN Listed CB.

2. Surveillance

After granting a license, the licensee will be followed up by:

- 2.1 Product sampling from factories for testing,
- 2.2 Product sampling from market for testing,
- 2.3 Product sampling for testing each import,
- 2.4 Factory visit for audit.

Testing Facilities and Approval (Certification) Agencies

Testing Laboratories

Electrical and Electronics Institute Foundation for Industrial Development
Electrical and Electronic Products Testing Center, National Science and Technology Development Agency
TUV SUD (Thailand) Limited
Intertek Testing Services (Thailand) Limited
TUV Rheinland Thailand limited
Japan Electrical Testing Laboratory (Thailand) Co., Ltd.
SGS(Thailand) Ltd.

Certification Bodies

National Science and Technology Development Agency, National Electronics and Computer Technology Center, Electronics and Computer Equipments Certification Section
Electrical and Electronics Institute, Foundation for Industrial Development

Labelling Requirements

The labelling requirements of an approved product are:

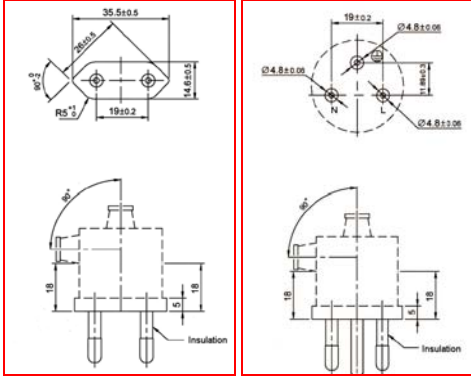


Voluntary certification mark



Mandatory certification mark

Mains Voltage, Frequency and Mains Plug Configuration

Economy	Mains Voltage and Tolerance	Mains Frequency and Tolerance	Applicable Legislation	Mains Plug Configuration				
				Domestic Standard	Please tick box if mandatory	Relevant International Standard	Extent of Alignment	Diagram of Mains Plug Configuration-
Thailand	<u>Bangkok Metropolitan Area</u> 230 volts 1 phase 2 wires with earth tolerance Max 237 V and Min 214 V	50 Hz ± 1%	NA	TIS 166-2535	-	-	-	
	<u>Other Areas</u> 220 volts 1 phase 2 wires tolerance Max 240 V and Min 200 V							
	<u>Bangkok Metropolitan Area</u> 400 volts 3 phase 4 wires tolerance Max 410 V and Min 371 V	50 Hz ± 1%	NA	-	-	-	-	TIS 166-2547(2004)
<u>Other Areas</u> 380 volts 3 phase 4 wires tolerance Max 418 V and Min 342 V								

Regulatory and Legislation Requirements

