

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

**APEC EE MRA  
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 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, 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 - Malaysia**

### **APEC EEMRA Information Interchange Format**

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## **PART I – INFORMATION EXCHANGE**

### **Regime Overview**

*<provide a general description of the regime>-*

In Malaysia, the Low Voltage Equipment either imported into or manufactured in the country possess the safety features and the quality required by Malaysian Standards (MS) or equivalent standards recognized internationally.

The Department of Standard Malaysia (DSM) is the national standardisation and accreditation body. The electrical equipment safety is under responsibility of Energy Commission (ST). The Energy Commission (ST) is a regulatory body of all electricity industry, which includes the safety of electrical equipments and appliances as the controlled items.

ST controlled items and the corresponding standards covering 31 categories of prescribed electrical equipment. These controlled items are made mandatory by ST. For further information about ST, visit the website [www.st.gov.my](http://www.st.gov.my)

### **Legislative References**

*<List legislation applicable, scope of that legislation and the government agencies responsible for that legislation>*

| <b>Legislation Applicable</b> | <b>Scope of the Legislation</b>                   | <b>Government Agency</b> |
|-------------------------------|---|--------------------------|
| Electricity Supply Act 1990   | Section 4(l) – Approval on Electrical Equipment*  | ST                       |
| Electricity Regulations 1994  | Reg.97(1) – Certificate of Approval for Equipment | ST                       |

*\* See details of the Section 4 in Electricity Supply Act 1990.*

In Electricity Supply Act 1990 (Act 447), Part III, Section 4, Functions, Duties And Powers Of Energy Commission as follows:

- (a) to issue licenses under section 9 of this Act;
- (b) to exercise regulatory functions in respect of the service of providing electricity by the licensee including the determination of performance standards and standards of facilities and services and the enforcement thereof;
- (c) to promote competition in the generation and supply of electricity to, inter alia, ensure the optimum supply of electricity at reasonable prices;
- (d) to promote the interests of consumers of electricity supplied by licensees in respect of : -
  - (i) the prices to be charged and the other conditions of electricity supply;
  - (ii) the continuity of electricity supply; and
  - (iii) the quality of the electricity supply services provided;
- (e) to secure that all reasonable demands for electricity are satisfied;
- (f) to secure that licensees are able to finance the carrying on of the activities which they are authorized by their licenses to carry on;

- (g) to promote and encourage the generation of energy with a view to the economic development of Malaysia;
- (h) to regulate the interval and manner in which any electrical installation or equipment shall be inspected;
- (i) to devise the nature of test to be employed and to prescribe minimum qualifications and practical experience for any purpose in the pursuance of this Act;
- (j) to investigate any accident or fire involving any electrical installation;
- (k) to provide, where necessary, for the registration of any installation, electrical contractor, manufacturer and importer, and any competent person;
- (l) to prescribe the minimum standards and specifications and appraise and approve, where necessary, any electrical installation or equipment;
- (m) to carry on all such other activities as may appear to the Energy Commission requisite, advantageous or convenient for the purpose of carrying out or in connection with the performance of his functions and duties under this Act.

**1. PRODUCTS REQUIRING INSPECTION**

Nil

**2. PRODUCTS REQUIRING LICENSING**

Nil

**3. PRODUCTS REQUIRING BATCH TESTING**

A batch-testing regime involves a sample test of each batch or shipment of mass-produced product. Consignment inspection and test by SIRIM for Imported Electrical Products is needed.

**4. PRODUCTS REQUIRING APPROVAL (OR CERTIFICATION)**

An approval regime requires the assessment (type testing) of a sample for compliance with a standard or specification by a “Regulator”.

Products cannot be supplied or offered for supply, until a “certificate of approval” is issued for that product by the regulator.

Products are required to be marked or labeled to indicate that they are covered by an approval.

## Products covered by approvals

- list of ST controlled items and the corresponding standards.

| Total Product | Product type or grouping                                      | STANDARDS             |               |                                  |                     |
|---------------|---|-----------------------|---------------|----------------------------------|---------------------|
|               |   | Domestic Standards    | For mandatory | Relevant International Standards | Extent of Alignment |
| <b>1</b>      | <b>PLUG TOP (PLUGS)</b>                                       |                       |               |                                  |                     |
|               | Two pole plug with supply cord (max. 2.5 A)                   | MS 1578:2003          | ✓             | BS EN 50075:1991                 | IDT                 |
|               | 13A Fused plug  | MS 589:Part 1:1997    | ✓             | BS 1363:Part 1:1995              | IDT                 |
|               | 15A Plug  | MS 1577:2003          | ✓             | BS 546:1950                      | IDT                 |
|               | Appliance Connectors  | MS IEC 60320-1:2003   | ✓             | IEC 60320-1:2001                 | IDT                 |
|               | Inter connection Coupler                                      | MS IEC 60320-2-2:2003 | ✓             | IEC 60320-2-2:1998               | IDT                 |
|               | Adaptor (Multiways)   | MS 589:Part 3:1997    | ✓             | BS 1363:Part 3:1995              | IDT                 |
|               | Integrated Adaptor  | MS 1144:1998          | ✓             | BS 5733:1995                     | IDT                 |
|               | Cable connector<br>- (connecting device)                      | MS IEC 60998-1:2005   | ✓             | IEC 60998-1:2002                 | IDT                 |
|               | - (connecting device screw-type)                              | MS IEC 60998-2-1:2005 | ✓             | IEC 60998-2-1:2002               | IDT                 |
|               | - (connecting device screw less-type)                         | MS IEC 60998-2-2:2005 | ✓             | IEC 60998-2-2:2002               | IDT                 |
|               | - (connecting device with insulation-piercing clamping units) | MS IEC 60998-2-3:2005 | ✓             | IEC 60998-2-3:2002               | IDT                 |
|               | - (twist-on connecting device)                                | MS IEC 60998-2-4:2005 | ✓             | IEC 60998-2-4:2002               | IDT                 |
|               | Connecting box  | MS IEC 60998-2-5:2005 | ✓             | IEC 60998-2-5:2002               | IDT                 |



| Total Product | Product type or grouping                                       | STANDARDS             |               |                                   |                     |
|---------------|--|-----------------------|---------------|-----------------------------------|---------------------|
|               |  | Domestic Standards    | For mandatory | Relevant International Standards  | Extent of Alignment |
| <b>2</b>      | <b>SWITCHES AND DIMMERS</b>                                    |                       |               |                                   |                     |
|               | General purpose switches                                       | MS IEC 60669-1:2004   | ✓             | IEC 60669-1:2001                  | MOD                 |
|               | Electronic switches  | MS IEC 60669-2-1:2004 | ✓             | IEC 60669-2-1:2001                | MOD                 |
|               | Remote-control switches  | MS IEC 60669-2-2:2004 | ✓             | IEC 60669-2-2:2001                | MOD                 |
|               | Time Delay Switches  | MS IEC 60669-2-3:2004 | ✓             | IEC 60669-2-3:2001                | MOD                 |
|               | Cooker Control Unit  | No corresponding MS   | ✓             | BS 4177:1992                      | IDT                 |
| <b>3</b>      | <b>SOCKET OUTLET 15A AND BELOW (with or without ELCB/RCCB)</b> |                       |               |                                   |                     |
|               | Electric Shaver Socket Outlets                                 | MS IEC 61558-1:2005   | ✓             | IEC 61558-1:1998                  | IDT                 |
|               |  | MS IEC 61558-2-5:2005 | ✓             | IEC 61558-2-5:1997                | IDT                 |
|               | Electronic Isolating Transformer                               | No corresponding MS   | ✓             | IEC 61558-2-6:1997                | IDT                 |
|               |  | No corresponding MS   | ✓             | IEC 61347-2-2:2000                | IDT                 |
|               | AC-AC Adaptor / AC-DC Adaptor                                  | MS IEC 61558-2-6:2005 | ✓             | IEC 61558-2-6:1997                | IDT                 |
|               | AC-DC Converter/ Adaptor (for Audio-video Equipment)           | MS IEC 60065:2003     | ✓             | IEC 60065:2001                    | IDT                 |
|               | 13A Socket-outlet  | MS 589:Part 2:1997    | ✓             | BS 1363:Part 2:1995               | IDT                 |
|               | 13A Portable Socket-outlet                                     | MS 589:Part 2:1997    | ✓             | BS 1363:Part 2:1995               | IDT                 |
|               | 15A Socket-outlet  | MS 1577:2003          | ✓             | BS 546:1950                       | IDT                 |
|               | Portable Two-pin Socket-outlet                                 | MS 1579:2003          | ✓             | No corresponding foreign standard | IDT                 |
| <b>4</b>      | <b>FLUORESCENT LAMP HOLDERS / STARTER HOLDER</b>               |                       |               |                                   |                     |
|               | Lampholder for Tubular Fluorescent Lamps                       | MS IEC 60400:1999     | ✓             | IEC 60400:1996                    | IDT                 |
|               |  | MS IEC 60400:2006     | ✓             | IEC 60400:2004                    | IDT                 |

| Total Product | Product type or grouping  | STANDARDS                                    |               |  |                     |
|---------------|---|--|---------------|--|---------------------|
|               |   | Domestic Standards                           | For mandatory | Relevant International Standards       | Extent of Alignment |
|               | Starterholders for Tubular Fluorescent Lamps                            | MS IEC 60400:1999<br>or<br>MS IEC 60400:2006 | ✓<br><br>✓    | IEC 60400:1996<br>or<br>IEC 60400:2004 | IDT<br><br>IDT      |
| <b>5</b>      | <b>CEILING ROSES</b>  |  |               |  |                     |
|               | Ceiling Rose  | MS 770:1982                                  | ✓             | BS 67:1969                             | IDT                 |
| <b>6</b>      | <b>BAYONET CAPS AND MULTWAYS ADAPTORS</b>                               |  |               |  |                     |
|               | Bayonet Cap Adaptor   | MS 769:1982                                  | ✓             | No corresponding foreign standard      | IDT                 |
|               | Bayonet Cap Lampholder  | MS 769:1982                                  | ✓             | No corresponding foreign standard      | IDT                 |
|               | Bayonet Lamp Cap  | MS 769:1982                                  | ✓             | No corresponding foreign standard      | IDT                 |
| <b>7</b>      | <b>FLUORESCENT LAMPS FITTING EXCLUDING TUBES IF IMPORTED SEPARATELY</b> |  |               |  |                     |
|               | Fixed general purpose luminaries  | MS IEC 60598-1:2003                          | ✓             | IEC 60598-1:1999                       | IDT                 |
|               |   | MS IEC 60598-2-1:1997                        | ✓             | IEC 60598-2-1:1979                     | IDT                 |
|               |   | or   |               | or                                     |                     |
|               |   | MS IEC 60598-1:2003<br>MS IEC 60598-2-1:2006 | ✓<br>✓        | IEC 60598-1:1999<br>IEC 60598-2-1:2003 | IDT<br>IDT          |
|               | Recessed luminary   | MS IEC 60598-1:2003                          | ✓             | IEC 60598-1:1999                       | IDT                 |
|               |   | MS IEC 60598-2-2:1998                        | ✓             | IEC 60598-2-2:1997                     | IDT                 |
|               | Glow-starter for tubular fluorescent                                    | MS IEC 60155:1996                            | ✓             | IEC 60155:1993                         | IDT                 |

| Total Product | Product type or grouping  | STANDARDS  |                      |  |                              |
|---------------|---|--|----------------------|--|------------------------------|
|               |   | Domestic Standards   | For mandatory        | Relevant International Standards   | Extent of Alignment          |
| <b>8</b>      | <b>CAPACITORS FOR FLUORESCENT LAMPS</b>   |  |                      |  |                              |
|               | Capacitors for use in tubular fluorescent lamp circuit  | MS IEC 61048 :1999<br>or<br>MS IEC 61048:2006<br>MS IEC 61049:1999   | ✓<br><br>✓<br>✓      | IEC 61048 :1991<br>or<br>IEC 61048 :1999<br>IEC 61049 :1999  | IDT<br><br>IDT<br>IDT        |
| <b>9</b>      | <b>BALLAST FOR FLUORESCENT</b>  |  |                      |  |                              |
|               | Ballast for tubular fluorescent lamps   | MS IEC 61347-1:2003<br>MS IEC 61347-2-8:2003<br>MS 141:Part 2:1993   | ✓<br>✓<br>✓          | IEC 61347-1:2003<br>IEC 61347-2-8:2000<br>IEC 60921:1988 with modification   | IDT<br>IDT<br>IDT            |
|               | Electronic Ballast  | MS IEC 61347-1:2003<br>MS IEC 61347-2-3:2003<br>MS IEC 60929:1995  | ✓<br>✓<br>✓          | IEC 61347-1:2003<br>IEC 61347-2-3:2000<br>IEC 60929:1990   | IDT<br>IDT<br>IDT            |
| <b>10</b>     | <b>CIRCUIT BREAKERS (INCLUDING AC CURRENT OPERATED LEAKAGE CIRCUIT BREAKERS AND MINIATURE CIRCUIT BREAKERS)</b> |  |                      |  |                              |
|               | Residual Current Circuit Breakers   | MS IEC 61008-1:2003<br>MS IEC 61008-2-1:2003<br>MS IEC 61008-2-2:2003<br>or<br>MS IEC 61008-1:2007<br>MS IEC 61008-2-1:2003<br>MS IEC 61008-2-2:2003 | ✓<br><br>✓<br>✓<br>✓ | IEC 61008-1:2002<br>IEC 61008-2-1:2002<br>IEC 61008-2-2:2002<br>or<br>IEC 61008-1:2006<br>IEC 61008-2-1:2002<br>IEC 61008-2-2:2002 | IDT<br><br>IDT<br>IDT<br>IDT |
|               | RCBO  | MS IEC 61009-1:2003<br>MS IEC 61009-2-1:2003<br>MS IEC 61009-2-2:2003  | ✓<br>✓<br>✓          | IEC 61009-1:1996<br>IEC 61009-2-1:1991<br>IEC 61009-2-2:1991   | IDT<br>IDT<br>IDT            |

| Total Product | Product type or grouping   | STANDARDS              |               |                                       |                     |
|---------------|--|------------------------|---------------|---------------------------------------|---------------------|
|               |  | Domestic Standards     | For mandatory | Relevant International Standards      | Extent of Alignment |
|               | Miniature Circuit Breaker (MCB)  | MS IEC 60898-1:2003    | ✓             | IEC 60898-1:2002                      | IDT                 |
|               |  | MS IEC 60898-2:2003    | ✓             | IEC 60898-2:2002                      | IDT                 |
|               | Fuse Base & Carrier up to 32A  | MS IEC 60269-1:2003    | ✓             | IEC 60269-1:1998                      | IDT                 |
|               |  | No corresponding MS    | ✓             | IEC 60269-2:1995                      | IDT                 |
|               | Fuse/Fuse Link up to 63A   | MS IEC 60269-2-1:2003  | ✓             | IEC 60269-2-1:1996                    | IDT                 |
|               |  | MS 5186-3:2003         | ✓             | IEC 60269-3:1987                      | IDT                 |
|               |  | MS IEC 60269-3-1:2003  | ✓             | IEC 60269-3-1:2001                    | IDT                 |
|               | Switch fuse up to 63A  | MS IEC 60947-1:1996    | ✓             | IEC 60269-1:1996                      | IDT                 |
|               |  | MS IEC 60947-3:2000    | ✓             | IEC 60269-3:1999                      | IDT                 |
| <b>11</b>     | <b>WATER HEATERS (INCLUDING HEATING ELEMENTS IF IMPORTED SEPARATELY)</b> |                        |               |                                       |                     |
|               | Electric Stationary  | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001                      | NEQ                 |
|               |  | MS 1597-2-35:2003      | ✓             | IEC 60335-2-35:2002 with modification |                     |
|               | Instantaneous Water Heaters  | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001                      | NEQ                 |
|               |  | MS 1597-2-35:2003      | ✓             | IEC 60335-2-35:2002 with modification |                     |
|               | Electric Storage Water Heater  | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001                      | IDT                 |
|               |  | MS IEC 60335-2-21:2005 | ✓             | IEC 60335-2-21:2004                   | IDT                 |
|               | Domestic Solar Storage Water Heater (c/with changeover switch)           | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001                      | IDT                 |
|               |  | MS IEC 60335-2-21:2005 | ✓             | IEC 60335-2-21:2004                   | IDT                 |
| <b>12</b>     | <b>HAND OPERATED HAIR DRYERS</b>   |                        |               |                                       |                     |
|               | Electric Hair Dryers   | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001                      | IDT                 |
|               |  | MS IEC 60335-2-23:2003 | ✓             | IEC 60335-2-23:2003                   | IDT                 |
|               | Electric Hair Styling Sets   | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001                      | IDT                 |
|               |  | MS IEC 60335-2-23:2003 | ✓             | IEC 60335-2-23:2003                   | IDT                 |
| <b>13</b>     | <b>DOMESTIC LIGHT FITTINGS HAVING ACCESSIBLE METAL PARTS</b>             |                        |               |                                       |                     |

| Total Product | Product type or grouping  | STANDARDS              |               |                                  |                     |
|---------------|---|------------------------|---------------|----------------------------------|---------------------|
|               |   | Domestic Standards     | For mandatory | Relevant International Standards | Extent of Alignment |
|               | Electric Standing Lamps   | MS IEC 60598-1:2003    | ✓             | IEC 60598-1:2000                 | IDT                 |
|               |   | MS IEC 60598-2-4:2003  | ✓             | IEC 60598-2-4:1997               | IDT                 |
|               | Electric Table Lamps  | MS IEC 60598-1:2003    | ✓             | IEC 60598-1:2000                 | IDT                 |
|               |   | MS IEC 60598-2-4:2003  | ✓             | IEC 60598-2-4:1997               | IDT                 |
|               | Electric Hand Lamps   | MS IEC 60598-1:1997    | ✓             | IEC 60598-1:1996                 | IDT                 |
|               |   | MS IEC 60598-2-8:1998  | ✓             | IEC 60598-2-8:1996               | IDT                 |
| <b>14</b>     | <b>ELECTRIC KETTLES (INCLUDING HEATING ELEMENTS IF IMPORTED SEPARATELY)</b> |                        |               |                                  |                     |
|               | MS IEC 60335-1:2003 – IEC 60335-1:2001+A1:2004                              |                        |               |                                  |                     |
|               | Electric Warming Plate  | MS IEC 60335-2-12:2003 | ✓             | IEC 60335-2-12:2002              | IDT                 |
|               | Electric Deep Fryer   | MS IEC 60335-2-13:2003 | ✓             | IEC 60335-2-13:2002              | IDT                 |
|               | Electric Coffee / Tea Maker   | MS IEC 60335-2-15:2004 | ✓             | IEC 60335-2-15:2002              | IDT                 |
|               | Electric Food Steamer   | MS IEC 60335-2-15:2004 | ✓             | IEC 60335-2-15:2002              | IDT                 |
|               | Electric Egg Boiler   | MS IEC 60335-2-15:2004 | ✓             | IEC 60335-2-15:2002              | IDT                 |
|               | Electric Jug  | MS IEC 60335-2-15:2004 | ✓             | IEC 60335-2-15:2002              | IDT                 |
|               | Electric Slow Cooker  | MS IEC 60335-2-15:2004 | ✓             | IEC 60335-2-15:2002              | IDT                 |
|               | Electric Steam Boat   | MS IEC 60335-2-15:2004 | ✓             | IEC 60335-2-15:2002              | IDT                 |
|               | Electric Kettle   | MS IEC 60335-2-15:2004 | ✓             | IEC 60335-2-15:2002              | IDT                 |
|               | Electric Airpot   | MS IEC 60335-2-15:2004 | ✓             | IEC 60335-2-15:2002              | IDT                 |
|               | Electric Steam Generator Appliance  | MS IEC 60335-2-15:2004 | ✓             | IEC 60335-2-15:2002              | IDT                 |
|               | Electric Heating Elements for Kettle  | MS IEC 60335-2-15:2004 | ✓             | IEC 60335-2-15:2002              | IDT                 |
|               | Electric Thermo Pots  | MS IEC 60335-2-15:2004 | ✓             | IEC 60335-2-15:2002              | IDT                 |
|               | Electric Immersion Sticks   | MS IEC 60335-2-15:2004 | ✓             | IEC 60335-2-15:2002              | IDT                 |

| Total Product | Product type or grouping   | STANDARDS              |               |                                  |                     |
|---------------|--|------------------------|---------------|----------------------------------|---------------------|
|               |  | Domestic Standards     | For mandatory | Relevant International Standards | Extent of Alignment |
|               | Electrical Multi-purpose cookers   | MS IEC 60335-2-9:2006  | ✓             | IEC 60335-2-9:2004               | IDT                 |
|               |  | MS IEC 60335-2-13:2005 | ✓             | IEC 60335-2-13:2002              | IDT                 |
|               |  | MS IEC 60335-2-15:2004 | ✓             | IEC 60335-2-15:2002              | IDT                 |
|               | Electric Built-in Hob  | MS IEC 60335-2-36:2003 | ✓             | IEC 60335-2-36:2002              | IDT                 |
| <b>15</b>     | <b>IRON</b> MS IEC 60335-1:2003 – IEC 60335-1:2001+A1:2004                                   |                        |               |                                  |                     |
|               | Electric Iron  | MS IEC 60335-2-3:1995  | ✓             | IEC 60335-2-3:1993               | IDT                 |
| <b>16</b>     | <b>SHAVER</b> MS IEC 60335-1:2003 – IEC 60335-1:2001+A1:2004                                 |                        |               |                                  |                     |
|               | Electric Hair Clipper  | MS IEC 60335-2-8:2002  | ✓             | IEC 60335-2-8:1992               | IDT                 |
|               | Electric Shaver  | MS IEC 60335-2-8:2002  | ✓             | IEC 60335-2-8:1992               | IDT                 |
| <b>17</b>     | <b>FOOD MAXER / BLENDER (KITCHEN MACHINE)</b> MS IEC 60335-1:2003 – IEC 60335-1:2001+A1:2004 |                        |               |                                  |                     |
|               | Electric Blander   | MS IEC 60335-2-14:2003 | ✓             | IEC 60335-2-14:2002              | IDT                 |
|               | Electric Chopper   | MS IEC 60335-2-14:2003 | ✓             | IEC 60335-2-14:2002              | IDT                 |
|               | Electric Food Processor  | MS IEC 60335-2-14:2003 | ✓             | IEC 60335-2-14:2002              | IDT                 |
|               | Electric Juice Extractor   | MS IEC 60335-2-14:2003 | ✓             | IEC 60335-2-14:2002              | IDT                 |
|               | Electric Grinder   | MS IEC 60335-2-14:2003 | ✓             | IEC 60335-2-14:2002              | IDT                 |
|               | Electric Mixer   | MS IEC 60335-2-14:2003 | ✓             | IEC 60335-2-14:2002              | IDT                 |
| <b>18</b>     | <b>IMMERSION WATER HEATERS</b> MS IEC 60335-1:2003 – IEC 60335-1:2001+A1:2004                |                        |               |                                  |                     |
|               | Electric Fixed Immersion Heater  | MS IEC 60335-2-73:2003 | ✓             | IEC 60335-2-73:2002              | IDT                 |
|               | Portable Immersion Heater  | MS IEC 60335-2-74:1996 | ✓             | IEC 60335-2-74:1994              | IDT                 |
| <b>19</b>     | <b>HI-FI SETS</b>  |                        |               |                                  |                     |
|               | Sub-woofer   | MS IEC 60065:2003      | ✓             | IEC 60065:2001                   | IDT                 |

| Total Product | Product type or grouping                  | STANDARDS               |               |                                  |                     |
|---------------|---|-------------------------|---------------|----------------------------------|---------------------|
|               |   | Domestic Standards      | For mandatory | Relevant International Standards | Extent of Alignment |
|               | Amplifier                                 | MS IEC 60065:2003       | ✓             | IEC 60065:2001                   | IDT                 |
|               | Cassette Player                           | MS IEC 60065:2003       | ✓             | IEC 60065:2001                   | IDT                 |
|               | Equalizers/ Mixers                        | MS IEC 60065:2003       | ✓             | IEC 60065:2001                   | IDT                 |
|               | Hi-fi System                              | MS IEC 60065:2003       | ✓             | IEC 60065:2001                   | IDT                 |
|               | Karaoke                                   | MS IEC 60065:2003       | ✓             | IEC 60065:2001                   | IDT                 |
|               | Laser Disc Player                         | MS IEC 60065:2003       | ✓             | IEC 60065:2001                   | IDT                 |
|               | PA System                                 | MS IEC 60065:2003       | ✓             | IEC 60065:2001                   | IDT                 |
|               | Portable Hi-fi System                     | MS IEC 60065:2003       | ✓             | IEC 60065:2001                   | IDT                 |
|               | Portable Radio Cassette Player / Recorder | MS IEC 60065:2003       | ✓             | IEC 60065:2001                   | IDT                 |
|               | Radio                                     | MS IEC 60065:2003       | ✓             | IEC 60065:2001                   | IDT                 |
|               | Radio Alarm                               | MS IEC 60065:2003       | ✓             | IEC 60065:2001                   | IDT                 |
|               | Tuner / Receiver                          | MS IEC 60065:2003       | ✓             | IEC 60065:2001                   | IDT                 |
|               | Turn tables / Record Players              | MS IEC 60065:2003       | ✓             | IEC 60065:2001                   | IDT                 |
|               | Compact Disc Players                      | MS IEC 60065:2003       | ✓             | IEC 60065:2001                   | IDT                 |
| <b>20</b>     | <b>MOSQUITO MATT VAPORISER</b>            |                         |               |                                  |                     |
|               | Mosquito Matt Vapor                       | MS IEC 60335-1:2003     | ✓             | IEC 60335-1:2001                 | IDT                 |
|               |   | MS IEC 60335-2-101:2003 | ✓             | IEC 60335-2-101:2001             | IDT                 |
|               | Electric Aroma Vapor                      | MS IEC 60335-1:2003     | ✓             | IEC 60335-1:2001                 | IDT                 |
|               |   | MS IEC 60335-2-101:2003 | ✓             | IEC 60335-2-101:2001             | IDT                 |
| <b>21</b>     | <b>TOASTERS/OVENS</b>                     |                         |               |                                  |                     |
|               | Electric Bread Makers                     | MS IEC 60335-1:2003     | ✓             | IEC 60335-1:2001                 | IDT                 |
|               |   | MS IEC 60335-2-9:2005   | ✓             | IEC 60335-2-9:2002               | IDT                 |

| Total Product | Product type or grouping                 | STANDARDS              |               |                                      |                     |
|---------------|--|------------------------|---------------|--------------------------------------|---------------------|
|               |  | Domestic Standards     | For mandatory | Relevant International Standards     | Extent of Alignment |
|               | Electric Bread Toasters                  | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001                     | IDT                 |
|               |  | MS IEC 60335-2-9:2005  | ✓             | IEC 60335-2-9:2002                   | IDT                 |
|               | Electric Portable Ovens                  | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001                     | IDT                 |
|               |  | MS IEC 60335-2-9:2005  | ✓             | IEC 60335-2-9:2002                   | IDT                 |
|               | Portable Induction Cooker                | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001                     | IDT                 |
|               |  | MS IEC 60335-2-9:2005  | ✓             | IEC 60335-2-9:2002                   | IDT                 |
|               | Electric Grillers                        | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001                     | IDT                 |
|               |  | MS IEC 60335-2-9:2005  | ✓             | IEC 60335-2-9:2002                   | IDT                 |
|               | Electric Sandwich Makers / Waffle Makers | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001                     | IDT                 |
|               |  | MS IEC 60335-2-9:2005  | ✓             | IEC 60335-2-9:2002                   | IDT                 |
|               | Electric Roasters                        | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001                     | IDT                 |
|               |  | MS IEC 60335-2-9:2005  | ✓             | IEC 60335-2-9:2002                   | IDT                 |
|               | Electric Stationary Electric Ovens       | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001                     | IDT                 |
|               |  | MS 1597:Part 2-6:2003  | ✓             | IEC 60335-2-6:2002 with modification | MOD                 |
|               | Electric Induction hobs                  | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001                     | IDT                 |
|               |  | MS 1597:Part 2-6:2003  | ✓             | IEC 60335-2-6:2002 with modification | MOD                 |
|               | Electric Microwave Oven                  | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001                     | IDT                 |
|               |  | MS IEC 60335-2-25:1995 | ✓             | IEC 60335-2-25:1993                  | IDT                 |
| <b>22</b>     | <b>FANS</b>                              |                        |               |                                      |                     |



| Total Product | Product type or grouping                 | STANDARDS   |                                |  |  |
|---------------|--|---|--------------------------------|--|--|
|               |  | Domestic Standards  | For mandatory                  | Relevant International Standards   | Extent of Alignment                        |
|               | Electric Moving-louvre Fans & Regulators | MS IEC 60335-1:1995<br>MS 1219:Part 2:2002<br>MS 1220:2001<br><br>or<br>MS IEC 60335-1:2003<br>MS 1597:Part 2-80:2007<br>MS 1220:2001 | ✓<br>✓<br>✓<br><br>✓<br>✓<br>✓ | IEC 60335-1:1991<br>IEC 60335-2-80:1997<br>IEC 60879:1986 with modification<br><br>or<br>IEC 60335-1:2001<br>IEC 60335-2-80:2004<br>MS 1220:2001 | IDT<br>MOD<br>MOD<br><br>IDT<br>MOD<br>MOD |
|               | Electric Ceiling Fans & Regulators       | MS IEC 60335-1:1995<br>MS 1219:Part 2:2002<br>MS 1220:2001<br><br>or<br>MS IEC 60335-1:2003<br>MS 1597:Part 2-80:2007<br>MS 1220:2001 | ✓<br>✓<br>✓<br><br>✓<br>✓<br>✓ | IEC 60335-1:1991<br>IEC 60335-2-80:1997<br>IEC 60879:1986 with modification<br><br>or<br>IEC 60335-1:2001<br>IEC 60335-2-80:2004<br>MS 1220:2001 | IDT<br>MOD<br>MOD<br><br>IDT<br>MOD<br>MOD |
|               | Electric Auto Fans & Regulators          | MS IEC 60335-1:1995<br>MS 1219:Part 2:2002<br>MS 1220:2001<br><br>or<br>MS IEC 60335-1:2003<br>MS 1597:Part 2-80:2007<br>MS 1220:2001 | ✓<br>✓<br>✓<br><br>✓<br>✓<br>✓ | IEC 60335-1:1991<br>IEC 60335-2-80:1997<br>IEC 60879:1986 with modification<br><br>or<br>IEC 60335-1:2001<br>IEC 60335-2-80:2004<br>MS 1220:2001 | IDT<br>MOD<br>MOD<br><br>IDT<br>MOD<br>MOD |

| Total Product | Product type or grouping               | STANDARDS   |                                |  |  |
|---------------|--|---|--------------------------------|--|--|
|               |  | Domestic Standards  | For mandatory                  | Relevant International Standards   | Extent of Alignment                        |
|               | Electric Pedestal Fans & Regulators    | MS IEC 60335-1:1995<br>MS 1219:Part 2:2002<br>MS 1220:2001<br><br>or<br>MS IEC 60335-1:2003<br>MS 1597:Part 2-80:2007<br>MS 1220:2001 | ✓<br>✓<br>✓<br><br>✓<br>✓<br>✓ | IEC 60335-1:1991<br>IEC 60335-2-80:1997<br>IEC 60879:1986 with modification<br><br>or<br>IEC 60335-1:2001<br>IEC 60335-2-80:2004<br>MS 1220:2001 | IDT<br>MOD<br>MOD<br><br>IDT<br>MOD<br>MOD |
|               | Electric Table Fans & Regulators       | MS IEC 60335-1:1995<br>MS 1219:Part 2:2002<br>MS 1220:2001<br><br>or<br>MS IEC 60335-1:2003<br>MS 1597:Part 2-80:2007<br>MS 1220:2001 | ✓<br>✓<br>✓<br><br>✓<br>✓<br>✓ | IEC 60335-1:1991<br>IEC 60335-2-80:1997<br>IEC 60879:1986 with modification<br><br>or<br>IEC 60335-1:2001<br>IEC 60335-2-80:2004<br>MS 1220:2001 | IDT<br>MOD<br>MOD<br><br>IDT<br>MOD<br>MOD |
|               | Electric Wall Fans & Regulators        | MS IEC 60335-1:1995<br>MS 1219:Part 2:2002<br>MS 1220:2001<br><br>or<br>MS IEC 60335-1:2003<br>MS 1597:Part 2-80:2007<br>MS 1220:2001 | ✓<br>✓<br>✓<br><br>✓<br>✓<br>✓ | IEC 60335-1:1991<br>IEC 60335-2-80:1997<br>IEC 60879:1986 with modification<br><br>or<br>IEC 60335-1:2001<br>IEC 60335-2-80:2004<br>MS 1220:2001 | IDT<br>MOD<br>MOD<br><br>IDT<br>MOD<br>MOD |
|               | Electric Ventilating Fans & Regulators | MS 1219:Part 2: 2002<br>or<br>MS 1597:Part 2-80:2007  | ✓<br><br>✓                     | IEC 60335-2-80:1997<br>or<br>IEC 60335-2-80:2004   | IDT<br><br>MOD                             |

| Total Product | Product type or grouping          | STANDARDS              |               |                                  |                     |
|---------------|-----------------------------------|------------------------|---------------|----------------------------------|---------------------|
|               |                                   | Domestic Standards     | For mandatory | Relevant International Standards | Extent of Alignment |
|               | Electric Range Hoods              | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001                 | IDT                 |
|               |                                   | MS IEC 60335-2-31:2003 | ✓             | IEC 60335-2-31:2002              | IDT                 |
|               | Electric Air Cooler               | MS IEC 60335-2-98:2003 | ✓             | IEC 60335-2-98:2002              | IDT                 |
| <b>23</b>     | <b>TELEVISIONS</b>                |                        |               |                                  |                     |
|               | Television                        | MS IEC 60065:2003      | ✓             | IEC 60065:2001                   | IDT                 |
|               | Projection Television             | MS IEC 60065:2003      | ✓             | IEC 60065:2001                   | IDT                 |
| <b>24</b>     | <b>VACUUM CLEANER</b>             |                        |               |                                  |                     |
|               | Carpet Cleaner                    | MS IEC 60335-1:1995    | ✓             | IEC 60335-1:1991                 | IDT                 |
|               |                                   | MS IEC 60335-2-2:1995  | ✓             | IEC 60335-2-2:1993               | IDT                 |
|               | Vacuum Cleaner & Accessory        | MS IEC 60335-1:1995    | ✓             | IEC 60335-1:1991                 | IDT                 |
|               |                                   | MS IEC 60335-2-2:1995  | ✓             | IEC 60335-2-2:1993               | IDT                 |
| <b>25</b>     | <b>VIDEO PLAYERS</b>              |                        |               |                                  |                     |
|               | Video compact disc players        | MS IEC 60065:2003      | ✓             | IEC 60065:2001                   | IDT                 |
|               | Laser Disc Player                 | MS IEC 60065:2003      | ✓             | IEC 60065:2001                   | IDT                 |
|               | Video Cassette Recorder / Players | MS IEC 60065:2003      | ✓             | IEC 60065:2001                   | IDT                 |
|               | Digital versatile disc players    | MS IEC 60065:2003      | ✓             | IEC 60065:2001                   | IDT                 |
|               | Video Rewinder                    | MS IEC 60065:2003      | ✓             | IEC 60065:2001                   | IDT                 |
|               | Children Video Games              | MS IEC 60065:2003      | ✓             | IEC 60065:2001                   | IDT                 |
| <b>26</b>     | <b>WASHING MACHINES</b>           |                        |               |                                  |                     |

| Total Product | Product type or grouping     | STANDARDS  |                                |  |  |
|---------------|------------------------------|--|--------------------------------|--|--|
|               |                              | Domestic Standards   | For mandatory                  | Relevant International Standards   | Extent of Alignment                        |
|               | Electric Washing Machines    | MS IEC 60335-1:2003<br>MS IEC 60335-2-4:2003<br>MS 1597:Part 2-7:2003<br><br>or<br>MS IEC 60335-1:2003<br>MS IEC 60335-2-4:2005<br>MS 1597:Part 2-7:2005 | ✓<br>✓<br>✓<br><br>✓<br>✓<br>✓ | IEC 60335-1:2001<br>IEC 60335-2-4:2002<br>IEC 60335-2-7:2002 with modification<br><br>or<br>IEC 603351:2001+ A1:04<br>IEC 60335-2-4:2003<br>IEC 60335-2-7:2003 + A1:2004 with modification | IDT<br>IDT<br>MOD<br><br>IDT<br>IDT<br>MOD |
|               | Electric Cloth Dryers        | MS IEC 60335-1:2003<br>MS 1597:Part 2-43:2005  | ✓<br>✓                         | IEC 60335-1:2001<br>IEC 60335-2-43:2002 with modification  | IDT<br>MOD                                 |
|               | Tumbler Dryers               | MS IEC 60335-1:2003<br>MS IEC 60335-2-11-2003  | ✓<br>✓                         | IEC 60335-1:2001<br>IEC 60335-2-11:2003  | IDT<br>IDT                                 |
|               | Dishwasher                   | MS IEC 60335-1:2003<br>MS IEC 60335-2-5-2003   | ✓<br>✓                         | IEC 60335-1:2001<br>IEC 60335-2-5:2002   | IDT<br>IDT                                 |
| <b>27</b>     | <b>REFRIGERATOR</b>          |  |                                |  |  |
|               | Electric Refrigerator        | MS IEC 60335-1:2003<br>MS IEC 60335-2-24:2002  | ✓<br>✓                         | IEC 60335-1:2001<br>IEC 60335-2-24:1997  | IDT<br>IDT                                 |
|               | Electric Freezer             | MS IEC 60335-1:2003<br>MS IEC 60335-2-24:2002  | ✓<br>✓                         | IEC 60335-1:2001<br>IEC 60335-2-24:1997  | IDT<br>IDT                                 |
|               | Electric Minibar             | MS IEC 60335-1:2003<br>MS IEC 60335-2-24:2002  | ✓<br>✓                         | IEC 60335-1:2001<br>IEC 60335-2-24:1997  | IDT<br>IDT                                 |
| <b>28</b>     | <b>ELECTRIC RICE COOKERS</b> |  |                                |  |  |
|               | Rice cookers                 | MS IEC 60335-1:2003<br>MS IEC 60335-2-15:2004  | ✓<br>✓                         | IEC 60335-1:2001<br>IEC 60335-2-15:2002  | IDT<br>IDT                                 |

| Total Product | Product type or grouping  | STANDARDS              |               |                                  |                     |
|---------------|---|------------------------|---------------|----------------------------------|---------------------|
|               |   | Domestic Standards     | For mandatory | Relevant International Standards | Extent of Alignment |
| <b>29</b>     | <b>CHRISTMAS LIGHT</b>  |                        |               |                                  |                     |
|               | Lighting Chain  | MS IEC 60598-1:1997    | ✓             | IEC 60598-1:1996                 | IDT                 |
|               |   | MS IEC 60598-2-20:1998 | ✓             | IEC 60598-2-20:1996              | IDT                 |
| <b>30</b>     | <b>DOMESTIC POWER TOOLS</b>   |                        |               |                                  |                     |
|               | Electric Circular Saw and Circular Knife (Cutting Blade up to 160 mm) | MS IEC 60745-1:2005    | ✓             | IEC 60745-1:2001                 | IDT                 |
|               |   | MS IEC 60745-2-5:2003  | ✓             | IEC 60745-2-5:2003               | IDT                 |
|               | Electric Drill (Drill bit size up to 10 mm)                           | MS IEC 60745-1:2005    | ✓             | IEC 60745-1:2001                 | IDT                 |
|               |   | MS IEC 60745-2-1:2005  | ✓             | IEC 60745-2-1:2003               | IDT                 |
|               | Electric Grinder (up to 100mm)  | MS IEC 60745-1:2005    | ✓             | IEC 60745-1:2001                 | IDT                 |
|               |   | MS IEC 60745-2-3:2005  | ✓             | IEC 60745-2-3:1984               | IDT                 |
|               | Electric Sanders (up to 300W)   | MS IEC 60745-1:2005    | ✓             | IEC 60745-1:2001                 | IDT                 |
|               |   | MS IEC 60745-2-4:2005  | ✓             | IEC 60745-2-4:2002               | IDT                 |
|               | Electric spray gun for non-flammable liquid (up to 100 bars)          | MS IEC 60745-1:2005    | ✓             | IEC 60745-1:2001                 | IDT                 |
|               |   | MS IEC 60745-2-7:2005  | ✓             | IEC 60745-2-7:1989               | IDT                 |
|               | Electric Jig and Sabre Saw (up to 60 mm)                              | MS IEC 60745-1:2005    | ✓             | IEC 60745-1:2001                 | IDT                 |
|               |   | MS IEC 60745-2-11:2005 | ✓             | IEC 60745-2-11:2003              | IDT                 |
|               | Electric Planer (up to 500 W)   | MS IEC 60745-1:2005    | ✓             | IEC 60745-1:2001                 | IDT                 |
|               |   | MS IEC 60745-2-14:2006 | ✓             | IEC 60745-2-14:1984              | IDT                 |
|               | Trimmers (up to 300 W)  | MS IEC 60745-1:2005    | ✓             | IEC 60745-1:2001                 | IDT                 |
|               |   | MS IEC 60745-2-15:2006 | ✓             | IEC 60745-2-15:1984              | IDT                 |
|               | Electric hedge trimmer and Grass shear (up to 750 W)                  | MS IEC 60745-1:2005    | ✓             | IEC 60745-1:2001                 | IDT                 |
|               |   | MS IEC 60745-2-15:2006 | ✓             | IEC 60745-2-15:1984              | IDT                 |
|               | Electric Router and trimmer (up to 500 W)                             | MS IEC 60745-1:2005    | ✓             | IEC 60745-1:2001                 | IDT                 |
|               |   | MS IEC 60745-2-17:2006 | ✓             | IEC 60745-2-17:2003              | IDT                 |

| Total Product | Product type or grouping   | STANDARDS              |               |  |                     |
|---------------|--|------------------------|---------------|--|---------------------|
|               |  | Domestic Standards     | For mandatory | Relevant International Standards                           | Extent of Alignment |
|               | High Pressure Cleaner  | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001   | IDT                 |
|               |  | MS IEC 60335-2-79:2007 | ✓             | IEC 60335-2-79:2005  | IDT                 |
|               | Sewing Machine   | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001   | IDT                 |
|               |  | MS IEC 60335-2-28:2003 | ✓             | IEC 60335-2-28:2002  | IDT                 |
|               | Electric Soldering Iron  | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001   | IDT                 |
|               |  | MS IEC 60335-2-45:2002 | ✓             | IEC 60335-2-45:1996  | IDT                 |
|               | Portable Battery Charger (up to 12V)                             | MS IEC 60335-1:2003    | ✓             | IEC 60335-1:2001   | IDT                 |
|               |  | MS IEC 60335-2-29:2003 | ✓             | IEC 60335-2-29:2002  | IDT                 |
| <b>31</b>     | <b>WIRES / CABLES CORDS (NON-ARMOURED) 0.5 SQ mm TO 35 SQ mm</b> |                        |               |  |                     |
|               | Insulated flexible cord and cable                                | MS 140:1987            | ✓             | BS 6004:1984<br>or<br>IEC 60227-1:1993<br>IEC 60227-5:1998 | -<br><br>NEQ<br>NEQ |
|               | Polyvinyl chloride Insulated flexible cords                      | MS 140:1987            | ✓             | BS 6004:1984<br>or<br>IEC 60227-1:1993<br>IEC 60227-5:1998 | -<br><br>NEQ<br>NEQ |
|               | Rubber insulated cord and flexible cables                        | MS 140:1987            | ✓             | BS 6500:1984<br>or<br>IEC 60245-1:1998<br>IEC 60245-4:1994 | -<br><br>NEQ<br>NEQ |
|               | PVC-insulated cable (non-armoured) for electric power and supply | MS 136: 1995           | ✓             | BS 6004:1991   | -                   |

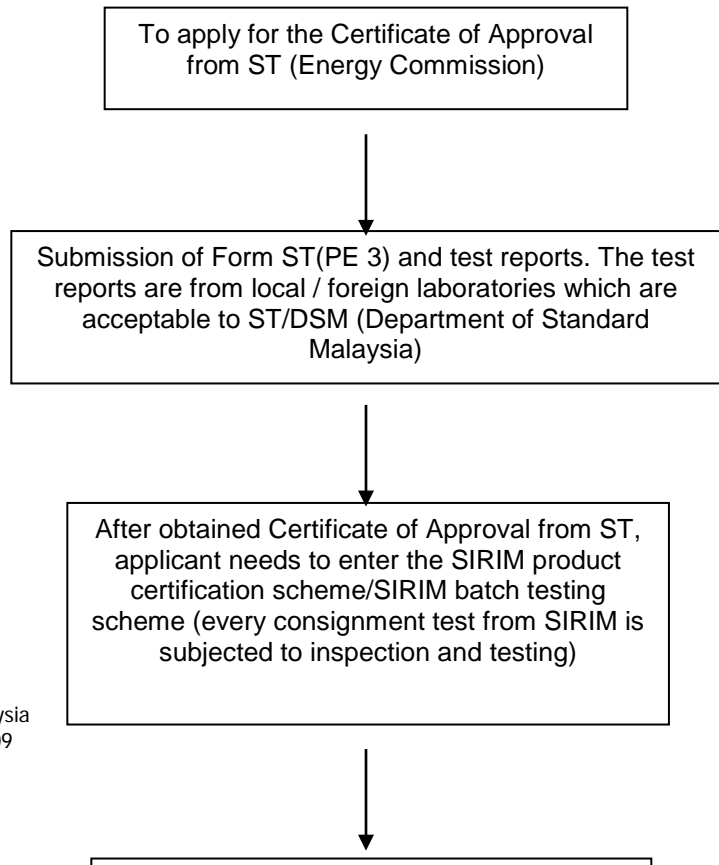
NRG = Not Regulated

IDT = Identical

MOD = Modified  
NEQ = Not Equivalent

### **Diagrammatic representation of flowchart of the regime**

*<Please outline the mechanism or steps undertaken by the relevant bodies in enabling a product to enter the market. This should include the import barrier controls, product approval and licensing (if any) mechanisms etc.>*



**Specimen of SIRIM Label**

**Specimen of SIRIM Certification Mark**



SIRIM





## **Description of the Regime**

### **Testing Facilities**

*<Provide a list of recognized testing facilities and/or accreditation requirements for testing facilities>*

Testing is undertaken by the Recognized Testing Laboratories (RTL) determine by ST includes electrical safety following the standards of (i) Malaysia Standard (MS); or (ii) IEC Standard (IEC); or (iii) Equivalent Standards.

### **Approval (Certification) Agencies**

*<Provide a list of recognized approval (certification) agencies and/or accreditation requirements for approval (certification) agencies>*

Energy Commission (*Suruhanjaya Tenaga*)

### **Labelling Requirements**

*<Describe the labeling requirements of an approved product>*

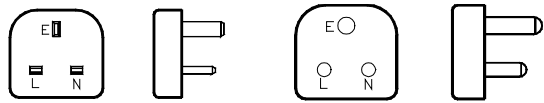
The SIRIM label or SIRIM Certification Mark should be affixed on the Controlled Goods. The SIRIM label cannot be affixed on the packaging.

## Regulatory and Legislation Requirements

<Describe any other regulatory and legislation requirements that need to met in order to market electrical and electronic equipment including validity time>

For Domestically Produced Equipment & Import Equipment: Applicants need to submit Form ST(PE)3 and test reports. The test reports should be from local or foreign laboratories, which are acceptable to ST. Once the applicants get their Certificate of Approval from ST, they then have to enter the SIRIM product certification scheme or SIRIM batch-testing scheme (every consignment test is subjected to inspection and test). Then, the SIRIM label or SIRIM Certification Mark should be affixed on the regulated electrical equipment itself with legible manner.

### MAINS VOLTAGE, FREQUENCY AND MAINS PLUG CONFIGURATION

| Mains Voltage and Tolerance                           | Mains Frequency and Tolerance | Mains Plug Configuration   |                              |                                       |                     | Diagram of Mains Plug Configuration-   |
|---|-------------------------------|--|------------------------------|---------------------------------------|---------------------|--|
|   |                               | Domestic Standard  | Please tick box if mandatory | Relevant International Standard       | Extent of Alignment |  |
| 240 volts<br>single phase<br>tolerance<br>+5% -10%    | 50 Hz<br><br>± 1%             | MS 589:Pt.1:1997<br>(for 3-pin 13A) &<br><br>MS 1577:2003 (for<br>3-pin 15A)<br>rectangular type<br>plug | ✓                            | BS 1363:Pt.1: 1995<br><br>BS 546:1950 | -                   |  <p style="text-align: center;">13A FUSED PLUG                      15A PLUG</p> |
| 415 volts<br><br>three phase<br>tolerance<br>+5% -10% | 50 Hz<br><br>± 1%             |  | -                            | -                                     | -                   |  |

**5. PRODUCTS REQUIRING LISTING OR REGISTRATION**

*Listing/registration is similar to approvals except that there is no direct activity by the regulatory agency before a product is placed onto the market.*

Nil

**6. SUPPLIER DECLARATIONS**

*A supplier declaration regime requires a supplier in that economy to formally take responsibility for the compliance of the product/products. It may require compliance with particular standards and will require the supplier to hold relevant compliance documents for subsequent audits. A supplier declaration regime may also include a marking regime.*

Nil

**7. ESSENTIAL SAFETY REQUIREMENTS**

*An essential safety regime requires that products comply with recognized fundamental safety requirements (essential safety). The regime may include standards, which are recognized to achieve the essential safety requirements.*

Nil