

# Forum ABINEE

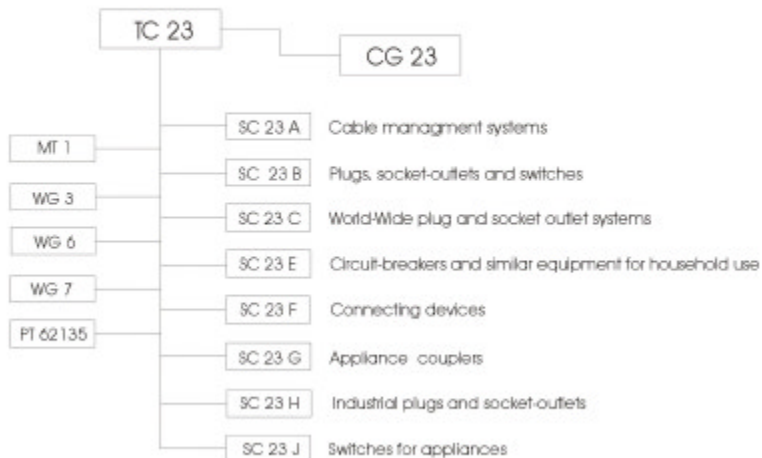
## IEC International Standards in Brazil

### Electrical Installation Product Standards within IEC TC 23

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Chairman IEC TC 23

São Paulo, October 2003

### The Structure of IEC TC 23



# IEC TC 23 Electrical Accessories

Set up in 1933 (with close co-operation with CEE-EL)

## **Scope:**

to prepare standards for electrical accessories for household and similar purposes. The word "similar" including locations such as offices, commercial and industrial premises, hospitals, public buildings etc.

These accessories:

- are intended for fixed installations or for use in or with appliances and other electrical or electronic equipment, and may include electronic components.
- are normally installed by instructed or skilled persons and are normally used by ordinary persons.

Number of participating countries: 26

Number of publications: 3

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Number of observing countries: 17

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## Material covered by TC 23

- **conduit systems**
- **cable trunking systems**
- **cable ducting systems**
- **cable support systems**
- **switches**
- **plugs and socket-outlets**
- **cable reels**
- **adaptors**
- **circuit-breakers for overcurrent protection**
- **devices protecting against electric shock**
- **contactors**
- **connecting devices**
- **enclosures for accessories**
- **appliance couplers**
- **cord sets**
- **indicator light units**

# Working Groups of TC 23

**MT 1:** Bells, buzzors and chimes

**WG 3:** Electrical supply track systems

(WG 3 has recently been disbanded and transposed to IEC 23 A WG 15 / MT 15)

**WG 6:** Installation couplers intended for permanent connection

**WG 7:** Insulation co-ordination for electrical accessories in the scope of TC 23

**PT 62139:** Guidance for addition of environmental aspects in product standards

# SC 23 A: Cable Management Systems

Set up in 1968

## Scope:

To prepare standards based on conduits, trunking, ducting, tray and ladder and other appropriate cable management systems used for the containment, support and protection of electrical power distribution and / or telecommunications means and associated accessories

Number of participating countries: 21

Number of publications: 24

**AU AT BE CA CN DK FI FR DE IT JP KR NL PT RO RU ES SE CH GB US**

Number of observing countries: 16

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# SC 23 A: Cable Management Systems

## Working Groups

- **MT01:** Heavy Duty Conduit Products covered by IEC 60981 & 61950
- **PT62275:** Cable ties and ancillaries
- **WG05/MT05:** Trunking and ducting systems
- **WG11:** Fire effects
- **WG12/MT12:** Cable tray and cable ladder systems
- **WG13/MT13:** Conduit systems for electrical installations
- **WG14:** Underground conduits
- **WG15:** Powertrack systems

# SC 23 B: Plugs, Socket-Outlets and Switches

Set up in 1970

## Scope:

- a) To prepare standards for general purpose switches including electronic switches, time-delay switches and remote control switches, for a.c. only, with rated voltage not exceeding 440 V, and with a maximum rated current not exceeding 63 A, intended for household and similar purposes, either indoors or outdoors.
- b) To prepare standards for general purpose plugs and fixed and portable socket-outlets, fused plugs, socket-outlets for appliances, switched socket-outlets with and without interlock, plugs and socket-outlets for SELV, with a rated voltage not exceeding 440 V and a rated current not exceeding 32 A, intended for household and similar purposes, either indoors or outdoors.
- c) To prepare standards for boxes, enclosures for household devices with a rated voltage not exceeding 440 V, intended for household and similar purposes, either indoors or outdoors. These standards are applicable to boxes, enclosures intended to house accessories which are in the field of other TC 23 Subcommittees and are produced in conjunction with other SCs
- d) To prepare standards for ancillary products which are related to/incorporate products covered by a), b), c) e.g. luminaire couplers, adaptors/cable reels, indicator light units, etc

# SC 23 B:Plugs, Socket-Outlets and Switches

## Working Groups

- MT 4: Maintenance of IEC 60669-1, -2-4, 60884-1, -2-1, -2-2, -2-3, -2-6
- MT 5: Maintenance of IEC 60670-1, -21, -22, 60670-23, -24
- MT 6: Maintenance of IEC 60669-2-1
- MT 8: Maintenance of IEC 60669-2-2, -2-3
- MT 9: Maintenance of IEC 60884-2-5
- MT 10: Maintenance of IEC 61242
- MT 12: Maintenance of IEC 60884-2-4
- WG 13: Luminaire supporting couplers
- MT 14: Maintenance of IEC 62094-1

Number of participating countries: 26

Number of publications: 21

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Number of observing countries: 14

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# SC 23 C: World-Wide Plug and Socket-Outlet Systems

## Scope:

To prepare dimensional standards for a world-wide unified system for plugs, socket-outlets and couplers for cord extension sets for household and similar general purposes.

To elaborate the basic characteristics of a modular system, if possible suitable for all kinds of household installations and the definition of principles for its use.

To co-ordinate information for the introduction of the unified system and to make all efforts to ensure the harmonisation of supplementary or transitional configurations necessary for certain countries, as stated by TC 64.

## Working Groups:

MT 1: Maintenance of IEC 60906-1

MT 2: Maintenance of IEC 60906-2

Number of participating countries: 26

Number of publications: 2

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Number of observing countries: 14

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# SC 23 E: Circuit-Breakers and Similar Equipment for Household Use

Set up in 1970

## **Scope:**

### **To work out standards for:**

Circuit-breakers for protection of wiring in household and similar installations against overcurrents and also protection against indirect contact in installations where the impedance of the protective circuit is sufficiently low.

Circuit-breakers for protection of equipment

Residual current protective devices (RCDs) for protection against indirect contacts with exposed conductive parts of equipment and/or installation and/or for additional protection against direct contact with live parts in household and similar installations.

Residual current monitors (RCMs) for household and similar installations

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# SC 23 E: Circuit-Breakers and Similar Equipment for Household Use

## **Working Groups:**

WG 1: Miniature Circuit-breakers for domestic and similar purposes

WG 2: Shock-hazard protective devices

WG 5: Circuit-breakers for equipment

WG 6: Residual current monitors for household and similar installations

WG 7: Protective devices for battery powered vehicle supplies

Number of participating countries: 28

Number of publications: 22

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Number of observing countries: 14

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# SC 23 F: Connecting Devices

Set up in 1970

## Scope:

a) to prepare standards for clamping units for connecting devices for the connection of electrical conductors having a cross-sectional area of 0,2mm<sup>2</sup> up to and including 35mm<sup>2</sup> copper conductors and up to and including 50mm<sup>2</sup> aluminium conductors with a rated voltage not exceeding 1000 V a.c. and 1500 V d.c. intended for household and similar purposes.

b) to prepare standards for connecting devices as separate entities for the connection of 2 or more electrical conductors having a cross-sectional area of 0,2mm<sup>2</sup> up to and including 35mm<sup>2</sup> copper conductors and up to and including 50mm<sup>2</sup> aluminium conductors with a rated voltage not exceeding 1000 V a.c. and 1500 V d.c. intended for household and similar purposes.

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# SC 23 F: Connecting Devices

SC 23 F is assigned with Group Safety Functions:

Connecting devices, either as separate entities or as integral parts of an end product, primarily for connecting external electrical supply conductors, for use with conductor cross-sectional area of 0,2mm<sup>2</sup> up to including 35mm<sup>2</sup>, but excluding connecting devices for data and signal circuits.

Working Group:

MT 1: Maintenance of all standards under the responsibility of SE23F

Number of participating countries: 19

Number of publications: 10

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Number of observing countries: 16

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# SC 23 G: Appliance Couplers

Set up in 1970

## Scope:

The international standards of SC23G cover standard sheets, tests and requirements for safety and interchangeability of the couplers and devices which allow the detachable connections between flexible cords and electrical appliances or other equipment, and between parts of multi-part appliances. The appliances or equipment may have a detachable input connection and also detachable output connections to other appliances or equipment. Also included are multiple portable appliance outlet devices, appliance outlet adaptors and cord sets including interconnection cord sets and split cord sets. The couplers are intended both for frequent and infrequent use but not for use in fixed installations.

## Working Group:

WG 5: Appliance couplers with a degree of protection higher than IP XO

Number of participating countries: 22                      Number of publications: 6

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Number of observing countries: 15

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# SC 23 H: Industrial Plugs & Socket-Outlets

Set up in 1976

## Scope:

To prepare standards for industrial plugs, socket-outlets and couplers suitable for use in industrial, commercial, private or public locations, either indoor or outdoor.

To prepare standards for other accessories, such as industrial cable reels among others, intended for use with industrial plugs, socket-outlets and couplers.

To prepare standards for connection products intended for the connection of electric vehicles to the supply network and / or to dedicated supply equipment.

The rated voltages of products covered by these standards lie within IEC 60038.

## Working Groups:

MT 7: Maintenance of IEC 60309-1 and 60309-2

WG 6: Development of IEC 62196-1.ed1: Plugs, Socket-Outlets, Vehicle Couplers and Vehicle Inlets, Conductive Charging of Electric Vehicles

Number of participating countries: 22                      Number of publications: 3

**AU AT BE CA CN DK FI FR DE IT JP KR NL NO PT RO RU ZA ES SE GB US**

Number of observing countries: 14

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# SC 23 J: Switches for Appliances

Set up in 1977

## Scope:

To prepare standards related to switches (mechanical, electromechanical or electronic) for appliances actuated by hand, by foot or other human activity, to operate or control electrical appliances and other equipment for household or similar purposes with a rated voltage not exceeding 440V and a rated current not exceeding 63 A.  
It covers also switches intended to be incorporated in or with an appliance equipment.

## Working Groups

WG 2: Resistance to heat, fire and tracking  
WG 3: Insulation co-ordination  
WG 4: Electronic switches  
WG 5: Routine tests and related matters  
WG 6: Revision of clause 17: "Endurance" of IEC 61058-1  
JWG: JWG SC 23J/TC61/TC72: Insulation co-ordination

Number of participating countries: 21                      Number of publications: 29

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Number of observing countries: 19

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# TC 23: Co-ordinating Group (CG 23)

## Terms of Reference:

To help to co-ordinate the work of TC 23 and its Subcommittees with the following task:

- To advise TC 23 and its subcommittees on the organisation and co-ordination of their work
- To review related work of other committees of the IEC and of other bodies, and to make recommendations for further actions in cases where the work of TC 23 or its subcommittees is affected.

## Members:

- The CG consists of the Chairmen and the Secretaries of TC 23 and its Subcommittees. The Chairman, the Secretary and the Assistant Secretary of TC 23 have the same functions in the CG.

According to the subjects to be discussed, experts from National Committees or other Technical Committees may be invited.

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