



IEC/TC OR SC:	SECRETARIAT:	DATE:
TC 23	Belgium	2020-12-07

Please ensure this form is annexed to the Report to the Standardization Management Board if it has been prepared during a meeting, or sent to the Central Office promptly after its contents have been agreed by the committee.

A. STATE TITLE AND SCOPE OF TC

Are there any new or emerging trends in technology that will impact the scope and work activities of the TC? Please describe briefly.

Do you need to update your scope to reflect new and emerging technologies? If yes, will these changes impact another TC's scope or work activities?

If yes, describe how these will impact another TC(s) and list the TC(s) it would impact

TECHNICAL COMMITTEE 23: ELECTRICAL ACCESSORIES

Scope

To coordinate between the different subcommittees of TC 23 and with other technical bodies within and outside IEC, aspects concerning safety, EMC, coordination, performance, compatibility interoperability, interchangeability, energy efficiency and terminology for electrical accessories contributing to the global management of the electrical energy.

To prepare standards for electrical accessories and related systems, for AC and DC, for household and similar purposes, the word "similar" including locations such as offices, commercial and industrial premises, hospitals, public buildings, etc.

These accessories and related systems are:

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

It includes in particular the following products, systems and aspects, handled by the Technical Committee or Subcommittees depending on their nature:

- adaptors
- appliance couplers
- automatic reclosing devices
- cable reels
- cable trunking systems
- cable ducting systems
- cable support systems
- circuit breakers for overcurrent protection
- conduit systems

- connecting devices
- contactors
- cord extension sets and cord sets
- Devices for the Connection of Luminaires (DCLs)
- devices mitigating the risk of fire due to the effect of arc fault currents
- devices protecting against electric shock
- electrical Energy Efficiency products
- enclosures for accessories
- guidance for additional functions for protection devices
- HBES switches and related accessories for use in Home and Building Electronic Systems (HBES)
- Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS)
- plugs and socket-outlets
- Power frequency overvoltage protection devices.
- switches (mechanical and electronic)

Note 1: For the terms "skilled persons", "instructed persons" and "ordinary persons", see Publication IEC 61140; 3.30, 3.31 and 3.32

A lot of standards for the above mentioned products are handled by the subcommittees of TC 23. But some products are under the direct responsibility of TC 23 due to their nature, such as:

- a) Standards for single phase and multiphase installation couplers intended for permanent connection in fixed installations with a rated voltage up to and including 500 V a.c. and a rated connecting capacity up to and including 10 mm² in indoor electrical installations.
- b) Standards for sound signalling devices with integral enclosures or sound signalling devices intended to be fitted into or supplied with enclosures according to IEC 60670 intended for household and similar purposes with rated voltages greater than 50 V a.c. or 75 V d.c. and not exceeding 250 V a.c. or 250 V d.c., and with rated power inputs not exceeding 100 VA.
- c) Standards for clamping units for connecting devices for the connection of electrical conductors having a cross-sectional area of 0,2 mm² up to and including 35 mm² copper conductors and up to and including 50 mm² aluminium conductors with a rated voltage not exceeding 1000 V a.c. and 1500 V d.c. intended for household and similar purposes.
- d) Standards for connecting devices as separate entities for the connection of two or more electrical conductors having a cross-sectional area of 0,2 mm² up to and including 35 mm² copper conductors and up to and including 50 mm² aluminium conductors with a rated voltage not exceeding 1000 V a.c. and 1500 V d.c. intended for household and

similar purposes.

e) Standards for male and mating female flat quick-connect terminations for use as either an incorporated or an integrated part of an equipment or of a component, or as a separate entity, for connecting electrical copper conductors up to and including 6 mm² with a rated voltage not exceeding 1000 V a.c. and 1500 V d.c. intended for household and similar purposes.

f) Standards for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS), in relation to TC23 electrical accessories.

- Electrical safety of HBES/BACS.
- Environmental Conditions and Requirements for HBES/BACS,
- Functional safety of HBES/BACS.
- EMC requirements and tests of HBES/BACS.
- Installation of HBES/BACS
- Use of HBES/BACS to manage electrical energy and to relate to external systems enabling smart grids, Active Assisted Living (AAL), security, entertainment and other applications

g) Guidelines for safety requirements and standards for electrical accessories for household and similar purposes intended for use in d.c. circuits, the word "similar" includes locations such as offices, commercial and industrial premises, hospitals, public buildings.
Note. This work is of interest for information technology applications, renewable energy applications etc.

h) Standards for Energy Efficiency Management systems, functions or solutions to be integrated or implemented in equipment products or devices of TC23 and its SCs either used in existing or new electrical installation - for optimizing the overall efficiency of a.c. or d.c. electrical energy for household and similar use.

The work on these publications also include considerations on system electrical energy performance, energy supply, procurement practices for energy using equipment and systems, and energy use as well as measurement of current electrical energy usage.

The work covers the general principles, requirements and testing procedures for Energy Efficiency Management systems resulting from stand alone products or from any type of combination of devices and accessories aiming to manage, to monitor and to optimise the use of electrical energy within an electrical installation supplying energy to loads, either from the grid or from local energy production and/or storage (ILP&S).

It will take into account all technical and economic inputs and the overall interconnection and communication influencing the design and algorithms leading to managing, reducing, measuring, optimizing and monitoring the efficiency of electrical energy usage.

The work does not cover the drafting of product standards in hands of SC23K.

Note: The work covers combination of sensors, detectors, effectors, loads, control units, etc. aiming to optimize the efficiency of an electrical service from an energy point of view. For example a combination of

sensors, control unit and heating/cooling devices for temperature control.

i) A technical report in view of the harmonisation of the general rules applied by TC 23 and its subcommittees

New standards for new products, systems or aspects as mentioned under section C of this SBP are already included in the present scope.

Due to the need for these new standards and as electrical accessories and related systems are fundamental parts of the building infrastructure, this will definitely require coordination/cooperation with TCs, such as TC 21, TC 22, TC 34, TC 57, TC 61, TC 64, TC 72, TC 82 and TC 108.

For Lighting Systems within Building premises, TC23 is responsible for Electrical Accessories, such as control devices and certain aspects of dedicated networks.

Details of work on control devices and Lighting Systems are currently under consideration in IEC SEG9/AG5 "Advisory Group on Lighting Systems".

New trends in technology and in the market as mentioned in section E are not yet covered by the present scope.

TC 23 has Group Safety Function for:

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 0,2 mm² up to and including 35 mm² copper conductors and up to and including 50 mm² aluminium conductors, but excluding connecting devices intended for data and signal circuits.

SUBCOMMITTEE 23A: CABLE MANAGEMENT SYSTEMS

Terms of reference:

To prepare international standards for products and systems used for the management of all types of cables, information and communication lines, electrical power distribution conductors and associated accessories.

Management includes support and/or containment and/or retention and/or protection against external influences.

SUBCOMMITTEE 23B: PLUGS, SOCKET-OUTLETS AND SWITCHES

Terms of reference:

a) To prepare safety and performance standards for general purpose switches including electronic switches, for example, time-delay switches, remote control switches and isolating switches with rated voltage not exceeding 440 V, and with a maximum rated current not exceeding 125 A, intended for household and similar purposes, either indoors or outdoors. In particular, performance includes the energy consumption of 23B accessories. The operation and control of the electronic switches can be achieved:

- intentionally by a person via an actuating member, a key, a card, etc., via a sensing surface or a sensing unit, by means of touch, proximity, turn, optical, acoustic, thermal etc.
- by physical means, e.g. light, temperature, humidity, time, wind velocity, presence and movement etc.
- by any other influence.

b) To prepare safety and performance standards for switches and related accessories for use in Home and Building Electronic Systems (HBES), with a working voltage not exceeding 250 V a.c. and a rated current up to and including 16 A, intended for household and similar purposes, either indoors or outdoors and to associated electronic extension units. An HBES switch is a device using two way communication designed to make or break and/or to control, directly (e.g. actuator) or indirectly (e.g. sensor), the current in one or more electric circuits. The communication can use different media e.g. Twisted Pair (TP), Power Line (PL), Infra Red (IR) and Radio Frequency (RF). In particular:

- performance includes the energy consumption of 23B accessories.
- HBES switches can be used for the operation of lamp circuits and the control of the brightness of lamps (dimmers) as well as the control of the speed of motors (e.g. those used in ventilating fans) and for other purposes (e.g. heating installations),
- HBES switch are all kind of HBES devices e.g. switches, sensors, actuators, switched socket-outlets, associated electronic extension units, etc.
- The operation and control of the HBES switches are performed:
 - intentionally by a person via an actuating member, a key, a card, etc., via a sensing surface or a sensing unit, by means of touch, proximity, turn, optical, acoustic, thermal, etc.
 - by physical means, e.g. light, temperature, humidity, time, wind velocity, presence, movement, etc.
 - by any other influence, etc.
- And transmitted
 - by an electronic signal via several media, e.g. powerline (mains), twisted pair, optical fiber, radio frequency, infra-red, etc...

c) To prepare standards for plugs and fused plugs, fixed and portable socket-outlets, unswitched or switched, with or without interlock, for SELV, for appliances, with or without incorporated electronics, 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.

d) To prepare standards for boxes and enclosures for household devices, boxes and enclosures with provision for suspension means, connecting boxes and enclosures, floor boxes and enclosures, enclosures for housing protective devices and similar power consuming devices with a rated voltage not exceeding 1000 V a.c. and 1500 V d.c., 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 subcommittees.

e) To prepare standards for ancillary products which are related to/incorporate in products covered by a), b), c), d) e.g. Devices for the Connection of

Luminaires (DCLs), adaptors, cable reels, indicator light units, cord extension sets etc.

f) To prepare dimensional standards for an IEC system for plugs and socket-outlets for household and similar general purposes.

g) 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.

SUBCOMMITTEE 23E: CIRCUIT-BREAKERS AND SIMILAR EQUIPMENT FOR HOUSEHOLD USE

Terms of reference:

To prepare and to update standards for:

- circuit-breakers and residual current devices of rated currents not exceeding 125 A and rated voltages not exceeding 440 V for protection against overcurrent and/or against electric shock in domestic and similar installations,
- residual current monitors (RCM) for household and similar applications,
- circuit-breakers for equipment of rated currents not exceeding 125 A and rated voltages not exceeding 440 V designed to protect equipment for use in domestic and similar installations,
- electromechanical contactors for household and similar purposes,
- control and protection devices for electric vehicle supplies,
- arc fault detection devices (AFDD) of rated currents not exceeding 125 A and rated voltages not exceeding 440 V for household and similar uses.
- Guidance for additional functions for protection devices
- Automatic reclosing devices
- Power frequency overvoltage protection devices.

The standards concern devices intended to be used by ordinary persons in installations or equipment not subject to maintenance and contain all specifications necessary for certification purposes: sets of samples to be submitted, test sequences to be applied and conditions for approval.

They shall also include all specifications necessary for certification purposes concerning the groups of samples, the tests sequences each group shall be submitted and the number of failures admitted.

In working out such standards and according to the guidelines given by the SMB, close coordination is being kept continuously with SC 121A, dealing with the standards for low voltage switchgear and controlgear mainly intended to be used by instructed persons in installations subject to supervision and maintenance (In particular SC 121A is the leader for the preparation of standards for circuit breaker, whilst SC 23E is the leader for the preparation of standards for RCDs).

The work of the subcommittees takes into account the specifications prepared by TC 109, SC 77A and by TC 64.

An official liaison with CTL has been established by nominating a liaison member who is also member of the parallel WG in the CTL organization

SC 23E has Group Safety Function for: Residual Current Devices (RCDs)

Definition of Residual Current Devices taken from IEC 60755

a residual current device is a mechanical switching device designed to make, carry and break currents under normal service conditions and to cause the opening of the contacts when the residual current attains a given value under specified conditions

SUBCOMMITTEE 23G: APPLIANCE COUPLERS

Terms of reference:

To prepare standard sheets, tests and requirements for safety and interchangeability of alternating current and direct current couplers, which allow for detachable connections between flexible cords and electrical appliances or 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. The couplers are not intended for use in fixed installations.

SUBCOMMITTEE 23H: PLUGS, SOCKET-OUTLETS AND COUPLERS FOR INDUSTRIAL AND SIMILAR APPLICATIONS, AND FOR ELECTRIC VEHICLES

Terms of reference

To prepare standards for plugs, socket-outlets and couplers suitable for use in industrial, commercial, private or public locations, either indoors or outdoors. To prepare standards for other accessories such as, among others, industrial cable reels, intended for use with plugs, socket-outlets and couplers for industrial purpose.

To prepare standards for connecting devices intended for the connection of electric vehicles and their removable energy storage units to the supply network and/or to dedicated supply equipment.

To prepare standards for connecting devices intended for the connection of ships to a shore supply. The rated voltages of accessories covered by these standards lie within IEC 60038.

SUBCOMMITTEE 23J: SWITCHES FOR APPLIANCES

Terms of reference:

To prepare standards related to switches (mechanical, electromechanical or electronic) for appliances actuated by hand, by foot or by other human activity, to operate or control electrical appliances and other equipment for household or similar purposes with a rated voltage not exceeding 480 V and a rated current not exceeding 63 A.

It covers also switches intended to be incorporated in or with appliance equipment. It covers also the general requirements and test methods for electromechanical switches with optional quality assurance procedures.

Actual structure:

Maintenance teams:

- MT 1 - Maintenance of IEC 61058 series
- MT 2 - Maintenance of IEC 61020
- PT on "DC switches for appliances" in MT 1

- None

SUBCOMMITTEE 23K: ELECTRICAL ENERGY EFFICIENCY PRODUCTS

Terms of reference:

To prepare and to update standards for Energy Efficiency products, devices and solutions used within an efficient Management system of Electrical Energy in existing or new electrical installation which includes loads and/or local production and storage. These products provide functions including monitoring, measuring, controlling, managing and optimizing the overall efficiency use of a.c. or d.c. electrical energy for household and similar.

The work also includes equipment intended to improve electrical energy performance, energy supply, procurement practices for energy using equipment and systems, and energy use as well as measurement of current electrical energy usage.

The work addresses the requirements and testing procedures for electrical energy efficiency products or combinations of products, devices and solutions whose purpose is to monitor, to manage and to optimise the energy use of electricity within an electrical installation supplying energy to loads, either from the grid or from local energy production and/or storage.

The work does not cover requirements and testing procedures already covered by existing standards published in TC 23 and its SCs.

Note: For example, if a switch or a circuit breaker covered by an IEC published standard from TC 23 or its SCs includes any function dealing with energy efficiency management (e.g. measurement, features for load shedding, transfer switch etc.) SC 23K will refer to these existing standards within a global system approach

B. MANAGEMENT STRUCTURE OF THE TC

Describe the management structure of the TC (use of an organizational chart is acceptable) (should be integrated by CO automatically) and, if relevant (for example an unusual structure is used), provide the rationale as to why this structure is used.

Note: Check if the information on the IEC website is complete.

When was the last time the TC reviewed its management structure? Describe any changes made. When does the TC intend to review its current management structure? In the future, will the TC change the current structure, for example due to new and emerging technologies, product withdrawal, change in regulations etc. Please describe.

Make sure the overview includes:

- any joint working groups with other committees,
- any special groups like advisory groups, editing groups, etc.

General comments about the management structure of TC 23

Due to the diversity within the scope of TC 23 and the market need for a coherent set of standards, the structure of the technical Committee with subcommittees is the most appropriate. Under diversity we refer to different industries providing different experts having different expertise and having different business models.

As the structure was reviewed in 2013, there is no need to review the structure at this moment in time

This review started during the Oslo meeting of TC 23 (2012-10) where TC 23 decided to set up SC 23K. This was ratified by the SMB, see document SMB/4991A/RV. SC 23 K deals with Electrical Energy Efficiency products.

After the Oslo meeting, TC 23 further reviewed its structure and at the end of 2012, TC 23 decided to disband SC 23C and SC 23F as there was no work ongoing for some time. It was decided to transfer the responsibilities for the SC 23C publications to SC 23B and to transfer the responsibilities for the SC 23F publications together with the responsibility on the Safety Group Function to TC 23.

General comment about new and emerging trends in technology

As the new and emerging trends in technology as mentioned under section E of this SBP are not completely covered by a generic approach within standardization, it is not clear if and how this will impact the scope and work activities of TC 23. This could have as a consequence that other TCs responsible to these generic standards might need to include this in their work activities.

TC 23 has established the AG 10 (Coordinating group) where all secretaries and chairs of the TC and SCs together with the convenors of the MT/PT/WG/AHG of TC 23 meet in order to coordinate the work.

In addition, TC 23 has established an editing committee. The members are the chair, the secretary and the convenor of the appropriate MT/PT/WG/AHG. Care is taken to always have an expert having English as native language.

C. BUSINESS ENVIRONMENT

Provide the rationale for the market relevance of the future standards being produced in the TC.

If readily available, provide an indication of global or regional sales of products or services related to the TC/SC work and state the source of the data.

Specify if standards will be significantly effective for assessing regulatory compliance.

The diversity of electricity supply systems and local habits have to be taken into consideration and, as far as possible electrical accessories should be used without restriction whatever the electricity supply system, the type of wiring and the type of earthing system. These electrical accessories are incorporated in electrical installations which are intended to be used for a long period of time, they do not need maintenance.

The large demand of safety, comfort and reliable performances, together with the ever-growing worldwide trade calls for the largest possible acceptance of qualified standards. In this respect the SMB has approved the step by step plan proposed by TC 23. This allows TC 23 standards to be published in the largest number of countries aiming to ease the circulation of products.

In addition to these general objectives, TC 23 is working on several new standards in order to cover the following topics

-global energy management: energy efficiency

Due to the recent emphasis on the forecasted mid-term shortage of natural resources, growing environmental concerns (e.g. greenhouse gas problems), TC 23 started new work on an energy efficiency approach for TC 23 and its SCs and started new work on product standards facilitating the inclusion of new energy sources in electrical installation (energy efficiency products)

-HBES

Since the market is calling for several new applications (such as smart grid, energy efficiency, [location-based services](#), infotainment, AAL), more communication and relevant new technologies are to be implemented, larger and secure data transfer is essential, and automatism are needed. This calls for new systems in home/office buildings where HBES can offer solutions.

-Internet of things

IoT and connectivity technologies will impact most of Electrical Accessories as Manufacturers, Installers and End users are expecting them to become "Smart" Electrical Accessories that are able to communicate within the Home and Building and with the outside. This needs to be organized in a secure and efficient way. Additional requirements and compliance practices will need to be included in TC 23 standards

-Need for increased fire protection

TC 23 has a long experience related to the protection device to be installed in electrical installations. Recently work started on a protection against arc faults.

-EV

In the past, TC 23 has made major efforts providing standards for accessories needed for conductive charging. As the EV market has developed with different patterns and speed in different countries standardization of these accessories is becoming essential to create global market where it is becoming a growing application for electrical accessories.

-LED

The market demand for lighting products is undergoing a rapid and dramatic shift due to a disruptive new technology: LED based products. This does not only mean a drastic change for the lighting industry but does also heavily impact the lighting controls within the scope of TC 23. Standards have been updated to include this major change in behaviour of the light sources in close collaboration with experts of TC 34

-LVDC

Discussions about LVDC started in TC 23 following a request from the ICT industry to connect their data center equipment to be supplied by 400 V LVDC to a fixed wiring by means of a plug and socket-outlet system. In the meantime, work on protective devices, appliance switches and appliance couplers are started all in coherence with the work done in SyC LVDC. In addition, following recent developments captures by SEG 4, work will be needed to support the deployment of solutions for electrical energy access in regions where no electrical grid is available.

If readily available, provide an indication of global or regional sales of products or services related to the TC/SC work and state the source of the data.

No National committees and Subcommittees of TC 23 have forwarded their views on this topic.

Specify if standards will be significantly effective for assessing regulatory compliance.

TC23 product standards are used for assessing regulatory compliance in countries such as Russia (EAC), Australia, New Zealand (RCM), China (CCC), Gulf (G-Mark), EU, etc...

D. MARKET DEMAND

Provide a list of likely customers of the standards (suppliers, specifiers, testing bodies, regulators, installers, other TC/SC's etc.). Do not specify company names, only categories of customers.

- Suppliers
- Manufacturers
- Certification Bodies, Testing Bodies,
- Market surveillance authorities
- Regulators
- Other TC/SCs
- Specifiers
- Service providers

E. SUSTAINABILITY DEVELOPMENT GOALS

INDICATE THE SUSTAINABLE DEVELOPMENT GOALS (SDGs) THAT ARE ADDRESSED BY WORK WITHIN THE TC/SC. INDICATE EACH SDG INDICATOR AFFECTED (REFERENCE SPREADSHEET AVAILABLE AT <https://www.iec.ch/SDG/>), AND PROVIDE SPECIFIC INFORMATION ABOUT HOW THE TC/SC IS ADDRESSING THE SDG. CONSIDER BOTH DIRECT AND INDIRECT IMPACTS OF THE WORK OF THE TC/SC.

- | | |
|---|---|
| <input type="checkbox"/> GOAL 1: No Poverty | <input type="checkbox"/> GOAL 10: Reduced Inequality |
| <input type="checkbox"/> GOAL 2: Zero Hunger | <input type="checkbox"/> GOAL 11: Sustainable Cities and Communities |
| <input type="checkbox"/> GOAL 3: Good Health and Well-being | <input type="checkbox"/> GOAL 12: Responsible Consumption & Production |
| <input type="checkbox"/> GOAL 4: Quality Education | <input type="checkbox"/> GOAL 13: Climate Action |
| <input type="checkbox"/> GOAL 5: Gender Equality | <input type="checkbox"/> GOAL 14: Life Below Water |
| <input type="checkbox"/> GOAL 6: Clean Water and Sanitation | <input type="checkbox"/> GOAL 15: Life on Land |
| <input type="checkbox"/> GOAL 7: Affordable and Clean Energy | <input type="checkbox"/> GOAL 16: Peace, Justice Strong Institutions |
| <input type="checkbox"/> GOAL 8: Decent Work & Economic Growth | <input type="checkbox"/> GOAL 17: Partnerships to achieve the Goals |
| <input type="checkbox"/> GOAL 9: Industry, Innovation & Infrastructure | |

F. TRENDS IN TECHNOLOGY AND IN THE MARKET

If any, indicate the current or expected trends in the technology or in the market covered by the products of your TC/SC.

New or emerging trends in technology that will impact the scope and work activities of TC23 are:

-Drastic changes of EM environment due to the increased use of wireless equipment, higher frequencies, and electronic devices in general.

-USB and wireless power transfer for fixed installation

Due to the energy efficiency requirements, equipment consumes less. The consequence is that a lot of the available equipment can be supplied by using USB. The market is demanding easy use and readily available USB ports in fixed installations compatible with the already standardized USB equipment.

- Digitization

- Product related Data for the purpose of BIM, E-Commerce, Environmental Profiles, etc..

Customers, Regulators, End users are more and more demanding product related data in different format and classifications. It is important that product data classifications and characteristics allow for a safe design, installation, operation and maintenance and the correct selection of products. IEC TC 23 and SCs will investigate if and how standardization can contribute to fulfil this need.

-Cyber security and data privacy

Following the evolution of IoT, applications as AAL, smart grid, energy efficiency, data communication and data privacy and security becomes more and more important. In a way, relevant requirements will be applicable to these products and might need to be included in TC 23 standards

- Generation of Big Data

The Home and Building market in which TC23 smart products and systems (HBES, EE offers, Sensors) operate will use more and more data to increase its overall efficiency (presence, energy, access, ...).

- Artificial Intelligence, Machine Learning

Artificial intelligence and machine learning are entering progressively smart home and smart buildings

and will have to be investigated for the needs or not to write basics requirements for

use related to
TC23 products and systems.

- AAL: Active Assisted Living

Where HBES can provide some of the solutions needed for AAL, other TC 23 products will be impacted. TC 23 standards will need to be updated with those requirements. In this respect, TC 23 awaits guidance from SyC AAL

- Circular economy

This will also imply additional requirements to be included in TC 23 standards. In order to guarantee a coherent approach within standardisation, guidance is needed

- Global energy management: storage, interaction with smart grid, renewable energy

TC 23 started work on a global approach to energy efficiency and on energy efficiency products. But new energy systems are emerging both in residential and building applications such as storage, photovoltaic sources, smart grid, demand response, increasing the need for Home & Building Energy Management systems and specific protection devices to manage dual source current

G. SYSTEMS APPROACH ASPECTS (SEE DIRECTIVES PART 1 ANNEX SP)

Does your TC/SC have a need for a systems approach?

If so:

- Will the Systems work be in a single TC or in multiple TCs?
- Will a Standardization Evaluation Group (SEG), Systems Committee (SyC), or Systems Resource Group be required?
- Is your TC/SC work of relevance to ISO?
- Is or are there fora or consortia working in parallel to IEC? Is there a chance to integrate this work in your TC/SC?

This should not only be restricted to the customer/supplier relationships with other TC/SCs indicating types of co-operation (e.g. liaisons, joint working groups) but be of a more generic nature.

IEC/TC 23

Component / Product Committees (TC 23 role of customer)	IEC TC 8	Systems aspects for electrical energy supply
	IEC TC 20	Electric cables
	IEC SC 77A	EMC - Low frequency phenomena
	IEC TC 89	Fire hazard testing
	IEC TC 109	Insulation coordination for low-voltage equipment
	IEC TC 111	Environmental standardization for electrical and electronic products and systems
	IEC TC 112	Evaluation and Qualification of Insulating materials and Systems

	CLC TC 205	Home and Building Electronic Systems (HBES)
Component / Product Committees (TC 23 role of supplier)	CTL	Committee of Testing Laboratories
	IEC TC 34	Lamps and related equipment
	IEC TC 61	Safety of household and similar electrical appliances
	IEC TC 64	Electrical installations and protection against electric shock
	IEC TC 69	Electric road vehicles and industrial trucks
	IEC TC 108	Safety of electronic equipment within the field of audio/video, information technology and communication technology
Other committees (Close relation for safety issues)	ACOS	Advisory committee on safety
	ACEC	Advisory committee on electromagnetic compatibility
	ACSEC	Advisory Committee on Information security and data privacy
	ACEE	Advisory committee on energy efficiency
	ACEA	Advisory Committee on Environmental Aspects
	SyC Smart Energy	Smart Energy
	SyC smart cities	Electrotechnical aspects of Smart Cities
	SyC AAL	Active Assisted Living
	SyC LVDC	Low Voltage Direct Current and Low Voltage Direct Current for Electricity Access
	SyC COMM	Communication Technologies and Architectures
	IEC SC 32B	Low-voltage fuses
	IEC SC 48B	Electrical connectors
	IEC TC 72	Automatic controls for household use
IEC TC 79	Alarm and electronic security systems	

	IEC SC 121A	Low-voltage switchgear and controlgear
	IEC SC 121B	Low-voltage switchgear and controlgear assemblies
	JTC 1 SC 25	Interconnection of information technology equipment

IEC/SC 23A

Component / Product Committees (SC 23A role of customer)	IEC TC 89	Fire hazard testing
Component / Product Committees (SC 23A role of supplier)		
Other committees (Close relation for safety issues)	CLC TC 213	Cable management systems

IEC/SC 23B

Component / Product Committees (SC 23B role of customer)	IEC SC 3C	Graphical symbols for use on equipment
Component / Product Committees (SC 23B role of supplier)		
Other committees (Close relation for safety issues)		

IEC/SC 23E

Component / Product Committees (SC 23E role of customer)	IEC SC 3C	Graphical symbols for use on equipment
Component / Product Committees (SC 23E role of supplier)	IEC TC 82	Solar photovoltaic energy systems
	ISO/TC22/SC37	Electrically propelled vehicles
Other committees		

IEC/SC 23G

Component / Product Committees (SC 23G role of customer)		
Component / Product Committees (SC 23G role of supplier)		
Other committees (Close relation for safety issues)		

IEC/SC 23H

Component / Product Committees (SC 23H role of customer)		
Component / Product Committees / Installations (SC 23H role of supplier)	IEC TC 18	Electrical installations of ships and of mobile and fixed offshore units
	IEC TC 69	Electrical power/energy transfer systems for electrically propelled road vehicles and industrial trucks
Other committees (Close relation for safety issues)		

IEC/SC 23J

Component / Product Committees (SC 23E role of customer)		
Component / Product Committees (SC 23J role of supplier)	IEC TC 116	Safety of motor-operated electric tools
Other committees (Close relation for safety issues)		

IEC/SC 23K

Component / Product Committees (SC 23K role of customer)		
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Component / Product Committees / Installations (SC 23K role of supplier)		
Other committees (Close relation for safety issues)	IEC TC 13	Electrical energy measurement and control
	IEC TC 22	Power electronic systems and equipment
	IEC TC 57	Power systems management and associated information exchange
	IEC TC 65	Industrial-process measurement, control and automation
	IEC TC 121	Switchgear and controlgear and their assemblies for low voltage
	ISO TC 301	Energy management and energy savings

As the products in the scope of TC 23 are to be included in installations, incorporated in equipment or used together with these installations and equipment, there is a strong need for close coordination and in certain cases a close collaboration. Seeing the complexity of the future installations with high level communication, interactions related to many different applications, a systems approach is essential.

Therefore, TC 23 is highly involved in the work of IEC on smart home/office buildings systems.

TC23 works in close cooperation with TC34 regarding Lighting Systems within the building premises. Liaison with TC34 to incorporate the adjacent work of mutual interest into Electrical Accessories standards has been established.

TC23 with WG12 Home and Building Electronic Systems, WG9 with Energy Efficiency, and SC23A with Cable Management Systems are developing a system approach.

If so:

Will the Systems work be in a single TC or in multiple TCs?

SC23A is mainly working within its perimeter

TC23 WG12 and TC23WG9 HBES and Energy Efficiency group are working or will work with multiple TCs:

For HBES , interfaces and/or product specific standards should be defined with TC108, TC72, TC 34 , TC59 , TC79, etc...). The work with System Committees for example Smart Energy , AAL, Smart Cities, will also be relevant to HBES.

For Energy Efficiency aspects of Electrical Accessories, System Committees like Smart Energy, Smart Cities, SEG4 and TC64 are relevant and cooperation with these committees is important.

Will a Systems Evaluation Group (SEG), Systems Committee (SyC), or Systems Resource Group be required?

Regarding HBES, the conclusions of IEC work on Smart Home/Office Building Systems are expected to define how to work in the future with the different TCs.

Is your TC/SC work of relevance to ISO?

ISO TC205 (HBES/BACS)

ISO TC 22 (EV),

ISO/IEC JTC1 SC25 Interconnection of information technology equipment

ISO TC59 SC 13 should be established.

Is or are there fora or consortia working in parallel to IEC? Is there a chance to integrate this work in your TC/SC?

No

This should not only be restricted to the customer/supplier relationships with other TC/SCs indicating types of co-operation (e.g. liaisons, joint working groups) but be of a more generic nature.

If there is no need for a systems approach as outlined in AC/33/2013, is it intended a TC would not be requested to report on general systems approach considerations such as customer/supplier relationships, liaisons, joint WGs, etc. as referenced in the system approach matrix illustrated in slide 14 of the presentation attached to AC/37/2006?

H. CONFORMITY ASSESSMENT

With reference to Clause 33 of Part 2 of the ISO/IEC directives, are all you publications in line with the requirements related to conformity assessment aspects?

Will the TC/SC publications be used for IEC Conformity Assessment Systems (IECEE, IECEx, IECQ, IECRE)?

Will any of your standards include test specifications, reproducible test requirements, and test methods?

Are there likely to be special conformity assessment requirements generated by any standards projects? If yes, list which projects.

IEC TC 23 publications are in line with clause 6.7 of Part 2 of ISO/IEC Directives (beware of the version number of the Directive - Edition 5)

Will the TC/SC publications be used for IEC Conformity Assessment Systems (IECEE, IECEx, IECQ, IECRE)?

TC23 publications are widely used for IEC conformity Assessment schemes.

Will any of your standards include test specifications, reproducible test requirements, and test methods?

TC23 standard include test specifications, reproducible test requirements and test methods

Are there likely to be special conformity assessment requirements generated by any standards projects? If yes, list which projects.

As of today, and in a near future, it is not likely that special conformity assessment requirements will be produced.

I. 3-5 YEAR PROJECTED STRATEGIC OBJECTIVES, ACTIONS, TARGET DATES

STRATEGIC OBJECTIVES 3-5 YEARS	ACTIONS TO SUPPORT THE STRATEGIC OBJECTIVES	TARGET DATE(S) TO COMPLETE THE ACTIONS
Collaborate with System Activities of IEC	Involve expert in SyC LVDC, SyC Smart Cities, SyC Smart Energy, SyC AAL and SEG 9	Ongoing
Ensure Global Market Relevance	Work on proposal from National Committees.	To be defined according to the proposals made.
Complete product standard for LVDC and collaborate with SyC LVDC to cover the gaps analysis made by SyC LVDC.	Finalize product standard in progress and propose NPs if necessary	Ongoing
Propose common rules on Energy Efficiency of electrical accessories, Write specific product standard when needed	In progress in WG 9 and SC 23K. To detect needs together with SyC Smart Energy, close gaps if necessary	Ongoing

Analyse the need for Cybersecurity and data privacy additions in TC23 standards or not	Collaborate with ISO/IEC JTC 1 SC27 in order to have a coherent approach within TC 23, Use TC 23 WG 12 work to understand how it should be implemented in other SCs	To be started when horizontal deliverables are available.
Collaborate with TC 34 regarding Lighting Systems to find a clear border and work on needed standards.	Actively collaborate with TC 34, within IEC SEG 9 WG 5 to contribute to write or adapt relevant standards in the field of Lighting Systems	Ongoing,
Collaborate with TC 72 on requirements for fixed installation (Thermostats)	To identify the specific domain and overlaps and align requirements on the overlapping part.	Ongoing
Product Data Standard for e-commerce / BIM	Learn from SC23E Pilot Start work in other SCs as relevant. Liaise with ISO TC59 SC13	Ongoing
Standard for DC switches for appliances	Form a new PT group, meeting will be organized	2021, Adhoc group 8 has been created, NP forecasted for end 2020

Note: The progress on the actions should be reported in the RSMB.