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BUREAU OF INDIAN STANDARDS

MINUTES

Name of the Committee	No. of Meeting	Day	Date	Time	Venue
Low Voltage Switchgear and Controlgear Sectional Committee, ETD 07	28th	Thursday	29 Dec 2022	1030h	BIS Webex URL : https://bisindia.webex.com/bisindia/j.php?MTID=m6c5c55b4a3d809f236150781f41e0cf2 Meeting no.: 2518 809 0684 Password : axMXs9ZUn53

CHAIRMAN: Shri Anupam Awasthi **MEMBER SECRETARY**: Smt Meghna Mudgal

Members present:

S. No	Organization	Name
1.	*Chairperson (ETD 07)* In Personal Capacity	Shri Anupam Awasthi
2.	*Member Secretary (ETD 07)* Bureau of Indian Standards (BIS)	Smt Meghna Mudgal
3.	ABB India Limited	Shri Shelesh Tiwari
4.	ABB India Limited	Shri Devchandra Kuril
5.	BCH Electric Limited	Shri Vishank Aggarwal
6.	BCH Electric Limited	Shri UAK Patro
7.	Calcutta Electric Supply Corporation Limited	Shri Sujit Kumar Pathak
8.	Central Electricty Authority	Smt Meena Hooda
9.	Central Power Research Institute	Shri Swaraj Kumar Das
10.	Central Power Research Institute	Smt Sumbul Munshi
11.	Central Power Research Institute	Shri Vasudevamurthy
12.	Consumer Guidance Society of India	Shri Goutam Bhatia
13.	Electrical Research and Development Association	Shri Goutam Som
14.	Elmex Controls Private Limited	Shri Robin Virani
15.	Engineers India Limited	Smt Shirali Aggarwal
16.	Engineers India Limited	Shri Manish Kumar
17.	Hager Electro Private Limited	Shri Shirish Zope
18.	Havells India Limited	Shri Manoj Gupta
19.	Havells India Limited	Shri Ranbir Singh
20.	HPL Electric and Power Limited	Shri Rishi Seth
21.	In Personal Capacity	Shri Anil Pandit

22.	Indian Electrical and Electronics Manufacturers Association	Shri Uttam Kumar
23.	International Copper Association India	Shri Debdas Goswami
24.	KEC International Limited	Shri Ramnik Arora
25.	Larsen and Toubro Limited	Shri Ritesh Kumar Patel
26.	Novateur Electrical and Digital Systems Private Limited	Shri Rajan Parab
27.	Panasonic Life Solutions India Private Limited	Shri Vijay Wedhane
28.	Schneider Electric Private Limited	Shri S.Saravanan
29.	Schneider Electric India Private Limited	Shri Anilesh K
30.	Siemens Limited	Shri Rahul Srivastava
31.	Small Scale MCD Manufactures Welfare Association	Shri R.K.Jain
32.	Small Scale MCD Manufactures Welfare Association	Shri Narendar Kumar Verma
33.	Small Scale MCD Manufactures Welfare Association	Shri Parmod Jain
34.	Tata Consulting Engineers Limited	Shri P K Arun Kumar
35.	Tata Consulting Engineers Limited	Smt Sangita Padegaonkar
36.	UL India Private Limited	Shri Chandrakumar S
37.	Western India Switchgear Manufacturers Association	Shri Shashin Shah
Invitees		
38.	Shivalik Metals	Shri Akhil Kaushal
39.	In personal capacity (NWIP proposer)	Shri Narayanan Surendran
40.	Aleph India	Shri KT Yogesh

Item 0 GENERAL

0.1 WELCOME & OPENING REMARKS BY THE CHAIRMAN

The Chairman welcomed the members present to the meeting. He appreciated the efforts of various working groups of the committee actively contributing to the process of standardization and hoped for a fruitful discussion on all Agenda points. He thanked the members for examining the IEC documents circulated from time to time and for providing comments so that India-specific view-points were considered at the time of development and revision of important IEC standards for implementation in India as well.

0.2 Member Secretary welcomed the members to the meeting and briefed the members regarding various agenda points which required detailed discussions and solicited the co-operation of the members for completing the agenda in time.

Item 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

The committee confirmed the minutes of the 27th meeting of Low Voltage Switchgear and Controlgear Sectional Committee, ETD 07, held on 29 July 2022 virtually.

Item 2 COMPOSITION OF LOW VOLTAGE SWITCHGEAR AND CONTROLGEAR SECTIONAL COMMITTEE, ETD 07

2.1 The committee noted the information given in the agenda.

2.2 ETD 07 members listed below agreed to share contact details of relevant personnel from the following organizations and to follow up with them in order to have active participation from the respective organizations in the committee work:

a. DRDO – Mr Anil Pandit agreed to provide relevant personnel's contact details and to follow up with them.
b. Jasper Engineers Pvt. Ltd. – Mr Patro and Mr Vishank, M/s BCH Electric Ltd. agreed to provide relevant personnel's contact details and to follow up with them.
c. GE Energy Management System – Mr Kuril, M/s ABB India Ltd. agreed to provide relevant personnel's contact details and to follow up with them.
d. Sur Iron and Steel Company Private Limited - Mr Anil Pandit agreed to provide relevant personnel's contact details and to follow up with them.

Item 3 ACTIONS ARISING OUT OF PREVIOUS MEETING

The committee noted the information given in the agenda.

Item 4 PRESENT POSITION OF WORK

The committee noted the present position of work under the scope of **ETD 07.**
The committee also examined the list of IEC standards against which no Indian Standards exist as had been identified by member secretary for consideration of the committee for harmonization.

I. The committee considered and decided to issue the following IEC standards in **wide circulation for 60 days** inviting comments for identical adoption of these IEC standards as Indian Standards:
   i) **IEC 62955: 2018** Residual direct current detecting device (RDC-DD) to be used for mode 3 charging of electric vehicles
   The committee decided to circulate this standard to **both ETD 07 and ETD 51** during wide circulation, both being subject-relevant technical committees, inviting comments from both.

II. It was decided to circulate the following IEC standards for 30 days among the sectional committee members for assessment by the committee for identical adoption of these standards as ISs:

IEC TC 121

i) IEC TS 63058: 2021 Switchgear and controlgear and their assemblies for low voltage - Environmental aspects
ii) IEC TR 63196: 2020 Switchgear and controlgear and their assemblies for low-voltage - Energy efficiency
iii) IEC TS 63208: 2020 Low-voltage switchgear and controlgear - Security aspects

IEC SC 121A

i) IEC 60947-5-6: 1999 Low-voltage switchgear and controlgear - Part 5-6: Control circuit devices and switching elements - DC interface for proximity sensors and switching amplifiers (NAMUR)
ii) IEC 60947-7-1: 2009 Low-voltage switchgear and controlgear - Part 7-1: Ancillary equipment - Terminal blocks for copper conductors
iii) IEC 60947-7-3: 2009 Low-voltage switchgear and controlgear - Part 7-3:

Ancillary equipment - Safety requirements for fuse terminal blocks

III. The committee further reviewed the list of IEC standards given at Annex 3 of the agenda against which no Indian Standards exist and decided to allocate the task of initial review of all other standards to

- WG 3 (For review of standards under IEC TC 121 and SC 121A),
- WG 4 (For review of standards under IEC SC 121B) and
- WG 5 (For review of under IEC SC 23E) (refer Item 7.4 of Minutes of last meeting for WG composition).

These working groups were advised to carry out the assessment of the list of respective IEC committee standards given at Annex 3 of the agenda to:

a) Assess the suitability of implementation of these IEC standards in India after identical adoption
b) Testing infra/Feasibility of test
c) Feedback for making infrastructure changes as per new requirements by manufacturers.

The above task shall be complete by the WG 3, 4 and 5 by 15 March 2023.

4.1 DRAFTS FINALIZED FOR PRINTING

The committee noted the information given in the agenda.

4.2 DRAFTS FOR FINALIZATION

4.2.1 Members were requested to examine the documents given in the table below and provide comments, if any.

Sl No.	Draft IS No. & Title	Eqv. IEC (with degree of equivalence)	Latest IEC	Decision taken in the last sectional committee	Action reported in the agenda	Decision Taken
1.	**Amendment 1 to IS 17120: 2019** In-Cable control and protection device for mode 2 charging of electric road vehicles IC – CPD	IEC 62752: 2016 Identical	IEC 62752:2016+AMD1: 2018 CSV	Draft Amd 2 of IEC was circulated to ETD 07 members and comments were received from M/s Legrand India which were discussed in the ETD 07 meeting. It was decided to send the comments prepared by ETD 07 to ETD 51 for obtaining their considered view as well, before finalizing the comments for sending to IEC.	The comments were circulated to ETD 51 members. Comments received from ETD 51 members were incorporated and final comments were shared with IEC with the approval of Chair (ETD 07). Document prepared based on IEC AMd 1: 2018 is under wide circulation as Doc ETD	The committee decided to send the documents for printing in case no comments are received during the wide circulation period.

				The final comments shall then be sent with the approval of Chair (ETD 07) to IEC. The committee decided to send the IEC Amd 1: 2018 in wide circulation for 60 days. The document shall also be sent to ETD 51 members during wide circulation for inviting comments.	07 (21504). Last date of comments: 17 Feb 2023	
2.	**First Revision of IS/IEC 60898 (Part 2) : 2003** Electrical accessories - Circuit - Breakers for overcurrent protection for household and similar installations: Part 2 circuit - Breakers for ac and dc operation	IEC 60898-2: 2003 Identical	IEC 60898-2:2016	The committee decided to send the IEC 60898-2: 2016 in wide circulation for 60 days.	Document is under wide circulation as Doc ETD 07 (21507). Last date of comments: 17 Feb 2023	
3.	**First Revision of IS/IEC 60947-6-1: 2013** Low-Voltage Switchgear and Controlgear: Part 6 Multiple Function Equipment, Section 1 Transfer switching equipment	IEC 60947-6-1:2005 +AMD1:2013 CSV Identical	IEC 60947-6-1:2021	The committee decided to send the IEC 60947-6-1: 2021 in wide circulation for 60 days.	Document is under wide circulation as Doc ETD 07 (21510). Last date of comments: 17 Feb 2023	
4.	**First Revision of IS/IEC 60947-6-2: 2007** Low-voltage switchgear and controlgear: Part 6 Multiple function equipment Section 2 Control and protective switching devices or equipment CPS	IEC 60947-6-2: 2007 Identical	IEC 60947-6-2:2020	The committee decided to send the IEC 60947-6-2: 2020 in wide circulation for 60 days.	Document is under wide circulation as Doc ETD 07 (21514). Last date of comments: 17 Feb 2023	

5.	**First Revision of IS/IEC 61439-1: 2011** Low-Voltage Switchgear and Controlgear Assemblies: Part 1 General Rules	IEC 61439-1:2011 Identical	IEC 61439-1:2020	The committee decided to send the IEC 61439-1: 2020 in wide circulation for 60 days.	Document is under wide circulation as Doc ETD 07 (21531). Last date of comments: 18 Feb 2023	
6.	**First Revision of IS/IEC 61439-2: 2011** Low Voltage Switch Gear and Controlgear Assemblies: Part 2 Power Switch Gear and Control Gear Assemblies	IEC 61439-2: 2011 Identical	IEC 61439-2:2020	The committee decided to send the IEC 61439-2: 2020 in wide circulation for 60 days.	Document is under wide circulation as Doc ETD 07 (21532). Last date of comments: 18 Feb 2023	
7.	**First Revision of IS/IEC/TS 61439-7: 2014** Low-Voltage Switchgear and Controlgear Assemblies: Part 7 Assemblies for Specific Applications such as Marinas, Camping Sites, Market Squares, Electric Vehicles Charging Stations	IEC 61439-7:2014 Identical	IEC 61439-7:2018	The committee decided to send the IEC 61439-7: 2018 in wide circulation for 60 days. The document shall also be sent to ETD 20 and ETD 51 members during wide circulation for inviting comments.	Document is under wide circulation as Doc ETD 07 (21534). Last date of comments: 18 Feb 2023	Latest IEC 61439-7: 2022 was considered by the committee and it was decided to **drop** the document **ETD 07 (21534)** and send the **latest IEC 61439-7: 2022 into wide circulation for 60 days.** The document shall also be sent to ETD 20 and ETD 51 members during wide circulation for inviting comments.
8.	**IEC 60898-3:2019+AMD 1: 2022 CSV** Electrical accessories - Circuit-breakers for overcurrent protection for household and similar installations - Part 3: Circuit-breakers for DC operation	-	-	The committee decided to send the IEC 60898-3: 2019+AMD1:2022 CSV in wide circulation for 60 days. (*see also Item 7.3 of these minutes*)	Document is under wide circulation as Doc ETD 07 (21528). Last date of comments: 18 Feb 2023	The committee decided to send the document for printing in case no comments are received during the wide circulation period.

4.3 DRAFTS FOR APPROVAL FOR WIDE CIRCULATION

Sl No.	IS No.	Decision Taken in the last meeting	Action reported in the agenda	Decision Taken
1.	**IS 12640 (Part 1): 2016 Residual current operated Circuit Breakers without integral overcurrent protection for household and similar uses RCCBs: Part 1 general rules (*Second Revision*)** Equivalent IEC: Identical to IEC 61008-1: 2010+Amd 1: 2012 CSV Latest Base IEC: IEC 61008-1:2010+AMD1:2012 +AMD2: 2013 CSV	Mr C S Kore, M/s Schneider Electric India Pvt. Ltd. informed the committee that he had identified and prepared a list of changes being introduced by the amendment 2 of IEC. He also displayed and explained the list to the committee during the meeting. It was decided to circulate the list of changes among the committee members for 15 days seeking comments on the Amendment 2. The committee decided to send the document in wide circulation for 30 days, if no comments are received on the above list of changes. In case, comments are received on the list of changes, the comments shall be taken up for consideration of the committee in its next meeting.	List of changes provided by Mr Kore has been circulated vide email dated 19 Dec 2022.	The committee members requested for 30 days additional time from the date of the meeting to examine and review the list of changes and submit their comments, if any. It was decided that in case of receipt of comments within the above mentioned period, the comments shall be put up for consideration of the committee. In case no comments are received from the committee members, the IEC Amd 2: 2013 shall be put in wide circulation for 60 days for adaptation as Amd 1 to IS 12640 (Part 1): 2016.
2.	**IS 12640 (Part 2): 2016 Residual current operated circuit - Breakers with integral overcurrent protection for household and similar uses**	Mr Chandrakumar S, M/s UL India Pvt. Ltd. agreed to prepare a list of changes being introduced by the amendment 2 of IEC. It was decided to circulate the list of changes among the committee members for 15 days seeking comments on the Amendment 2.	List of inputs awaited from Mr S Chandrakumar, M/s UL India Pvt. Ltd.	Mr S Chandrakumar, M/s UL India Pvt. Ltd. Confirmed that he will circulate the list of changes within 30 days of the meeting.

	(RCBOs): Part 2 General rules Equivalent IEC: Identical to IEC 61009-1:2010+AMD1:2012 CSV Latest Base IEC: IEC 61009-1:2010+AMD1:2012 +AMD2: 2013 CSV	The committee decided to send the document in wide circulation for 30 days, if no comments are received on the above list of changes. In case, comments are received on the list of changes, the comments shall be taken up for consideration of the committee in its next meeting.		Committee members were requested to examine the list once circulated and provide their comments, if any, on the same within 30 days from the date of circulation. It was decided that in case of receipt of comments within the above mentioned period from committee members, the comments shall be put up for consideration of the committee. In case no comments are received from the committee members, the IEC Amd 2: 2013 shall be put in wide circulation for 60 days for adaptation as Amd 1 to IS 12640 (Part 2): 2016.

4.4 P-DRAFTS UNDER PREPARATION

Sl No.	IS No.	Decision Taken in last meeting	Action reported in the agenda	Decision taken
1.	**IS 13032: 1991 'A.c. miniature circuit - Breaker boards for voltages not exceeding**	Mr Anil Pandit had agreed to review the comments and the draft NWIP and in the meeting, he informed the committee that he has examined the draft NWIP along with comments submitted by Mr Surendran.	Mr Surendran has now submitted Factory Acceptance Test reports (*see* **Annex 5**) which were circulated to ETD 07 members on 06 Oct 2022 inviting comments till 21 Oct. On the above reports, Mr Saravanan Shanmugam, M/s Schneider Electric has submitted	The committee members discussed the NWIP again along with the reports submitted. Mr Surendran was once again invited to the meeting and he presented the requirements,

	1000 V - Specification' (NWIP document enclosed at **Annex 4**)	He clarified that all configurations are covered under IS 13032. Mr Narayan Surendran had been invited to the meeting. The committee clarified that a separate standard or a revision may not be required if the product can be tested as per some, if not all, clauses of IS 13032. To obtain further clarity, Mr Surendran was requested to get his product tested based on IS 13032 (applicable clauses may be tested) and in addition, test reports of tests carried out by him in his factory may also be shared with the committee to provide a clarity to the committee if IS 13032 requires revision or not based on his comments and NWIP draft.	the following for consideration of the committee: *"We do have an existing standard IS/IEC61439-3 which will address the concern raised by Mr Narayan Surendran.* *The L.V switchgear and controlgear assembly standard IS/IEC641439-Part 3 - Distribution boards intended to be operated by ordinary persons (DBO) covers not only the performance and safety requirements (Clause 9 of IS/IEC61439-3) but also the constructional requirements of such DBO which is not covered in the proposed NWIP. It also addresses both Type A (Clause 3.1.102) and Type B DBO (Clause 3.1.102) with outgoing circuits containing MCB, RCBO, RCCB and Fuse Links with an all-inclusive approach of design verification – Scope 1 & Clause 10 of IS/IEC61439-3. The FAT shared by Mr Narayan Surendran is a segment of routine test (Clause 11 of IS/IEC61439-3) that is warranted in IS/IEC61439-3.* *Hence we strongly recommend the solution to be design verified as per IS/IEC61439-1/3 and will not advocate for a separate / revision of an standard."*	proposal for modifications and respective justifications along with the FAT shared by him. Committee opined that IS/IEC 61439-3 covers both 220V and 415V and many household DBs have been tested and supplied after ensuring compliance to the above standard. A new **Working Group WG 6** was formed with the following scope of work: i) Map the requirements mentioned by Mr Narayan Surendran against IS/IEC 61439-3. (Mr Surendran to be invited to the WG meetings for the purpose). ii) In addition, IS 13032 being a pre-2000 standard, the **WG 6 shall prepare a draft revision document of IS 13032**. The draft shall be submitted by the working group within 1 month period. WG 6 composition as decided by the

				committee is given below: **1. Shri S.Saravanan, M/s Schnieder Electric – Convener** **2. Shri Anil Kumar Pandit, In personal capacity (Member),** **3. Shri Robin Virani, /s Elmex Controls Private Limited (Member)** **4. Shri Anilesh K, Schneider Electric India Pvt. Ltd. (Member)**

Item 5 Review of Published Standards for Revision/Reaffirmation

5.1 The committee noted the information given in the agenda.

5.2 Action Research Projects (ARP) for Pre-2000 standards

SL no.	IS no. & Title	Decision taken in the last meeting	Action Reported in the agenda	Decision Taken
1	IS 5039: 1983 Specification for distribution pillars for voltages not exceeding 1000 V AC and 1200 V DC (First Revision)	The committee had examined the Action Research Project (ARP) reports submitted by BIS officials to review and assess the Indian Standards given alongside. In the last meeting, it was decided that the Working Group **WG 1 comprising of following:** **1.Shri Swaraj Kumar Das, CPRI (Convener),** **2. Shri Rahul Srivastava, Siemens Ltd. (Member),** **3. Shri Anil Kumar Pandit, In personal capacity (Member),** **4. Shri Chandrakumar S, UL India Pvt. Ltd. (Member) and** **5. Shri Anilesh K, Schneider Electric India Pvt. Ltd. (Member))**	WG 1 to update the committee.	Convener, Mr Swaraj Kumar Das requested to excuse himself from the role of convener in the working group. **Smt Sumbul Munshi, CPRI was appointed as the convener of the working group WG 1.** The Working Group WG 1 was asked to review the Action Research Report on IS 5039 and submit its

		shall review the reports and submit its recommendations for consideration of the committee within 1 month.		recommendations for consideration of the committee within 1 month.
2	IS 13947 (Part 5/Sec 2): 2004 Low - Voltage switchgear and controlgear – Specification: Part 5 control circuit devices and switching elements, Sec 2 proximity switches			The committee agreed that all requirements of IS 13947 (Part 5/Sec 2): 2004 are covered under IS/IEC 60947-5-2 and hence IS 13947 (Part 5/Sec 2): 2004 shall stand superseded by Doc ETD 07 (19623) once published.
3	IS 8588 (Part 1): 1977 Specification for thermostatic bimetals: Part 1 General requirements and methods of tests	Recommendation by WG 1: Need additional review time Decision of the committee: The committee discussed that there may be implications for bimetal manufacturers in case of revision or withdrawal of this standard. It was decided to write to M/s Kanthal, M/s Shivalik and ETD 32 'Electrical Appliances' committee of BIS where there may be relevant manufacturers/stakeholders of thermostatic bimetals, seeking confirmation as to which IS is now followed for the general requirements and tests for thermostatic bimetals. The committee shall then decide based on the responses received.	Response awaited from ETD 32 committee, M/s Kanthal and M/s Shivalik. Further, committee is requested to compare requirements with IS 5478.	M/s Shivalik was invited to the meeting and they made a detailed presentation (*see* **Annex 1** of these MoM) proposing changes clause wise. The following members were allocated the work to draft a revision document after due consultation with Mr Akhil, M/s Shivalik: 1) **Shri Anil Kumar Pandit, In personal capacity** 2) **Shri Anilesh K, Schneider Electric India Pvt. Ltd.**

4	IS 14577: 1998 Short - Circuit current evaluation with special regard to rated short - Circuit capacity of circuit - Breakers in installations in ships – Guide	Recommendation by WG 1: Align with Current version of base IEC standard, as Dual number standard Decision of the committee: The committee decided to send the latest IEC 61363-1:1998 in wide circulation for 60 days to align with the IEC standard and publish the standard in Dual no. i.e. IS 14577/ IEC 61363-1:1998.	Document is under wide circulation as Doc ETD 07 (21523). Last date of comments: 18 Feb 2023	The committee decided to send the documents for **printing** in case no comments are received during the wide circulation period.
5	IS 14614: 1998 Residual current - Operated protective devices RCDs for household and similar use - Electromagnetic compatibility	Recommendation by WG 1: Align with current version of IEC Standard Decision of the committee: The committee noted that IS 12640 series makes reference to this IS. The committee further noted that latest IEC 61543 is under the final stage of publication at IEC as FDIS. This finalized IEC revision draft constitutes a technical revision. This edition includes the following significant changes with respect to the previous edition: a. Some editorial modifications were introduced to comply to the ISO/IEC Directives Part 2:2021, e.g. introduction of Clause 3 – Terms and Definitions and renumbering of the whole document. In particular, the numbering of performance criteria has been changed (5.1.1, 5.1.2 become A, B, etc.); b. Some technical improvements: - Modification of scope and addition of Clause 6 and Clause 7 to enable the use of this document as a guideline for the preparation of EMC requirements and tests for other product	Document is under wide circulation as Doc ETD 07 (21525). Last date of comments: 18 Feb 2023	The committee decided to send the documents for **printing** in case no comments are received during the wide circulation period.

		standards under the scope of TC 23E; - Requirements for voltage dips and interruptions added; - Repetition rate for burst-test, defined at 5 kHz; - Surge test: Specifying impulse voltage application point and adding of voltages 2 kV, 1 kV and 0.5 kV to test T 5b; - Radiated radio-frequency electromagnetic field: Adding of frequency range 1.4 GHz to 6 GHz and specifying frequencies for the test at 1.25 IΔn; - Conducted, common mode disturbances in the frequency range 0 Hz to 150 kHz: Specifying frequencies for the test at 1.25 IΔn; - Electrostatic discharges: Change of performance criteria from 5.1.3 to B. The committee decided to send the latest IEC 61543 (once published by IEC) into wide circulation for 60 days.		
6	IS 8623 (Part 2): 1993 Specification for low - Voltage switchgear and controlgear assemblies: Part 2 Particular requirements for bus-bar trunking systems busways (*first revision*)	Recommendation by WG 1: Withdraw IS 8623 (Part 2): 1993 Decision of the committee: The committee agreed that the requirements of IS 8623 (Part 2): 1993 are now covered under IS/IEC 61439-6:2012. It was, therefore, decided to withdraw IS 8623 (Part 2): 1993.	Withdrawal is under process.	The committee noted the information given in the agenda.

7	IS 8623 (Part 3): 1993 Specification for low - Voltage switchgear and controlgear assemblies: Part 3 Particular requirements for equipment where unskilled persons have access for their use	Recommendation by WG 1: Withdraw IS 8623 (Part 3): 1993 Decision of the committee: The committee agreed that the requirements of IS 8623 (Part 3): 1993 are now covered under IS/IEC 61439-3:2012. It was, therefore, decided to withdraw IS 8623 (Part 3): 1993.	Withdrawal is under process.	The committee noted the information given in the agenda.

5.3 Clarification regarding coverage of product in Indian Standards under the purview of ETD 07

Sl No.	Query received/Discussions held so far on the query	Decision taken during the last meeting	Action reported in the agenda	Decision Taken
1.	In the ETD 07 meeting held in Jan 2022, the committee had reviewed and discussed the submission in detail. The committee had requested that following technical details from enquirer for consideration of the committee: 1) Specific electrical parameters of the product like Rated supply voltage, Leakage current value, Rated current, Type of protection (AC or pulsating DC) among others. 2) Tabular comparison of the requirements of the product with the products covered under Indian Standards such as IS 12640 (Part 1 and 2) with justification why/how the product is not covered under these standards. 3) Technical documents/Test reports	In the last meeting, the committee had reviewed and discussed the submission in detail. The committee re-considered the responses submitted by the enquirer. The committee noted that as per the mail communications made by enquirer to the labs viz. FCRI and ERTL, the enquirer has not indicated the specific parameters and the acceptance criteria which the labs must verify in order to establish the performance of the product. In order to ensure a fail-safe consideration by the committee of this query and similar queries, a new	The WG 2 has submitted a report after discussions held during a meeting of WG 2 which are given at **Annex 6**.	Convener, Mr Swaraj Kumar Das requested to excuse himself from the role of convener in the working group. **Shri Vasudevamurthy, CPRI was appointed as the convener of the working group WG 2.** Regarding the query, based on the WG 2 report submitted, the committee clarified that as earlier sought from the enquirer, IS 12640 (Parts 1 and 2) may be referred to for similar equipment requirements and a tabular comparison

	in support of the above comparison and technical details provided (may provide in-house test reports in case of non-availability of outside lab test reports as per Indian/International Standards) for consideration of the technical committee. It was decided that once the details are received, the committee shall re-consider and will be able to provide inputs. The following response was received from the enquirer which was circulated to ETD 07 members on 02 May 2022 for providing their inputs till 12 May 2022: "The points mentioned in the said standard are not applicable for our newly innovated electronic Earth Leakage Circuit Breaker as it is completely based on solid-state and your standard details are matching for relay based electro-mechanical ELCB. Nevertheless, for your ready reference some vitals points are mentioned to have your kind attention : 1) Specific electrical parameters of the product like Rated supply voltage is 150 to 275 Volts AC and Leakage current value is 20 mA and Rated current is 30 amp and type of protection by a zener-diode has been used across the I.C. and MOV is placed between phase and neutral for surge protection. 2) Tabular comparison of the requirements of the product	Working Group WG 2 was formed which would draft a template of questions and provide recommendation to the committee for providing clarification based on responses received to the questions. The composition of the working group **WG 2** is given below: **i) Shri Swaraj Kumar Das, CPRI (*Convener*)** **ii) Shri Anil Pandit, In personal capacity (*Member*)** **iii) Shri Chandrakumar S, UL India Pvt. Ltd. (*Member*)** **iv) Shri C S Kore, Schneider Electric India Ltd. (*Member*)** ***The Working Group shall provide the template within 15 days so that the same may be shared with the enquirer without any further delay.*** It was decided that once the details are received, the committee shall re-consider and will be able to confirm whether the product is covered under any of the Indian Standards on Low Voltage Switchgear and Controlgear.		of requirements with justification why/how the product is not covered under these standards must be provided. Based on the limited information provided by the enquirer, it was reiterated that IS 12640 (Parts 1 and 2) are relevant standards and the product must be certified in compliance to these standards. In case of any issue faced by the enquirer w.r.t ensuring compliance and testing as per above mentioned standards, they may submit the above tabular comparison with justification and also information as to how physical disconnection gets effected in their product and how it can be tested, if not possible by any of the test methods mentioned in IS 12640 (Parts 1 and 2). The query was closed for further

	with the products covered under Indian Standards such as IS 12640 (Part 1 and 2) with justification why / how the product is not covered under these standards. : As our product is not electromechanical based relay operated and our product fully based on semiconductor components. 3) Technical documents / Test Reports in support of the above comparison and technical details provided (may provide in-house test reports in case of non-availability of outside lab test reports as per Indian / International Standards) for consideration of the technical committee : We have enclosed the mail letter from ERTL Okhla, New Delhi-20 and Fluid Control Research Institute Kanjikode West, Palakkad - 678 263." The enquirer has provided two email responses obtained by him from ERTL and FCRI which were enclosed at Annex 6 of the last meeting's agenda**.** Some photographs were also shared by him which were also enclosed as part of Annex 6 of the last meeting's agenda**.**			discussions until a further query or response is received from the enquirer.
2.	Another query has been received reg. confirmation of coverage of Automatic Switches in IS/IEC 60947-3 or other parts of the series. The following information has been shared by him which has been shared with WG 2 (*see* Annex 7 of the agenda). [Functioning of the product] The main function of this product is to detect the position of the Piston in the pneumatic cylinder. It also has an LED indicator to visually verify the position of the piston in the pneumatic actuator/controller.		The technical details, comparison report and test reports were sought by the Member Secretary for obtaining further clarity on the query and the documents	The committee reviewed the technical details, comparison report and test reports submitted by the enquirer. Based on the above information, the committee clarified that the product is covered

	[Working principle] Auto Switch has semi-conductor based inbuilt circuit which gives output when it comes in proximity of a magnetic field. Alternatively, a contact type auto-switch is also made to detect the presence of magnetic field by making and breaking of contact. [Uses] Normally a pneumatic cylinder has an inbuilt magnet in the moving Piston inside the cylinder. Auto Switches are mounted at the both ends (Open and Close) of the cylinder and when the Piston moves to any end process position (In or Out) the switches detect the magnetic field and give the signal. This signal is used by the controller to decide the next operation in industrial automation.	received in response were shared with WG 2 and are also enclosed at Annex 8 of the agenda.	under IS/IEC 60947-5-1. The query was closed for further discussions until a further query or response is received from the enquirer.

Item 6 IMPLEMENTATION OF INDIAN STANDARDS

6.1 The committee noted the information given in the agenda.

6.2 Submission of Small Scale MCB Manufacturers Welfare Association regarding

Submission: The product 'Electrical Accessories- Circuit-Breakers for Overcurrent Protection for Household and Similar Installations- Circuit Breakers for a.c. Operation' as per IS/IEC 60898-1:2015. The product is covered under mandatory certification under the Electrical Wires, Cables, Appliances and Protection Devices and Accessories (Quality Control) Order, 2003.
A letter from 'Small Scale MCB Manufacturers Welfare Association' was received vide email dated 23.06.2022 wherein they had requested BIS to modify the product manual for the product with respect to the frequency of testing of Short Circuit Test (*see* Annex 9 of the agenda).

A meeting was held under the chairmanship of Deputy Director General (Certification), BIS to discuss the issue. The meeting was attended by BIS licensees for the product, industry associations and BIS recognized labs.

Inputs sought from ETD 07: Representatives of the large scale industries proposed that if the frequency of testing of short circuit test cannot be decreased, the test may be carried out in phases based on the sequences given in the Standard. Further, they proposed that instead of carrying out short circuit test for all varieties covered under the scope of licence, testing may be carried out on varieties where testing is more stringent, as an example, they proposed that testing may be carried out on 4 pole circuit breaker and if the same passes in testing, the single pole circuit breaker, which has less stringent testing, may not be tested again. On the above suggestion from manufacturers, ETD 07 has been requested to give opinion and comments.

Decision of the committee ETD 07*:* The committee discussed the above proposal in detail. The

committee unanimously agreed that the Short Circuit test is an essential test; MCBs are very important in household wiring installation and are critical to safety aspects like overheating and short-circuit under abnormal conditions. It would not be in the interest of the consumer to dispense with these tests. Further, it was agreed that the committee cannot endorse categorization or grouping of varieties, unless otherwise specified in the Standard for some definite sequences (refer IS for the purpose). The committee clarified that the example quoted w.r.t 4 pole and single pole circuit breaker may lead to misinterpretation that the testing of single pole circuit breaker is less stringent, hence such categorizations/groupings must be avoided unless specified in the Standard.

Item 7 INTERNATIONAL ACTIVITIES

7.1 Programme of Work and List of Published Standards

The committee noted the information given in the agenda. Also see Item 4 of these Minutes.

7.2 The committee noted the information given in the agenda.

Registered expert Mr Rahul Srivastava, M/s Siemens India briefed the committee about the upcoming meetings, its organization and its agenda.

Following ETD 07/WG 3 members requested to participate and the committee approved their nomination along with participation of BIS officials in the upcoming WG meeting subject to approval of the WG convener:

i) Mr Ritesh Kumar Patel, M/s Schneider Electric India Pvt. Ltd.
ii) Mr Shelesh Tiwari, M/s ABB India

BIS officials:

iii) Mr Rajeev Sharma, DDG (Std.-1), BIS
iv) Mrs Priti Bhatnagar, Sc F and Head (ETD), BIS
v) Mrs Meghna Mudgal, Member Secretary (ETD 07), BIS

Comments sent so far by INC which were to be discussed during the WG meetings in India on following IEC draft docs were further deliberated upon for presentation and discussion during the meeting:

a) 121/122/CD- IEC 62683-1 ED2-Low-voltage switchgear and controlgear - Product data and properties for information exchange - Part 1: Catalogue data
b) 121/121/CDV- IEC 63404 ED1- Switchgear and controlgear and their assemblies for low voltage – Integration method of radiocommunication device into an equipment
c) 121A/509/CDV- IEC 60947-4-1 ED5-Low-voltage switchgear and controlgear - Part 4-1: Contactors and motor-starters - Electromechanical contactors and motor-starters
d) Short-circuit testing procedure for star-delta and two-step autotransformer was also discussed and based on the feedback received from members, it was decided that Indian expert be part of the Task Force for preparation of a proposal in the form of an amendment of edition 5 of IEC 60947-4-1 for completing the short-circuit testing of star-delta and two-step autotransformer starters.
e) IEC 61812-1 Time relays for industrial and residential use - Part 1: Requirements and tests – Comments sent from WG 2 wherein India has played a pivotal role were reviewed for information.

Item 8 FUTURE PLANS AND STRATEGIES

The new Standards National Action Plan (SNAP) has listed developing Indian Standards on:
a. LV Switchgear and Controlgear and
b. DC Switchgear
as focus areas.
The Sectional Committee agreed to prioritize among different projects and develop Indian Standards on the subjects identified in SNAP. WG3, WG 4 and WG 5 were advised to identify suitable application areas for developing and harmonizing standards on the above subjects.

Item 9 DATE AND PLACE OF NEXT MEETING

It was decided to hold the next meeting of the sectional committee tentatively in April 2023.
The final date and place of the meeting shall be decided in consultation with the Chair of the committee.

Item 10 ANY OTHER BUSINESS

There being no other business, the meeting ended with a vote of thanks to the Chair.