

BUREAU OF INDIAN STANDARDS

MINUTES

Name of the Committee	No. of Meeting	Day, Date and Time	Venue
Rotating Machinery, Sectional Committee ETD 15	31 st	29 th November 2022 Tuesday 10.30AM	Samvaad (Green Room), Manak Bhawan, 9, BSZ Marg, Near ITO, Bureau of Indian standards, New Delhi

S. No	Organization	Name	Email ID
1.	In Personal Capacity (BHEL)	Shri Anish K Varshney	Anish7k@gmail.com
2.	Asea Brown Boveri Limited, Faridabad	Shri Sumit Tyagi	sumit.tyagi@in.abb.com
3.	Bharat Bijlee Ltd.	Shri Salil Kumar	Salil.kumar@bharatbijlee.com
4.	CG Power Industrials Solutions, Mumbai	Shri Sudhakaran	sudhakaran.achuthan@cgglobal.com
5.	CG Power and Industrial Solutions, Mumbai	Ms Elizabeth Gulli	Elizabeth.gulli@cgglobal.com
6.	ERDA, Vadodara	Shri Ravi Prabath Singh	Ravi.sing@erda.org
7.	Engineers India Limited, New Delhi	Shri S Srihari	srihari.s@eil.co.in
		Shri Ravish K. Raman	ravish.raman@eil.co.in
8.	Grundfos Pumps India	Shri Bibek Saha	bibek@grundfos.com
9.	Havells India Limited	Shri Anil Sukumar Akole	anil.akole@havells.com
10.	Havells India Limited	Shri Sassikumar J.	sassi.j@havells.com
11.	IN PERSONAL CAPACITY	Shri Dilip Bhawe	Dilip.Bhawe_retainer@kbl.co.in
12.	Ingersoll Rand India Limited, Ahmedabad	Shri Harsh Shukla	harsh.shukla@irco.com
13.	Integrated Electric Limited	Dr. Praveen Vijayraghavan	praveen1@int-elec.com
14.	International Copper Association India, Mumbai	Shri Abhishek Dhupar	abhishek.dhupar@copperalliance.org
15.	Indian Pump Manufacturers Association, Mumbai	Shri K.V. Karthik	karthik@deccanindustries.com
16.	Indian Electrical and Electronics Manufacturers Association, New Delhi	Ms. Pragati Sohoni	pragati.sohoni@ieema.org
17.	KSB Limited	Shri Rajesh Gote	Rajesh.gote@ksb.com
18.	KSB Limited	Shri Dattatrey Katkar	Dattatray.katkar@ksb.com
19.	NTPC Limited, New Delhi	Shri Rajesh Sharma	rajeshsharma02@ntpc.co.in
20.	Rotomotive Powerdrives	Shri Praveen kumar	praveen.kumar@rotomotive.com
21.	Southern India Engineering Manufacturers Association, Coimbatore	Dr. R. Subramanian	rama.smani@gmail.com
22.	Southern India Engineering Manufacturers Association, Coimbatore	Dr. C. Murugesan	siema@siema.org
23.	Southern India Engineering Manufacturers Association,	Shri A. M. Selvaraj	amsraj37@gmail.com

	Coimbatore		
24.	Southern India Engineering Manufacturers Association, Coimbatore	Shri Vijayraj J	
25.	SITARC, Coimbatore	Shri V. Krishnamoorthy	clickkrishna@hotmail.com
26.	Siemens Limited, Mumbai	Shri Prasad Hardikar	prasad.hardikar@siemens.com
27.	Toshiba Mitsubishi-Electric Industrial Systems Corporation, Bengaluru	Shri Manish Joshi	manish.joshi@tmeic.in

Item 0 GENERAL

0.1 Welcome and Opening Remarks by the Chairman

Shri Anish Varshney, Chairman, ETD 15 welcomed all the members present in the meeting. He appreciated the members for good attendance during the meeting. He further said that in order to bring more clarity in the scope of IS 12615, the committee should take up the revision of IS 12615. With this, he wished members for successful discussion on all agenda items.

Ms Priti Bhatnagar, Scientist 'F' & Head (ETD) welcomed the members and extended her gratitude for actively participating in National Standardization work. She further emphasized the importance of the work carried out by ETD 15 and encouraged members to expedite the review activity of pre-2000 standards. She wished all for successful discussion on all the agenda points.

Ms Neha Agarwal, Member Secretary welcomed all the members present during the meeting. She requested members to constrain their discussion within the agenda point to complete all agenda items.

The meeting started with brief introduction of members present during the meeting

Item 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

- 1.1** There being no comments, the committee formally confirmed the minutes of the 30th meeting of Rotating Machinery Sectional Committee, ETD 15 held on 18 May 2021 at BIS office and circulated vide BISDG letter no. ETD15/A-2.30 dated 31 May 2021.

1.2 Actions Arising Out of Previous Meetings (30th Meeting)

Sl. No.	Item No. of Last Minutes	Subject	Decision of the last meeting	Action/Remarks	Decision taken during the meeting
1.	1.2 (1)	Revision of IS 9283: 2013 Motors for Submersible Pump sets – Specification (SecondRevision)	<p>Dr. C Murugesan , SIEMA has explained the upgraded efficiency tables with different levels. He informed the committee that level 1 efficiency values are taken from IS 8043, level 2 & 3 efficiency values from existing IS 9283 and Levels 4 & 5 efficiency values are the upgraded in the revised draft.</p> <p>The committee discussed the draft and suggested the following:</p> <p>a) To maintain the consistency in all efficiency levels, it was suggested to follow nominal efficiency factor concept in all levels.</p> <p>b) It was observed that there are marginal difference in efficiency values for level 4 & level 5. Shri Dilip Bhave suggested to consider the reduction of losses as 10-15 % in each level depending upon the present technology available and thus efficiency values may be arrived upon.</p> <p>c) It was further suggested that IS 9283 and IS 8304 should be inline with each other.</p> <p>SIEMA was requested to consider all the suggestions discussed during the meeting and re-submit the revised draft to BIS within one month time for further necessary actions.</p>	<p>ETD 15 (17922)/ P Draft circulated vide email dated 18 August 2021 with last date of comments as 17 Sep 2021.</p> <p>Comments received from ICAI and Shri Dilip Bhave are placed at Annex 1.</p>	<p>The committee discussed the comments received on the draft document. Decisions are placed at Annex-1.</p> <p>Further, it was decided to revise the existing draft inline with the following changes:</p> <ol style="list-style-type: none"> Delete row (ii) of Table 6 Reference of IS 15999 (Part 1) in place of IS 3043. Addition of separate annexure to specify cable sizes Title of performance characteristics tables needs to be in line with IS 8034. Clause 5.9 (note 2)- For single-phase motor output ratings below the rating specified may be permitted. <p>SIEMA was requested to submit the revised draft in consultation with Shri Dilip Bhave within 15 days.</p> <p>Upon receipt, the draft will be wide circulated for one month for</p>

					seeking comments.
2.	1.2 (2)	Revision of IS 12075: 2008 Mechanical Vibration of Rotating Electrical Machines with Shaft Heights 56 mm and Higher - Measurement, Evaluation and Limits of Vibration Severity	It was decided to wide circulate the document for eliciting comments for a period of 2 months. It was suggested to add foreword in the document so as to mention the changes with respect to the previous edition. Shri Dilip Bhave was requested to provide the same.	ETD 15 (16745)/ WC Draft circulated vide email dated 10 June 2021 with last date of comments as 12 July 2021. Comments received from Marathon are placed at Annex 2.	The committee discussed the comments. However, it was decided to re-circulate the draft. ABB, Siemens and Bharat Bijlee were agreed to relook the draft and submit comments within one month.
3.	1.2 (3)	ETD 15 (15753) (Third Revision of IS 996: 2009) Single phase ac induction motors for general purpose	The committee discussed all the comments received on the revised draft. Refer Annex 1 for the decision. Further, the committee also discussed comments received during the meeting and decided the following changes to be done into the revised draft: a) It was suggested to compare the efficiency values with latest International practices. Shri Dilip Bhave kindly agreed to do the same. b) Table 12 & 13- Title of column 4 needs to be modified with nominal efficiency instead of minimum. c) A new clause to be added to give reference of IS 13730 'Specifications for particular types of winding wire'. d) Clause 8.2- 10 minutes as preferred period shall be added inline with IEC standard. e) The committee decided to add a new note for	ETD 15 (15753)/ WC Draft circulated vide email dated 02 August 2021 with last date of comments as 1 Sep 2021. Comments received from are placed at Annex 3.	The committee discussed that its not possible to achieve efficiency in single phase motors as in 3-phase motors. Therefore, here efficiency can not be aligned with IEC 60034-30-1. In addition, IEC 60034-30-1 does not define frame to output ratio also. Further, to modify Table 12 and Table 13, PICL would be requested to provide nominal efficiency value. IEEMA was also requested to share the draft with leading manufactures of single phase ac motors for obtaining comments.

ratings which are not specified into the standard. The performance values for those ratings may be agreed between customer and manufacturer. However, IEEMA was further requested to discuss the same with manufacturers in its rotating division meeting and suggest the suitable wordings which may be added into the revised draft.

f) Shri Debdas Goswami suggested to modify Annex E to cover all special purpose motors. To draft the same, a small working group was constituted with the following composition:
1. Shri Ravi Singh, ERDA
2. Shri Bharat B, CG Power
3. Shri Rajiv Ranjan, Marathon,
4. PICL
5. Godrej

g) Dr R Subramanian suggested to revise the frequency of testing for noise limit as once in a year. The same will be forwarded to CMD-3, if the SIT may be modified accordingly.

With all these changes, the committee decided to wide circulate the draft again for one month period of time.

To avoid further delay in finalizing the revised draft, it was decided to add the modified Annex E later on as an amendment.

5.	1.2 (4)	NWIP- PERMANENT MAGNET PMAC / DC / PMSM MOTORS FOR SUBMERSIBLE PUMPSETS - SPECIFICATION	<p>Shri Sanjeev Chowdhury informed that performance values for certain ratings were left blank so that other manufacturers may suggest the same as these ratings do not exist. He further informed that revised draft will be submitted to BIS by 31st May 2021.</p> <p>Shri Dilip Bhave suggested to draft the standard inline with MNRE norms so as to avoid any future complications.</p>	<p>ETD 15 (17399)/ P Draft circulated vide email dated 23 July 2021 with last date of comments as 22 August 2021.</p> <p>No comments received.</p>	<p>A small working group was constituted to study the NWIP draft along with the draft on DC Motor (including BLDC motors) for used in DC water pump circulated earlier in order to discuss the comments and to find out the possibility if both drafts can be merged to avoid duplicity.</p> <p>The composition is as follows:</p> <ol style="list-style-type: none"> 1. IPMA 2. SIEMA 3. SITARC 4. ERDA <p>The WG was requested to submit the feedback within one month time.</p>
6.	1.2 (5)	Revision of IS 12065	<p>It was decided to prepare an indigenous revised draft for IS 120 65. To prepare the draft, a small working group was created comprising of the following members:</p> <p>Shri Dilip Bhave (Convener) Shri Prasad Hardikar Shri Salil Kumar, Shri Arun Singh (BHEL Bhopal) Shri Ashish Shere</p> <p>Shri Ashish Shere, Siemens vide email dated 15 Feb 2021 proposed to hold the revision of IS 12065 as the based IEC i.e. IEC 60034-9: 2007 is under revision.</p>	<p>Latest edition of IEC 60034-9 has been published in year 2021.</p> <p>Working group is requested to submit the draft inline with the latest IEC.</p>	<p>Shri Ashish Shere informed that draft document will be submitted in 3 months time. He was requested to expedite the work.</p> <p>The same WG was also requested to review IS 4758: 1968 'Methods of measurement of noise emitted by machines' and recommend for withdrawal, if requirements are already covered in IS 12065.</p>

7.	4.1	New Work Item Proposal: Standards for Design, Manufacture, Assembly of Micro Back Pressure Steam Turbines in Processing Industries	Due to lack of expertise on turbines in the committee, Shri Anish Varshney said that the subject may be referred to such Turbine manufacturers like Triveni Turbines, etc.	Draft Standard is required for this new proposal so that same can be referred to manufacturer.	Shri Anish Varshney informed that draft standard is required to move forward.
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Item 2 COMPOSITION OF ROTATING MACHINERY SECTIONAL COMMITTEE, ETD 15

2.1 The committee noted the information given in Annexure 4 of the Agenda and following was decided:

2.2

- a) Update nominations from IEEMA
- b) KSB Pumps to provide fresh nominations
- c) Nomination updates in Siemens and SITARC

The following has been decided regarding the Co-option request received:

- a) The committee has decided not to co-opt Shri THENNAVARAJAN S, Research And Development CSIR National Aerospace Laboratories, as his work experience is more related to aero engine components.

2.3 Status of participation of members in the previous three meetings inviting suggestions for improvement

The committee noted the information.

2.4 The committee reviewed the composition and scope of the committee. Due to lack of expertise in turbine related standards, it was suggested to create a separate sectional committee on turbines or to transfer turbine standards to Mechanical Engineering Division Council so that the Indian standards related to turbine can be given due importance. Member Secretary informed that this proposal of creating separate committee/subcommittee under ETD 15 will be put up in the next Electrotechnical Division Council meeting for its consideration.

Item 3 APPROVALS OF DRAFT INDIAN STANDARDS FOR FINALIZATION/WIDE CIRCULATION

SI No	Draft Standards	Circulated vide BISDG Letter	Remarks	Decision taken
1.	<p>ETD/15/17752 (Identical To: 60034-4-1)</p> <p>Revision of IS 15999 : Part 4: 2017</p> <p>Rotating Electrical Machines Part 4 Electrically excited synchronous machine quantities Section 1 Test methods (first revision)</p>	<p>Circulated vide email dated 20 July 2021 with last date of comments as 16 July 2021.</p>	<p>No comments received.</p>	<p>The committee decided to send the document for printing.</p>
2.	<p>ETD/15/17738 (Identical To: 60045-1: 2020)</p> <p>Revision of IS 14205 : Part 1: 1994</p> <p>Steam Turbine Part 1 Specifications (first revision)</p>	<p>Circulated vide email dated 20 July 2021 with last date of comments as 16 July 2021.</p>	<p>No comments received.</p>	<p>In view of lack of expertise available in the committee, it was decided to hold the document.</p>
3.	<p>ETD/15/17753 (Identical To: 60034-7)</p> <p>Revision of IS 2253: 1974</p> <p>Rotating Electrical Machines Part 7: Classification of types of construction mounting arrangements and terminal box position IM Code Second revision</p>	<p>Circulated vide email dated 20 July 2021 with last date of comments as 16 July 2021.</p>	<p>No comments received.</p>	<p>It was decided to send the document for printing with following changes through National annexure:</p> <p>In Table 2: Replace 'IM V 36' for 'IM V 35'</p>
4.	<p>ETD/15/17739 (Identical To: 60034-3)</p> <p>Revision of IS 15999 : Part 3: 2016</p>	<p>Circulated vide email dated 20 July 2021 with last date of comments as 16 July 2021.</p>	<p>No comments received.</p>	<p>The committee decided to send the document for printing.</p>

	Rotating Electrical Machines Part 3: Specific requirements for synchronous generators driven by steam turbines or combustion gas turbines and for synchronous compensators first revision			
5.	ETD/15/17754 (Identical To: ISO 2314: 2009) Revision of IS 15664: 2006 Gas turbines Acceptance tests first revision	Circulated vide email dated 20 July 2021 with last date of comments as 16 July 2021.	No comments received.	In view of lack of expertise available in the committee, it was decided to hold the document.
6.	ETD/15/21169 (Identical To: 60276: 2018) Revision of IS 1554 : Part 1: 1988 Carbon Brushes Brush Holders Commutators and Slip-Rings Definitions and Nomenclature	Circulated vide email dated 07 Nov 2022 with last date of comments as 07 December 2022.	No comments received.	The committee decided to send the document for printing.
7.	ETD/15/21172 (Identical To: 60034-2-1) Revision of IS 4889: 1968 Rotating Electrical Machines Part 2-1: Standard Methods for Determining Losses and Efficiency from Tests Excluding Machines for Traction Vehicles	Circulated vide email dated 07 Nov 2022 with last date of comments as 07 December 2022.	No comments received.	The committee decided to send the document for printing.

8.	<p>ETD/15/21171 (Identical To: 1680)</p> <p>Revision of IS 12998 : Part 1: 1991</p> <p>Acoustics Test Code for the Measurement of Airborne Noise Emitted by Rotating Electrical Machines</p>	<p>Circulated vide email dated 07 Nov 2022 with last date of comments as 07 December 2022.</p>	<p>No comments received.</p>	<p>The committee decided to send the document for printing.</p>
9.	<p>ETD/15/21170 (Identical To: 60034-20- 1: 2002)</p> <p>Revision of IS 13079: 1991</p> <p>Rotating Electrical Machines Part 20-1: Control Motors Stepping Motors</p>	<p>Circulated vide email dated 07 Nov 2022 with last date of comments as 07 December 2022.</p>	<p>No comments received.</p>	<p>The committee decided to send the document for printing.</p>
10.	<p>ETD/15/21165 (Identical To: 60193: 2019)</p> <p>Revision of IS 14197: 1994</p> <p>Hydraulic Turbines Storage Pumps and Pump-Turbines - Model Acceptance Tests</p>	<p>Circulated vide email dated 07 Nov 2022 with last date of comments as 07 December 2022.</p>	<p>No comments received.</p>	<p>As per discussion with Hydraulic Turbine manufacturers, they have informed that they are referring IEC 60193. Hence same can be adapted as it is. Therefore, the committee decided to send the document for printing.</p>
11.	<p>ETD/15/21175 (Identical To: 60745-1: 2006)</p> <p>Revision of IS 4665 : Part 1: 1984</p> <p>Hand-Held Motor- Operated Electric Tools Safety Part 1: General requirements Second Revision</p>	<p>Circulated vide email dated 09 Nov 2022 with last date of comments as 09 December 2022.</p>	<p>No comments received.</p>	<p>The committee decided to send the document for printing.</p>

12.	<p>ETD/15/21176 (Identical To: 60745-2-1)</p> <p>Revision of IS 4665 (Part 2): 1984</p> <p>Hand-Held Motor-Operated Electric Tools Safety Part 2 Particular requirements Section 1 drills and impact drills</p>	<p>Circulated vide email dated 09 Nov 2022 with last date of comments as 09 December 2022.</p>	<p>No comments received.</p>	<p>The committee decided to send the document for printing.</p>
13.	<p>ETD/15/21177 (Identical To: 60745-2-2)</p> <p>Revision of IS 4665 (Part 2): 1984</p> <p>Hand-held motor-operated electric tools - Safety - Part 2 Particular requirements Section 2 screwdrivers and impact wrenches</p>	<p>Circulated vide email dated 09 Nov 2022 with last date of comments as 09 December 2022.</p>	<p>No comments received.</p>	<p>The committee decided to send the document for printing.</p>
14.	<p>ETD/15/21178 (Identical To: 60745-2-3)</p> <p>Revision of IS 4665 (Part 2): 1984</p> <p>Hand-held motor-operated electric tools - Safety Part 2 Particular requirements Section 3 grinders polishers and disk-type sanders</p>	<p>Circulated vide email dated 09 Nov 2022 with last date of comments as 09 December 2022.</p>	<p>No comments received.</p>	<p>The committee decided to send the document for printing.</p>
15.	<p>ETD/15/21179 (Identical To: 60745-2-5)</p> <p>Revision of IS 4665 (Part 2): 1984</p> <p>Hand-Held Motor-Operated Electric Tools Safety Part 2 Particular Requirements Section 5</p>	<p>Circulated vide email dated 09 Nov 2022 with last date of comments as 09 December 2022.</p>	<p>No comments received.</p>	<p>The committee decided to send the document for printing.</p>

	Circular Saws			
16.	ETD/15/21180 (Identical To: 60745-2-6) Revision of IS 4665 (Part 2): 1984 Hand-Held Motor-Operated Electric Tools - Safety Part 2 Particular Requirements Section 6 Hammers	Circulated vide email dated 09 Nov 2022 with last date of comments as 09 December 2022.	No comments received.	The committee decided to send the document for printing.
17.	ETD/15/21181 (Identical To: 60745-2-7) Revision of IS 4665 (Part 2): 1984 Safety of Hand-Held Motor-Operated Electric Tools Part 2 Particular Requirements Section 7 Spray Guns for Non-Flammable Liquids	Circulated vide email dated 09 Nov 2022 with last date of comments as 09 December 2022.	No comments received.	The committee decided to send the document for printing.
18.	Revision of IS 8151 'Specification for single - Speed three - Phase induction motors for driving lifts'	The revised draft was circulated vide mail dated 22 Nov 2022.	No comments received.	The committee decided to wide circulate the standard for seeking comments.

Item 4 REVIEW OF PROGRAM OF WORK OF ETD 15

The committee reviewed the PoW of ETD 15 and decided as follows:

a) **IS 4029: 2010 ‘Guide for testing 3-phase induction motors’-**

Shri Dilip Bhawe was requested to review and to recommend for withdrawal if requirements are already covered in IS 15999-1: 2021 or IS 15999 (Part 2/Sec 1).

b) IS 7572: 1974 ‘Guide for testing single - Phase AC and universal motors’

Shri Prasad Hardikar, Siemens kindly agreed to review and provide the revised draft.

4.1 (a) Review of Standards - Taking up Revision of Pre-2000 Standards

The committee reviewed the pre-2000 standards and following decisions were taken:

1. IS 2223 : 1983 Dimensions of flange mounted AC induction motors

Shri Dilip Bhawe kindly agreed to review and provide the revised draft.

2. IS 2254: 1985 Dimensions of Vertical Shaft Motors for Pumps-

Shri K V Karthik, IPMA was requested to review and provide revised draft.

3. IS 2972 (Part 1) & IS 2972 (Part 2), - Specification for textile motors- Loom motors and card motors

Shri Prasad Hardikar, Siemens kindly agreed to review and provide the revised drafts.

4. IS 9320 : 1979 Guide for testing direct - Current DC machines

**IS 9919 : 1999 Guide for selection and use of carbon brushes in electrical rotating machines
First Revision**

IS 13466 : 1992 Brushes for electrical machines – Specification

IS 14376 : 1996 Brush holders for electrical machines - Specification

IS 14569 : 1999 Commutators for electrical machines – Specification

Dr Praveen Vijayragvan, Integrated Electric kindly agreed to review and provide revised drafts for all ISs as mentioned at SI no 4. .

5. IS 11537: 1985 Specification for centrifugal switch for single - Phase induction motors

IS 13525 : 1992 Flexible conductors for carbon brushes – Specification

Dr C Murugesan, SIEMA kindly agreed to review and provide revised drafts.

6. IS 13364 (Part 1) & IS 13364 (Part 2) Ac generators driven by reciprocating internal combustion engines - Specification

Shri Ravi Singh, ERDA, Shri Anish Varshney, Shri Sudhakarn C G Power were kindly agreed to review and provide revised drafts.

4.1 (b) Reaffirmation of Standards

The based standard for the following Indian Standards have not been revised. In view of that, the committee reaffirmed the following standards:

Sl. No	IS No.	Title	Based IEC /ISO	Status
1.	IS 6362 : 1995 IEC Pub 34-6 : 1991	Designation of methods of cooling of rotating electrical machines First Revision	IEC Pub 34-6 : 1991 zy	Valid
2.	IS 8223 : 1999	Dimensions and output series for rotating electrical machines First Revision	(IEC 72-2 (1990))	Vaild
3.	IS 13937 (Part 1) : 1994 ISO 7574/1	Statistical methods of determining and verifying stated noise emission values of machinery and equipment Part 1 general considerations and definitions	(ISO 7574/1): 1985	
4.	IS 13937 (Part 2) : 1994 ISO 7574/2	Statistical methods of determining and verifying stated noise emission values of machinery and equipment Part 2 methods for stated values for individual machines	(ISO 7574/2): 1985	Valid
5.	IS 13937 (Part 3) : 1994 ISO 7574/3	Statistical methods for determining and verifying stated noise emission values of machinery and equipment Part 3 simple Transition method for stated values for batches of machines	(ISO 7574/3): 1985	valid
6.	IS 13937 (Part 4) : 1994 ISO 7574/4	Statistical methods of determining and verifying stated noise emission values of machinery and equipment Part 4 methods for stated values for batches of machines	(ISO 7574/4): 1985	valid
7.	IS 14195 : 1994 IEC Pub 1015: 1990	Brush - Holders for electrical machines - Guide to the measurement of the static thrust applied to brushes	(IEC Pub 1015: 1990 z)	valid
8.	IS 14196 : 1994 IEC Pub 560 : 1977	Definitions and terminology of brush holders for electrical machines	(IEC Pub 560 : 1977)	valid
9.	IS 14568 (Part 2) : 1998 IEC 72-2 (1990)	Dimensions and output series for rotating electrical machines Part 2 frame numbers 355 to 1000 and flange numbers 1180 to 2360	(IEC 72-2 (1990)	IEC 60072-2:1990 valid

4.2 Comments received on IS 12615: 2018 from Integrated Electric are reproduced as follows:

The committee decided to revise IS 12615: 2018 in order to bring more clarity in the scope as well as to incorporate all the suggestions received during the last meeting of ETD 15.

4.3 New Work Item Proposal

Draft Standard of DC Motor (including BLDC motors) for used in DC water pump

Please refer Item 1.2 (5).

Item 5 INTERNATIONAL ACTIVITIES

The committee noted the information given in the agenda.

Item 6 WTO-TBT ENQUIRY POINT

The committee noted the information given in the agenda.

Item 7 INFORMATION ON E-SALE OF STANDARDS BY BIS

The committee noted the information given in the agenda.

Item 8 TRAINING PROGRAMME

The committee noted the information given in the agenda.

Item 9 DATE AND PLACE OF NEXT MEETING

The date and place of the next meeting shall be decided in consultation with the chairman

Item 10 ANY OTHER BUSINESS

There being no further business, the meeting ended with a vote of thanks to the chair.

ANNEX 1

Revision of IS 9283: 2013

Comments from ICAI

Sl. No	Clause/ Sub- Clause	Type of Comment (General/ Technical/ Editorial	Comments	Proposed Change	Decision taken
1	Table 2 to 5	T	A few non standard output ratings are included, it may be aligned with those in IS 12615	Non standard ratings may be deleted	Not agreed. The members opined that various Discoms are providing agricultural power connection to farmers at various ratings. By simply deleting the various ratings will increase the cost burden to farmers.
2	Do	T	During last meeting of ETD 15 it was decided to create levels of efficiency and align efficiency values with IS 12615. Levels of eff are created but the eff values are much lower than IS 12615 values	Eff values may be aligned with IS 12615	Not agreed. It is not possible to reach efficiency level of IS 12615 even IE2 efficiency for submersible motors because there are numerous technical barriers.
3	12.1, Line 1	T	Statement of eff to be made by manufacturer- it is contradictory, eff values are given in Table 2-5, and no need to make separate declaration by mfrs; it also contradicts with cl 11 & 17	Delete line	Efficiency level shall be declared.
4	17.1, Note 2	T	If mfr declares performance values, theoretically declared value after tolerance can be lower than the performance values specified in Table 2 -5. This need to be corrected.	Change the line with rider	

5	17.1, Note 3	T	In this case mfr can declare anything and no control of performance. E.g.if it is declared 3.5 kw, as per Table 3 with eff 65% - can it be acceptable	We need to change the sentence to avoid confusion and create confidence on the standard so that everything cannot be declared	SIEMA was requested to modify the line.
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