

For BIS Use Only

BUREAU OF INDIAN STANDARDS

AGENDA

Name of Committee	the	No. of Meeting	Day	Date	Time	Venue
Rotating Machinery Sectional Committee ETD 15		34 nd	Friday	22 March 2024	14:30 AM	WebEx (Online)

CHAIRMAN : Shri Mukesh Maravi

MEMBER SECRETARY : Ms. Jatin Tiwari

Item 0 GENERAL

0.1 Welcome and Opening Remarks by the Chairman

Item 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

1.1 The minutes of the 33st meeting of the Rotating Machinery Sectional Committee, ETD 15 held on 17th Nov 2023 were circulated on 22 Nov 2023.

No comments received.

The Committee may note and formally confirm the minutes of the last meeting.

ITEM 2- COMPOSITION

Composition with attendance in last two meetings is in Annexure-1

The Efficiency Index is being calculated for all BIS committees . Details are given in Annex-2

Co Option request- Rabindra Sahoo from PICL. CV and authorisation is attached in Annexure -3

ITEM 3- RECENT ISSUES

IEEMA had forwarded a letter regarding non-compliance of certification to BIS and requested to discuss it in the meeting.

ITEM 4- ACTIONS ARISING OUT OF PREVIOUS MEETINGS

Sl. No.	Item No. of Last Minutes	Subject	Decision taken during the last meeting	Action/Remarks
1.	1.2 (1)	Revision of IS 9283: 2013/ Motors for Submersible Pump sets – Specification (Second Revision) ETD 15 (17922)/ P Draft circulated vide email dated 18 August 2021 with last date of comments as 17 Sep 2021.	The WC draft received many comments both editorial and technical. Corrected draft will be recirculated for WC	
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	ETD/15/23815 was wide circulated on 17/10/23. 2 Comments were received from Mr. Ashish Shere. 1 was a mistake in typing. It has been corrected. The committee may deliberate on 2nd comment and approve for printing or 2nd WC	
3.	1.2 (5)	Revision of IS 12065	Draft received from Mr. Ashish Shere. The committee may approve for WC. 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.	Reply is awaited.

5.	1.2 (4)	NWIP- PERMANENT MAGNET PMAC / DC / PMSM MOTORS FOR SUBMERSIBLE PUMPSETS - SPECIFICATION	Mail Received from Mr. Ravi Singh to not merge the two standards. Members may update/finalize the two drafts to do P draft.	
6.	1.2 (3)	ETD 15 (15753) (Third Revision of IS 996: 2009) Single phase ac induction motors for general purpose	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. IEEMA was also requested to share the draft with the leading manufacturer of single phase ac motors for obtaining comments.	
7.		Revision of IS 8151 'Specification for single - Speed three - Phase induction motors for driving lifts'	Chair approval for printing is awaited. Approval may be done during meeting and will be circulated with resolution and minutes	
9.		Revision of IS 12615: 2018 Line operated three phase AC motors (IE Code) "Efficiency classes and performance specification" (Third Revision)	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. ETD received mail from Siemens regarding the IS 12615	The committee may decide the future course of action in this regard.

Item 5 REVIEW OF PROGRAM OF WORK OF ETD 15

The Programme of work of ETD 15 is given in **Annex 2**. Committee members may give their suggestions.

5.1 Review of Standards - Taking up Revision of Pre-2000 Standards

BIS has identified a list of standards which are very old (pre year 2000). Such Standards are to either be revised with new year or withdrawn . Kindly volunteer to form a working group (4-5 members) to make reports about pre 2000 standards and submit action to be taken.

Standards to be approved for withdrawal

<u>IS No.</u>	<u>Title</u>	<u>Reaffirmation Details</u>	<u>Degree of Equivalence</u>	<u>YEAR</u>	<u>ACTION TO BE TAKEN</u>
<u>IS 12066 : 1987</u>	<u>Specification for three - Phase induction motors for machine tools</u>	<u>March, 2019</u>	<u>Modified/Technically Equivalent</u>	<u>1987</u>	<u>DECIDED FOR WITHDRAWAL Approved by DG CPRI, in 2002, written in 32 Agenda (based on IEMA: I-1978 IEMA)</u>
<u>IS 13584 : 1993</u>	<u>Brush materials for electrical machinery - Specification</u>	<u>March, 2019</u>	<u>Modified/Technically Equivalent</u>	<u>1993</u>	<u>IEC 60773: 2021 IEC 60413: 1972 Permission for Wide circulation of IEC</u>
<u>IS 4889 : 1968</u>	<u>Methods of determination of efficiency of rotating electrical machines</u>	<u>2017</u>	<u>Modified/Technically Equivalent</u>	<u>1968</u>	<u>IS 15999 (Part 2/Sec 1) : 2023 60034-2-1 (Active) adopted . Permission to withdraw</u>
<u>IS 5422 : 1996</u>	<u>Turbine type generators - Specification (First Revision)</u>	<u>2017</u>	<u>Modified/Technically Equivalent</u>	<u>1996</u>	<u>IS 15999 (Part 3): 2023/ IEC 60034-3: 2020 “Specific Requirements for Synchronous Generators Driven by Steam Turbines or Combustion Gas Turbines and for Synchronous Compensators” is published. In view of above, the committee may approve withdrawal of IS 5422.</u>

<u>IS 7132 :</u> <u>1973</u>	<u>Guide for testing synchronous machines</u>	<u>2017</u>	<u>Modified/Technically Equivalent</u>	<u>1973</u>	<u>Requirements already covered in IS 15999 (Part 4)/ IEC 60034-4. Permission to withdraw</u>
<u>IS 7306 :</u> <u>1974</u>	<u>Methods for determining synchronous machine quantities from tests</u>	<u>2017</u>	<u>Modified/Technically Equivalent</u>	<u>1974</u>	<u>Requirements already covered in IS 15999 (Part 4)/ IEC 60034-4. Permission to withdraw</u>
<u>IS 9628 :</u> <u>1980</u> <u>BS 5000 :</u> <u>Part 16 :</u> <u>1972</u>	<u>Three-phase induction motors with type of protection 'n'</u>	<u>March, 2019</u>	<u>Identical under dual numbering</u>	<u>1980</u>	<u>IS/ IEC 60079-15 2019 covers the requirements of IS 9628. Therefore, decided for withdrawal of IS 9628</u>

The committee may consider.

5.2 Scientific and Periodic Journals to be subscribed

The committee may suggest scientific and periodic journals which may be subscribed by BIS to discover latest technological developments taking place in the field of rotating machinery and its related activities all over the world.

5.3 Participation in National and International events related to Rotating Machinery

The committee may suggest national and international events / training program planned in the field of rotating machinery for participation.

Item 5 INTERNATIONAL ACTIVITIES

- 5.1 The present position of work of the corresponding IEC Technical Committee IEC/ TC 2 on Rotating Machinery is given at https://www.iec.ch/dyn/www/f?p=103:22:600961044507047:::FSP_ORG_ID,FSP_LANG_ID:1221,25 IEC TCs mapped onto ETD 15 or

The committee may look into all the topics and suggest standards to be adopted. Expert list nominations

may also be send.

Item related to SNAP

1. IEC 60034-23:2019-Edition 1.0 (2019-01-24)-Rotating electrical machines - Part 23: Repair, overhaul and reclamation
COMMITTEE MAY APPROVE FOR WIDE CIRCULATION

Committee may approve to wide circulate the said IEC standards

Item 9 DATE AND PLACE OF NEXT MEETING

Item 10 ANY OTHER BUSINESS

ANNEX 1
COMPOSITION

ETD-15 Rotating Machinery Sectional Committee						
Sn.	Organization	Member Name	Member Email	Member Phone	Attendance out of Last 2 Meeting	
					32nd	33rd
1	Bharat Heavy Electricals Limited, Bhopal	Shri Mukesh Kumar Maravi (Chairperson)	mkmaravi@bhel.in	9425604719	-	Y
2	Asea Brown Boveri Limited, Faridabad	Shri Sumit Tyagi (Alternate Member)	sumit.tyagi@in.abb.com	9811235377	Y	N
		Shri Lokesh B M (Principal Member)	lokesh.b.m@in.abb.com	9901490175		
3	Bharat Bijlee Limited, Mumbai	Shri Salil Kumar (Principal Member)	salil.kumar@bharatbijlee.com	9867407257	Y	N
		Shri Bhagyashree Sanjay Pawar (Alternate Member)	bhagyashree.pawar@bharatbijlee.com	9870105374		
4	Bharat Heavy Electrical Limited, New Delhi	Shri Krushna Chandra Panda (Principal Member)	kcpanda@bhel.in	9490746762	N	Y
		Shri P Dali Naidu (Alternate Member)	dalinaidu@bhel.in	9490473788		
5	CG Power and Industrial Solutions, Mumbai	Shri A. Sudhakaran (Principal Member)	sudhakaran.achuthan@cgglobal.com	9168129444	Y	N
		Shri Prashant Ankaikhope (Alternate Member)	prashant.ankaikhope@cgglobal.com			
		Shri Bhupendra Nema (Alternate Member)	Bhupendrs.nema@cgglobal.com			

6	Central Electricity Authority, New Delhi	Shri Jitesh Shrivastava (Principal Member)	jitesh.cea@gmail.com	9755217472	N	Y
		Shri Rishabh Gaur (Alternate Member)	rishabh.cea1@gov.in	9795922240		
7	Central Power Research Institute, Bengaluru	Shri S Prashob (Principal Member)	prashob@cpri.in	8089025027	-	Y
8	Electrical Research and Development Association, Vadodara	Shri Ravi Singh (Principal Member)	ravi.singh@erda.org	9978940998	Y	Y
		Shri Jitendra Tahilwani (Alternate Member)	j.tahilwani@erda.org			
9	Engineers India Limited, New Delhi	Shri S Srihari (Alternate Member)	srihari.s@eil.co.in	9717855711	N	Y
		Shri Raman Sood (Principal Member)	raman.sood@eil.co.in	9818688709		
		Shree Ravish K. Raman (Alternate Member)	ravish.raman@eil.co.in	9953198847		
10	Havells India Limited, Noida	Shri Anil Sukumar Akole (Alternate Member)	anil.akole@havells.com	9766358333	Y	Y
		Shri Vinayak Atre (Principal Member)	vinayak.atre@havells.com	9866072851		
11	Hindustan Electric Motors, Mumbai	Shri Sanjay P. Jadia (Principal Member)	spjadia@hindmotors.com	9820026739	N	Y
		Shri Dilip Bhavare (Alternate Member)	dilipbhavare@gmail.com			
12	Integrated Electric Company Private Limited, Bengaluru	Dr. Praveen Vijayraghavan (Principal Member)	praveen1@int-elec.com		Y	Y
13	Indian Electrical and	Shri Seetharaman	k.seetharaman@ieem	998000498	Y	Y

	Electronics Manufacturers Association, New Delhi	K. (Principal Member)	a.org	2		
		Shri Praveen kumar (Alternate Member)	praveen.kumar@rotomotive.com			
14	Indian Pump Manufacturers Association, Mumbai	Shri Utkarsh Chaya (Alternate Member)	be@watermanpump.com	9978900506	Y	Y
		Shri K.V. Karthik (Principal Member)	karthik@deccanindustries.com	9894296960		
		Shri Anoop Agarwal (Alternate Member)	anoop.agarwal@plug.a.com	7226052757		
15	Ingersoll Rand India Limited, Ahmedabad	Shri Kaushal Pandya (Principal Member)	kaushal_pandya@irc.o.com	9978995544	N	Y
		Shri Harsh Shukla (Alternate Member)	harsh.shukla@irco.com	9924483098		
16	International Copper Association India, Mumbai	Shri K N Hemanth Kumar (Principal Member)	hemanth.kumar@copperalliance.org	9582236644	Y	Y
		Shri Jyotish Pande (Alternate Member)	jyotish.pande@copperalliance.org	9810023544		
		Shri Sanjay Namdeo (Alternate Member)	Sanjay.namdeo@copperalliance.org	9915593898		
17	KSB Pumps Limited, Pune	Shri Rajesh B Gote (Principal Member)	rajesh.gote@ksb.com	9881266160	Y	N
		Shri Dattatray Katkar (Alternate Member)	dattatray.katkar@ksb.com	8424005635		
18	Marathon Electric Motors (India) Limited, Kolkata	Shri Rajiv Ranjan (Principal Member)	rajiv.ranjan@marathonelectric.com	9903900820	Y	N
19	NTPC Limited, New Delhi	Shri S. N. Tripathi (Alternate Member)	shaktintripathi@ntpc.co.in	9650999688	N	Y

		Shri BVVS Ganesh (Principal Member)	bvvsганesh@ntpc.co.in	9650999581		
20	Scientific and Industrial Testing and Research Centre, Coimbatore	Shri A. M. Selvaraj (Principal Member)	jd@sitarc.com	9487600473	Y	Y
		Dr. K Ulaganathan (Principal Member)	director@sitarc.com	9487740473		
		Shri V.Krishnamoorthy (Alternate Member)	sitarcinfo@sitarc.com			
21	Siemens Limited, Mumbai	Shri Ashish Shere (Alternate Member)	ashish.shere@siemens.com	9833954795	Y	N
		Shri Pradeep Ranade (Principal Member)	pradeep.ranade@siemens.com			
		Shri Prasad Hardikar (Alternate Member)	prasad.hardikar@siemens.com			
22	Southern India Engineering Manufacturers Association, Coimbatore	Dr. R. Subramanian (Principal Member)	rama.smani@gmail.com		Y	Y
		Shri S. Arunkumar (Alternate Member)	arunkumars@deccanindustries.com	9865809696		
23	Thyssenkrupp Industrial Solutions (India) Private Limited, Mumbai	Shri Vaijnath G. Sangekar (Alternate Member)	vaijanath.sangekar@thyssenkrupp.com	7030210168	Y	N
		Shri Charuta Vikram Mulay (Principal Member)	charuta.mulay@thyssenkrupp.com	9001101814		
24	Toshiba Mitsubishi-Electric Industrial Systems Corporation,	Shri Sudheer Tapaskar (Principal Member)	Sudheer.tapaskar@tmeic.in	7042342266	Y	Y
		Ms. Manish Joshi	manish.joshi@tmeic.	981017254		

	Bengaluru	(Alternate Member)	in	6		
		Shri Venkatesulu Thumbur (Alternate Member)	Venkatesulu.Thumbur@tmeic.in			
25	Nuclear Power Corporation of India Limited, Mumbai	Shri Ritesh M. Chovatia (Principal)	critesh@npcil.co.in	9833696829	N	N
	Central Ministry/Dept.	Jayant Kumar Boppa (Alternate)	jkboppa@npcil.co.in	9869669140	N	N

ANNEX 2
EFFICIENCY INDEX

An Advanced Dashboard is developed to give deeper insights of standard formulation related activities; also an Efficiency Index is published for comparative assessment of various Sectional Committees which is based on 6 KPIs currently. The details of various KPIs and the logic used for calculating the efficiency index is as following:

KPI Description

1. % of Meetings Held For calculating this KPI number of TC meetings planned and number of TC meetings held (meetings for which attendance is recorded) are used.

2. Meetings Attendance % Average number of attendance in various meetings of a TC is used as KPI here.

3. Published Standards - Timeframe % Categorization of standards is as following:

- a = No. of Standards Published in 0 to <=6 months
 - b = No. of Standards Published in >6 to <=9 months
 - c = No. of Standards Published in >9 to <=12 months
 - d = No. of Standards Published in >12 to <=18 months
 - e = No. of Standards Published in >18 to <=24 months
 - f = No. of Standards Published in >24 months
 - g = Total no. of Standards
- Published Marks given are as following**
- Category a= 100
 - Category b = 90
 - Category c = 80
 - Category d = 60
 - Category e = 40
 - Category f = 0
- Formula used for calculating this is as following:**

$$- ((a*100) + (b*90) + (c*80) + (d*60) + (e*40) + (f*0))/g$$

4. Reviews Completed %

- For calculating this KPI number of standards reviewed against the number of standards planned for review (as per annual action plan) are used.

5. Inactive Members

- Removed % Number of inactive TC members (who have not attended two consecutive meetings) removed against the total number of inactive members currently present in the TC.

6. Comments on P-drafts

- % Comments received from how many TC members against total number of TC members is used for calculating this. More than one comment received from a TC member is treated as one comment.

8. Final score is calculated by adding marks received in each KPI divided by 600 (total maximum marks).

ANNEXURE-3

1. Authorization-

https://docs.google.com/document/d/1f2dVTXAJ5YZx32R3VWaU5xViUXebevW/edit?usp=drive_link&oid=101571559841305049808&rtpof=true&sd=true

2. CV-

https://docs.google.com/document/d/1hVZ-BrnUbyoK-Mkkv589kPqtlOS4o5zw/edit?usp=drive_link&oid=101571559841305049808&rtpof=true&sd=true

ANNEX - 4

Program of Work- ETD 15

Scope: To prepare standards on rotating electrical machines like induction, synchronous, motors, generators, dc machines and turbines including carbon brushes for electrical machines (with the exception of traction machines and rotating machinery coming under the purview of other Committees)

<u>Sl. No.</u>	<u>IS No.</u>	<u>Title</u>	<u>Reaffirmation Details</u>	<u>Due in 23-24</u>	<u>Due in 24-25</u>
<u>1</u>	<u>IS 11537 : 1985</u>	<u>Specification for centrifugal switch for single - Phase induction motors</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
<u>2</u>	<u>IS 12065 : 1987</u>	<u>Permissible limits of noise levels for rotating electrical machines</u>	<u>March, 2019</u>	<u>N</u>	<u>Y</u>
<u>3</u>	<u>IS 12066 : 1987</u>	<u>Specification for three - Phase induction motors for machine tools</u>	<u>March, 2019</u>	<u>N</u>	<u>Y</u>
<u>4</u>	<u>IS 12075 : 2008</u>	<u>Mechanical vibration of rotating electrical machines with shaft heights 56 mm and higher -</u>	<u>July, 2018</u>	<u>Y</u>	<u>Y</u>

		<u>Measurement, evaluation and limits of vibration severity (First Revision)</u>			
<u>5</u>	<u>IS 1231 : 2019</u>	<u>Dimensions and Output Series of Foot Mounted Induction Motors — Frame Numbers 56 to 315 L (Fourth Revision)</u>		<u>N</u>	<u>N</u>
<u>6</u>	<u>IS 12615 : 2018</u>	<u>Line operated three phase AC motors (IE Code) "Efficiency classes and performance specification" (Third Revision)</u>	-	<u>Y</u>	<u>Y</u>
<u>7</u>	<u>IS 12642 : 1989</u> <u>Reaffirmed but not taken up for revision</u>	<u>Brush - Holders for slip rings group R, type RA - Specification</u>	<u>March, 2019</u>	<u>N</u>	<u>Y</u>
<u>8</u>	<u>IS 12998 : 2024 1680</u>	<u>Acoustics Test Code for the Measurement of Airborne Noise Emitted by Rotating Electrical Machines</u>		<u>N</u>	<u>N</u>
<u>9</u>	<u>IS 12998 (Part 1) : 1991</u> <u>ISO 1680/1 :1986</u>	<u>Methods of measurement of airborne noise emitted by rotating electrical machinery: Part 1 engineering method for free - Field conditions over a reflecting plane</u>	<u>Novem ber, 2022</u>	<u>N</u>	<u>N</u>
<u>10</u>	<u>IS 12998 (Part 2) : 1991</u> <u>ISO 1680/2 :1987</u>	<u>Methods of measurement of airborne noise emitted by rotating electrical machinery: Part 2 survey method</u>	<u>2018</u>	<u>Y</u>	<u>Y</u>
<u>11</u>	<u>IS 13079 : 1991</u>	<u>Stepping motors - Specification</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
<u>12</u>	<u>IS 13364 (Part 1) : 1992</u>	<u>Ac generators driven by reciprocating internal combustion engines - Specification: Part 1 alternators rated up to 20 kVa</u>	<u>2018</u>	<u>Y</u>	<u>Y</u>
<u>13</u>	<u>IS 13364 (Part 2) : 1992</u>	<u>Ac generators driven by reciprocating internal combustion engines - Specification: Part 2 alternators rated above 20 kVa and up to 1250 kVa</u>	<u>2018</u>	<u>Y</u>	<u>Y</u>
<u>14</u>	<u>IS 13466 : 1992</u> <u>Reaffirmed but not taken up for revision</u>	<u>Brushes for electrical machines - Specification</u>	<u>2019</u>	<u>N</u>	<u>Y</u>
<u>15</u>	<u>IS 13525 : 1992</u>	<u>Flexible conductors for carbon brushes - Specification</u>	<u>2019</u>	<u>N</u>	<u>Y</u>
<u>16</u>	<u>IS 13529 : 2021</u>	<u>ROTATING ELECTRICAL MACHINES PART 26 EFFECTS OF UNBALANCED VOLTAGES ON THE PERFORMANCE OF THREE-PHASE CAGE</u>		<u>N</u>	<u>N</u>

INDUCTION MOTORS					
17	<u>IS 13555 : 1993</u>	<u>Guide for selection and appltcation of 3 - Phase AC induction motors for different types of driven equipment</u>	<u>March, 2019</u>	<u>N</u>	<u>Y</u>
18	<u>IS 13584 : 1993</u>	<u>Brush materials for electrical machinery - Specification</u>	<u>March, 2019</u>	<u>N</u>	<u>Y</u>
19	<u>IS 13586 : 2023</u> <u>60276: 2018</u>	<u>Carbon Brushes Brush Holders Commutators and Slip-Rings Definitions and Nomenclature</u>		<u>N</u>	<u>N</u>
20	<u>IS 13937 (Part 1) : 1994</u> <u>ISO 7574/1</u>	<u>Statistical methods of determining and verifying stated noise emission values of machinery and equipment: Part 1 general considerations and definitions</u>	<u>Novem ber, 2022</u>	<u>N</u>	<u>N</u>
21	<u>IS 13937 (Part 2) : 1994</u> <u>ISO 7574/2</u>	<u>Statistical methods of determining and verifying stated noise emission values of machinery and equipment: Part 2 methods for stated values for individual machines</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
22	<u>IS 13937 (Part 3) : 1994</u> <u>ISO 7574/3</u>	<u>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</u>	<u>Novem ber, 2022</u>	<u>N</u>	<u>N</u>
23	<u>IS 13937 (Part 4) : 1994</u> <u>ISO 7574/4</u>	<u>Statistical methods of determining and verifying stated noise emission values of machinery and equipment: Part 4 methods for stated values for batches of machines</u>	<u>Novem ber, 2022</u>	<u>N</u>	<u>N</u>
24	<u>IS 14195 : 1994</u> <u>IECPub 1015: 1990</u> <u>z</u>	<u>Brush - Holders for electrical machines - Guide to the measurement of the static thrust applied to brushes</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
25	<u>IS 14196 : 1994</u> <u>IEC Pub 560 : 1977</u>	<u>Definitions and terminology of brush holders for electrical machines</u>	<u>March, 2023</u>	<u>N</u>	<u>N</u>
26	<u>IS 14197 : 2023</u> <u>60193: 2019</u>	<u>Hydraulic Turbines Storage Pumps and Pump-Turbines - Model Acceptance Tests</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
27	<u>IS 14376 : 1996</u> <u>Reaffirmed but not taken up for revision</u>	<u>Brush holders for electrical machines - Specification</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
28	<u>IS 14377 : 1996</u>	<u>Specification for three - Phase induction motors for fans used in air - Conditioning and ventilation</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
29	<u>IS 14568 (Part 2) : 1998</u>	<u>Dimensions and output series for rotating electrical machines: Part 2 frame numbers 355 to 1000 and flange numbers 1180 to 2360</u>	<u>Novem ber, 2022</u>	<u>N</u>	<u>N</u>

	<u>IEC 72-2 (1990)</u>				
<u>30</u>	<u>IS 14569 : 1999</u> <u>Reaffirmed but not taken up for revision</u>	<u>Commutators for electrical machines - Specification</u>	<u>2019</u>	<u>N</u>	<u>Y</u>
<u>31</u>	<u>IS 14578 : 1999</u> <u>Reaffirmed but not taken up for revision</u>	<u>Three - Phase induction motors for use in nuclear power plants - Specification</u>	<u>March, 2019</u>	<u>N</u>	<u>Y</u>
<u>32</u>	<u>IS 14582 : 2021</u>	<u>Single-phase small ac electric motors for centrifugal pumps for agricultural applications</u>		<u>N</u>	<u>N</u>
<u>33</u>	<u>IS 14889 : 2000</u>	<u>Copper tamping powder for carbon brushes - Specification</u>	<u>December, 2015</u>	<u>Y</u>	<u>Y</u>
<u>34</u>	<u>IS 15429 : 2004</u>	<u>Storage, installation and maintenance of DC motors - Code of practice</u>	<u>2019</u>	<u>N</u>	<u>Y</u>
<u>35</u>	<u>IS 15880 : 2009</u> <u>IEC 60034-17</u>	<u>Three phase cage induction motors when fed from IGBT converters - Application guide</u>	<u>2019</u>	<u>N</u>	<u>Y</u>
<u>36</u>	<u>IS 15881 : 2009</u>	<u>Three phase cage induction motors specifically designed or IGBT converter supply - Specification</u>	<u>June, 2019</u>	<u>N</u>	<u>Y</u>
<u>37</u>	<u>IS 15999 (Part 1) : 2021</u> <u>IEC 60034-1: 2017</u>	<u>Rotating electrical machines - Part 1 : Rating and performance</u>		<u>N</u>	<u>N</u>
<u>38</u>	<u>IS 15999 (Part 2/Sec 1) : 2023</u> <u>60034-2-1</u>	<u>Rotating Electrical Machines Part 2-1: Standard Methods for Determining Losses and Efficiency from Tests Excluding Machines for Traction Vehicles</u>		<u>N</u>	<u>N</u>
<u>39</u>	<u>IS 15999 (Part 3) : 2023</u> <u>60034-3</u>	<u>ROTATING ELECTRICAL MACHINES Part 3: Specific requirements for synchronous generators driven by steam turbines or combustion gas turbines and for synchronous compensators first revision</u>		<u>N</u>	<u>N</u>
<u>40</u>	<u>IS 15999 (Part 4/Sec 1) : 2023</u> <u>60034-4-1</u>	<u>ROTATING ELECTRICAL MACHINES Part 4 Electrically excited synchronous machine quantities Section 1 Test methods first revision</u>		<u>N</u>	<u>N</u>

41	<u>IS 15999 (Part 15) : 2017 IEC 60034-15 : 2009</u>	<u>Rotating Electrical Machines Part 15 Impulse Voltage Withstand Levels of Form-Wound Stator Coils for Rotating ac Machines</u>		<u>Y</u>	<u>Y</u>
42	<u>IS 15999 (Part 18/Sec 41) : 2018 IEC 60034-18-41 : 201</u>	<u>Rotating electrical machines: Part 18 partial discharge free electrical insulation systems (Type I) used in rotating electrical machines fed from voltage converters Sec 41 qualification and quality control tests</u>		<u>Y</u>	<u>Y</u>
43	<u>IS 15999 (Part 18/Sec 42) : 2018 IEC 60034-18-42 : 20</u>	<u>Rotating Electrical Machines Part 18 Partial Discharge Free Electrical Insulation Systems (Type I) Used in Rotating Electrical Machines Fed From Voltage Converters Section 41 Qualification and quality control tests</u>		<u>Y</u>	<u>Y</u>
44	<u>IS 15999 (Part 20/Sec 1) : 2023 60034-20-1: 2002</u>	<u>Rotating Electrical Machines Part 20-1: Control Motors Stepping Motors</u>		<u>N</u>	<u>N</u>
45	<u>IS 15999 (Part 26) : 2016 IEC 60034-26 : 2006</u>	<u>Rotating Electrical Machines Part 26 Effects of Unbalanced Voltages on the Performance of Three-Phase Cage Induction Motors</u>		<u>Y</u>	<u>Y</u>
46	<u>IS 2223 : 1983</u>	<u>Dimensions of flange mounted AC induction motors</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
47	<u>IS 2253 : 1974 IEC Pub 34-7 (1972)</u>	<u>Designations for types of construction and mounting arrangements of rotating electrical machines (First Revision)</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
48	<u>IS 2254 : 1985</u>	<u>Dimensions of vertical shaft motors for pumps (Second Revision)</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
49	<u>IS 2968 : 1964 DIN 42923</u> <u>Reaffirmed but not taken up for revision</u>	<u>Dimensions of slide rails for electric motors</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>

50	<u>IS 2972 (Part 1) : 1979</u> <u>Reaffirmed but not taken up for revision</u>	<u>Specification for textile motors: Part 1 loom motors (First Revision)</u>	2017	Y	Y
51	<u>IS 2972 (Part 2) : 1979</u> <u>Reaffirmed but not taken up for revision</u>	<u>Specification for textile motors: Part 2 card motors (First Revision)</u>	2017	Y	Y
52	<u>IS 4029 : 2010</u>	<u>Guide for testing three phase induction motors (First Revision)</u>	March, 2016	Y	Y
53	<u>IS 4665 (Part 1) : 2023</u> <u>60745-1: 2006</u>	<u>Hand-Held Motor-Operated Electric Tools Safety Part 1: General requirements Second Revision</u>		N	N
54	<u>IS 4665 (Part 2/Sec 1) : 2023</u> <u>60745-2-1</u>	<u>Hand-Held Motor-Operated Electric Tools Safety Part 2 Particular requirements Section 1 drills and impact drills</u>		N	N
55	<u>IS 4665 (Part 2/Sec 2) : 2023</u> <u>60745-2-2</u>	<u>Hand-held motor-operated electric tools - Safety - Part 2 Particular requirements Section 2 screwdrivers and impact wrenches</u>		N	N
56	<u>IS 4665 (Part 2/Sec 3) : 2023</u> <u>60745-2-3</u>	<u>Hand-held motor-operated electric tools - Safety Part 2 Particular requirements Section 3 grinders polishers and disk-type sanders</u>		N	N
57	<u>IS 4665 (Part 2/Sec 5) : 2023</u> <u>60745-2-5</u>	<u>Hand-Held Motor-Operated Electric Tools Safety Part 2 Particular Requirements Section 5 Circular Saws</u>		N	N
58	<u>IS 4665 (Part 2/Sec 6) : 2023</u> <u>60745-2-6</u>	<u>Hand-Held Motor-Operated Electric Tools - Safety Part 2 Particular Requirements Section 6 Hammers</u>		N	N
59	<u>IS 4665 (Part 2/Sec 7) : 2023</u> <u>60745-2-7</u>	<u>Safety of Hand-Held Motor-Operated Electric Tools Part 2 Particular Requirements Section 7 Spray Guns for Non-Flammable Liquids</u>		N	N
60	<u>IS 4758 : 1968</u>	<u>Methods of measurement of noise emitted by machines</u>	2017	Y	Y

61	<u>IS 4889 : 1968</u>	<u>Methods of determination of efficiency of rotating electrical machines</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
62	<u>IS 5422 : 1996</u>	<u>Turbine type generators - Specification (First Revision)</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
63	<u>IS/IEC 60034-5 : 2000</u>	<u>Rotating electrical machines: Part 5 degrees of protection provided by the integral design of rotating electrical machines (IP Code) - Classification (Second Revision)</u>	<u>May, 2018</u>	<u>Y</u>	<u>Y</u>
64	<u>IS/IEC 60034-8 : 2014</u> <u>IEC 60034-8: 2014</u>	<u>Rotating Electrical Machines Part 8 Terminal Markings and Direction of Rotation (Third Revision)</u>	<u>August, 2018</u>	<u>Y</u>	<u>Y</u>
65	<u>IS/IEC 60034-27-4) : 2018</u> <u>IEC 60034-27-4</u>	<u>Rotating Electrical Machines Part 27 Winding Insulation of Rotating Electrical Machines Section 4 Measurement of insulation resistance and polarization index</u>		<u>Y</u>	<u>Y</u>
66	<u>IS 6362 : 1995</u> <u>IEC Pub 34-6 : 1991</u> <u>zy</u>	<u>Designation of methods of cooling of rotating electrical machines (First Revision)</u>	<u>November, 2022</u>	<u>N</u>	<u>N</u>
67	<u>IS 7132 : 1973</u>	<u>Guide for testing synchronous machines</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
68	<u>IS 7306 : 1974</u>	<u>Methods for determining synchronous machine quantities from tests</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
69	<u>IS 7538 : 1996</u>	<u>Three - Phase squirrel cage induction motors for centrifugal pumps for agricultural application - Specification (First Revision)</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
70	<u>IS 7572 : 1974</u>	<u>Guide for testing single - Phase AC and universal motors</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
71	<u>IS 8151 : 1976</u>	<u>Specification for single - Speed three - Phase induction motors for driving lifts</u>	<u>2017</u>	<u>Y</u>	<u>Y</u>
72	<u>IS 8223 : 1999</u>	<u>Dimensions and output series for rotating electrical machines (First Revision)</u>	<u>November, 2022</u>	<u>N</u>	<u>N</u>
73	<u>IS 8789 : 2021</u>	<u>Values of performance characteristics for three-phase induction motors with degree of protection 2X</u>		<u>N</u>	<u>N</u>
74	<u>IS 900 : 2019</u>	<u>Code of Practice for Storage, Installation and Maintenance of Induction Motors (Third Revision)</u>	<u>-</u>	<u>N</u>	<u>N</u>
75	<u>IS 9283 : 2013</u>	<u>Motors for submersible pumpsets - Specification (Second Revision)</u>	<u>May, 2018</u>	<u>Y</u>	<u>Y</u>
76	<u>IS 9320 : 1979</u>	<u>Guide for testing direct - Current (DC) machines</u>	<u>March, 2017</u>	<u>Y</u>	<u>Y</u>

77	<u>IS 9582 (Part 1) : 1980</u>	<u>Specification for single - Phase electric motors for definite purposes: Part 1 domestic laundry machine motors</u>	<u>March, 2018</u>	<u>Y</u>	<u>Y</u>
78	<u>IS 9628 : 1980</u> <u>BS 5000 : Part 16 : 1972</u>	<u>Three-phase induction motors with type of protection 'n'</u>	<u>March, 2019</u>	<u>N</u>	<u>Y</u>
79	<u>IS 9670 : 1980</u>	<u>Specification for direct current micromotor for cassette tape recorders and other applications</u>	<u>March, 2019</u>	<u>N</u>	<u>Y</u>
80	<u>IS 9919 : 1999</u> <u>Reaffirmed but not taken up for revision</u>	<u>Guide for selection and use of carbon brushes in electrical rotating machines (First Revision)</u>	<u>February, 2018</u>	<u>Y</u>	<u>Y</u>
81	<u>IS 996 : 2009</u> <u>IEC 34-1 (1969 BS 170: 1962</u> <u>JIS 4203-1973</u> <u>BS 1608 : 1966</u>	<u>Single phase a.c. induction motors for general purpose (Third Revision)</u>	<u>2019</u>	<u>N</u>	<u>Y</u>

ANNEX 3
ETD 15 Rotating Machinery/ Pre 2000 Status

<u>IS No.</u>	<u>Title</u>	<u>Reaffirmation Details</u>	<u>Degree of Equivalence</u>	<u>YEAR</u>	<u>ACTION TO BE TAKEN</u>	<u>LATEST IEC (IF PRESENT)</u>
<u>IS 11537 : 1985</u>	<u>Specification for centrifugal switch for single - Phase induction motors</u>	<u>2017</u>	<u>Indigenous</u>	<u>1985</u>	<u>Dr C Murugesan, SIEMA kindly agreed to review and provide revised draft. Draft is awaited.</u>	
<u>IS 12065 : 1987</u>	<u>Permissible limits of noise levels for rotating electrical machines</u>	<u>March, 2019</u>	<u>Modified/Technically Equivalent</u>	<u>1987</u>	<u>P draft approval</u>	
<u>IS 12066 : 1987</u>	<u>Specification for three - Phase induction motors for machine tools</u>	<u>March, 2019</u>	<u>Modified/Technically Equivalent</u>	<u>1987</u>	<u>DECIDED FOR WITHDRAWAL</u>	
<u>IS 12642 : 1989</u> <u>Reaffirmed but not taken up for revision</u>	<u>Brush - Holders for slip rings group R, type RA - Specification</u>	<u>March, 2019</u>	<u>Modified/Technically Equivalent</u>	<u>1989</u>		
<u>IS 12998 (Part 1) : 1991</u> <u>ISO 1680/1 :1986</u>	<u>Methods of measurement of airborne noise emitted by rotating electrical machinery: Part 1 engineering method for free - Field conditions over a reflecting plane</u>	<u>November, 2022</u>	<u>Identical under numbering</u>	<u>1991</u>	<u>Revised edition of ISO 1680 covers requirement of both parts of IS 12998. Therefore, ISO 1680 may be adopted replacing</u>	

					<u>both IS. Published.</u>	
<u>IS 12998 (Part 2) : 1991 ISO 1680/2 :1987</u>	<u>Methods of measurement of airborne noise emitted by rotating electrical machinery: Part 2 survey method</u>	<u>2018</u>	<u>Identi cal under dual numb ering</u>	<u>1991</u>	<u>Revised edition of ISO 1680 covers requirement of both parts of IS 12998. Therefore, ISO 1680 may be adopted replacing both IS. Published. IS 12998 : 2024</u>	
<u>IS 13079 : 1991</u>	<u>Stepping motors - Specification</u>	<u>2017</u>	<u>Modifi ed/Te chnic ally Equiv alent</u>	<u>1991</u>	<u>IEC 60034-20-1 may be adopted. UNDER PRINT</u>	
<u>IS 13364 (Part 1) : 1992</u>	<u>Ac generators driven by reciprocating internal combustion engines - Specification: Part 1 alternators rated up to 20 kVa</u>	<u>2018</u>	<u>Modifi ed/Te chnic ally Equiv alent</u>	<u>1992</u>	<u>ARP circulated</u>	
<u>IS 13364 (Part 2) : 1992</u>	<u>Ac generators driven by reciprocating internal combustion engines - Specification: Part 2 alternators rated above 20 kVa and up to 1250 kVa</u>	<u>2018</u>	<u>Modifi ed/Te chnic ally Equiv alent</u>	<u>1992</u>	<u>ARP circulated</u>	
<u>IS 13466 : 1992</u> <u>Reaffirme d but not taken up for revision</u>	<u>Brushes for electrical machines - Specification</u>	<u>2019</u>	<u>Modifi ed/Te chnic ally Equiv alent</u>	<u>1992</u>	<u>Dr Praveen Vijayragvan, kindly agreed to review and provide revised drafts. Draft is awaited.</u>	
<u>IS 13525 : 1992</u>	<u>Flexible conductors for carbon brushes - Specification</u>	<u>2019</u>	<u>Modifi ed/Te chnic ally Equiv</u>	<u>1992</u>	<u>Dr C Murugesan, SIEMA kindly agreed to review and provide revised</u>	

			<u>alent</u>		<u>draft. Draft is awaited.</u>	
<u>IS 13555 : 1993</u>	<u>Guide for selection and appltcaton of 3 - Phase AC induction motors for different types of driven equipment</u>	<u>March, 2019</u>	<u>Indige nous</u>	<u>1993</u>	<u>I</u>	
<u>IS 13584 : 1993</u>	<u>Brush materials for electrical machinery - Specification</u>	<u>March, 2019</u>	<u>Modifi ed/Te chnic ally Equiv alent</u>	<u>1993</u>	<u>IEC 60773: 2021 IEC 60413: 1972 Permission for Wide circulation of IEC</u>	
<u>IS 13937 (Part 1) : 1994 ISO 7574/1</u>	<u>Statistical methods of determining and verifying stated noise emission values of machinery and equipment: Part 1 general considerations and definitions</u>	<u>Novemb er, 2022</u>	<u>Identi cal under dual numb ering</u>	<u>1994</u>		
<u>IS 13937 (Part 2) : 1994 ISO 7574/2</u>	<u>Statistical methods of determining and verifying stated noise emission values of machinery and equipment: Part 2 methods for stated values for individual machines</u>	<u>2017</u>	<u>Identi cal under dual numb ering</u>	<u>1994</u>		
<u>IS 13937 (Part 3) : 1994 ISO 7574/3</u>	<u>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</u>	<u>Novemb er, 2022</u>	<u>Identi cal under dual numb ering</u>	<u>1994</u>		
<u>IS 13937 (Part 4) : 1994 ISO 7574/4</u>	<u>Statistical methods of determining and verifying stated noise emission values of machinery and equipment: Part 4 methods for stated values for batches of machines</u>	<u>Novemb er, 2022</u>	<u>Identi cal under dual numb ering</u>	<u>1994</u>		
<u>IS 14195 : 1994 IEC Pub 1015: 1990 z</u>	<u>Brush - Holders for electrical machines - Guide to the measurement of the static thurst applied to brushes</u>	<u>2017</u>	<u>Identi cal under dual numb</u>	<u>1994</u>	<u>IEC identical to 1990</u>	

			<u>ering</u>			
<u>IS 14196 : 1994</u> <u>IEC Pub 560 : 1977</u>	<u>Definitions and terminology of brush holders for electrical machines</u>	<u>March, 2023</u>	<u>Identical under dual numbering</u>	<u>1994</u>		
<u>IS 14376 : 1996</u> <u>Reaffirmed but not taken up for revision</u>	<u>Brush holders for electrical machines - Specification</u>	<u>2017</u>	<u>Modified/Technically Equivalent</u>	<u>1996</u>	<u>Dr Praveen Vijayragvan, kindly agreed to review and provide revised drafts. Draft is awaited</u>	
<u>IS 14377 : 1996</u>	<u>Specification for three - Phase induction motors for fans used in air - Conditioning and ventilation</u>	<u>2017</u>	<u>Modified/Technically Equivalent</u>	<u>1996</u>	<u>(IEEMA 8 : 1987)</u>	
<u>IS 14568 (Part 2) : 1998</u> <u>IEC 72-2 (1990)</u>	<u>Dimensions and output series for rotating electrical machines: Part 2 frame numbers 355 to 1000 and flange numbers 1180 to 2360</u>	<u>November, 2022</u>	<u>Identical under dual numbering</u>	<u>1998</u>		
<u>IS 14569 : 1999</u> <u>Reaffirmed but not taken up for revision</u>	<u>Commutators for electrical machines - Specification</u>	<u>2019</u>	<u>Indigenous</u>	<u>1999</u>	<u>Dr Praveen Vijayragvan, kindly agreed to review and provide revised drafts. Draft is awaited.</u>	
<u>IS 14578 : 1999</u> <u>Reaffirmed but not taken up for revision</u>	<u>Three - Phase induction motors for use in nuclear power plants - Specification</u>	<u>March, 2019</u>	<u>Indigenous</u>	<u>1999</u>	<u>Review to be allotted to NPCIL</u>	
<u>IS 2223 : 1983</u>	<u>Dimensions of flange mounted AC induction motors</u>	<u>2017</u>	<u>Modified/Technically</u>	<u>1983</u>	<u>Shri Dilip Bhave kindly</u>	

			<u>Equiv alent</u>		<u>agreed to review and provide the revised draft. Draft is awaited</u>	
<u>IS 2253 : 1974 IEC Pub 34-7 (1972)</u>	<u>Designations for types of construction and mounting arrangements of rotating electrical machines (First Revision)</u>	<u>2017</u>	<u>Identi cal under dual numb ering</u>	<u>1974</u>		
<u>IS 2254 : 1985</u>	<u>Dimensions of vertical shaft motors for pumps (Second Revision)</u>	<u>2017</u>	<u>Identi cal under dual numb ering</u>	<u>1985</u>	<u>Shri K V Karthik, IPMA was requested to review and provide revised draft. Draft is awaited.</u>	
<u>IS 2968 : 1964 DIN 42923</u>						
<u>Reaffirme d but not taken up for revision</u>	<u>Dimensions of slide rails for electric motors</u>	<u>2017</u>	<u>Identi cal under dual numb ering</u>	<u>1964</u>		
<u>IS 2972 (Part 1) : 1979</u>						
<u>Reaffirme d but not taken up for revision</u>	<u>Specification for textile motors: Part 1 loom motors (First Revision)</u>	<u>2017</u>	<u>Indige nous</u>	<u>1979</u>	<u>Shri Prasad Hardikar, Siemens kindly agreed to review and provide the revised drafts</u>	
<u>IS 2972 (Part 2) : 1979</u>						
<u>Reaffirme d but not taken up for</u>	<u>Specification for textile motors: Part 2 card motors (First Revision)</u>	<u>2017</u>	<u>Indige nous</u>	<u>1979</u>	<u>Shri Prasad Hardikar, Siemens kindly agreed to review and provide the revised drafts</u>	

revision						
<u>IS 4758 : 1968</u>	<u>Methods of measurement of noise emitted by machines</u>	2017	<u>Modified/Technically Equivalent</u>	1968	<u>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.</u>	
<u>IS 4889 : 1968</u>	<u>Methods of determination of efficiency of rotating electrical machines</u>	2017	<u>Modified/Technically Equivalent</u>	1968	<u>IS 15999 (Part 2/Sec 1) : 2023 60034-2-1 (Active) adopted . Permission to withdraw</u>	
<u>IS 5422 : 1996</u>	<u>Turbine type generators - Specification (First Revision)</u>	2017	<u>Modified/Technically Equivalent</u>	1996	<u>IS 15999 (Part 3): 2023/ IEC 60034-3: 2020 "Specific Requirements for Synchronous Generators Driven by Steam Turbines or Combustion Gas Turbines and for Synchronous Compensators" is published. In view of above, the</u>	

					<u>committee may approve withdrawal of IS 5422.</u>	
<u>IS 6362 : 1995</u> <u>IEC Pub 34-6 : 1991 zy</u>	<u>Designation of methods of cooling of rotating electrical machines (First Revision)</u>	<u>November, 2022</u>	<u>Identical under dual numbering</u>	<u>1995</u>		<u>IEC 60034-6:1991</u>
<u>IS 7132 : 1973</u>	<u>Guide for testing synchronous machines</u>	<u>2017</u>	<u>Modified/Technically Equivalent</u>	<u>1973</u>	<u>Requirements already covered in IS 15999 (Part 4)/ IEC 60034-4. Permission to withdraw</u>	
<u>IS 7306 : 1974</u>	<u>Methods for determining synchronous machine quantities from tests</u>	<u>2017</u>	<u>Modified/Technically Equivalent</u>	<u>1974</u>	<u>Requirements already covered in IS 15999 (Part 4)/ IEC 60034-4. Permission to withdraw</u>	
<u>IS 7538 : 1996</u>	<u>Three - Phase squirrel cage induction motors for centrifugal pumps for agricultural application - Specification (First Revision)</u>	<u>2017</u>	<u>Indigenous</u>	<u>1996</u>	<u>UNDER REVISION</u>	
<u>IS 7572 : 1974</u>	<u>Guide for testing single - Phase AC and universal motors</u>	<u>2017</u>	<u>Modified/Technically Equivalent</u>	<u>1974</u>	<u>UNDER REVISION</u>	
<u>IS 8151 : 1976</u>	<u>Specification for single - Speed three - Phase induction motors for driving lifts</u>	<u>2017</u>	<u>Modified/Technically Equivalent</u>	<u>1976</u>	<u>Revision Under Print</u>	
<u>IS 8223 : 1999</u>	<u>Dimensions and output series for rotating electrical machines (First Revision)</u>	<u>November, 2022</u>	<u>Modified/Technically</u>	<u>1999</u>	<u>Earlier P draft had been dropped</u>	

			<u>ally</u> <u>Equiv</u> <u>alent</u>			
<u>IS 9320 :</u> <u>1979</u>	<u>Guide for testing direct -</u> <u>Current (DC) machines</u>	<u>March,</u> <u>2017</u>	<u>Modifi</u> <u>ed/Te</u> <u>chnic</u> <u>ally</u> <u>Equiv</u> <u>alent</u>	<u>1979</u>	<u>Dr</u> <u>Praveen</u> <u>Vijayragvan,</u> <u>kindly agreed to</u> <u>review and</u> <u>provide revised</u> <u>drafts. Draft is</u> <u>awaited</u>	
<u>IS 9582</u> <u>(Part 1) :</u> <u>1980</u>	<u>Specification for single -</u> <u>Phase electric motors for</u> <u>definite purposes: Part 1</u> <u>domestic laundry machine</u> <u>motors</u>	<u>March,</u> <u>2018</u>	<u>Indige</u> <u>nous</u>	<u>1980</u>		
<u>IS 9628 :</u> <u>1980</u> <u>BS 5000 :</u> <u>Part 16 :</u> <u>1972</u>	<u>Three-phase induction</u> <u>motors with type of</u> <u>protection 'n'</u>	<u>March,</u> <u>2019</u>	<u>Identi</u> <u>cal</u> <u>under</u> <u>dual</u> <u>numb</u> <u>ering</u>	<u>1980</u>	<u>IS/ IEC 60079-15</u> <u>2019 covers</u> <u>the requirements</u> <u>of IS 9628.</u> <u>Therefore,</u> <u>decided</u> <u>for</u> <u>withdrawal of IS</u> <u>9628</u>	
<u>IS 9670 :</u> <u>1980</u>	<u>Specification for direct</u> <u>current micromotor for</u> <u>cassette tape recorders and</u> <u>other applications</u>	<u>March,</u> <u>2019</u>	<u>Indige</u> <u>nous</u>	<u>1980</u>	<u>Phase-2 review</u> <u>Document</u> <u>circulated</u>	
<u>IS 9919 :</u> <u>1999</u> <u>Reaffirme</u> <u>d but not</u> <u>taken up</u> <u>for</u> <u>revision</u>	<u>Guide for selection and use</u> <u>of carbon brushes in</u> <u>electrical rotating machines</u> <u>(First Revision)</u>	<u>February</u> <u>, 2018</u>	<u>Indige</u> <u>nous</u>	<u>1999</u>	<u>Dr</u> <u>Praveen</u> <u>Vijayragvan,</u> <u>kindly agreed to</u> <u>review and</u> <u>provide revised</u> <u>drafts. Draft is</u> <u>awaited</u>	