

## BUREAU OF INDIAN STANDARDS

### Program of Work

#### ETD 39 : Fuses

**Scope:** To prepare standards regarding specification for all types of fuses, with the object of determining : a) The characteristics which are essential in specifying the conditions for installation and operation of the fuses b) The requirements to be met by the fuses and the tests designed to ascertain their compliance with such requirements as well as the procedures to be followed for these tests c) Markings To prepare for these fuses standards, standard values of:  
1) Characteristics, rated voltages, currents and breaking capacities: 2) Dimensions in connections with the fixing and interchangeability of high voltage and low voltage fuses

**Liaison:** **IEC TC-32 (P): Fuses IEC TC-32 SC-32A (P): High-voltage fuses IEC TC-32 SC-32B (P): Low-voltage fuses IEC TC-32 SC-32C (O): Miniature fuses**

### Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 10624 : 1983 Reviewed In : 2021 IEC 60644:2009+A MD1:2019 (CSV )	Specification for high voltage fuse links for motor circuit applications	March, 2021	-	Identical under dual numbering
2	IS 10624 : 2024 IEC 60644:2009+A MD1:2019 (CSV ) IEC 60644:2009+A MD1:2019 (CSV )	High-Voltage Fuse-Links for Motor Circuit Applications “ Specification (First Revision)		-	Identical under dual numbering
3	IS/IEC 127-5 : 1988 Reviewed In : 2022 IEC 60127-5 : 2016	Miniature fuses: Part 5 guidelines for quality assessment of miniature fuse - Links	February, 2022	-	Identical under single numbering
4	IS/IEC 60127-5 : 2016 IEC 60127-5 : 2016 IEC 60127-5 : 2016	Miniature Fuses Part 5 Quality Assessment of Miniature Fuse-Links - Guidelines (First Revision)		-	Identical under single numbering
5	IS/IEC 127-6 : 1994 Reviewed In : 2022 IEC 127-6 : 1994	Miniature fuses: Part 6 fuse holders for miniature cartridge fuse links - Specification	September, 2022	-	Identical under single numbering
6	IS 13703 (Part 4) : 1993 IEC 269-4 Reviewed In : 2019 iec 269-4:1980	Specification for low - Voltage fuses for voltages not exceeding 1000 v ac or 1500 v dc: Part 4 supplementary requirements for fuse links for the protection of semiconductor devices	June, 2019	-	Identical under dual numbering
7	IS 2086 : 1993 Reviewed In : 2024	Carriers and bases in rewirable type electric fuses for voltages up to 650 v - Specification (Third Revision)	May, 2024	1	Indigenous
8	IS/IEC 60127-1 : 2006	Miniature fuses: Part 1 definitions for miniature fuses and general	May, 2024	-	Identical under single numbering

	Reviewed In : 2024 IEC 60127-1:2006	requirements for miniature fuse - Links (First Revision)			
9	IS/IEC 60127-2 : 2003 Reviewed In : 2024 IEC 60127-2:2003	Miniature Fuses Part 2 Cartridge Fuse - Links (First Revision)	May, 2024	-	Identical under single numbering
10	IS/IEC 60127-4 : 2005 Reviewed In : 2024 IEC 60127-4 : 2005	Miniature fuses Part 4 universal modular fuse - Links (Umf) - Through - Hole and surface mount types	May, 2024	-	Identical under single numbering
11	IS/IEC 60269-1 : 2014 IEC 60269-1 : 2014 Reviewed In : 2024 IEC 60269-1 : 2014	Low-Voltage Fuses Part 1 General Requirements	May, 2024	-	Identical under single numbering
12	IS/IEC 60269-2 : 2016 IEC 60269-2 : 2016 Reviewed In : 2024 IEC 60269-2 : 2013	Low-Voltage Fuses Part 2 Supplementary Requirements for Fuses for Use by Authorized Persons ( Fuses Mainly for Industrial Application ) - Examples of Standardized Systems of Fuses A to K	May, 2024	-	Identical under single numbering
13	IS/IEC 60269-3 : 2010 IEC 60269-3 : 2013 IEC 60269-3 : 2013	Low-Voltage Fuses Part 3 Supplementary Requirements for Fuses for Use by Unskilled Persons ( Fuses Mainly for Household and Similar Applications ) - Examples of Standardized Systems of Fuses A to F		-	Identical under dual numbering
14	IS/IEC/TR 60269-5 : 2014 IEC/TR 60269-5 : 2014 Reviewed In : 2024 IEC/TR 60269-5 : 2014	Low-Voltage Fuses Part 5 Guidance for the Application of Low-Voltage Fuses	May, 2024	-	Identical under single numbering
15	IS/IEC 60269-6 : 2010 IEC 60269-6 : 2010 Reviewed In : 2024 IEC 60269-6 : 2010	Low-Voltage Fuses Part 6 Supplementary Requirements for Fuse-Links for the Protection of Solar Photovoltaic Energy Systems	May, 2024	-	Identical under single numbering
16	IS/IEC 60691 : 2018 IEC 60691 : 2015 Reviewed In : 2024 IEC 60691 : 2015	Thermal Links - Requirements and Application Guide (First Revision)	May, 2024	-	Identical under single numbering
17	IS/IEC/TR 62655 : 2013 IS/IEC 62655:2013 IS/IEC 62655:2013	Tutorial and application guide for high-voltage fuses		-	Identical under single numbering
18	IS 7012 (Part 1) : 1973 Reviewed In : 1995	Specification for X - Ray Tube Shield		1	Indigenous
19	IS 7012 (Part 2) : 1985 Reviewed In : 1995	Specification for x - Ray tube shield: Part 2 type shx 2		-	Indigenous
20	IS 7012 (Part 3) : 1985 Reviewed In : 1995 UNDER LITD	Specification for x - Ray tube shield: Part 3 type shx 3		-	Identical under dual numbering

21	IS 9385 (Part 1) : 2018 IEC 60282-1 : 2009 Reviewed In : 2024 IS/IEC 60282 (Part 1)	High - Voltage fuses: Part 1 current - Limiting fuses (First Revision)	May, 2024	-	Identical under dual numbering
22	IS 9385 (Part 1) : 2024 IS/IEC 60282 (Part 1) IS/IEC 60282 (Part 1)	High-Voltage Fuses Part 1 Current-Limiting Fuses (Second Revision)		-	Identical under dual numbering
23	IS 9385 (Part 2) : 2018 IEC 60282-2 : 2008 Reviewed In : 2024 IEC 60282-2:2008	High - Voltage fuses: Part 2 expulsion fuses (First Revision)	May, 2024	-	Identical under dual numbering
24	IS 9385 (Part 4) : 1983 Reviewed In : 2024 IEC 282	Specification for high voltage fuses: Part 4 determination of short - Circuit power factor for testing high voltage fuses	May, 2024	-	Modified/Technically Equivalent
25	IS 9385 (Part 5) : 1983 IEC 282- 1A Reviewed In : 2021 iec 282	Specification for high voltage fuses: Part 5 types and dimensions of fuse - Links for current - limiting fuses	March, 2021	-	Modified/Technically Equivalent
26	IS 9402 : 1980 Reviewed In : 2022 IEC 60549:2013	Specification for high - Voltage fuses for external protection of shunt power capacitors	September, 2022	-	Identical under dual numbering
27	IS 9402 : 2024 IEC 60549:2013 IEC 60549:2013	High-Voltage Fuses for the External Protection of Shunt Capacitors (First Revision)		-	Identical under dual numbering
28	IS 9926 : 1981 Reviewed In : 2021	Specification for fuse - Wire used in rewirable type electric fuses up to 650 volts	March, 2021	-	Indigenous

### Standards under Development

#### Projects Approved

SI. No.	Doc No.	Title
<i>No Records Found</i>		

#### Preliminary Draft Standards

SI. No.	Doc No.	Title
<i>No Records Found</i>		

#### Drafts Standards in WC Stage

SI. No.	Doc No.	Title
<i>No Records Found</i>		

#### Draft Standards Completed WC Stage

SI. No.	Doc No.	Title
<i>No Records Found</i>		

## Finalized Draft Indian Standard

SI. No.	Doc No.	Title
1	ETD 39 (24478) <b>Revision of: IS/IEC 127:1994</b>	Miniature Fuses Part 6 Fuse-Holders for Miniature Fuse-Links First Revision
2	ETD 39 (24482)	Low Voltage Fuses Part 7 Supplementary Requirements for Fuse-Links for The Protection of Batteries and Battery Systems
3	ETD 39 (24483) <b>Revision of: IS/IEC 60691:2018</b>	Thermal-Links - Requirements and Application Guide Second Revision
4	ETD 39 (24484)	Miniature fuses Part 4 universal modular fuse - Links Umf - Through - Hole and surface mount types Amendment - 1
5	ETD 39 (24485)	Low-Voltage Fuses Part 5 Guidance for the Application of Low-Voltage Fuses Amendment - 1
6	ETD 39 (24486)	Low-Voltage Fuses Part 6 Supplementary Requirements for Fuse-Links for the Protection of Solar Photovoltaic Energy Systems Amendment - 1

## Finalized Draft Indian Standards under Print

SI. No.	Doc No.	Title
1	ETD 39 (18582)	High-Voltage Fuses Part 6 Additional Testing Requirements for High-Voltage Expulsion Fuses Utilizing Polymeric Insulators
2	ETD 39 (21270) <b>Revision of: IS 13703:1993</b>	Low-Voltage Fuses Part 4 Fuse-Links for the Protection of Semiconductor Devices Supplementary Requirements First Revision
3	ETD 39 (24474) <b>Revision of: IS/IEC 60127:2006</b>	Miniature Fuses Part 1 Definitions for Miniature Fuses and General Requirements for Miniature Fuse-Links Second Revision
4	ETD 39 (24475) <b>Revision of: IS/IEC 60127:2003</b>	Miniature fuses Part 2 Cartridge fuse-links Second Revision
5	ETD 39 (24476)	Miniature Fuses Part 3 Sub-Miniature Fuse-Links
6	ETD 39 (24477)	Miniature Fuses Part 7 Miniature fuse-Links for Special Applications
7	ETD 39 (24479)	Miniature Fuses Part 8 Fuse Resistors with Particular Overcurrent Protection
8	ETD 39 (24481)	Miniature Fuses Part 10 User Guide for Miniature Fuses

**Total Published Standards:23 Total Standards Under development:14**

### Aspect Wise Report

Product : 15  
 Code of Practices : 2  
 Methods of Test : 0  
 Terminology : 1  
 Dimensions : 0  
 System Standard : 0  
 Safety Standard : 0  
 Others : 6  
 Service Specification : 0  
 Process Specification : 0  
 Unclassified : 0

### Annexure-I :List of Indian Standards Withdrawn/Superseded

SI. No.	IS No. & Year	Title
1	IS 12534 : 1988 <b>Reviewed In : 2017 IEC Publication 787 ( 1983)</b>	Application guide for the selection of high voltage fuses for transformer circuit applications
2	IS/IEC 127-1 : 1988 <b>Reviewed In : 2007</b>	Miniature Fuses - Part 1 Definition for Miniature Fuses and General Requirements for Miniature Fuse Links
3	IS/IEC 127-2 : 1989 <b>Reviewed In : 2007</b>	Miniature Fuses - Part 2 Cartridge Fuse Links
4	IS 13703 (Part 1) : 1993	LV Fuses for voltages not exceeding 1000 V ac or 1500 V dc Part 1 General requirements

	IEC 269-1 Reviewed In : 2014 IEC 269-1	
5	IS 13703 (Part 2/Sec 1) : 1993 IEC 269-2 Reviewed In : 2019 iec 644	Specification for low - Voltage fuses for voltages not exceeding 1000 v ac or 1500vdc Part 2 fuses for use by authorized persons Sec 1 supplementary requirements
6	IS 13703 (Part 2/Sec 2) : 1993 IEC 269-2-1 Reviewed In : 2019 iec 269-2-1:1987	Low voltage fuses for voltage not exceeding 1000 v ac or 1500 v dc - Specification Part 2 fuses for use by authorized persons Sec 2 examples of standardized fuses
7	IS 2208 : 1962	HRC cartridge fuse links for voltage above 650 volts
8	IS 5792 : 1970	High Voltage Expulsion And Similar Fuses
9	IS/IEC 691 : 1993 Reviewed In : 2012 IEC Pub 691 (1993)	Thermal Links - Requirements and Application Guide
10	IS 8187 : 1976 IEC 269-3 Reviewed In : 2016 IEC 269-3	D-type fuses
11	IS 8724 : 1978	Dimensions of carrier and bases used in rewirable fuses
12	IS 9224 (Part 1) : 1979	Low Voltage Fuses Part 1 General Requirements
13	IS 9224 (Part 2) : 1979	Low voltage fuses Part 2 Supplementary requirements for fuses for industrial applications
14	IS 9224 (Part 4) : 1980	Low voltage fuses Part 4 Supplementary requirements for fuse-links for the protection of semiconductor devices
15	IS 9385 (Part 3) : 1980 IEC 282-2 Reviewed In : 2024 IEC 282	Specification for high voltage fuses Part 3 application guide for high voltage fuses

### Annexure-II :List of Indian Product Standards

Sl. No.	IS No. & Year	Title
1	IS 10624 : 2024 IEC 60644:2009+AMD1:2019 (CSV )	High-Voltage Fuse-Links for Motor Circuit Applications Specification First Revision
2	IS/IEC 127-6 : 1994 Reviewed In : 2022 IEC 127-6 : 1994	Miniature fuses Part 6 fuse holders for miniature cartridge fuse links - Specification
3	IS 13703 (Part 4) : 1993 IEC 269-4 Reviewed In : 2019 iec 269-4:1980	Specification for low - Voltage fuses for voltages not exceeding 1000 v ac or 1500 v dc Part 4 supplementary requirements for fuse links for the protection of semiconductor devices
4	IS 2086 : 1993 Reviewed In : 2024	Carriers and bases in rewirable type electric fuses for voltages up to 650 v - Specification Third Revision
5	IS/IEC 60127-2 : 2003 Reviewed In : 2024 IEC 60127-2:2003	Miniature Fuses Part 2 Cartridge Fuse - Links First Revision
6	IS/IEC 60127-4 : 2005 Reviewed In : 2024 IEC 60127-4 : 2005	Miniature fuses Part 4 universal modular fuse - Links Umf - Through - Hole and surface mount types

7	IS/IEC 60269-1 : 2014 IEC 60269-1 : 2014 Reviewed In : 2024 IEC 60269-1 : 2014	Low-Voltage Fuses Part 1 General Requirements
8	IS/IEC 60269-2 : 2016 IEC 60269-2 : 2016 Reviewed In : 2024 IEC 60269-2 : 2013	Low-Voltage Fuses Part 2 Supplementary Requirements for Fuses for Use by Authorized Persons Fuses Mainly for Industrial Application - Examples of Standardized Systems of Fuses A to K
9	IS/IEC 60269-3 : 2010 IEC 60269-3 : 2013 IEC 60269-3 : 2013	Low-Voltage Fuses Part 3 Supplementary Requirements for Fuses for Use by Unskilled Persons Fuses Mainly for Household and Similar Applications Examples of Standardized Systems of Fuses A to F
10	IS/IEC 60269-6 : 2010 IEC 60269-6 : 2010 Reviewed In : 2024 IEC 60269-6 : 2010	Low-Voltage Fuses Part 6 Supplementary Requirements for Fuse-Links for the Protection of Solar Photovoltaic Energy Systems
11	IS 9385 (Part 1) : 2024 IS/IEC 60282 (Part 1)	High-Voltage Fuses Part 1 Current-Limiting Fuses Second Revision
12	IS 9385 (Part 4) : 1983 Reviewed In : 2024 IEC 282	Specification for high voltage fuses Part 4 determination of short - Circuit power factor for testing high voltage fuses
13	IS 9385 (Part 5) : 1983 IEC 282- 1A Reviewed In : 2021 iec 282	Specification for high voltage fuses Part 5 types and dimensions of fuse - Links for current - limiting fuses
14	IS 9402 : 2024 IEC 60549:2013	High-Voltage Fuses for the External Protection of Shunt Capacitors First Revision
15	IS 9926 : 1981 Reviewed In : 2021	Specification for fuse - Wire used in rewirable type electric fuses up to 650 volts