









SIBA a world leader for 55 years in Semiconductor fuses ULTRA RAPID®, Medium and high voltage, Standard European, Miniatures, electronic fuses, and a wide range of DC rated fuses (6000 V DC +) for all types applications.

Medium and High Voltage fuses for protection of Transformers including submersibles, motors and medium and high voltage switchgear, compacts substations, cable feeders and high voltage, capacitors circuits.

We are Europe's number one trusted medium and high voltage fuse manufacturer.

We do not stop there, we also manufacture bottle fuses for all sizes DIAZED, NEOZED, Cylindrical type. The list goes on, such as specialty fuses for Traction, Invertors, Choppers, Mining, Turbine, Switchgear, AC/DC Drives, Forklift, Navy. Communication, and many other applications

SAFETY THROUGH QUALITY, IS NOT ONLY OUR MOTTO, BUT ALSO OUR PASSION.

German Engineered fuses, for American Quality products. Reserve your copy of our new catalog, send us a fax, drop us a line. We would love to hear from you.

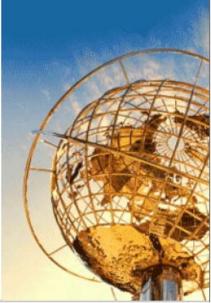
SIBA Products are available from: MARYLAND METRICS phones: (410) 358-3130 (800) 638-1830 faxes: (410) 358-3142 (800) 872-9329

URL: http://mdmetric.com E-mail: sales@mdmetric.com P.O.Box 261 Owings Mills, MD 21117 USA

We are the leading manufacturer of highvoltage fuse links worldwide.

SIBA achieves customer satisfaction through our terrific global partner network. We are so close that we can cope with the customers needs on site.







Company

Different aspects of SIBA

SIBA stands for the German expression for fuse factory. That means that we develop and produce fuses. They protect machines, electrical components and installations against critical currents. But what is more important is that they save people 's lives.

Company profile

SIBA is a traditional family business and known worldwide as the market leader for high- voltage fuses.



History

For more than 50 years SIBA has developed from a small business to a global company.



Certificates

As a matter of course we have worldwide recognized certificates such as ISO 9000, ISO 14000 and more. Our products fulfill besides the requirements of the international standards of IEC a lot of country specific standards.

to certificates













Company > Certificates

Certificates

Our quality products comply with strict national and international standards.

Certificates

SIBA products are a variety of tested and certified fuse links. We meet with high quality requests from industry and energy suppliers.

Our program fulfils besides all the requirements of the international standards of IEC a lot of country specific standards.







CERTIFICATE

WHITE AND A STATE

► Full View









Company > History

Company History



For more than 50 years SIBA has developed from a small business to a global company.

History

More than 50 years of reliable continuity and steady stable growth. Carl Linz began to repair mining fuses in the post-war year 1946. The foundation stone was laid for the today 's Global Player.

The business grew. In 1950 SIBA started to produce fuses. The partner network was enlarged fast on international level. This reflects directly on the number of offices and representatives worldwide, which cooperate with the head office in Germany.

This family owned company attained and consolidated its position in today's market till this day. This will continue in future. Concrete plans for this business venture have been realized step by step.













Company > Profile

Company Profile



Quality and customer satisfaction are our top priority. Visit our production-line in the head office in Germany.

Company profile

Our strength lies in fast order transaction, short delivery times and enormous flexibility. We achieve this through highly motivated employees, modern production machines and computer controlled stocking.



National and International Standards

250 people work in the head office in Germany. Long-standing employees with sophisticated technical knowledge ensure our own growth.

Outstanding engagement in any business process is one of our key aspects.

SIBA's software, manufacturing process and testing installations are continuously improved. Partly, this is due to close cooperation with engineers from distinguished colleges or research institutes.

As a member of the NH/HH-recycling club we take back fuses which have operated. Consequently, SIBA takes care of a professional recovery of raw material.

www.nh-hh-recycling.de

Market Position

As a matter of course we have worldwide recognized certificates such as ISO 9000, ISO 14000 and more. Our products fulfill besides the requirements of the international standards of IEC a lot of country specific standards.







Consulting

Consulting



SIBA has a great deal of experience in developing, special fuses. Profit from our Know-how.

Consulting through SIBA

Contact one of our experts directly. So that we can find the best solution.

→ to expert advice



Details for Users

Important information for users of fuses which you can download here.

→ to FAQ









Consulting > Expert Advice

Expert Advice



SIBA has a great deal of experience in developing special fuses. Profit from our Know-how!

Consulting through SIBA

For all questions regarding installation and use of fuses we are available as a matter of course. Please, describe your concern as precise as possible.

Last Name:	First Name:
Company:	Department:
Title:	•
Title.	Telephone:
Fax:	Email Address:
Your Request:	

Please print out this page and fax to:
Maryland Metrics
faxes: (410)358-3142 (800)872-9329







FAQ

SIBA stands for professional technical know how! If you have any questions, please do not hesitate to contact us!



Frequently asked questions on the subject of:

1. Protection of power transformers [information]

2. Protection of capacitor banks [information]

3. Protection of motor circuits [information]

4. Fuse-Switch-Combinations [information]







FAQ

1. Protection of power transformers

Protection of power transformers

Is the protection of power transformers standardized?

Partly. IEC 60 787 gives guidance HOW to protect, but does not advice WHAT current rating should be taken. Recommendation lists of the fuse manufacturers are helpful.

What do I have to consider when looking for the proper fuse?

The high-voltage fuse-link has to withstand the transformer inrush current. This means, that the time/current-value at 100 ms has to be more or less 12 times the transformer rated current. The interrupting current of the fuse-link must be smaller and the fuse breaking performance higher than the maximum short circuit current of the circuit. The fuse rating has to be higher (generally twice) than the transformer maximum loading current. Selectivity must be given between the low-voltage and the high- voltage fuse-link.

What is the technical background of the manufacturers recommendation lists?

The recommendation lists of the fuse manufacturers recognize the standardized guidance and advises the proper fuse rating for the selected transformer. There are often two or three given ratings per transformer size in order to reduce the number of different ratings for all the installed transformers. Care should be taken if low-voltage fuse-links for transformer overload protection are fitted. In this case a comparison between both curves (LV- and HV- fuse) is useful.

Why is the recommended fuse rating generally twice the transformer rating?

It is quite normal to load the transformer (often at night) with 150 or 200 % of its rated power. The fuse has to withstand that higher load. As the loading current should be smaller than the fuse rated current, a higher fuse rating has to be used.

Is there a need for discrimination distance between upstream and downstream fuse-links?

Yes, the upstream fuse has to have a current rating of twice the downstream fuse.

What is the power loss of the fuse-link at transformer rated current?

The power loss of the fuse at transformer rated current is about 20 % of the value given in the manufacturers catalogues.

How warm may a fuse be at transformer rated current?

It depends on the fuse rated current and the transformer being protected . Temperatures may reach 100 $^{\circ}$ C on the fuse barrel at transformer full load.

Do HV fuse-links age or is there a need for maintenance?

No, if the fuse is taken according to the manufacturers recommendation list, ageing is not expected. There is no need for maintenance.







FAQ

2. Protection of capacitor banks

Is the protection of capacitor banks standardized?

Partly. IEC 60 549 gives guidance HOW to protect, but does not advice WHAT current rating should be used. Recommendation lists of the fuse manufacturers are helpful.

What do I have to consider when selecting the proper fuse?

In order to take the harmonics and also the shock load at interruption into consideration, the current rating of the fuse should be two times the capacitor full load current. For safety reasons at interruptions with arcing reignitions the voltage rating should be a minimum of 50 % higher than the circuit voltage.

Is there any overload protection possible by the fuse-links in capacitor circuits?

No. Short circuit currents should be higher than 12 times the rated current.







FAQ

3. Protection of motor circuits

Is the protection of motor circuits standardized?

Partly. IEC 60 644 gives guidance HOW to protect, but does not advice WHAT current rating should be taken. Recommendation lists of the fuse manufacturers are helpful.

What do I have to consider finding the proper fuse?

At first, one has to calculate the loading current of the machine, which has to be lower than about 60 % of the fuse-link rated current. Secondly the motor starting current should be observed. The coordinate of that current and the motor run up time must be lower than the appropriate time/current -point on the fuse-curve. The distance should be about 60 %. If there are more than two starts of the machine per hour, additional safety margins have to be observed. Typically the fuse rated current is more or less 160 to 300 % the motor full load current.

Is paralleling of fuse-links for bigger machines allowed?

Yes, of course. If the necessary fuse rating is higher than the fuse manufacturers range in the catalogues, two ore more fuse-links could be mounted parallel. In this case, ask the manufacturer for details.

Are there special fuses for motor circuit applications?

Basically the typical HV back up fuse-links may be used. For temperature and power loss reasons it is better to take special fuse-links for motor circuit protection. These fuses have a special element design, which is better able to withstand the cycling load of the circuit.







FAQ

4. Fuse-Switch-Combinations

Is there any standard to consider the situation when load break switches are equipped with fuselinks?

Yes, IEC 60 420 gives guidance for the combination of a fuse-link according IEC 60 282-1 and a load break switch according IEC 60 265-1.

What is the task of IEC 60 420?

This standard helps to select the fuse rating by the criteria of the transfer current of the switch, the inrush current of the transformer, the maximum short circuit current of the circuit and the time/current-curve of the fuse- link.

What are the conditions of IEC 60 420?

The rated transfer current of the switch must be higher than the transfer current of the fuse-link. Both values have to be compared at the same time, the so-called opening time of the switch. The rated transfer current of the switch must be higher than the maximum primary short-circuit current. This current is calculated by the reactance of the transformer (4 - 6%). The inrush current of the transformer must be smaller than the time/current-value of the fuse-link at about 100 ms. Typical inrush currents are between six and twelve times of the transformer rated current. The fuse-switch combination has to withstand the fuse-link power loss at loading currents. Additionally the conditions of IEC 60 787 (Transformer protection) have to be observed.

What does the rated transfer current mean?

The rated transfer current at the switch opening time indicates the limit of the task either of the fuse-link or the load break switch. Fault currents above that limit are interrupted by the fuse-links. Below that point, the switch itself interrupts fault currents. At currents below the rated transfer currents, it is the main job of the fuse-link striker pin to actuate the switch by tripping a 3pole opening mechanism. The switch manufacturer gives the value of the rated transfer current. Typical values are at 10 kV 800 to 1600 A and at 20 kV 600 to 1200 A.

For what do I need the opening time of the switch?

This time also marks in combination with the rated transfer current the limit of the task either of the fuse-link or the load break switch. Typical values are between 30 and 200 ms.







R&D > Standardization > High Voltage Fuses

Standardization - High Voltage Fuses

SIBA products comply with all necessary technical standards. Reliability is one of our top aims.

National (German)	Hochspannungssicherungen in der Normung
VDE 0670 Teil 4:1998-02	Hochspannungssicherungen - Strombegrenzende Sicherungen
VDE 0670 Teil 4/A1:1998-11	Hochspannungssicherungen - Strombegrenzende Sicherungen (Ergänzungen für Ganzbereichs-Sicherungen)
VDE 0670 Teil 402:1988-05	Wechselstromschaltgeräte für Spannungen über 1 kV Auswahl von Strombegrenzenden Sicherungseinsätzen für Transformatorstromkreise
VDE 0670 Teil 401:1997-03	Anforderungen an Hochspannungs-Sicherungseinsätze für Motorstromkreise
VDE 0670 Teil 303:1994-09	Hochspannungs-Lastschalter-Sicherungs-Kombinationen

International	Standardization of high-voltage fuses
IEC 60282-1:1998-01	High-voltage fuses – Part 1: Current-limiting fuses
IEC 60282-1:1998-01	High-voltage fuses – Part 1: Current-limiting fuses
IEC 60787:1983-01	Application guide for the selection of high-voltage fuse-links for transformer circuit application
IEC 60787:1985-01	Application guide for the selection of high-voltage fuse-links for transformer circuit application Amendment No. 1
IEC 60644:1979-01	Specification for high-voltage fuse-links for motor circuit application
IEC 60549:1976-01	High-voltage fuses for the external protection of shunt power capacitors
IEC 60420:1990-10	High-voltage alternating current switch-fuse combinations







Company > Certificates

Certificates

VDE Prüf- und Zertifizierungsinstitut

VDE VERBAND DER ELEKTROTECHNIK ELEKTRONIK INFORMATIONSTECHNIK a.V.

CERTIFICATE

Registration-Number: 2320/QM/07.00

This is to certify that the company

SIBA Sicherungen-Bau GmbH

at the following location

Borker Strasse 22 44534 Lünen

has implemented and maintains a Quality-Management System for the following scope:

Low voltage and high voltage fuses

This QM-System complies with the requirements of:

DIN EN ISO 9001:1994

This Certificate is valid until 03.07.2003

VDE Testing and Certification Institute Certification

will

D-63069 Offenbach/Main, Merianstraße 28 Date: 04.07.2000

The VDE Testing and Certification Institute is accredited by DAR Accreditation Bodies according to DNI IN 45012 and notified in the RU under ID. No. 4344



Back to Certificates







Company > Certificates

Certificates



CERTIFICATE

DQS Deutsche Gesellschaft zur Zertifizierung von Managementsystemen mbH

hereby certifies that the company

SIBA Sicherungen-Bau GmbH

Borker Strasse 20-22 D-44534 Lünen

for the scope

Low voltage and high voltage fuses

has implemented and maintains an

Environmental Management System.

An audit, documented in a report, has verified that this environmental management system fulfills the requirements of the following standard:

DIN EN ISO 14001

October 1996 edition

This certificate is valid until 2003-08-17

Certificate Registration No.: 182-02

Frankfurt am Main, Berlin 2000-08-18

K. Petrica

MANAGING DIRECTORS

Offices: D-60433 Freninfurt am Main, August-Schanz-Straße 21 D-10787 Berlin, Bunggrafenstraße 6

l⊘Net



Back to Certificates







Links

Useful Links

Testing Laboratories

Belgium	Laborelec, Brüssel	http://www.laborelec.be
France	LCIE, Fontenay-aux-Roses	http://www.lcie.fr
Germany	IPH, Berlin	http://www.iph.de
Germany	FGH, Mannheim	http://www.fga-ma.de
Italy	CESI, Mailand	http://www.cesi.it
Netherland	KEMA, Arnheim	http://www.kema.nl
Spain	Labein, Bilbao	http://www.labein.es
USA	Allen Bradley, Milwaukee	http://www.ab.com

Certification Institutes

Austria	ÖVE	http://www.ove.at
Belgium	CEBEC	http://www.ceb.arc.be
Canada	CSA	http://www.csa.ca
Denmark	DEMKO	http://www.demko.dk
Finland	FEMKO	http://www.fimko.fi
France	UTE	http://www.ute-fr.com
France	AFNOR	http://www.afnor.fr
Germany	VDE	http://www.vde.de
Italy	IMQ	http://www.imq.it
Japan	MITI	http://www.aist.go.jp
Norway	NEMKO	http://www.nemko.no
Spain	AENOR	http://www.aenor.es
Sweden	SEMKO	http://www.semko.se
United Kingdom	BSI	http://www.bsi.org.uk
United Kingdom	BEAB	http://www.beab.co.uk
United Kingdom	ASTA	http://www.astacertification.com
USA	UL	http://www.ul.com
USA	ANSI	http://www.ansi.org
USA	NEMA	http://www.nema.org

Other

Belgium	CENELEC	http://www.cenelec.org
Switzerland	ISO	http://www.iso.org
Switzerland	IEC	http://www.iec.ch







R&D > Standardization > Low Voltage Fuses

Standardization - Low Voltage Fuses

SIBA products comply with all necessary technical standards. Reliability is one of our top aims.

top aims.	
National (German)	Niederspannungssicherungen in der Normung
VDE 0636 Teil 10:1999-11	Niederspannungssicherungen Allgemeine Anforderungen
VDE 0636 Teil 20:1995-12	Niederspannungssicherungen Zusätzliche Anforderungen an Sicherungen zum Gebrauch durch Elektrofachkräfte oder elektronisch unterwiesene Personen
VDE 0636 Teil 20/A1:1999-09	Niederspannungssicherungen Zusätzliche Anforderungen an Sicherungen zum Gebrauch durch Elektrofachkräfte oder elektronisch unterwiesene Personen(Ergänzung 690 V)
VDE 0636 Teil 201:1998-06	Niederspannungssicherungen (NH-Systeme) Zusätzliche Anforderungen an Sicherungen zum Gebrauch durch Elektrofachkräfte oder elektronisch unterwiesene Personen.
VDE 0636 Teil 2011:1999-05	Niederspannungssicherungen (NH-Systeme) Zusätzliche Anforderungen an Sicherungen zum Gebrauch durch Elektrofachkräfte oder elektronisch unterwiesene Personen (Ergänzung aM, gB, gTr).
VDE 0636 Teil 30:1995-12	Niederspannungssicherungen Zusätzliche Anforderungen an Sicherungen zum Gebrauch durch Laien.
VDE 0636 Teil 301:1998-01	Niederspannungssicherungen (D-Systeme) Zusätzliche Anforderungen an Sicherungen zum Gebrauch durch Laien.
VDE 0636 Teil 3011:1999-05	Niederspannungssicherungen (D-Systeme) Zusätzliche Anforderungen an Sicherungen zum Gebrauch durch Laien (Ergänzung 690 V).
VDE 0636 Teil 40:1997-04	Niederspannungssicherungen Zusätzliche Anforderungen an Sicherungseinsätze zum Schutz von Halbleiter- Bauelementen.
VDE 0636 Teil 40/A1:1997-10	Niederspannungssicherungen - Zusätzliche Anforderungen an Sicherungseinsätze zum Schutz von Halbleiter- Bauelementer (Ergänzungen)
International	Standardization of high-voltage fuses
IEC 60269-1:1998-12	Low-voltage fuses – Part 1: General requirements
IEC 60269-2:1986-09	Low-voltage fuses – Part 2: Supplementary requirements for fuses for use by authorized persons (Fuses mainly for industrial applications)
IEC 60269-2-am1:1995-11	Amendment No. 1
IEC 60269-2-1:2000-03	Low-voltage fuses – Part 2-1: Supplementary requirements for fuses for use by authorized persons - Section I to V: Examples of types of standardized fuses
IEC 60269-2-1-am1:1999-10	Amendment 1
IEC 60269-3:1987-06	Low-voltage fuses – Part 3: Supplementary requirements for fuses for use by unskilled persons (Fuses mainly for household and similar applications)
IEC 60269-3-1:1994-08	Low-voltage fuses – Part 3-1: Supplementary requirements for fuses for use by unskilled persons (Fuses mainly for household and similar applications)-Sections I to IV:

household and similar applications)-Sections I to IV:

Examples of types of standardized fuses







Marketing / Sales

Marketing/Sales

Wherever reliable protection is needed SIBA always has the right solution, whether you are in America, Europe, Asia or Australia. We are represented worldwide through our SIBA offices in Eindhoven, Johannesburg, London, New York as well as Pisek, Singapore, Vienna, Warsaw.

Fairs

We are represented on trade fairs worldwide. Visit our SIBA stand and get to know our team on location.





R&D > Standardization > Miniature Fuse-Links

Standardization - Miniature Fuse-Links

SIBA products comply with all necessary technical standards. Reliability is one of our top aims.

National (German)	G-Sicherungseinsätze in der Normung
VDE 0820 Teil 1:1992-11	Geräteschutzsicherungen - Begriffe für Geräteschutzsicherungen und Allgemeine Anforderungen an G-Sicherungseinsätze
VDE 0820 Teil 1/A1:1999-11	Geräteschutzsicherungen - Begriffe für Geräteschutzsicherungen und Allgemeine Anforderungen an G-Sicherungseinsätze
VDE 0820 Teil2:1996-08	Geräteschutzsicherungen - G-Sicherungseinsätze
VDE 0820 Teil3:1996-11	Geräteschutzsicherungen - Kleinstsicherungseinsätze
VDE 0820 Teil 4:1997-05	Geräteschutzsicherungen - Welteinheitliche modulare Sicherungseinsätze (UMF)
VDE 0820 Teil5:1992-11	Geräteschutzsicherungen - Leitlinien für die Gütebestätigung von G- Sicherungseinsätzen
VDE 0820 Teil 6:1996-12	Geräteschutzsicherungen - G-Sicherungshalter für G- Sicherungseinsätze

International	Ctondondination of ministure fues links
International	Standardization of miniature fuse-links
IEC 60127-1:1996-06	Miniature fuses – Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links
IEC 60127-1-am1:1999-03	Amendment 1
IEC 60127-2:1989-07	Miniature fuses – Part 2: Cartridge fuse-links
IEC 60127-2-am1:1995-08	Amendment No. 1
IEC 60127-2-am2:2000-09	Amendment No. 2
IEC 60127-3:1988-12	Miniature fuses – Part 3: Sub-miniature fuse-links
IEC 60127-3-am1:1991-12	Amendment No. 1
IEC 60127-4:1996-08	Miniature fuses – Part 4: Universal Modular Fuse-links (UMF)
IEC 60127-5:1988-11	Miniature fuses – Part 5: Guidelines for quality assessment of miniature fuse-links
IEC 60127-6:1994-04	Miniature fuses – Part 6: Fuse-holders for miniature cartridge fuse-links
IEC 60127-6-am1:1996-03	Amendment No. 1 to IEC 60127-6







R&D > Product Development

Product Development

SIBA-Engineers develop new products continuously! Convince yourself and have a look at our innovations!

SMD fuse links up to 250 V for printed circuit board mounting

The SIBA range of SMD fuses has got an additional type with rated current 250V.

Therefore the following surfacemounting types are available:

2.6 x 2.6 x 6.1 mm: SMD 125V Quick acting 125V AC/DC 62 mA - 7 A 65V AC/DC 10 A - 15 A

2.6 x 2.6 x 6.1 mm: SMD 125V Time-lag 125V AC/DC 250 mA - 5 A 65V DC/ 125V AC 6.3 A

4.5 x 4.5 x 8.0 mm: SMD 250V Time-lag 250V AC 100 mA - 5 A

Square body fuse for semiconductor protection

SIBA square bodied fuse links 690/700 V and 1250/1300 V are completely redesigned and have best electrical values.

The complete range is UL recognized.

The number of constructional variants has increased considerably. The following fuses are available:

- -International Standard IEC 60 269
- -American Standard UL 248

Connections:

- -Blade type fixing centers 80 and 110 mm
- -Threaded holes M8/10/12
- -Threaded holes 5/16, 3/8, 1/2 Inch UNC

The fuse-links are available with different clips on micro switch for remote indication. For types with contact knife and screwcontact corresponding fuse holders are available.









Products > Product Groups

Product Groups



Variety and reliability is a feature of all SIBA products. From household fuses to individually developed fuses.

SIBA offers products of very high quality.



Our catalogs are PDF files. The "Portable Document Format" (PDF) is a platform independent document format of Adobe. Every operating system has its Acrobat Reader for reading, printing and saving of PDF documents. You can download this program through the internet.

Look into our product catalog and get an overview!







Products

SIBA Products

Know how of more than 50 years makes SIBA so successful. The intransigent reliability of our products is valued worldwide.

Product Groups

Traders, industry and energy suppliers use SIBA standard products or individually developed types.

to product groups



For review of more than 9000 different products.

to catalogue order



Developments

Competence and innovation for our customers!









R&D

Research and Development

SIBA sells high quality products worldwide. We meet various country- specific requirements with experience and Know how. With our electronical in-house testing-laboratory we are able to act fast, reliable and flexible to customer requests.

The personal contact between the customer and our highly qualified engineers enable short development cycles. Products are developed in technical partnership with our customers.

Changes of standards and new market requirements are occasions to develop new products. Corresponding to DIN ISO 9001 redevelopments are regimented by established procedures.

Product Development

We provide you with information of our redevelopments.

to product development



Publications

Articles of our employees in professional journals.

to publications



Standards

Here you will find information about different standards.

to standardization







R&D > Standardization

Standardization



SIBA products comply with all necessary technical standards. Reliability is one of our top aims.

SIBA develops new products continuously. This is not just because of changing market requirements. National and international standards for fuse technology also change. Here you get an overview of standards to which we design our high quality products.



National and International Standards

- → High Voltage Fuses
- → Low Voltage Fuses

- → Miniature Fuse-Links
- → US-Fuses







R&D > Standardization > US-Fuses

Standardization - US-Fuses

SIBA products comply with all necessary technical standards. Reliability is one of our top aims.

International	Standardisation of fuses for the American market
High-voltage fuses: ANSI / IEEE C37.40	IEEE Standard Service Conditions and Definitions for HV Fuses
High-voltage fuses: ANSI / IEEE C37.41	IEEE Standart Design for HV Fuses
High-voltage fuses: ANSI / IEEE C37.46	American National Standart Specifications for Power Fuses and Fuse Disconnecting Switches
High-voltage fuses: ANSI / IEEEC37.47	American National Standart Specifications for Distribution Fuse
Low-voltage fuses: UL 248 Low- Voltage F	Part 1: General Requirements Part 2: Class C Fuses Part 3: Class CA and CB Fuses Part 4: Class CC Fuses Part 5: Class G Fuses Part 8: Class J Fuses Part 9: Class K Fuses Part 10: Class L Fuses Part 12: Class R Fuses Part 13: Semiconductor Fuses Part 14: Supplemental Fuses



