■ Description

FUJI current limiting power fuses are available in general purpose and back-up versions. Type SCF and HF ··· E general purpose fuses will interrupt all excessive current ranging from the minimum melting current to the rated interrupting current. They will accurately interrupt a 200 – 300% overcurrent of the rated current. The fuse can be used independently or incorporated with air load break switches not provided with trip mechanisms. Very economical to install. The back-up fuses are rated at 12kV or higher and used with switches provided with trip mechanisms incorporated with CT or OCR.

■ Design features

- These fuses comply with the requirements of JEC-2330. The FUJI power fuses fully meet the requirements of the JIS and JEC Standards, which makes them suitable for a wider range of applications.
- Excellent repeat accuracies
  FUJI current limiting power fuses have excellent repeat characteristics from the starting current and meet all the requirements of the Standards. This result from the employment of FUJI's specially developed fusible element which maintains its integrity from deterioration for the extent of its long service life.
- Easy selection
  The electrical characteristics of the individual transformer, capacitor or motor can easily be matched with the appropriate type from the wide variety of fuses available.
- Outstanding current limiting characteristics
  Since the available short-circuit current is interrupted within half a cycle the thermal and mechanical strength of the equipment can be greatly reduced.
- Small arc peak voltage
  The arc peak voltage at the time of interruption is less than twice the rated voltage. This eliminates the possibility of damage to the insulation of the motor winding and other electrical equipment.
- Wide range interruption
  The general purpose power fuses SCF and HF ··· E types are capable of interrupting small current overloads in the range of 200% – 300% of their rated current, yet will blow quickly in the face of massive destructive currents. Since they operate without fail through the range of their interrupting capacity they can be used independently and so save construction costs.

■ Construction

- Fuse link
  The fusible element consists of a pure silver wire packed in high-purity silica sand in a heat-resisting mechanically strong ceramic barrel.
- Fuse holder
  The holder for indoor use uses epoxy resin for insulation and is simple in design. The fuse is easy to replace. The 3-pole holder is provided with the barriers between the poles and the switch is safely operated by stick.
- Blown fuse indicator (indoor use only, except SCF-6/5)
  A spring fuse-blown indicator is provided in the fuse ferrule. The indicator is ejected when the fuse is blown. If required the indicator can be fitted with a sensitive switch so that the blown fuse can be identified from a distance.

3-pole fuse holder SCHIII with fuse links

SD-422

SD-423

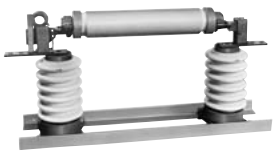
Fuse link SCF type

SD-430

SD-425

Single-pole fuse holder SCHA-6 with fuse link

Fuse link HF type



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Single-pole fuse holder HF323 with fuse link

SB1068

Fuse links 36kV HFA

■ Melting time-current characteristics and repeat overcurrent characteristics (JIS C 4604 and JEC-2330)

Fuse*1 type	Melting time-current characteristics				Repeat overcurrent characteristics
	Non-melting current	$I_{f7.200}/I_n$	I_{f10}/I_n	$I_{f0.1}/I_n$	
T	When a fuse is subjected to a current 1.3 times its rated current the fusible element will not melt within two hours.	—	$2.5 \leqq I_{f10}/I_n \leqq 10$	$12 \leqq I_{f0.1}/I_n \leqq 25$	The fusible element will not melt when subjected to a current 10 times its rated current for a period of 0.1 seconds one hundred times.
M		—	$6 \leqq I_{f10}/I_n \leqq 10$	$15 \leqq I_{f0.1}/I_n \leqq 35$	The fusible element will not melt when subjected to a current 5 times its rated current for a period of 10 seconds one thousand times.
G		$I_{f7.200}/I_n \leqq 2$	$2 \leqq I_{f10}/I_n \leqq 5$	$7\left(\frac{I_n}{100}\right)^{0.25} \leqq I_{f0.1}/I_n \leqq 20\left(\frac{I_n}{100}\right)^{0.25}$	
C	When a fuse is subjected to a current 2. times its rated current the fusible element will not melt within two hours.	—	※ $I_{f60}/I_n \leqq 10$	—	The fusible element will not melt when subjected to a current 70 times its rated current for a period of 0.002 seconds one thousand times.

Note: *1 T: Transformer protection
M: Motor protection
G: General purpose line protection
C: Capacitor protection

In: Fuse rated current
I_{f10}: Current (Amps) where melt in 10 sec.
$I_{f0.1}$: Current (Amps) where melt in 0.1 sec.

$I_{f7.200}$: Current (Amps) where melt in 2 hours.
I_{f60}: Current (Amps) where melt in 60 sec.