

# Overhead Distribution Protection

Sure Guard 9F59U Series ETP Fuses

## MEDIUM VOLTAGE FUSES

### 8.3kV, 15.5kV, AND 23.0kV OVERHEAD BACK-UP FUSES



The Sure Guard ETP back-up current-limiting fuses are designed to protect overhead distribution systems and are used in series with another protective device (such as an expulsion fuse). This combination limits the high-fault current to a safe level, thus providing protection through the complete range. As its name implies, the “ETP” is for External Transformer Protection. For conventional transformers protected by expulsion-fuses cutouts, the ETP can be installed in series with the cutout. For self protected transformers, the ETP can be applied on the high-voltage bushing in series with the internal transformer expulsion fuse.

#### DEFINITIONS:

##### Back-up Current-Limiting Fuses:

A back-up current-limiting fuse is a fuse that can interrupt any current between its rated minimum interrupting current and its maximum interrupting current. Back-up fuses are not designed or intended to open under overload conditions.

#### RATINGS:

##### 9F59UBC:

- **Volts:** 8.3kV AC
- **Amps:** 12K to 80K
- **IR:** 50kA Sym

##### 9F59UBD:

- **Volts:** 15.5kV AC
- **Amps:** 12K to 80K
- **IR:** 50kA Sym

##### 9F59UBE:

- **Volts:** 23.0kV AC
- **Amps:** 12K to 25K
- **IR:** 50kA Sym

#### FEATURES/BENEFITS:

- Various hardware options
- Current-limiting for superior equipment protection
- Weather-tight construction
- High fault current interrupting capability: I.R. Sym = 50kA at ETP voltage rating.

#### APPLICATIONS:

- Short-circuit protection of overhead distribution systems

#### FUSE CURVES:

- Minimum Melt: GES8228B
- Total Clear: GES-8229B
- Peak Let-through: GET-6693A

### ETP SELECTION DATA

ETP Rating	Rating [kV]			Model Number	Recommended Max. Expulsion	Min. I.C. Amperes	Max. Total I <sup>2</sup> t	Length - Dimension "A" (Inches)**
	System kV (maximum)	3PH	PH-PH					
8.3	15	15	8.3	9F59UBC ___ 1	8T or 12K	440	16,000	5.9
				9F59UBC ___ 2	15T or 25K	450	50,000	10.26
				9F59UBC ___ 4	25T or 40K	560	140,000	10.26
				9F59UBC ___ 8*	50T or 80K	1,200	88,000	10.26
15.5	27	27	15.5	9F59UBD ___ 1	8T or 12K	510	16,000	10.26
				9F59UBD ___ 2	15T or 25K	480	50,000	15.68
				9F59UBD ___ 4	25T or 40K	890	140,000	15.68
				9F59UBD ___ 8*	50T or 80K	1,200	88,000	15.68
23.0	38	38	23.0	9F59UBE ___ 1	8T or 12K	280	16,000	15.68
				9F59UBE ___ 2	15T or 25K	460	70,000	15.68

### HARDWARE SELECTION

Description	Figure Number	Code
<b>Caps</b> (see drawings on next page)		
Spade and Stud	A	1
Spade and Spade	B	2
Spade and Spade (parallel config.)	C	*
* Refer to Table 1 for available model numbers and refer to Figure C for dimensions (next page).		
<b>Hardware</b> (see drawings below)		
Without hardware	—	0
{1} Adapter	1	1
{1} Eyebolt terminal	2	2
{1} Parallel groove	3	3
Adapter and eyebolt terminal	1,2	4
Adapter and parallel groove	1,3	5
Eyebolt terminal and parallel groove	2,3	6
{2} Eyebolt terminals	2	7
{2} Parallel groove	3	8

\*\* For dimensions, refer to outline drawings on next page.

### TABLE 1: AVAILABLE MODEL NUMBERS IN PARALLEL CONFIGURATION

Catalog Number	ETP Rating	Catalog Number	ETP Rating
9F59UBC208	8.3	9F59UBD208	15.5
9F59UBC218	8.3	9F59UBD218	15.5
9F59UBC228	8.3	9F59UBD228	15.5
9F59UBC238	8.3	9F59UBD238	15.5
9F59UBC248	8.3	9F59UBD248	15.5
9F59UBC258	8.3	9F59UBD258	15.5
9F59UBC268	8.3	9F59UBD268	15.5
9F59UBC278	8.3	9F59UBD278	15.5
9F59UBC288	8.3	9F59UBD288	15.5

### HARDWARE OPTIONS:

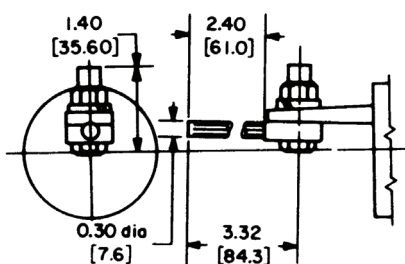


Fig. 1. Adapter only  
9F59AAW007

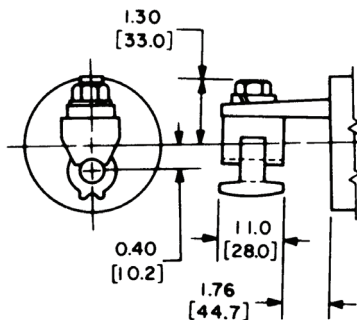


Fig. 2. Eyebolt only,  
for 6-2/0 cable  
9F59AAW008

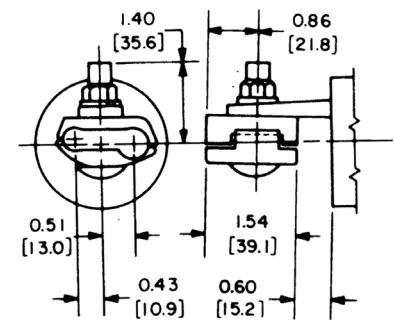


Fig. 3. Parallel groove only,  
for 2/0 to 250MCM cable  
9F59AAW009

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FUSES

## DIMENSIONS:

Figure A

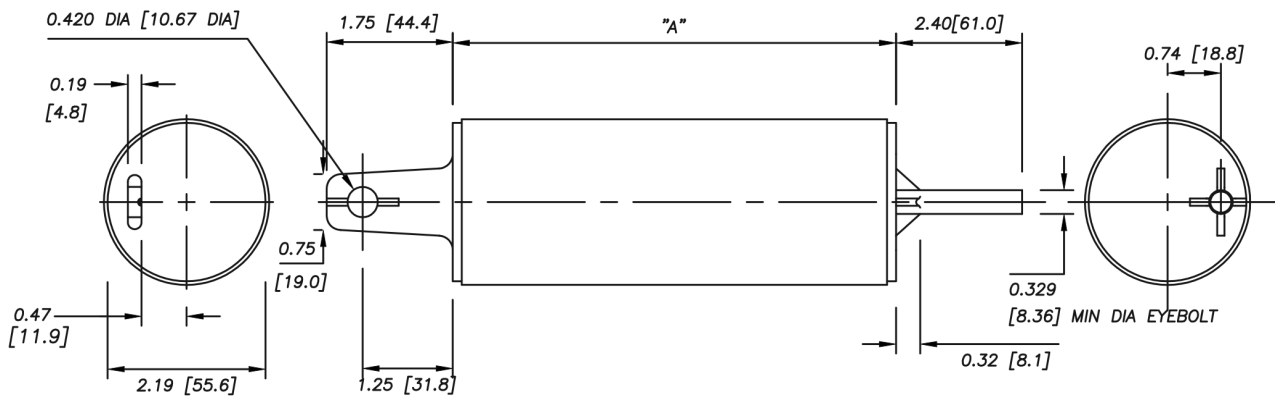


Figure B

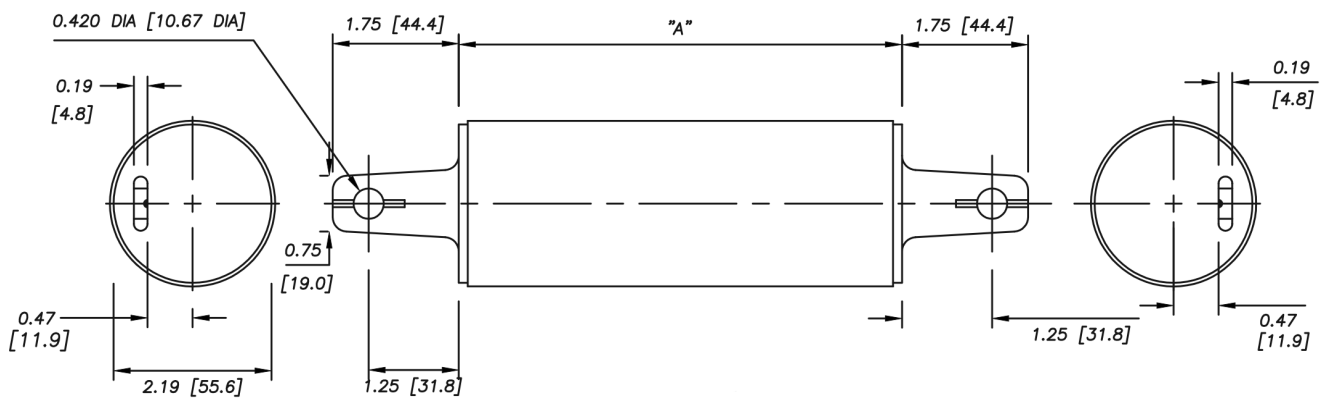
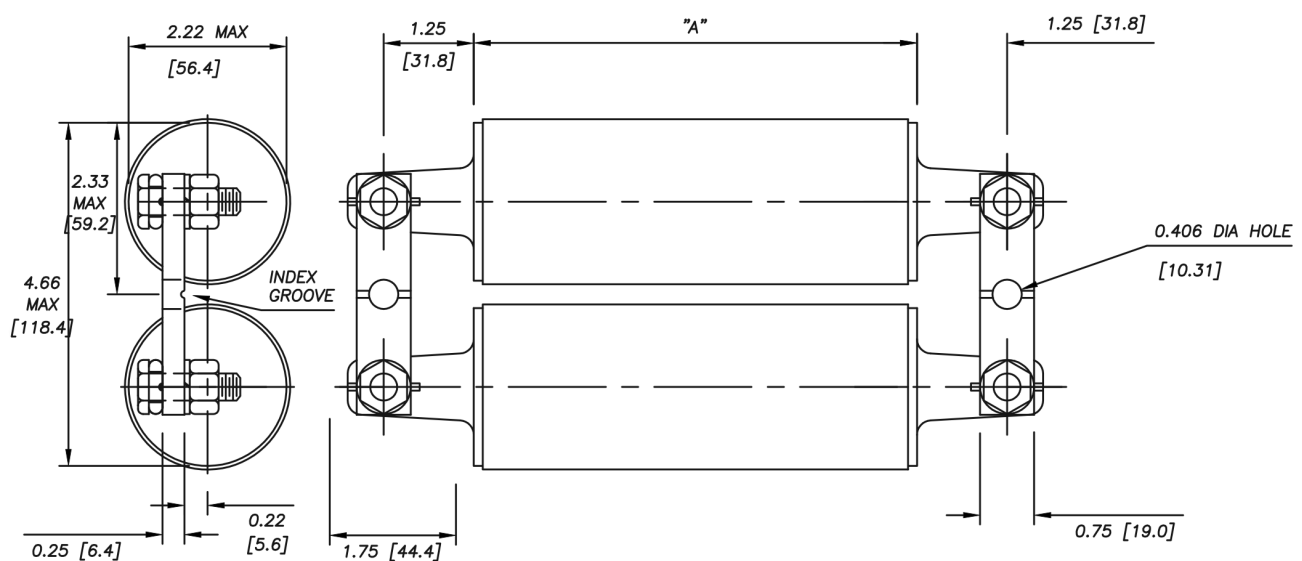


Figure C



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