



**GE Oil Cutouts**

# ***Product Catalog***

***Oil Cutouts***

***Metal - Enclosed Assemblies***

***Fuse Links***

***Accessories***

GEA - 101 1/94  
Supersedes  
GE Handbook Numbers:  
5851, 5852, 5855

# Vented Oil Cutouts

## Description

**Vented Oil Cutouts** may be used indoors, or outdoors in applications requiring weather tight construction. They should not be used in explosive or flammable environments or where extreme water conditions are experienced such as manholes, vaults or subways. If complete submersion or splashing water is possible such as occurs during rain storms in otherwise dry manholes, sealed oil cutouts should be used.

GE Oil Cutouts comply with the requirements of the 1971 National Electrical Code, Section 230-106 and 710-21, and are rated in accordance with NEMA standards in Class 1, division 2 areas, subject to local approval.

**Table A Vented Oil Cutouts**

Rating of Oil Cutouts			GE Catalog No.	Wt. in lbs. including oil	Dimen Ref. Fig. #	Dimensions in inches					10C® oil quarts per cutout	Connector style
Volts	Amps	Interrupting Cap. Rms Amps. Asym(1)				A Height	B Width	C Depth	D Height to Remove Carrier	Length of Flexible Lead		
<b>For Rack or Seperate Mounting (2)</b>												
5200	100	5,000	9F32FAA103	45	1	16 1/4	11 7/8	8 9/16	26 1/2	18	3	F02
5200	200	10,000	9F32FAA203	83	1	19 5/16	16	10 1/4	29 3/4	18	8	F02
<b>For Metal-Enclosed Assemblies</b>												
5200	100	5,000	9F32FCA104	47	2	16 3/8	12 3/8	8 5/8	26 3/4	21	3	F02
5200	200	10,000	9F32FCA207	95	2	20 1/16	16	10 5/8	30 5/8	23	8	F02
5200	200	10,000	9F32FCA208	95	2	20 1/16	16	10 5/8	30 5/8	48	8	F02

(1) For interrupting ratings at reduced voltages, see page 6

(2) For racks and gang-operating mechanisms for these cutouts refer to tables F & G on page 4

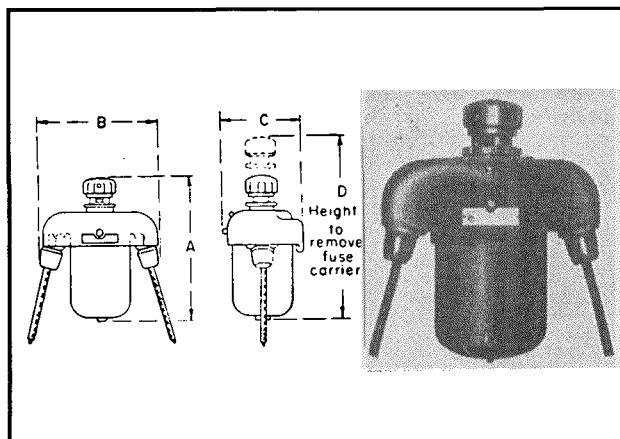


Figure 1: Vented cutout for rack mounting

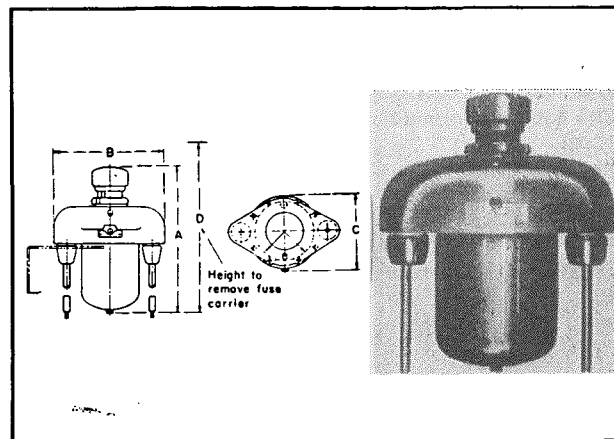


Figure 2: Vented cutout for metal-enclosed assemblies

**NOTE:** Flexible cable should not be run in conduit or allowed to rest against grounded surfaces unless additional insulation is added.

# Sealed Oil Cutouts

**Sealed Oil Cutouts** are used in applications where submersion in water, or splashing or pouring water is possible such as in manhole, vaults or subways in underground installations. If an explosive or flammable environment exists use sealed oil cutouts.

**GE Sealed Oil Cutouts** listed below are furnished with expansion chambers, petrolatum and cable terminations for rubber- or lead-covered cable. Sealed cutouts without expansion chamber have a 50 percent reduction in interrupting capacity.

**Table B Sealed Oil Cutouts**

Rating of Oil Cutouts			GE Catalog No.	Wt. in lbs. including oil	Dimen Ref. Fig. #	Dimensions in inches					10C® oil quarts per cutout	Connector style
Volts	Amps	Interrupting Cap. Rms Amps. Asym(1)				A height	B Width	C Depth	D Height to Remove Carrier	Length of Flexible Lead		
For Rack or Seperate Mounting (2)												
5200	100	5,000	9F32FBB103	51	3	19	11 7/8	8 9/16	25 1/4	...	3	F03
5200	100	5,000	9F32FBC102	51	4	21 1/4	11 7/8	8 9/16	26 7/16	...	3	F04
5200	200	10,000	9F32FBB205	98	3	20 1/4	16	11 1/16	28	...	6	F03
5200	200	10,000	9F32FBC202	99	4	22 1/8	16	11 1/16	28 15/16	...	8	F04
High Interrupting Capacity												
5200	200	14,000	9F32HBB201	98	3	20 1/4	16	11 1/16	28	...	8	F03
5200	200	14,000	9F32HBC201	99	4	22 1/8	16	11 1/16	28 15/16	...	8	F04
For Metal-Enclosed Assemblies with Flexible Leads (3)												
5200	200	10,000	9F32FDA203	3	5	21 5/8	16	10 5/8	28 5/8	23	8	F02
With Entrance-terminal Rubber-covered Cable, High Interrupting Capacity												
5200	200	14,000	9F32HDC201	98	4	23	16	10 5/8	27 7/8	...	8	F04
With Wiping Sleeves, High Interrupting Capacity												
5200	200	14,000	9F32HDB201	98	3	21 5/8	16	10 5/8	28 5/8	...	8	F03

(1) For interrupting ratings at reduced voltages, see page 6

(2) For racks and gang-operating mechanisms for these cutouts refer to tables F & G on page 4

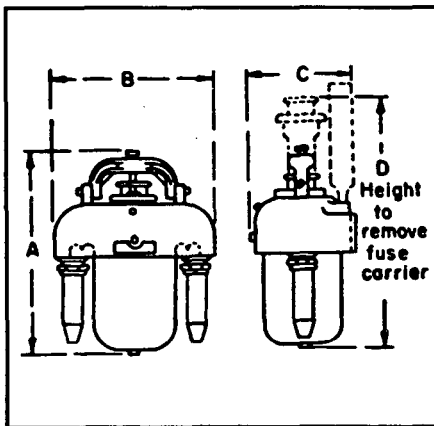


Figure 3: Sealed cutout with detachable wiping sleeve for lead-covered cable

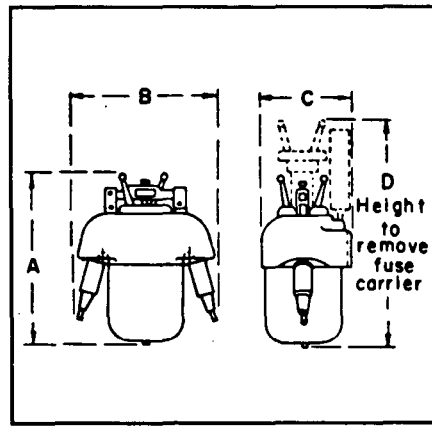


Figure 4: Sealed cutout with detachable entrance terminals for rubber-covered ETRC cable

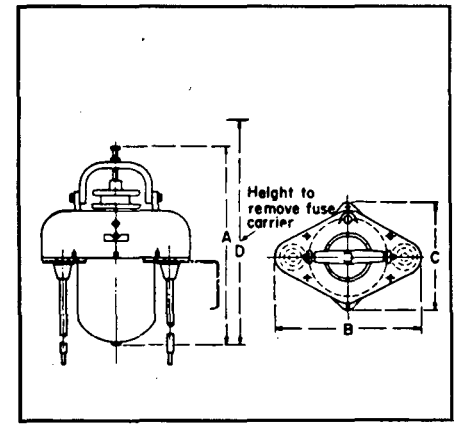


Figure 5: Sealed cutout for metal-enclosed assemblies with flexible leads

# Metal-Enclosed Assemblies with Oil Filled Cutouts

**Table C: Metal-Enclosed Assemblies with Cutouts**

(Includes gang-operating mechanisms and oil cutouts. Fuse links ordered separately)

Rating of Oil Cutouts			GE Catalog Number	Dimen. Ref. Fig. #	Approximate dimensions in inches (2)						Length of Flexible Lead	Wt. in lbs. including oil	Catalog # of cutout included in assembly
Volts	Amps	Interrupting Cap. Rms Amps. Asym(1)			A	B	C	D	E	F			
Hanging Assemblies - Vented Cutouts													
5200	100	5,000	9F31ABA101	6	29 3/4	38	24 3/4	9 1/2	...	...	21	244	9F32FCA104
5200	100	5,000	9F31ABA119	8	29 3/4	38	24 3/4	9 1/2	...	...	21	197	9F32FCA104
5200	200	10,000	9F31ABA201	6	35 3/4	42	26	11 1/2	...	...	23	417	9F32FCA207
5200	200	10,000	9F31ABA210	8	35 3/4	42	26	11 1/2	...	...	23	322	9F32FCA207
Hanging Assemblies - Sealed Cutouts													
5200	200	10,000	9F31AEA201	6	36 5/8	42	18 3/8	11 1/2	...	...	23	417	9F32FDA203
Free Standing Assemblies - Vented Cutouts													
5200	100	5,000	9F31YBA111	7	29 3/4	55	24 3/4	36	14	9 1/2	21	270	9F32FCA104
5200	100	5,000	9F31YBA118	9	29 3/4	55	24 3/4	36	14	9 1/2	21	223	9F32FCA104
5200	200	10,000	9F31YBA211	7	35 3/4	57	26	36	14	11 1/2	23	450	9F32FCA207
Free Standing Assemblies - Sealed Cutouts													
5200	200	14,000	9F31YDC201	10	36 5/8	55	19 3/8	36	...	11 1/2	...	330	9F32HDC201
5200	200	14,000	9F31YEC201	-	36 5/8	55	18 3/8	36	...	11 1/2	...	430	9F32HDC201

(1) For more information on interrupting ratings of these cutouts see table on page 6.

(2) A and C dimensions include operating mechanism travel

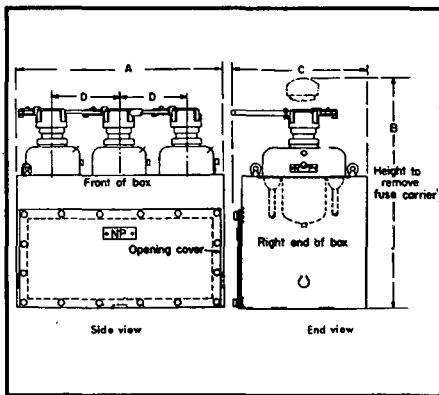


Figure 6: Three-phase hanging unit

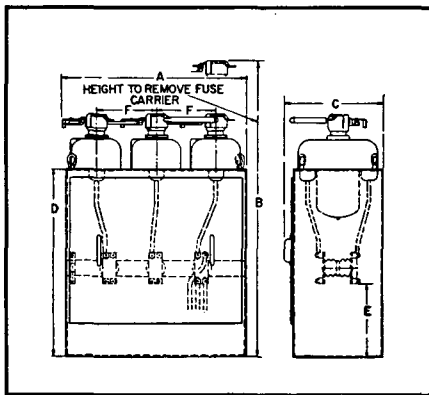


Figure 7: Three-phase free standing unit allows for incoming and outgoing multiple connections to No. 6-250MCM cable.

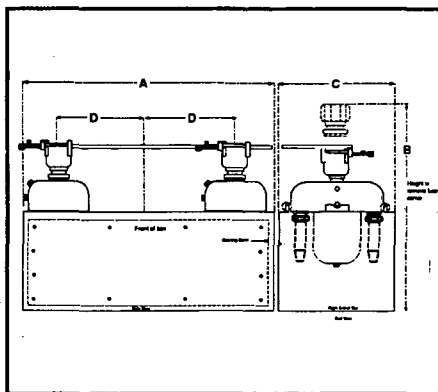


Figure 8: Single-phase hanging unit

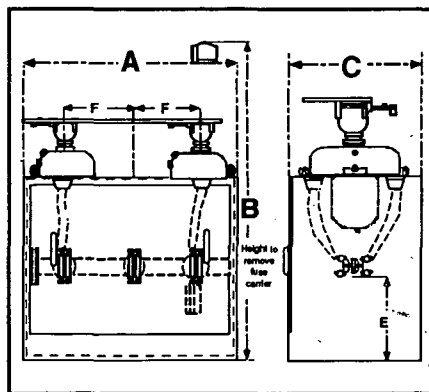


Figure 9: Single-phase free standing unit

## Gang Operated with Knockouts

The items listed above include vented cutouts with gang-operating mechanism, flexible leads and weather-tight housing. Four knockouts are located, one on each end and two in the bottom. Sizes of the knockouts are: for 100-amp rating, 2-inch/3-inch combination; for 200-amp ratings, 3-inch/4-inch combination.

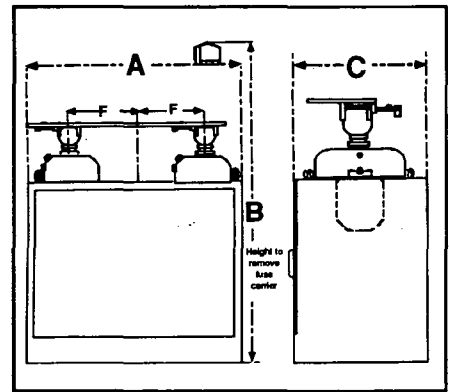


Figure 10: Single-phase free-standing MEA w/ ETRC type detachable cables

# Racks and Gang-Operating Mechanisms

**Gang-Operating Mechanisms** are for simultaneously opening or closing a group of three oil cutouts. The rack forms a convenient and rigid support for wall or pole mounting. Kirk-key inter-locking available.

**Table D: Wall Mounted Rack and Mechanisms for Sealed Oil Cutouts**

Rating of Oil Cutouts		GE Catalog Number		Dimen Ref. Fig. #	Approx. Dimensions in inches (1)		
Volts	Amps	Short-Way	Long-Way		A	B	C
5200	100	9F31RER101	9F31RER111	12	24 1/2	34 1/8	17 1/4
5200	100			11	24 1/2	45 5/8	12 3/8
5200	200	9F31RER201		12	28	40 3/8	21 1/4
5200	200			11	28	58	14 1/2

**Table E: Operating Mechanisms for Sealed Metal-Enclosed Assemblies**

5200	100	9F31REM101	(1) B and C dimensions include operating mechanism travel
5200	200	9F31REM201	

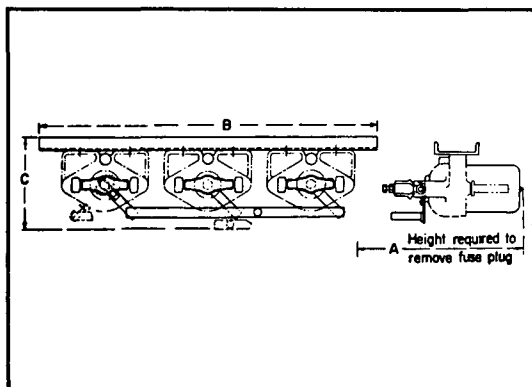


Figure 11: Long way mounted rack assembly for sealed oil cutouts

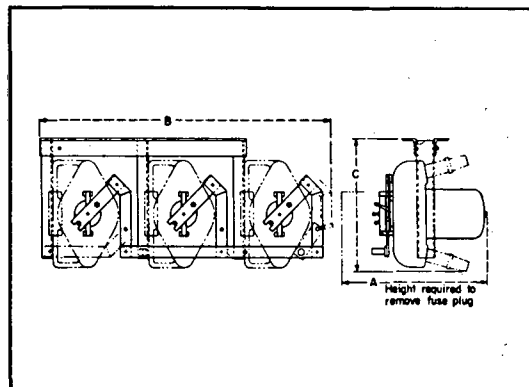


Figure 12: Short way mounted rack for assembly for sealed oil cutouts

**Table F: Wall Mounted Rack and Mechanisms for Vented Oil Cutouts**

Rating of Oil Cutouts		GE Catalog Number	Approx. Dimensions in inches (1)			
Volts	Amps		Dimen Ref. Fig. #	A	B	C
5200	100	9F31RBR102	13	11	33 1/2	25 1/2
5200	200	9F31RBR202	13	13	38 3/8	28 3/4

**Table G: Operating Mechanisms for Vented Oil Cutouts Assemblies**

5200	100	9F31RBM102	MEA Mount
5200	100	9F31RBM103	Rack Mount
5200	100	9F31RBM202	MEA Mount
5200	200	9F31RBM203	Rack Mount

(1) B and C dimensions include operating mechanism travel

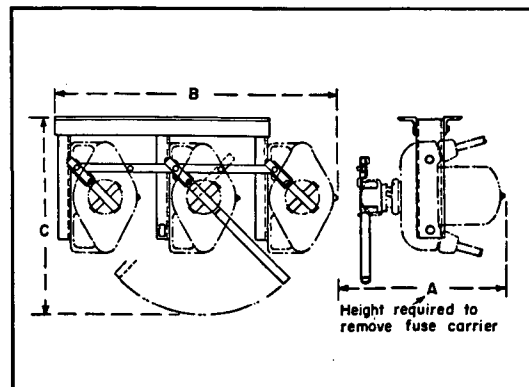


Figure 13: Rack and gang mechanisms for vented oil cutouts

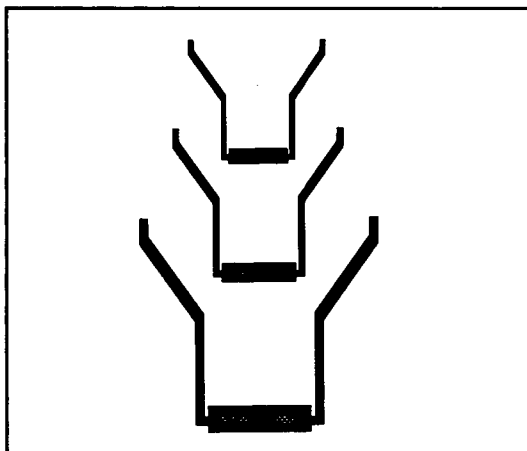
# Oil Cutout Renewal Parts & Accessories

**Table H: Fuse Links, Coordinating Fuse Links & Disconnecting Blades**

Capacity in Amperes 100% Rating	GE Catalog Number		
	Fuse Link	Coordinating Fuse Link	Disconnecting Blade
6	9F57CAA006	...	...
10	9F57CAA010	...	...
15	9F57CAA015	...	...
20	9F57CAA020	...	...
25	9F57CAA025	...	...
30	9F57CAA030	...	...
40	9F57CAA040	...	...
50	9F57CAA050	...	...
60	9F57CAA060	...	...
65	9F57CAA065	...	...
75	9F57CAA075	...	...
100	9F57CAA100	...	...
125	9F57CAA125	...	...
140	9F57CAA140	...	...
150	9F57CAA150	...	9F57CAB150 (1) 9F57BAB150
200	9F57CAA200	...	9F57CAB200 (1)
201	...	9F57CAA201	...
202	...	9F57CAA202	...
250	9F57BAA250	...	9F57BAB250
300	9F57BAA300	...	...
301	...	9F57BAA301	...
350	...	...	9F57BAB350

(1) For 7,800 and 15,000 volts.

**Interchangeable fuse-links** are made in three sizes, corresponding with the three cutout ratings -100, -200, and 300 amperes. Any fuse link from 5 to 100 amperes fits the 100-, 200-, and 300- ampere cutouts; fuse links from 125 to 200 amperes are designed to fit only the 200- and 300- ampere cutouts; and the 250- and 300- ampere fuse links will fit only the 300- ampere cutout.



**Table I: Cutout Renewal Parts & Accessories**

Ref. fig. #15:	Description	GE Catalog Number	
		100 Amp	200 Amp
1	STR Wipe Sleeve Kit (complete with lead lug & sleeve)	9F32FLW251	9F32FLW252
2	TPR Wipe Sleeve Kit (complete with lead lug & sleeve)	9F32FLW053	9F32FLW080
3	Entrance terminal (rubber cable)	9F32FLW038	9F32FLW039
4	Union Nut	9F32FLW059	9F32FLW086
5	Union Gasket	9F32FLW060	9F32FLW087
6	Stationary contact, springs, and plate for base	9F32FLW047	9F32FLW074
7	Tank, drain plug & sealing compound	9F32FLW044	9F32FLW071
8	Contact Plug	9F32FLW063	9F32FLW090
9	Vented Carrier Hood	9F32FLW226	9F32FLW227
10	Expansion Chamber	9F32FBW008	
	Drain Plug	9F32FLW211	
	Petrolatum (for 2 ETRC's or wipe sleeves)	9F32FLW094	
	10C@ Oil - 1 gallon can	9F32FLW219	
	Thread Sealant	9F32FLW250	
11	Fuse Carrier (complete including gasket)		
	vented	9F32FLW014	9F32FLW020
	sealed	9F32FLW017	9F32FLW023
12	Gasket only for Fuse Carrier		
	vented	9F32FLW042	9F32FLW069
	sealed	9F32FLW065	9F32FLW092
	Locking Bar		
	For Vented Mechanism	9F32RLW003	
	For Sealed Mechanism	9F32RLW005	

Figure 14: Group of interchangeable links, in three standard sizes

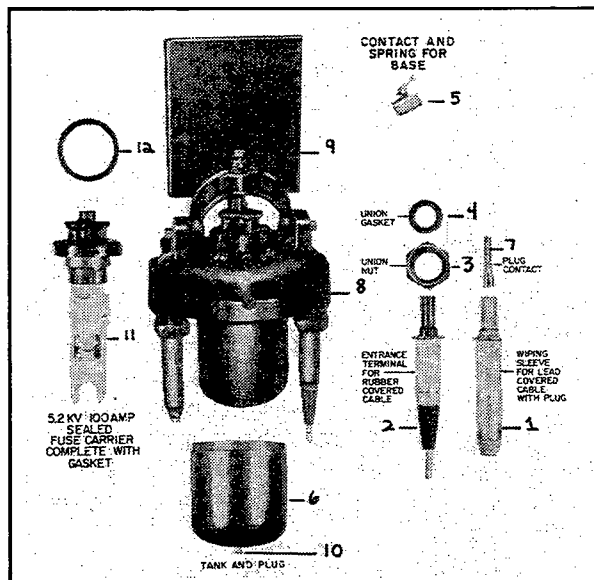


Figure 15: Renewal parts and accessories

# Oil Cutouts

## Application Data

**Note:** Because of the small quantity of oil used, the National Electrical Code does not require indoor vault for installation of cutouts.

These cutouts may be used on circuits where the voltage across the cutout does not exceed the rated maximum design voltage as shown on the nameplate and given in the following tabulations. They may be used with a fuse link or a nonfusible copper disconnecting blade by installing a fuse link or a blade on the fuse carrier at the option of the purchaser. Refer to table H.

The user should determine whether a fuse or a blade is used since it determines the proper usage of the cutout. When a disconnecting blade is used, install overcurrent protection on the "source" side and interlock the cutout with the secondary switchgear to prevent the possibility of switching under short-circuit conditions. Do not use oil cutouts with disconnecting blades where the available short-circuit current or its duration will exceed the short-time ratings. Refer to table J for interrupting capability, load-break ratings and short-time ratings.

**Table J - Load-break and Short-time Ratings**

Cutout Voltage Rating kV	Continuous Current Rating (Rms Amps)		Load-break Rating (Rms Amps) ①			Short-time Rating with Disconnect Blade (Rms Amps)	
	With Fuse Link	With Disconnect Blade	Nominal Circuit Voltage and Load Connection	Normal Switching 100 Operation @0.8PF	Maximum Switching 5 Operations @0.8 PF	Momentary (10 Cycles)	Four Seconds
5.2	100	150	2400 Delta or 2400 / 4160 grounded wye	150	...	4,500	2,500
			4160 and 4800 Delta or underground wye	150	...		
5.2	200	250	2400 Delta or 2400 / 4160 grounded wye	450	650	9,000	4,000
			4160 and 4800 Delta or underground wye	200	300		
5.2	300	350	2400 Delta or 2400 / 4160 grounded wye	350	...	9,000	5,000
			4160 and 4800 Delta or underground wye	200	...		
8	200	200	7200 Delta or wye	200	...	9,000	4,000
15	200	200	14400 Delta or wye	200	900	16,000	4,000

① When a disconnect blade is used, install over current protection on the "source" side and interlock the cutout with the secondary switch gear to prevent the possibility of switching under short-circuit conditions.

② Ratings apply to vented or sealed cutouts with expansion chambers. Maximum interrupting current is the total rms value of the current including the d-c component with maximum system voltage applied directly across the cutout.

Cutouts with fuse links can be switched closed on short circuits up to their published interrupting rating.

③ Interrupting capability is based on (maximum design voltage) X (maximum interrupting current) X (1.73). This corresponds to a symmetrical rating on a system having  $X/R = 0$ .

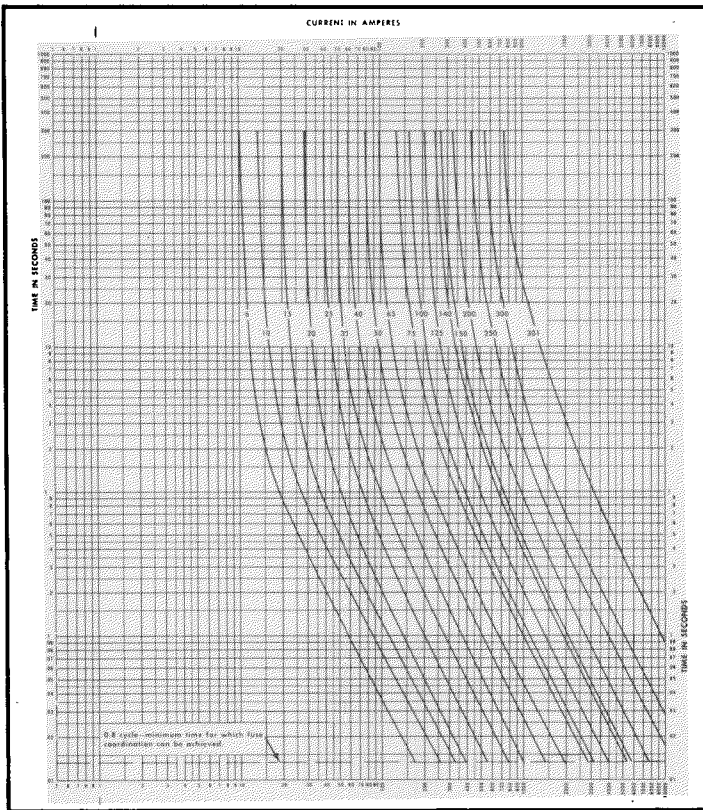
④ To find maximum permissible SYMMETRICAL fault current on systems with  $X/R = \text{less than } 4$ , divide maximum asymmetric 3-phase kVA by (1.2). Generally applies to overhead utility distribution circuits.

⑤ To find maximum permissible SYMMETRICAL fault current on systems with  $X/R = \text{more than } 4$ , divide maximum asymmetric 3-phase kVA by (1.6). Generally applies to industrial applications at large plants fed by their own generators where there is a large concentration of power on short feeders with large conductors.

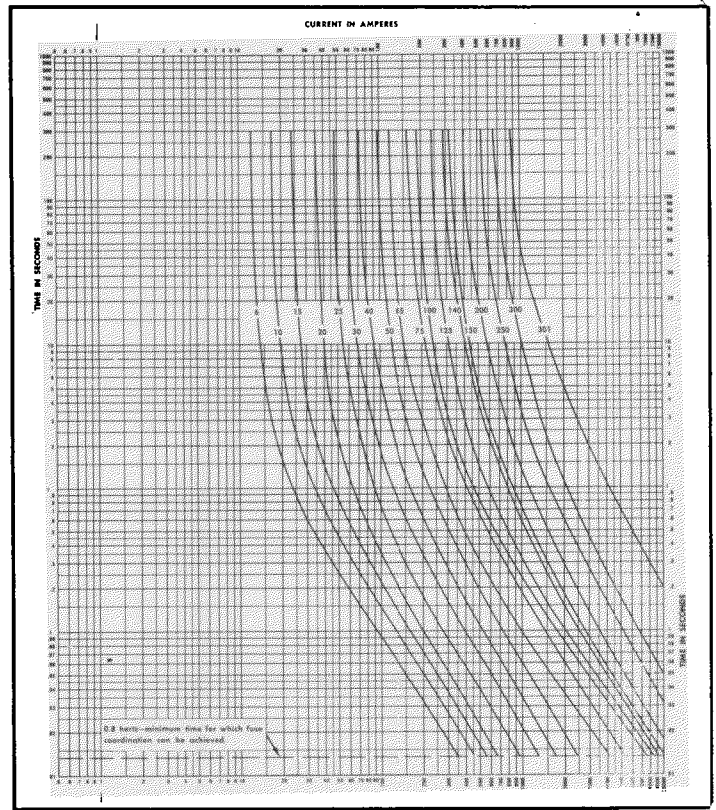
**Table K - Interrupting Ratings, Three-phase, Wye or Delta Systems Load-break & Short-time Ratings**

Type	Rating		Maximum System Voltage Line-to-line kV	Single-phase Interrupting Rating ② Asymmetrical Amperes	Maximum Three-phase Interrupting Capability ③ Asymmetrical kVA	Maximum Permissible Calculated Symmetrical Fault kVA for Systems Having X/R Constants	
	kV	Amps				X/R Less than ④	X/R More than ⑤
Vented or Sealed	5.2	100	2.6	6,000	27,000	22,500	16,900
		200		11,000	49,000	41,000	30,600
		300		11,000	49,000	41,000	30,600
Sealed 9F32H Series	5.2	200	2.6	15,000	67,500	56,000	42,000
Vented or Sealed	5.2	100	5.2	5,000	45,000	37,500	28,000
		200		10,000	90,000	75,000	56,000
		300		10,200	92,000	77,000	57,800
Sealed 9F32H Series	5.2	200	5.2	14,000	126,000	105,000	79,000
Vented or Sealed	7.8	200	7.8	5,000	67,500	56,000	42,000
Vented or Sealed	15	200	15	7,000	182,000	151,000	115,000

# Time-current characteristic curves for oil fuse cutout fuse links - type 9F57B & C



Minimum-Melting Time-Current Curves



Maximum Total-Clearing Time-Current Curves

Additional reference materials available upon request:

- Informational Brochures
- Instructional Booklet
- OEM Catalog for Switchgear Builders & Transformer Manufacturer
- Minimum Melting Time-Current Fuse Curve
- Maximum Total Clearing Time-Current Fuse Curve
- Price Sheet / GO Schedule
- Catalog

GEA 7191C  
GEH-805Z  
GEP-1826A  
GES-8500  
GES-8501  
GEP-101  
GEA-101



**GE Support Services**  
**158 Gaither Drive**  
**Mt. Laurel, NJ 08054**