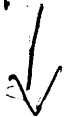


870 420

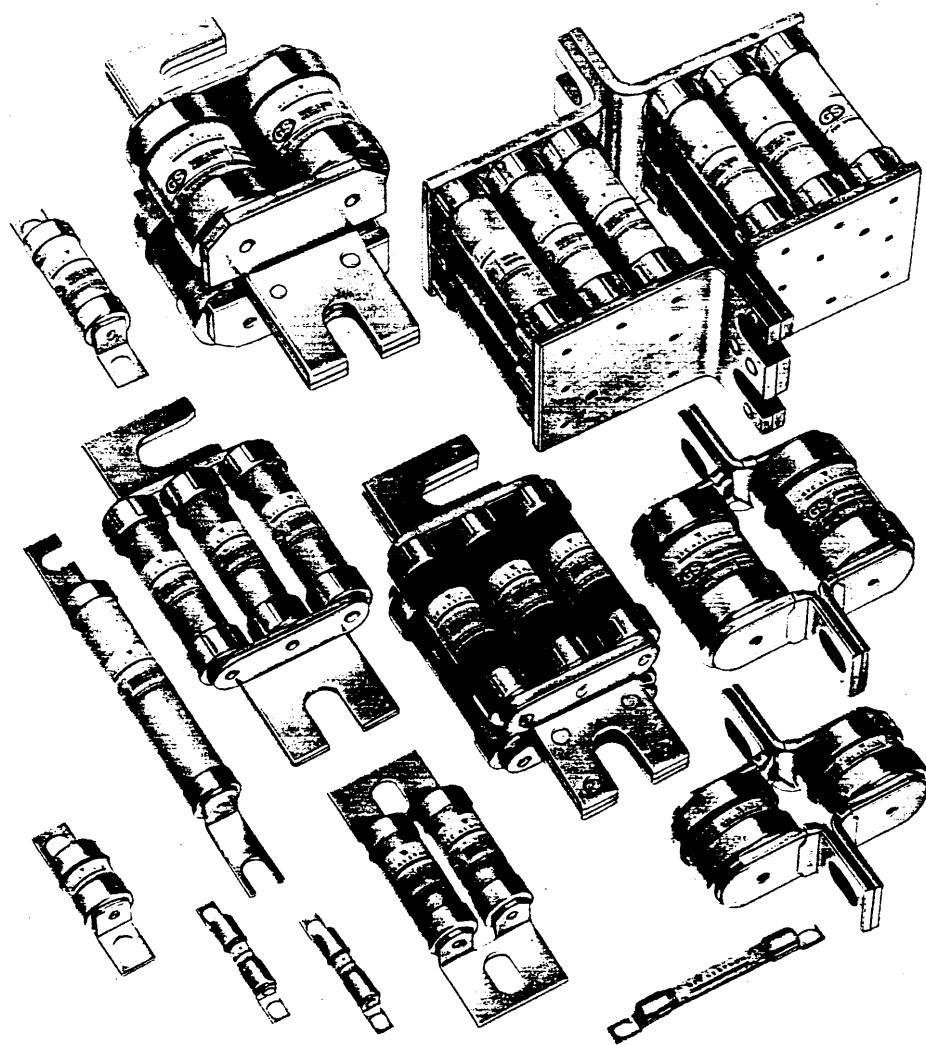


547

+772 884

+ 870 780

# Semi Conductor Fuse Links



**G E C A L S T H O M**

LOW VOLTAGE EQUIPMENT

# 'GSA' Fast Acting HRC Fuse Links

## Type GSA 5-600 Amp

Fast acting fuse links, rated 5 - 600 Amp.

A.C. rating: 240 Volt rms tested to  
318 Volt rms.

D.C. rating: 200 Volt d.c. time constant 20ms.

| Voltage Rating                        |                  | Current Rating | List Number | Minimum Pre-Arcing $I^2t$ | Total $I^2t$                           | Cut-Off Current        | Power Dissipation |          | Top Cap Temp. Rise | Indicator Pack Ref.† | Dimensional Reference |
|---------------------------------------|------------------|----------------|-------------|---------------------------|----------------------------------------|------------------------|-------------------|----------|--------------------|----------------------|-----------------------|
| Volt a.c. RMS                         | Volt d.c. @ 20ms | Amp            |             | A <sup>2</sup> sec        | @ 100kA 240Volt RMS A <sup>2</sup> sec | @ 100kA 240Volt RMS kA | @ In              | @ 0.5 in | @ 20°C ambient °C  |                      |                       |
| ASTA Certified 240 also tested to 318 | 200              | 5              | GSA5        | 1.1                       | 38                                     | 1.2                    | 0.8               | 0.15     | 11                 | *                    | 1                     |
|                                       |                  | 10             | GSA10       | 4.3                       | 140                                    | 2.0                    | 1.6               | 0.3      | 18                 |                      |                       |
|                                       |                  | 15             | GSA15       | 12                        | 350                                    | 2.7                    | 2.5               | 0.5      | 25                 |                      |                       |
|                                       |                  | 20             | GSA20       | 17                        | 590                                    | 2.8                    | 3.5               | 0.7      | 33                 |                      |                       |
|                                       |                  | 25             | GSA25       | 24                        | 800                                    | 2.8                    | 2.6               | 0.6      | 18                 | GSIPAS               | 2                     |
|                                       |                  | 35             | GSA35       | 150                       | 1,700                                  | 3.8                    | 4.0               | 0.8      | 27                 |                      |                       |
|                                       |                  | 50             | GSA50       | 400                       | 5,400                                  | 5.6                    | 5.2               | 0.9      | 34                 |                      |                       |
|                                       |                  | 75             | GSA75       | 890                       | 6,500                                  | 5.9                    | 7.1               | 1.4      | 34                 |                      |                       |
|                                       |                  | 100            | GSA100      | 2,000                     | 14,400                                 | 9.4                    | 9.0               | 1.8      | 40                 | GSIPAL               | 3                     |
|                                       |                  | 125            | GSA125      | 2,100                     | 56,000                                 | 10.0                   | 12.5              | 2.5      | 40                 |                      |                       |
|                                       |                  | 150            | GSA150      | 3,200                     | 84,000                                 | 12.0                   | 14.5              | 3.0      | 42                 |                      |                       |
|                                       |                  | 200            | GSA200      | 7,500                     | 170,000                                | 14.0                   | 21.0              | 4.0      | 44                 |                      |                       |
|                                       |                  | 250            | GSA250      | 10,700                    | 250,000                                | 18.0                   | 26.0              | 5.5      | 46                 | GSIPAL               | 4                     |
|                                       |                  | 300            | GSA300      | 13,100                    | 190,000                                | 17.0                   | 31.0              | 5.5      | 60                 |                      |                       |
|                                       |                  | 350            | GSA350      | 19,000                    | 270,000                                | 18.0                   | 36.5              | 7.0      | 61                 |                      |                       |
|                                       |                  | 400            | GSA400      | 34,300                    | 510,000                                | 22.0                   | 38.5              | 7.0      | 62                 |                      |                       |
|                                       |                  | 500            | GSA500      | 55,000                    | 780,000                                | 27.0                   | 48.0              | 9.0      | 64                 |                      |                       |
|                                       |                  | 600            | GSA600      | 95,000                    | 1,400,000                              | 32.0                   | 54.0              | 10.0     | 68                 |                      |                       |

(Page 1/40)

\* Indicator pack not available.

† Indicated fuse links.

"Add-on" indicator fuse link conversion kits comprising a trip indicator fuse link and a pair of easily assembled clips are available.

### Repetitive cyclic loads

Considerable work has been undertaken by GEC ALSTHOM over a number of years to satisfy the market requirements in this area. This has resulted in a number of pulse withstand factors being derived for GEC ALSTHOM fuse links to enable them to be selected for cyclic overcurrent.

| Fuse Link Range | Pulse Withstand Factors 'p' |        |         |          |
|-----------------|-----------------------------|--------|---------|----------|
|                 | 20s                         | 20-60s | 1-5 min | 5-20 min |
| GSA             | 0.35                        | 0.5    | 0.5     | 0.5      |
| GSD             | 0.35                        | 0.5    | 0.5     | 0.5      |
| GSB             | 0.3                         | 0.35   | 0.4     | 0.5      |
| CGS1000         | 0.3                         | 0.35   | 0.4     | 0.5      |
| GSGB            | 0.3                         | 0.35   | 0.4     | 0.5      |
| GSMJ&K          | 0.35                        | 0.4    | 0.45    | 0.5      |

**Note:** If cyclic duty is superimposed on a steady current, which is less onerous than cycling a fuse link down to zero current, then 'P' can be increased by 30% for pulses up to 20 seconds.

To determine the suitability of a fuse link for cyclic overcurrent duty, the individual elements of the cycle should be considered.

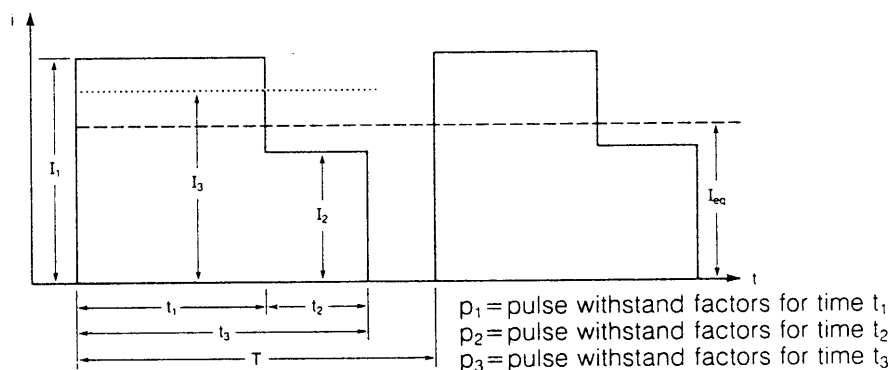
The equivalent rms current  $I_{eq}$  is then determined:

$$I_{eq} = \sqrt{\frac{I_1^2 t_1 + I_2^2 t_2}{T}} \leq \text{Minimum fuse link rating}$$

Current  $I_3$  is then determined:

$$I_3 = \sqrt{\frac{I_1^2 t_1 + I_2^2 t_2}{t_1 + t_2}}$$

**Example:**



The pulse withstand factors above are then applied to the pulse currents  $I_1$ ,  $I_2$  and  $I_3$ .

Applying pulse withstand factors will determine pulse withstand currents  $I_p$ .

$$I_{p1} = \frac{I_1}{p_1}; \quad I_{p2} = \frac{I_2}{p_2}; \quad I_{p3} = \frac{I_3}{p_3}$$

The correct rating of fuse link for the cyclic duty is determined by selecting the fuse link whose time/current curve lies to the right hand side of the most onerous pulse withstand current determined. It must also have a continuous rating greater than  $I_{eq}$ .

### $I^2t$ Characteristics

#### Pre-arcing $I^2t$

The pre-arcing  $I^2t$  characteristics represent the minimum values achieved under short circuit conditions, i.e. less than 10ms. For longer times the time/current characteristics may be used to determine the pre-arcing  $I^2t$ .

#### Total $I^2t$

Total  $I^2t$  characteristics are given showing variation of total  $I^2t$  with voltage and prospective current. This can be used to determine the total  $I^2t$  under specific fault conditions, to enable fuse links to be fully co-ordinated with published  $I^2t$  withstand values of the semi conductor devices.

#### Cut-off current characteristics

Cut-off characteristics are produced for each fuse link. This enables the precise determination of peak let through current

under the worst possible operating conditions for specific values of prospective fault current and voltage.

#### Arc voltage

GEC ALSTHOM fuse link designers have ensured that the 'GS' range exhibits minimum arc voltage under normal operating conditions.

Variation of arc voltage with respect to applied voltage is incorporated within the technical data.

#### Parallel operation of fuse links

Higher current ratings can be achieved by paralleling fuse links. It can also be used to minimise the number of fuse link variants required in a range.

When applying fuse links in parallel it is important to ensure that substantial paralleling conductors are used to provide substantially equal current sharing.

The time/current characteristics of a parallel arrangement can be derived by multiplying the operating current of a single fuse link from its time/current characteristics by the number of parallel paths.

The  $I^2t$  values can be determined by dividing the prospective fault current by the number of fuse links in parallel and using this value to determine the  $I^2t$  of the individual fuse link from its  $I^2t$  variation curve. This  $I^2t$  value must then be multiplied by the square of the number of parallel paths, i.e. 2 fuse links in parallel multiply by 4.

In the same manner the individual fuse link cut-off current value can be determined as the prospective fault current divided by the number of fuse links in parallel. The resulting value is then multiplied by the number of parallel paths.

# Type 'GS'

## Fuse Links for the protection of Semi Conductor devices



- The GEC ALSTHOM Low Voltage Equipment's range of semi conductor fuse links have been proven in rectifier and thyristor installations throughout the world.
- Many years' experience of producing semi conductor fuse links involving close collaboration with semi conductor device manufacturers and users has enabled GEC ALSTHOM to provide a refined and fully proven range of fuse links for power semi conductor protection.
- The standard 'GS' range is ASTA 20 certified to BS 88:Part 4:1988 and is fully compliant with IEC269:4. For individual performance capability see relevant section.
- Fast acting fuse links are primarily designed to disconnect a failed semi conductor device within a group of devices.
- Ultra fast acting fuse links are primarily designed to co-ordinate with an individual semi conductor device and provide short circuit protection by means of characteristics closely matched with those of the device.

|                                      | Type                    | Current<br>rating | Nominal<br>Voltage |      | Index                             | Page                              |      |
|--------------------------------------|-------------------------|-------------------|--------------------|------|-----------------------------------|-----------------------------------|------|
|                                      |                         | Amp               | A.C.               | D.C. |                                   |                                   |      |
| Fast<br>Acting                       | GSA                     | 5 – 600           | 240                | 200  | Specification and<br>List Numbers | 1/5                               |      |
|                                      |                         |                   |                    |      | Characteristics                   | 1/6                               |      |
|                                      |                         |                   |                    |      | Dimensions                        | 1/40                              |      |
|                                      | GSD                     | 125 – 700         | 180                | 200  | Specification and<br>List Numbers | 1/9                               |      |
|                                      |                         |                   |                    |      | Characteristics                   | 1/10                              |      |
|                                      |                         |                   |                    |      | Dimensions                        | 1/40                              |      |
|                                      | GSB                     | 5 – 500           | 600                | 400  | Specification and<br>List Numbers | 1/13                              |      |
|                                      |                         |                   |                    |      | Characteristics                   | 1/14                              |      |
|                                      |                         |                   |                    |      | Dimensions                        | 1/40                              |      |
|                                      | CGS1000                 | 400 – 600         | 600                | 400  | Specification and<br>List Numbers | 1/18                              |      |
|                                      |                         |                   |                    |      | Characteristics                   | 1/19                              |      |
|                                      |                         |                   |                    |      | Dimensions                        | 1/40                              |      |
|                                      | Ultra<br>Fast<br>Acting | GSGB              | 16 – 900           | 660  | 400/350                           | Specification and<br>List Numbers | 1/22 |
|                                      |                         |                   |                    |      |                                   | Characteristics                   | 1/23 |
|                                      |                         |                   |                    |      |                                   | Dimensions                        | 1/41 |
| GSMJ                                 |                         | 63 – 1200         | 800                | 500  | Specification and<br>List Numbers | 1/29                              |      |
|                                      |                         |                   |                    |      | Characteristics                   | 1/30                              |      |
|                                      |                         |                   |                    |      | Dimensions                        | 1/42                              |      |
| GSMK                                 |                         | 32 – 1200         | 1000               | 700  | Specification and<br>List Numbers | 1/29                              |      |
|                                      |                         |                   |                    |      | Characteristics                   | 1/31                              |      |
|                                      |                         |                   |                    |      | Dimensions                        | 1/42                              |      |
| 'RED SPOT' Adaptor kits              |                         |                   |                    |      |                                   | 1/38                              |      |
| Indicator Fuse Links and accessories |                         |                   |                    |      |                                   | 1/39                              |      |

# 'GSD' Fast Acting HRC Fuse Links

## Type 'GSD' 125-700 Amp

Fast acting fuse links, rated  
125 - 700 Amp.

A.C. rating: 180 Volt rms tested to  
212 Volt rms.

D.C. rating: 200 Volt d.c. time  
constant 20ms.



## Specification and List Numbers

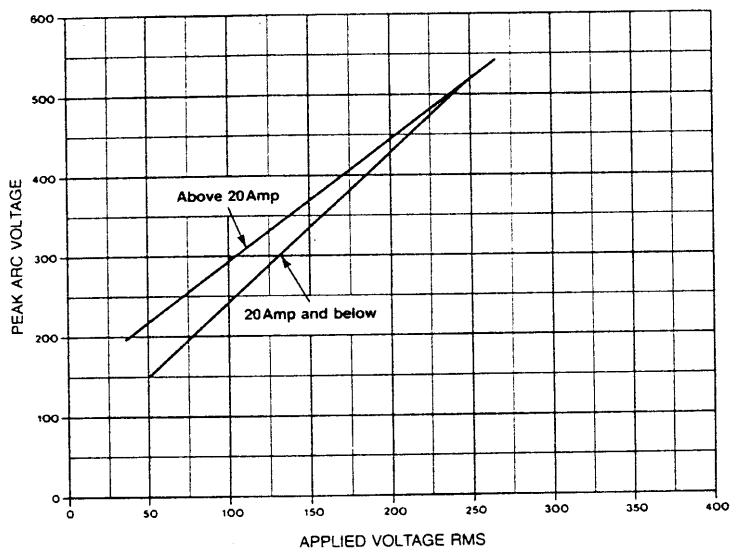
| Voltage Rating                           |                  | Current Rating | List Number | Minimum Pre-Arcing $I^2t$ | Total $I^2t$                 | Cut-Off Current        |      | Power Dissipation |          | Top Cap Temp. Rise | Indicator Pack Ref.† | Dimensional Reference |
|------------------------------------------|------------------|----------------|-------------|---------------------------|------------------------------|------------------------|------|-------------------|----------|--------------------|----------------------|-----------------------|
| Volt a.c. RMS                            | Volt d.c. @ 20ms | Amp            |             | $A^2sec$                  | @ 100kA 180Volt RMS $A^2sec$ | @ 100kA 180Volt RMS kA |      | @ In              | @ 0.5 in | @ 20°C ambient °C  |                      | (Page 1/40)           |
| ASTA Certified<br>180 also tested to 212 | 200              | 125            | GSD125      | 3,100                     | 23,400                       | 9.0                    | 12.0 | 2.2               | 49       |                    | GSIPAS               | 2                     |
|                                          |                  | 150            | GSD150      | 5,000                     | 33,400                       | 10.0                   | 14.0 | 2.4               | 57       |                    |                      |                       |
|                                          |                  | 300            | GSD300      | 20,000                    | 190,000                      | 23.0                   | 25.0 | 4.5               | 58       |                    | GSIPAL               | 3                     |
|                                          |                  | 350            | GSD350      | 36,000                    | 360,000                      | 24.0                   | 29.0 | 4.0               | 54       |                    |                      |                       |
|                                          |                  | 700            | GSD700      | 120,000                   | 1,170,000                    | 36.0                   | 60.0 | 11.0              | 74       |                    | GSIPAL               | 4                     |

† Indicated fuse links.

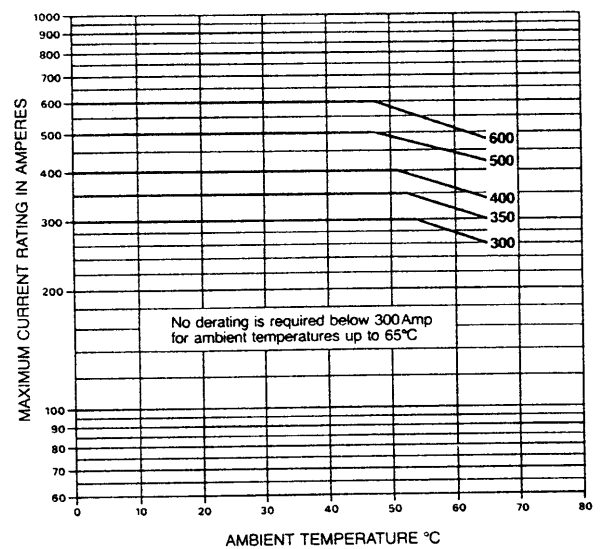
"Add-on" indicator fuse link conversion kits comprising a trip indicator fuse link and a pair of easily assembled clips are available.



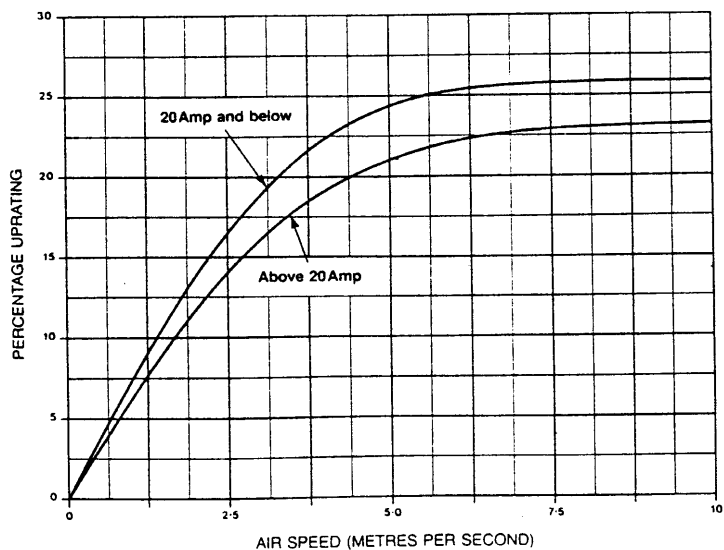
Type 'GSA'  
Variation of arc voltage  
with applied voltage



Type 'GSA'  
De-rating at high ambients



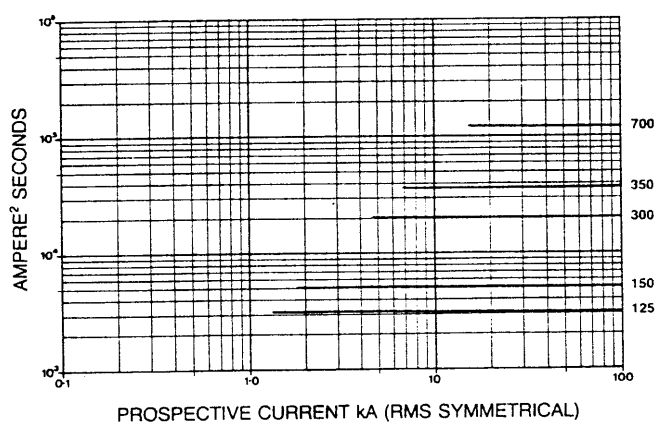
Type 'GSA'  
Forced air cooling up-rating curve



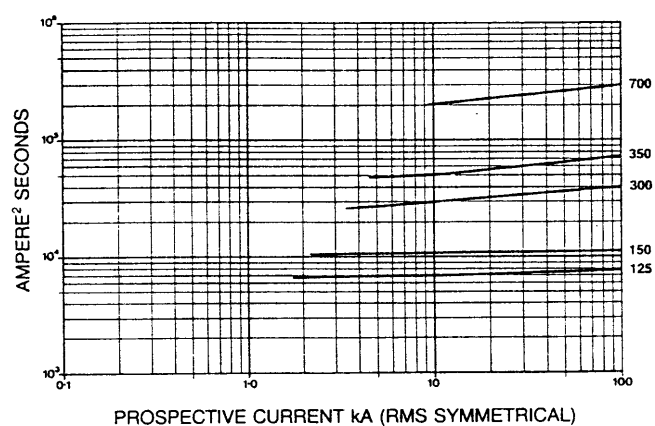
Type 'GSD'

$I^2t$  variations with prospective current

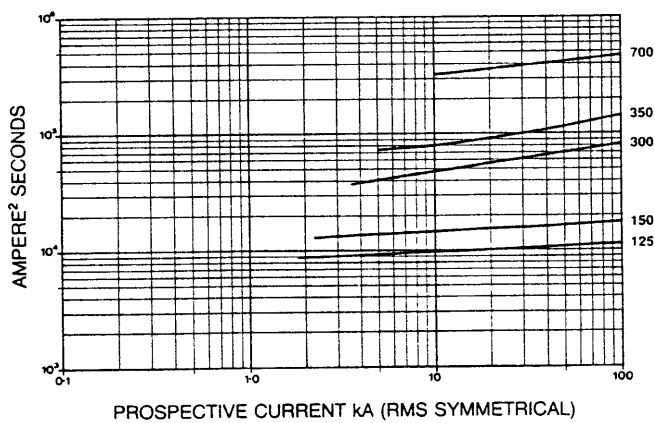
Pre-arcing



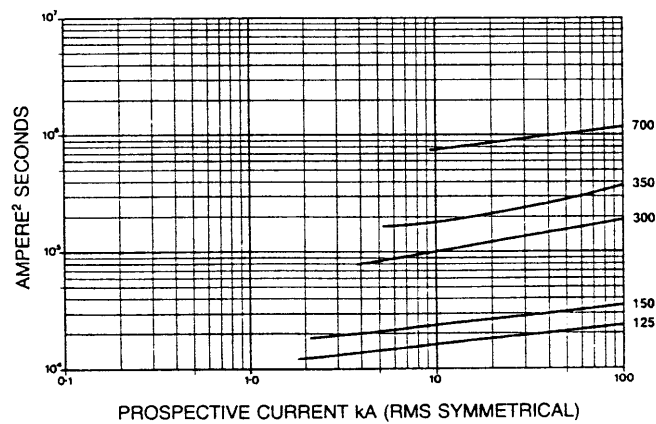
53 Volt RMS



106 Volt RMS

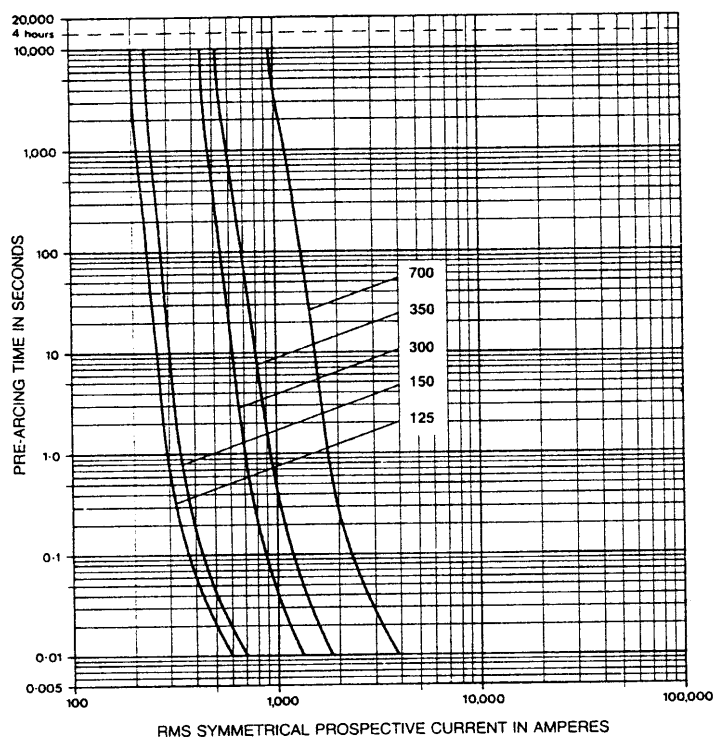


212 Volt RMS

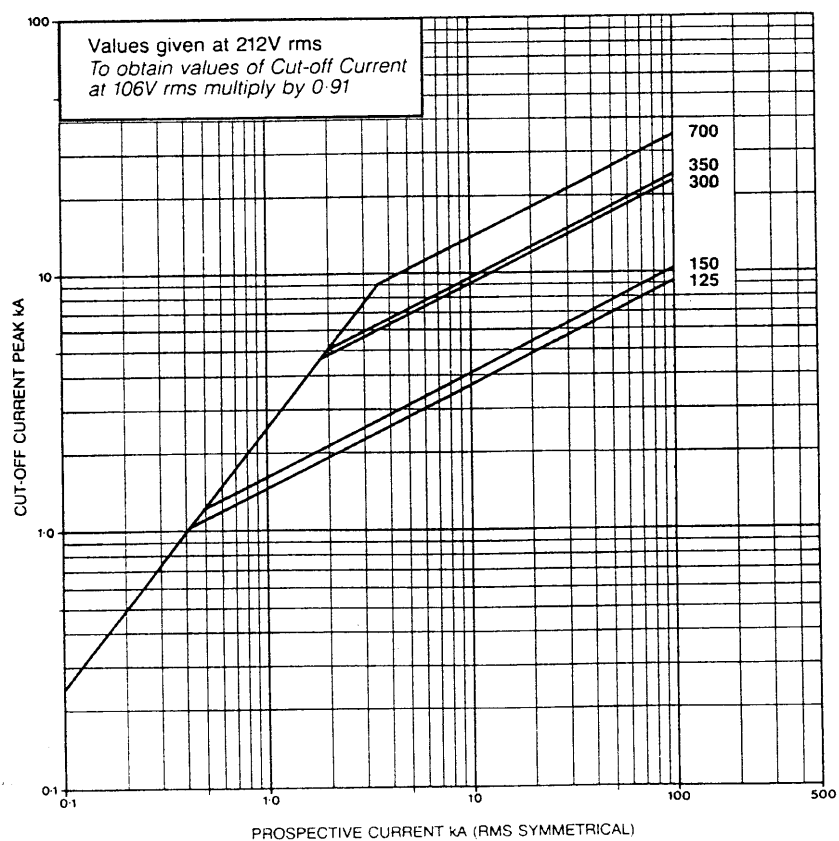


## Characteristics

Type 'GSD'  
Time/Current Characteristics  
125-700 Amp



Type 'GSD'  
Cut-off Current Characteristics  
125-700 Amp





# 'GSB' Fast Acting HRC Fuse Links

## Type 'GSB' 5-500 Amp

Fast acting fuse links, rated 5 - 500Amp.

A.C. rating: 600 Volt rms tested to 707 Volt rms.

D.C. rating: 400 Volt d.c. time constant 20ms.

## Specification and List Numbers

| Voltage Rating                        |                  | Current Rating | List Number | Minimum Pre-Arcing $I^2t$ | Total $I^2t$                           | Cut-Off Current        | Power Dissipation |          | Top Cap Temp. Rise | Indicator Pack Ref.† | Dimensional Reference |
|---------------------------------------|------------------|----------------|-------------|---------------------------|----------------------------------------|------------------------|-------------------|----------|--------------------|----------------------|-----------------------|
| Volt a.c. RMS                         | Volt d.c. @ 20ms | Amp            |             | A <sup>2</sup> sec        | @ 100kA 600Volt RMS A <sup>2</sup> sec | @ 100kA 600Volt RMS kA | @ In              | @ 0.5 in | @ 20°C ambient °C  |                      |                       |
| ASTA Certified 600 also tested to 707 | 400              | 5              | GSB5        | 0.57                      | 15                                     | 0.75                   | 2.1               | 0.4      | 26                 | *                    | 1                     |
|                                       |                  | 10             | GSB10       | 2.3                       | 53                                     | 1.0                    | 3.6               | 0.6      | 36                 |                      |                       |
|                                       |                  | 15             | GSB15       | 11                        | 260                                    | 1.5                    | 3.9               | 0.8      | 33                 |                      |                       |
|                                       |                  | 20             | GSB20       | 28                        | 580                                    | 1.9                    | 7.3               | 1.2      | 52                 |                      |                       |
|                                       |                  | 25             | GSB25       | 40                        | 600                                    | 2.7                    | 6.7               | 1.4      | 44                 |                      |                       |
|                                       |                  | 45             | GSB45       | 170                       | 2,300                                  | 4.4                    | 10.0              | 2.0      | 60                 | GSIPBS               | 2                     |
|                                       |                  | 50             | GSB50       | 250                       | 2,900                                  | 5.0                    | 12.0              | 2.5      | 63                 |                      |                       |
|                                       |                  | 75             | GSB75       | 1,000                     | 11,000                                 | 7.0                    | 12.5              | 2.5      | 47                 |                      |                       |
|                                       |                  | 100            | GSB100      | 2,600                     | 32,000                                 | 9.0                    | 16.0              | 2.5      | 58                 | GSIPBL               | 3                     |
|                                       |                  | 150            | GSB150      | 5,500                     | 49,000                                 | 10.0                   | 26.0              | 4.0      | 62                 |                      |                       |
|                                       |                  | 200            | GSB200      | 12,000                    | 100,000                                | 14.0                   | 28.0              | 4.5      | 63                 |                      |                       |
|                                       |                  | 250            | GSB250      | 25,000                    | 170,000                                | 17.0                   | 37.0              | 6.5      | 76                 |                      |                       |
|                                       |                  | 300            | GSB300      | 36,000                    | 290,000                                | 19.0                   | 35.5              | 6.5      | 68                 | GSIPBL               | 4                     |
|                                       |                  | 400            | GSB400      | 62,000                    | 480,000                                | 24.0                   | 62.0              | 11.5     | 85                 |                      |                       |
|                                       |                  | 450            | GSB450      | 80,000                    | 550,000                                | 24.0                   | 70.0              | 12.0     | 90                 |                      |                       |
|                                       |                  | 500            | GSB500      | 100,000                   | 610,000                                | 27.0                   | 80.0              | 13.0     | 90                 |                      |                       |

\* Indicator pack not available

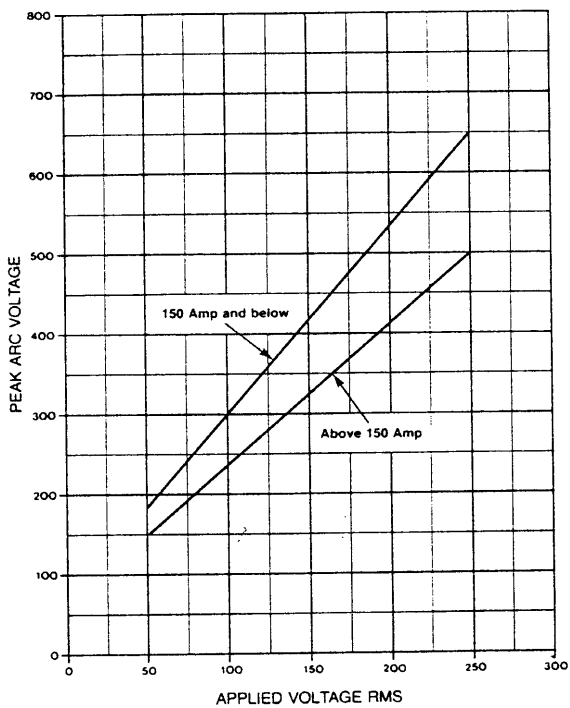
† Indicated fuse links.

"Add-on" indicator fuse link conversion kits comprising a trip indicator fuse link and a pair of easily assembled clips are available.

(Page 1/40)

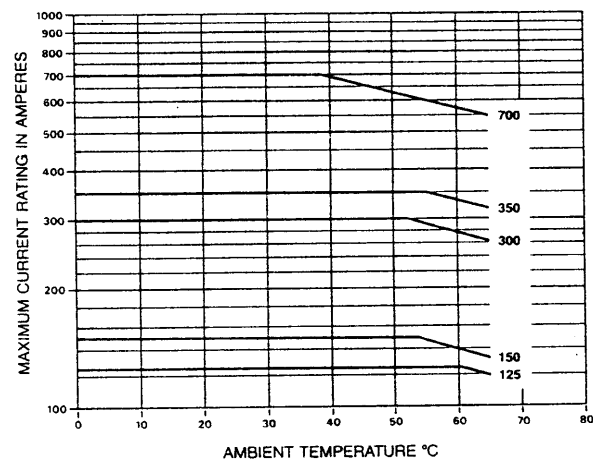
### Type 'GSD'

Variation of arc voltage with applied voltage



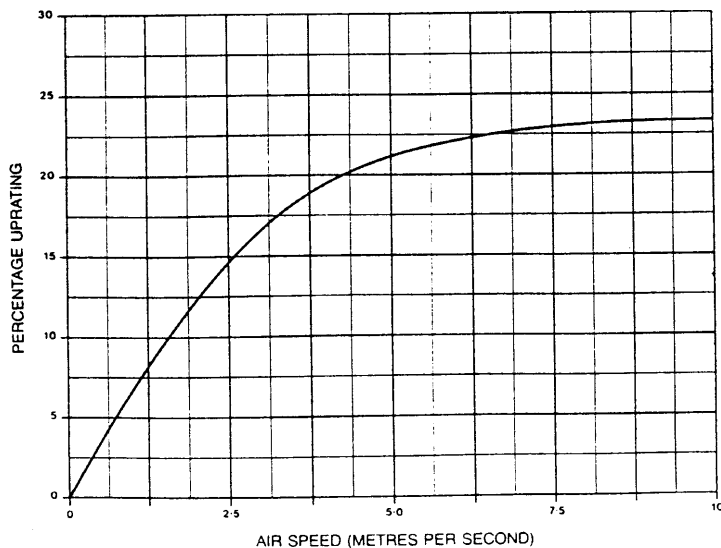
### Type 'GSD'

De-rating at high ambients



### Type 'GSD'

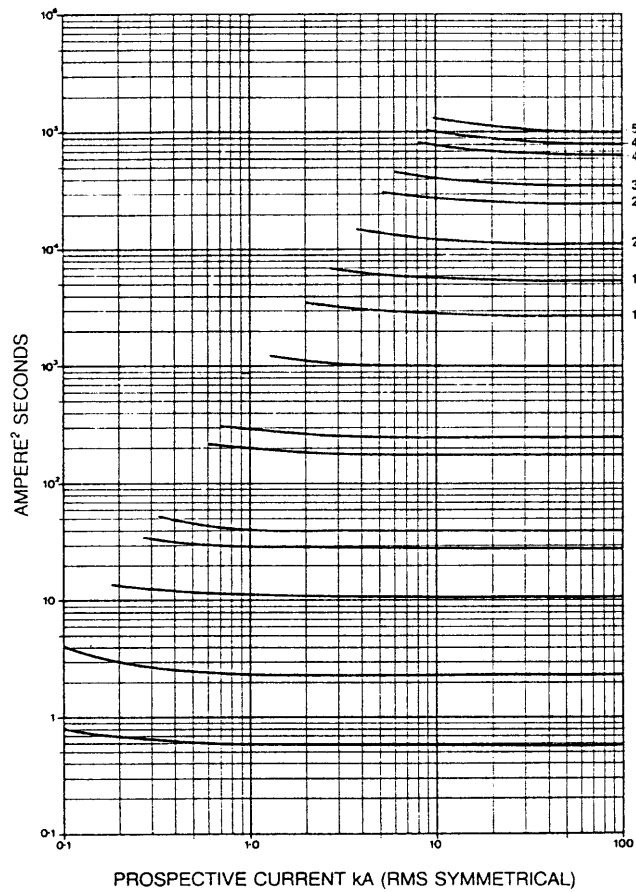
Forced air cooling up-rating curve



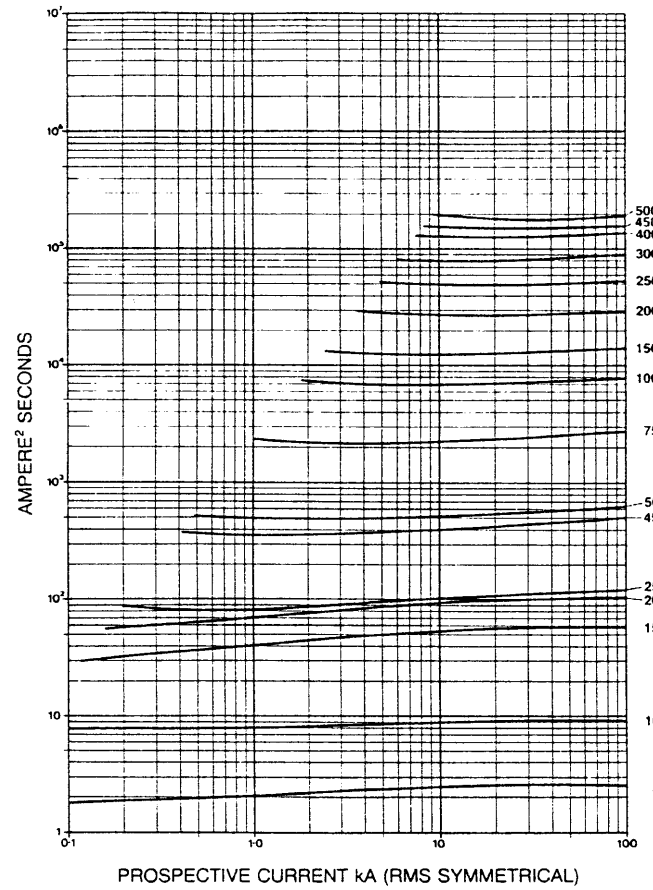
Type 'GSB'

$I^2t$  variations with prospective current

Pre-arcing



150 Volt RMS



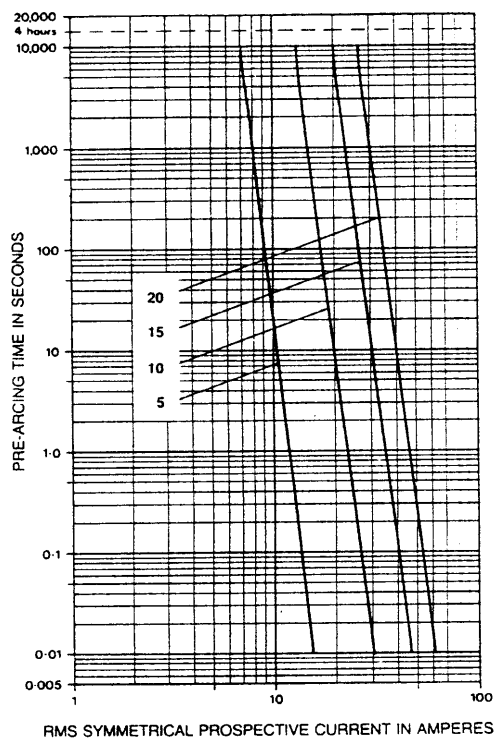
## Characteristics

Type 'GSB'

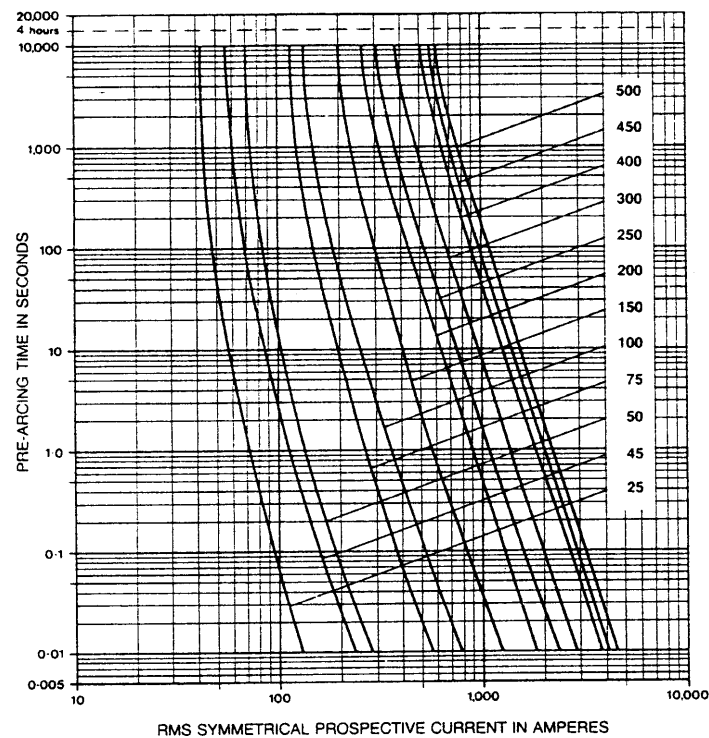
Time/Current Characteristics

5-500 Amp

5-20 Amp



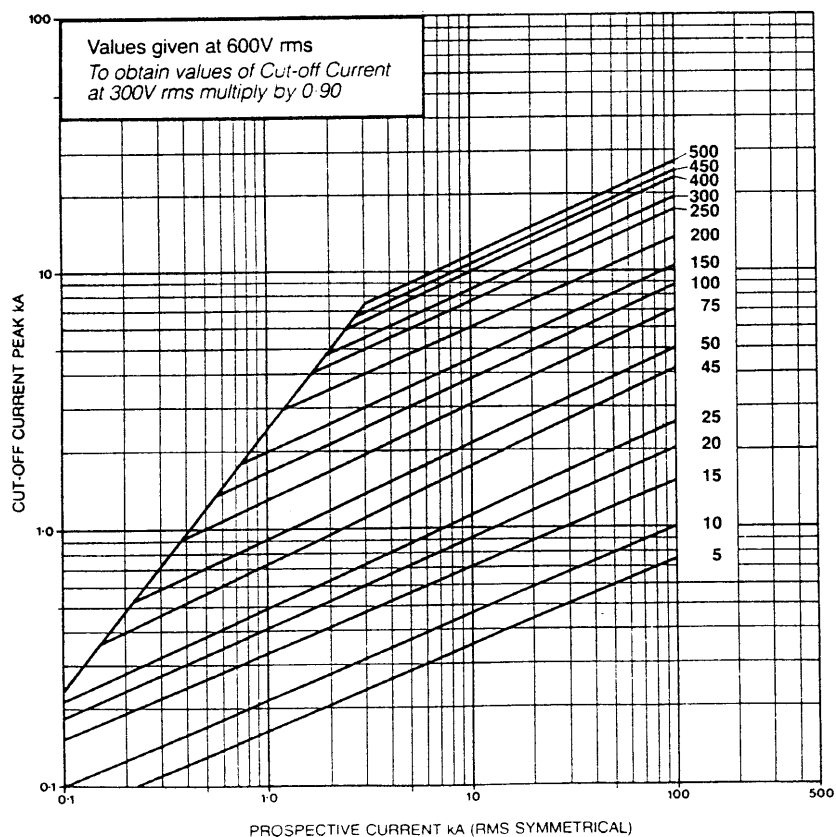
25-500 Amp



Type 'GSB'

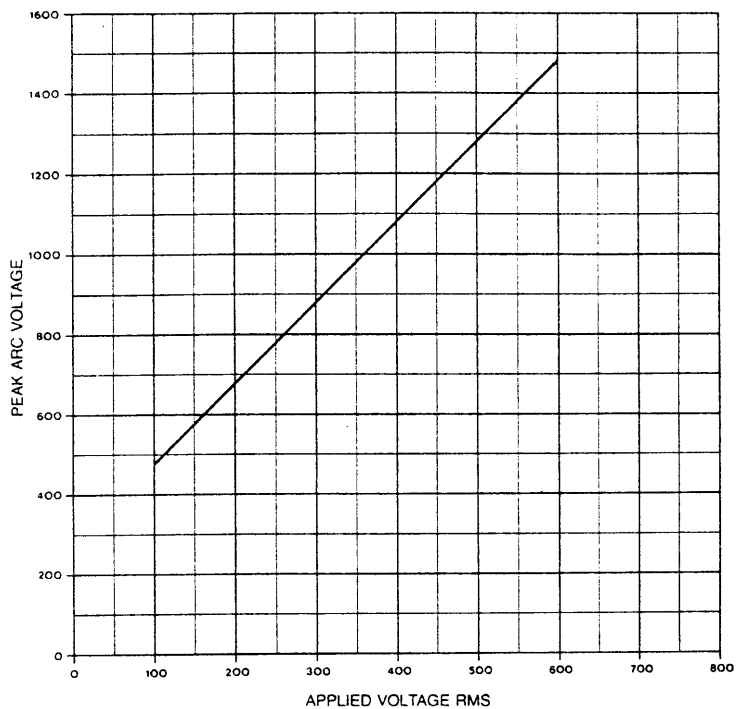
Cut-off Current Characteristics

5-500 Amp



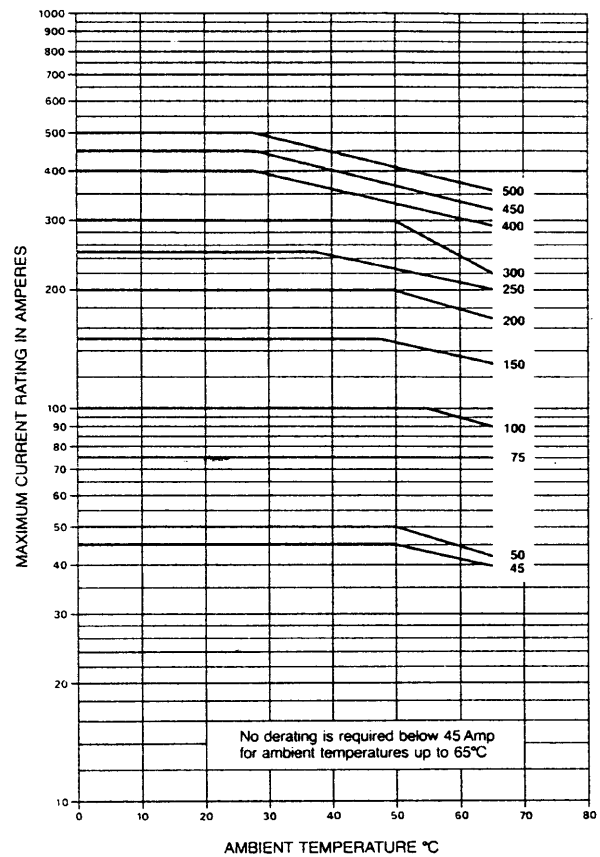
### Type 'GSB'

Variation of arc voltage with applied voltage



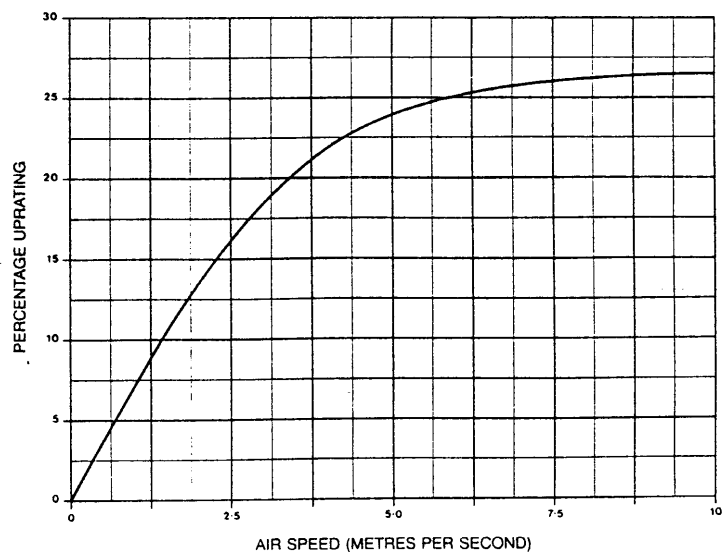
### Type 'GSB'

De-rating at high ambients



### Type 'GSB'

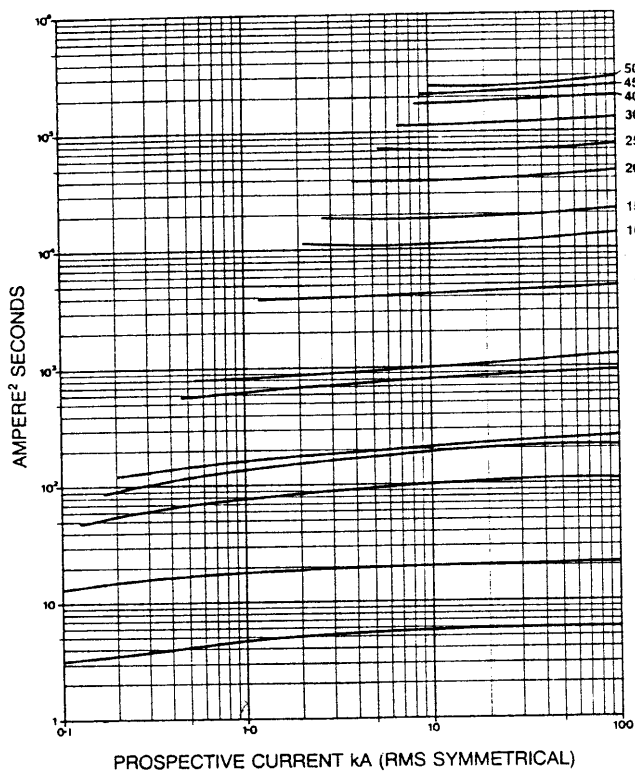
Forced air cooling up-rating curve



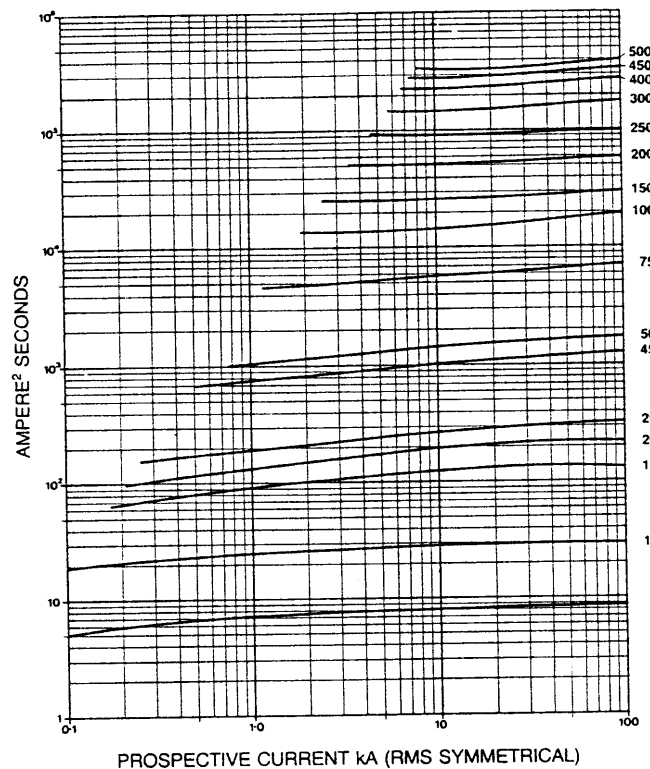
Type 'GSB'

$I^2t$  variations with prospective current

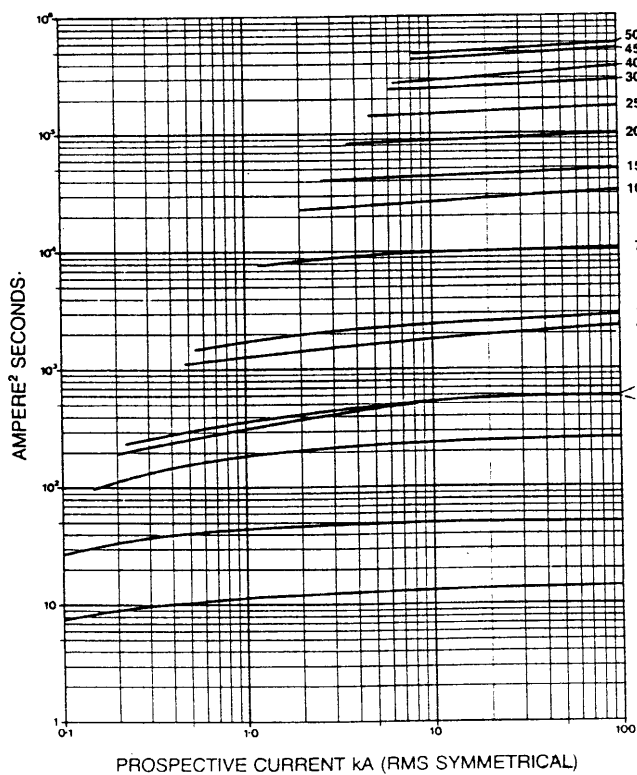
300 Volt RMS



415 Volt RMS

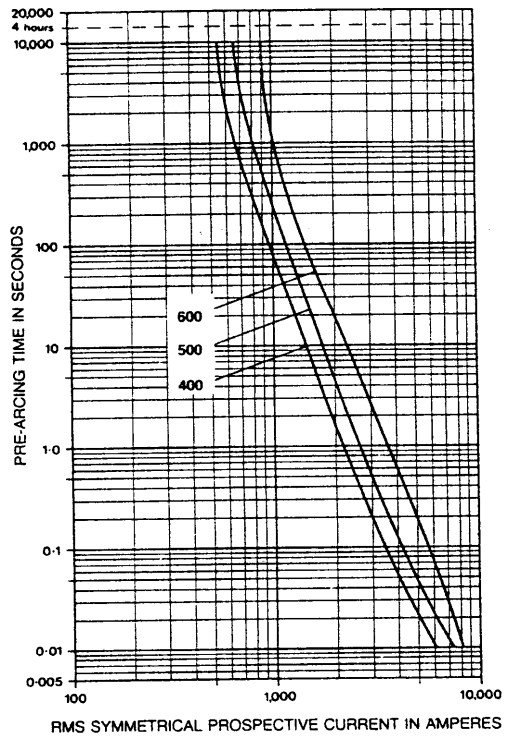


600 Volt RMS

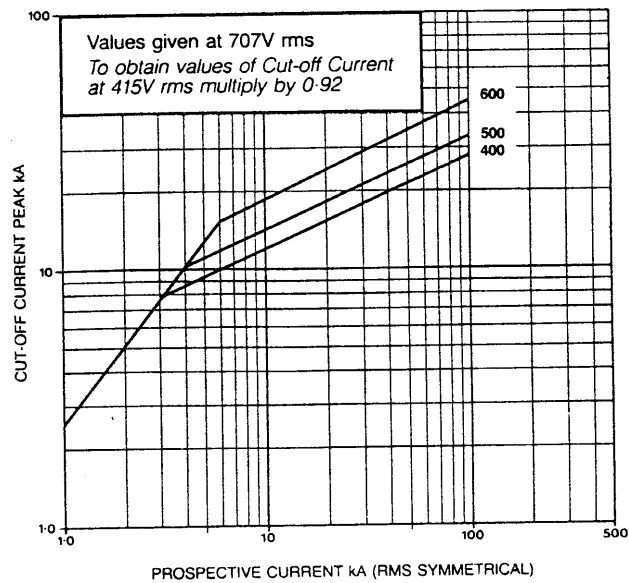


## Characteristics

Type 'CGS1000'  
Time/Current Characteristics  
400-600 Amp



Type 'CGS1000'  
Cut-off Current  
Characteristics  
400-600 Amp



# 'CGS1000' Fast Acting HRC Fuse Links

## Type 'CGS1000' 400, 500 & 600 Amp

Fast acting fuse links, rated 400 - 600 Amp

A.C. rating: 600 Volt rms tested to 707 Volt rms.

D.C. rating: 400 Volt d.c. time constant 20ms.

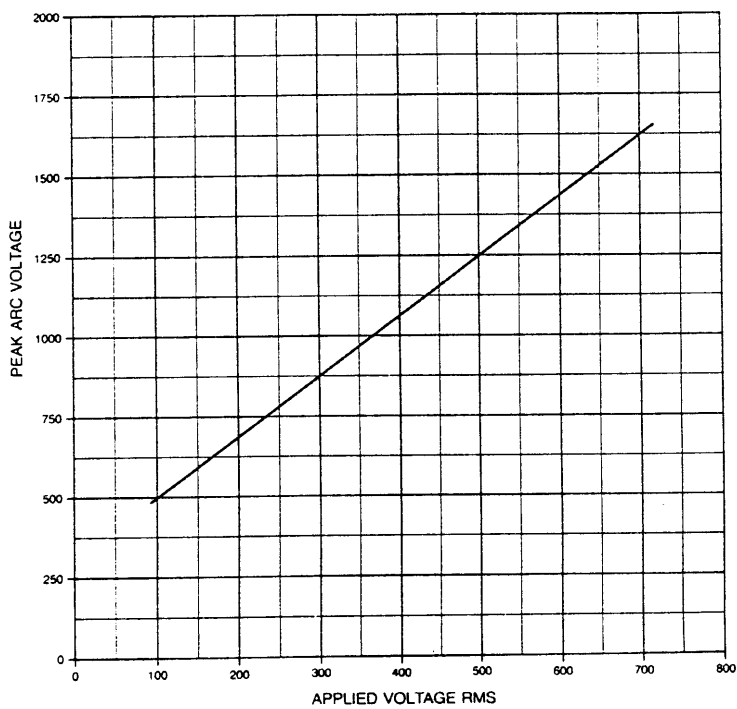
## Specification and List Numbers

| Voltage Rating                        |                  | Current Rating | List Number | Minimum Pre-Arcing $I^2t$ | Total $I^2t$                 | Cut-Off Current        | Power Dissipation |          | Top Cap Temp. Rise | Dimensional Reference |
|---------------------------------------|------------------|----------------|-------------|---------------------------|------------------------------|------------------------|-------------------|----------|--------------------|-----------------------|
| Volt a.c. RMS                         | Volt d.c. @ 20ms | Amp            |             | $A^2sec$                  | @ 100kA 600Volt RMS $A^2sec$ | @ 100kA 600Volt RMS kA | @ In              | @ 0.5 in | @ 20°C ambient °C  | (Page 1/40)           |
| ASTA Certified 600 also tested to 707 | 400              | 400            | CGS1000/400 | 137,000                   | 370,000                      | 28.0                   | 76.0              | 17.0     | 92                 | 5                     |
|                                       |                  | 500            | CGS1000/500 | 248,000                   | 740,000                      | 33.0                   | 84.0              | 16.0     | 92                 |                       |
|                                       |                  | 600            | CGS1000/600 | 390,000                   | 150,000                      | 44.0                   | 91.0              | 17.0     | 93                 |                       |

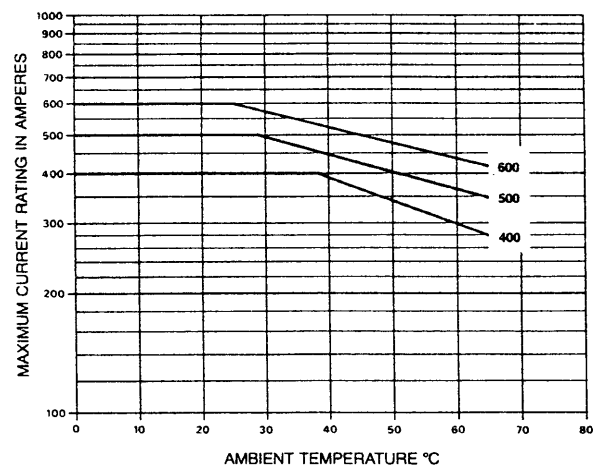
Note: Add-on indicator fuse link conversion kits are not available for this range of fuse links.  
For indicated version order as CGS 1000/---.



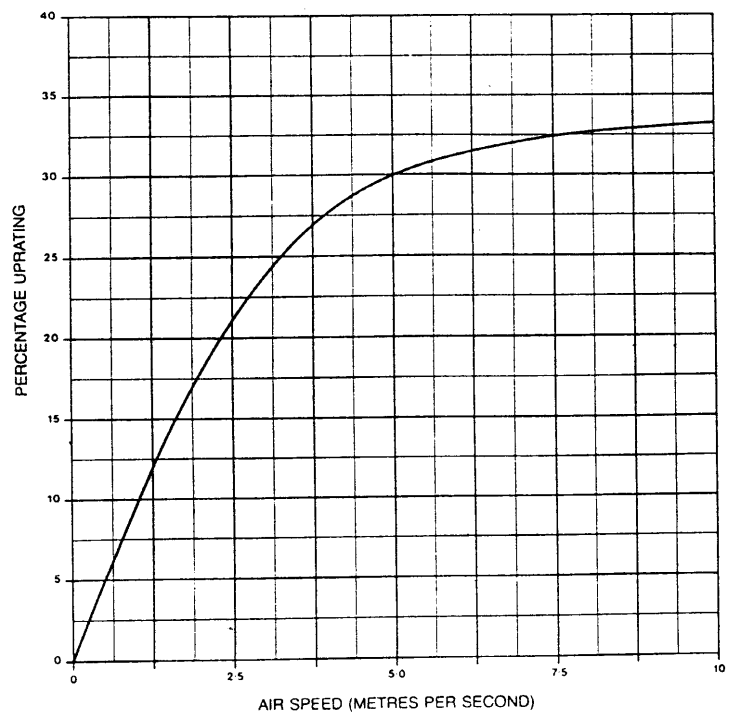
Type 'CGS1000'  
Variation of arc voltage with  
applied voltage



Type 'CGS1000'  
De-rating at high ambients



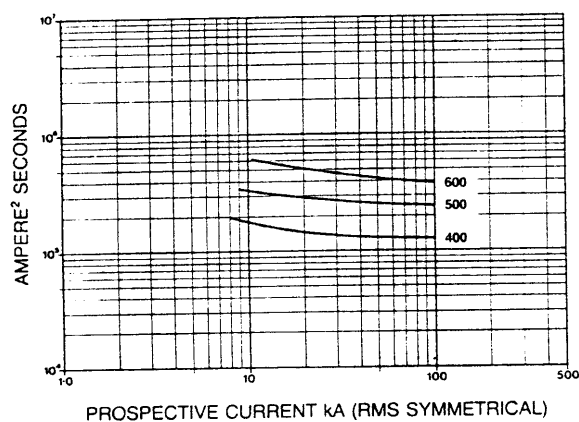
Type 'CGS1000'  
Forced air cooling  
up-rating curve



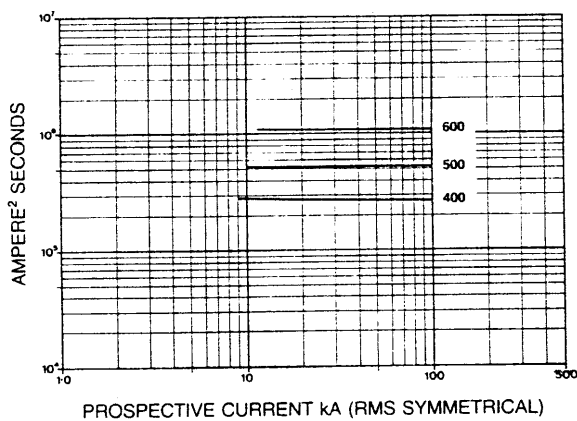
Type 'CGS1000'

$I^2t$  variations with prospective current

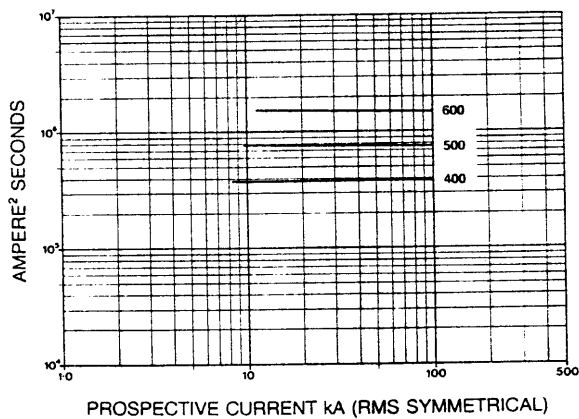
Pre-arcing



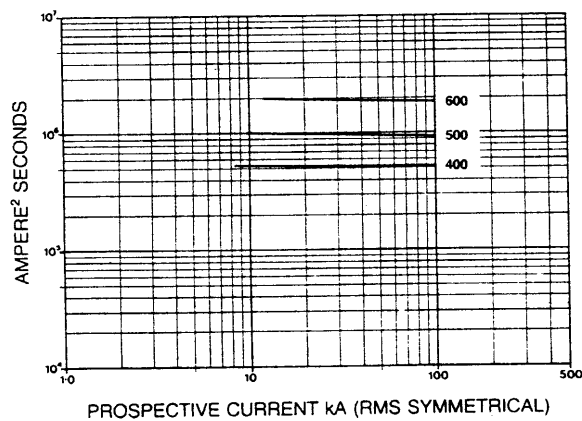
415 Volt RMS



600 Volt RMS



707 Volt RMS



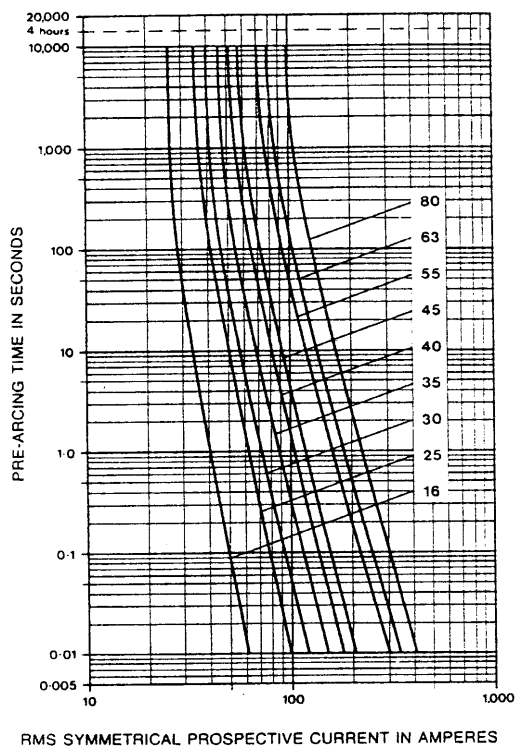
## Characteristics

Type 'GSGB'

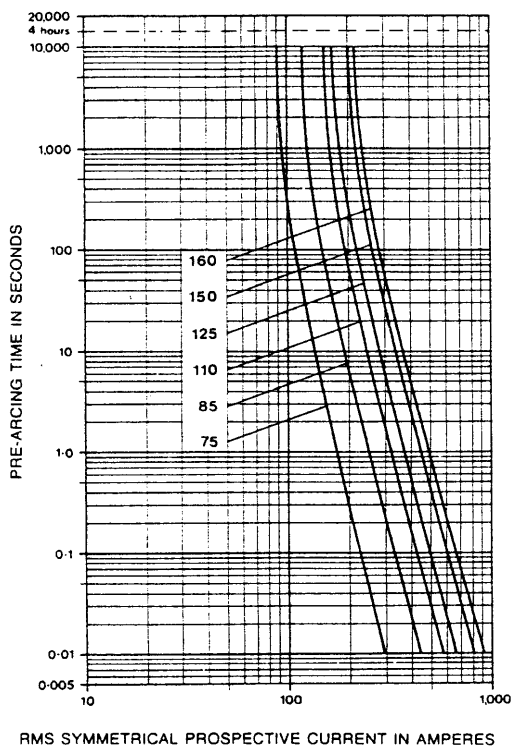
Time/Current Characteristics

16-250 Amp

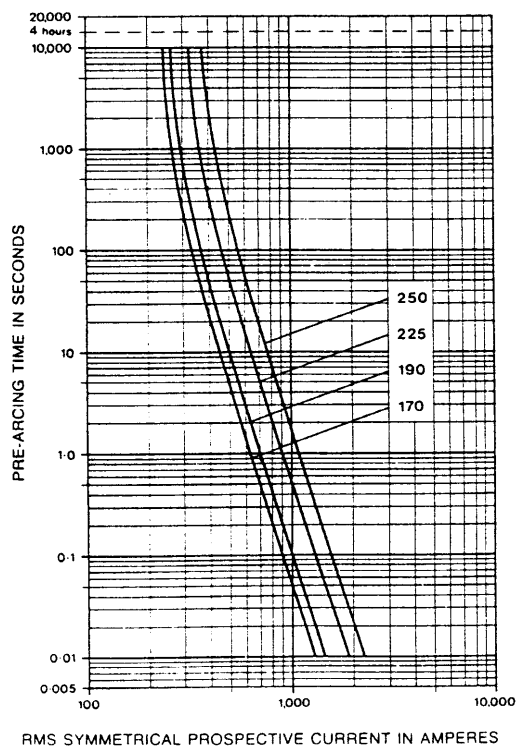
16-80 Amp



75-160 Amp



170-250 Amp



# 'GSGB' Ultra Fast Acting HRC Fuse Links



## Specification and List Numbers

### Type 'GSGB' 16-900 Amp

Ultra fast acting fuse links, rated 16 - 900 Amp.

A.C. rating: 660 Volt rms tested to 1000 Volt peak.

D.C. rating: 400 Volt d.c. time constant 20ms (16 - 160 Amp).

350 Volt d.c. time constant 20ms (170 - 900 Amp).

| Voltage Rating                        | Current Rating   | List Number | Minimum Pre-Arcing I <sup>2</sup> t | Total I <sup>2</sup> t                  | Cut-Off Current         | Power Dissipation | Top Cap Temp. Rise | Indicator Pack Ref.† | Dimensional Reference       |
|---------------------------------------|------------------|-------------|-------------------------------------|-----------------------------------------|-------------------------|-------------------|--------------------|----------------------|-----------------------------|
| Volt a.c. RMS                         | Volt d.c. @ 20ms | Amp         | A <sup>2</sup> sec                  | @ 100kA 660 Volt RMS A <sup>2</sup> sec | @ 100kA 660 Volt RMS kA | @ In              | @ 0.5 in           | @ 20°C ambient °C    | (Page 1/41)                 |
| ASTA Certified 660 also tested to 720 | 400              | 16          | 8                                   | 190                                     | 1.5                     | 4.7               | 1.0                | 35                   | * 6                         |
|                                       |                  | 25          | 23                                  | 320                                     | 2.0                     | 8.3               | 1.5                | 44                   |                             |
|                                       |                  | 30          | 36                                  | 450                                     | 2.4                     | 9.6               | 1.7                | 48                   |                             |
|                                       |                  | 35          | 70                                  | 570                                     | 2.7                     | 9.3               | 1.6                | 48                   |                             |
|                                       |                  | 40          | 110                                 | 800                                     | 3.2                     | 9.3               | 1.6                | 48                   |                             |
|                                       |                  | 45          | 140                                 | 1,200                                   | 3.8                     | 10.8              | 1.9                | 50                   |                             |
|                                       |                  | 55          | 205                                 | 1,800                                   | 3.8                     | 14.7              | 2.5                | 58                   |                             |
|                                       |                  | 63          | 280                                 | 2,400                                   | 4.3                     | 16.4              | 2.6                | 62                   |                             |
|                                       |                  | 80          | 460                                 | 3,500                                   | 5.0                     | 23.0              | 3.6                | 79                   |                             |
|                                       |                  | 75          | 280                                 | 2,100                                   | 4.3                     | 23.0              | 3.7                | 83                   |                             |
|                                       | 350              | 85          | 560                                 | 5,100                                   | 5.4                     | 20.0              | 3.4                | 58                   | GSIPBS 7                    |
|                                       |                  | 110         | 800                                 | 6,600                                   | 5.7                     | 30.0              | 5.2                | 88                   |                             |
|                                       |                  | 125         | 1,100                               | 8,100                                   | 6.4                     | 37.0              | 5.7                | 88                   |                             |
|                                       |                  | 150         | 1,800                               | 12,500                                  | 7.4                     | 39.0              | 6.3                | 87                   |                             |
|                                       |                  | 160         | 2,200                               | 17,000                                  | 8.0                     | 42.0              | 6.6                | 98                   |                             |
|                                       |                  | 170         | 3,200                               | 39,500                                  | 9.0                     | 33.0              | 5.8                | 63                   |                             |
|                                       |                  | 190         | 4,200                               | 45,500                                  | 9.9                     | 43.0              | 7.3                | 76                   |                             |
|                                       |                  | 225         | 7,400                               | 80,000                                  | 11.8                    | 45.0              | 7.6                | 80                   |                             |
|                                       |                  | 250         | 11,000                              | 105,000                                 | 13.2                    | 46.0              | 7.8                | 88                   |                             |
|                                       |                  | 175         | 2,200                               | 40,000                                  | 8.0                     | 41.0              | 7.4                | 58                   | GSIPBL 9                    |
|                                       |                  | 200         | 3,200                               | 45,500                                  | 9.0                     | 56.0              | 8.9                | 63                   |                             |
|                                       |                  | 235         | 5,700                               | 59,000                                  | 9.9                     | 54.0              | 9.0                | 84                   |                             |
|                                       |                  | 300         | 10,000                              | 120,000                                 | 13.2                    | 71.0              | 11.2               | 86                   |                             |
|                                       |                  | 325         | 13,000                              | 160,000                                 | 14.2                    | 73.0              | 11.5               | 87                   |                             |
|                                       |                  | 350         | 16,500                              | 185,000                                 | 15.3                    | 68.0              | 11.0               | 90                   |                             |
|                                       |                  | 400         | 23,000                              | 270,000                                 | 17.5                    | 83.0              | 13.2               | 95                   |                             |
|                                       |                  | 450         | 36,000                              | 340,000                                 | 19.0                    | 84.0              | 13.4               | 96                   |                             |
|                                       |                  | 500         | 44,000                              | 450,000                                 | 22.0                    | 95.0              | 15.0               | 104                  |                             |
|                                       |                  | 510         | 40,000                              | 480,000                                 | 20.0                    | 98.0              | 17.0               | 72                   | NOT AVAILABLE ORDER GSGB 10 |
|                                       |                  | 580         | 52,000                              | 570,000                                 | 22.0                    | 111.0             | 20.0               | 81                   |                             |
|                                       |                  | 630         | 66,000                              | 700,000                                 | 24.0                    | 117.0             | 21.0               | 85                   |                             |
|                                       |                  | 710         | 93,000                              | 1,100,000                               | 28.0                    | 126.0             | 22.0               | 92                   |                             |
|                                       |                  | 800         | 115,000                             | 1,350,000                               | 30.5                    | 150.0             | 25.0               | 102                  |                             |
|                                       |                  | 900         | 170,000                             | 1,800,000                               | 35.0                    | 146.0             | 26.0               | 104                  |                             |

\* Indicator pack should not be used with GSGB16.

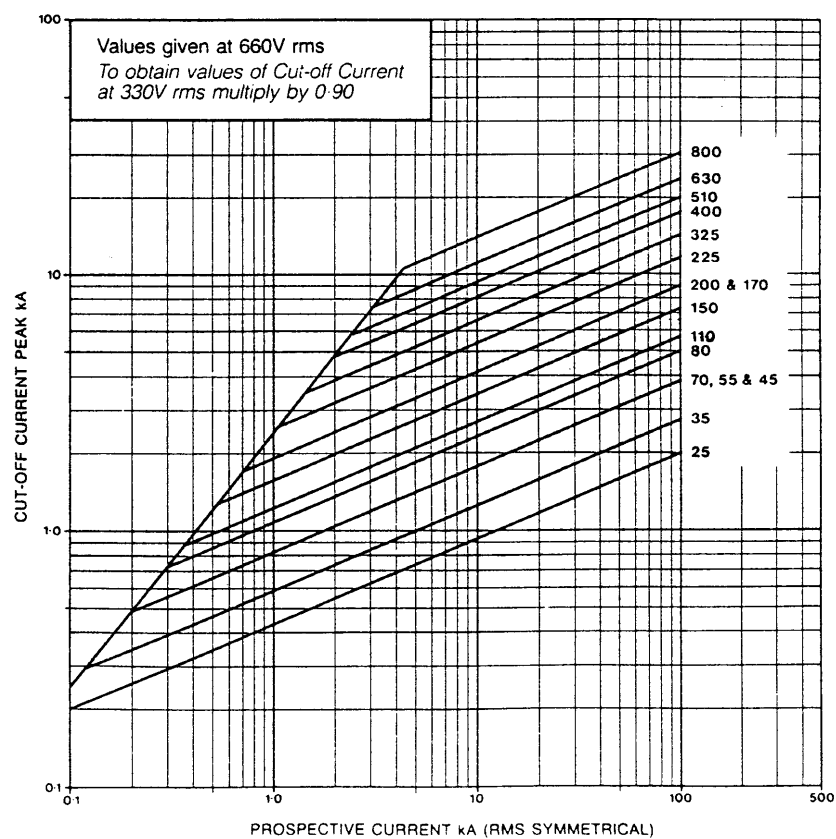
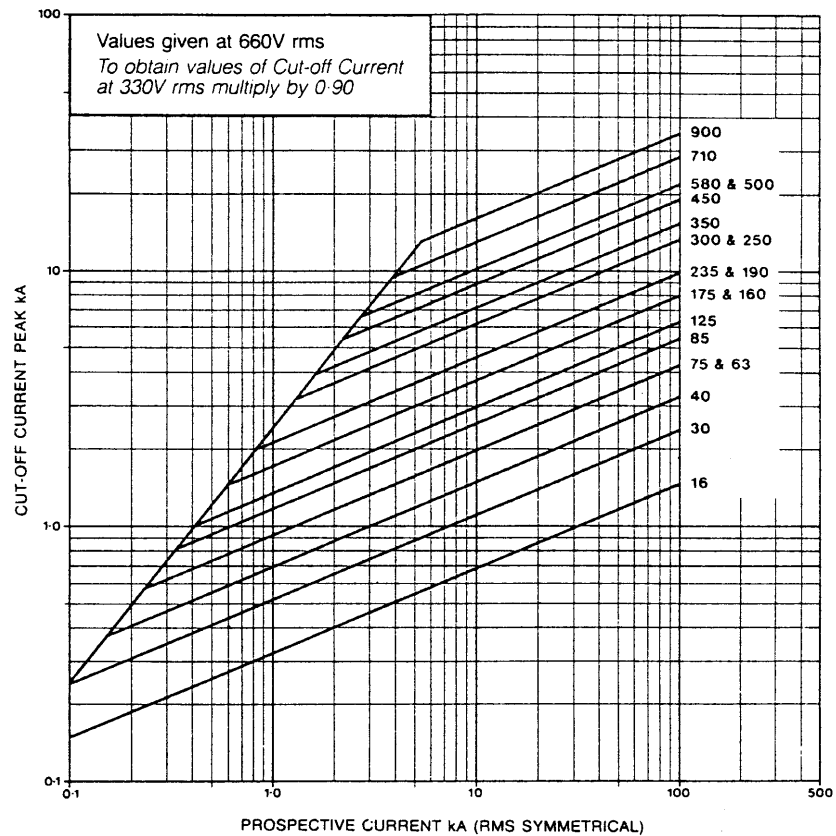
† Indicated fuse links. "Add-on" indicator fuse link conversion kits comprising a trip indicator fuse link and a pair of easily assembled clips are available.

# Type 'GSGB'

## Cut-off Current Characteristics

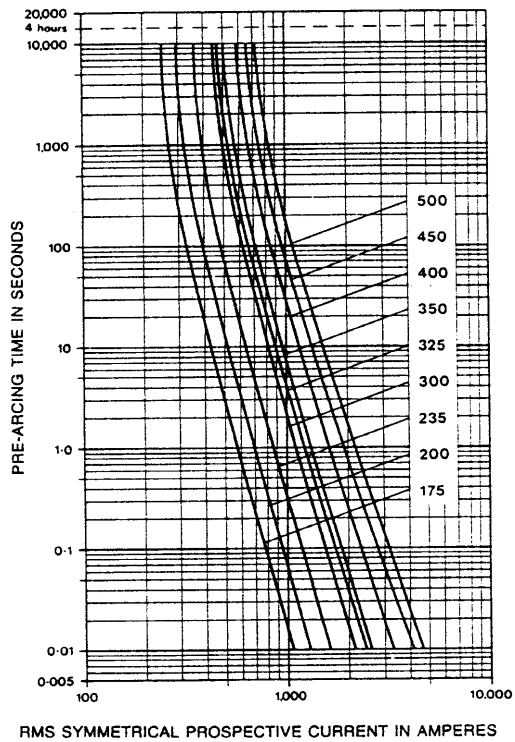
16-900 Amp

To aid references, characteristics feature alternate ratings.

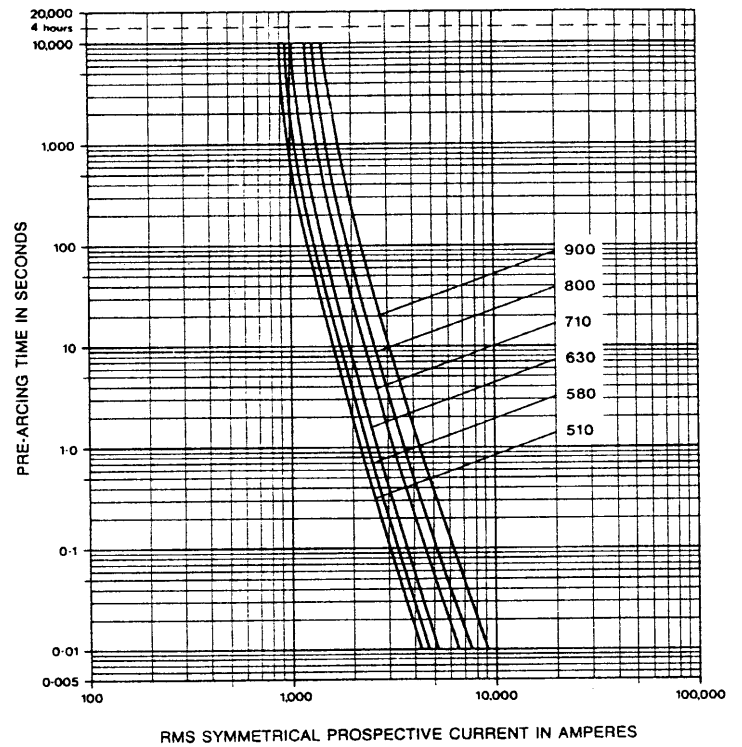


Type 'GSGB'  
Time/Current Characteristics  
175-900 Amp

175-500 Amp



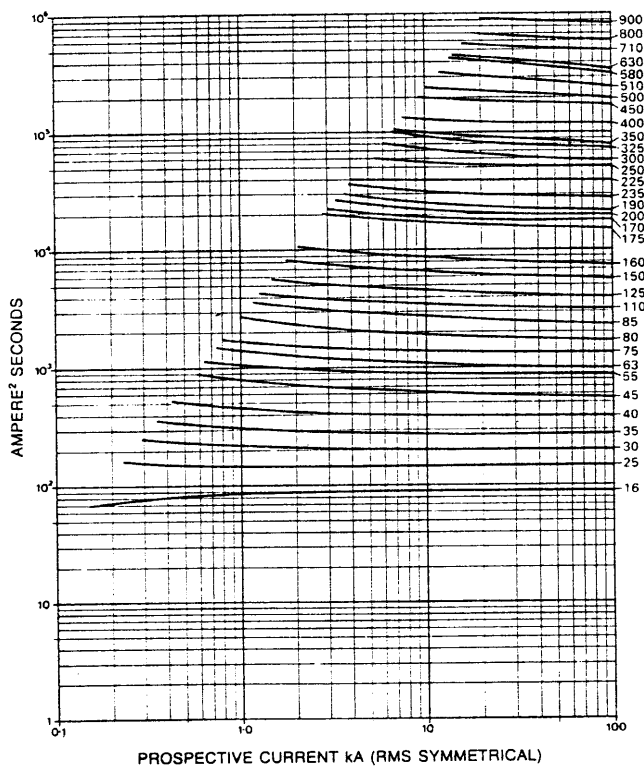
510-900 Amp



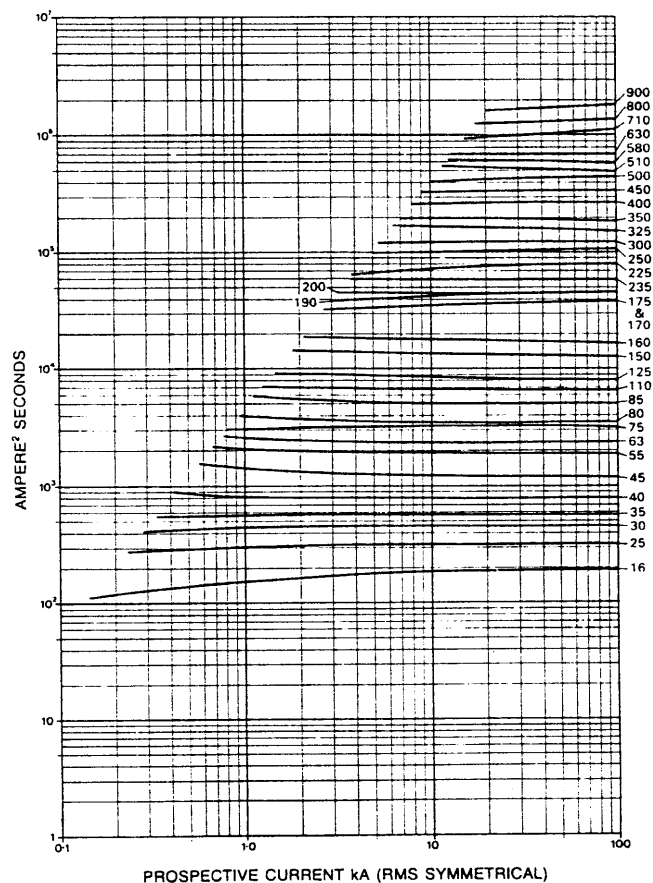
Type 'GSGB'

$I^2t$  variations with prospective current

415 Volt RMS



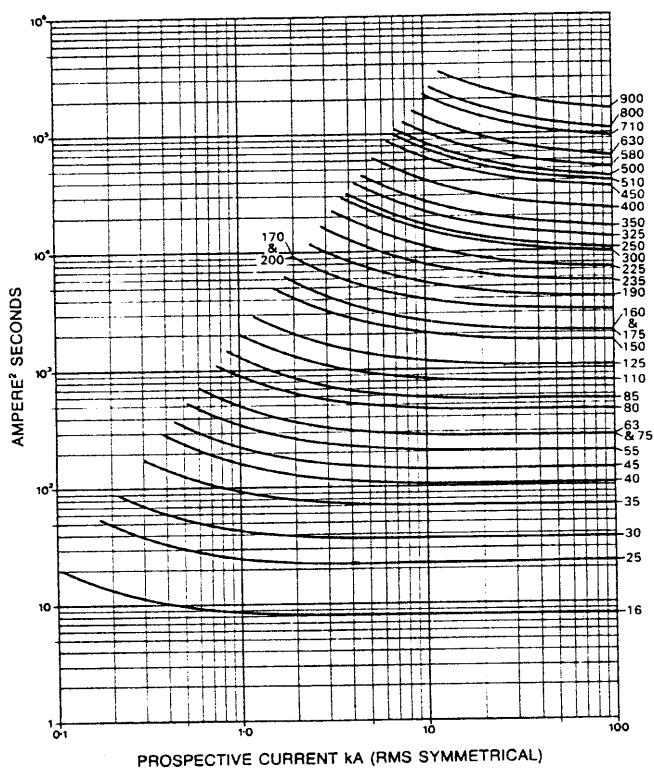
660 Volt RMS



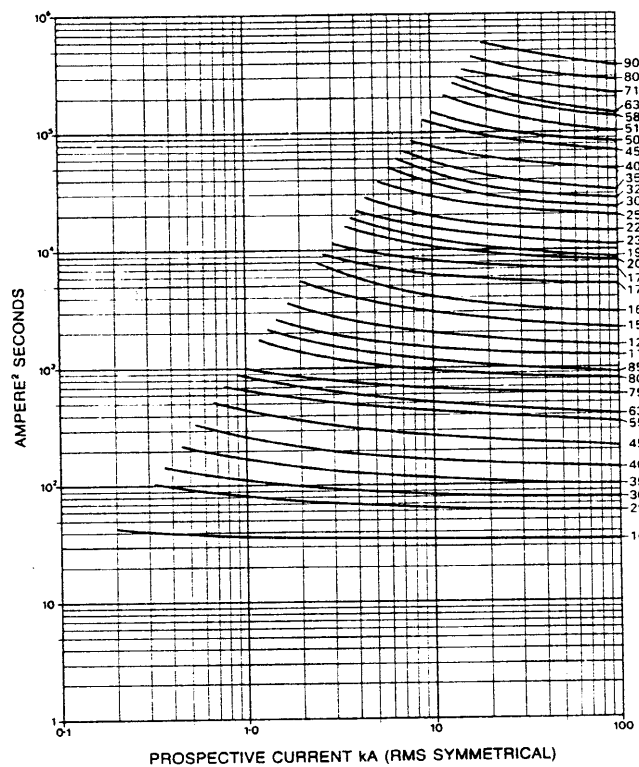
Type 'GSGB'

$I^2t$  variations with prospective current

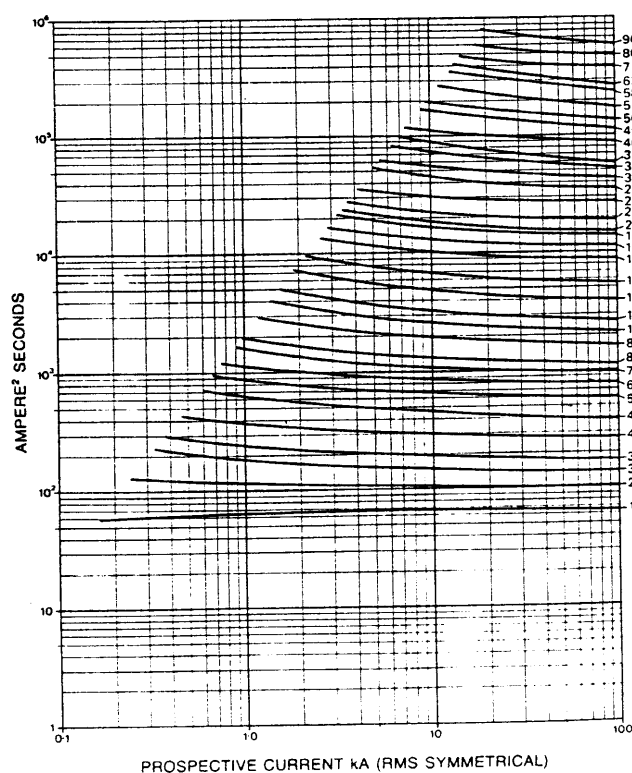
Pre-arcing



165 Volt RMS



330 Volt RMS





# 'GSMJ' & 'GSMK' Ultra Fast Acting HRC Fuse Links

## Specification and List Numbers

## Type 'GSMJ' & Type 'GSMK' 32-1200 Amp

Ultra fast acting fuse links, rated 32 - 1200 Amp.

A.C. rating: 'GSMJ' - 800 Volt rms tested to 880 Volt rms.

'GSMK' - 1000 Volt rms tested to 1100 Volt rms.

D.C. rating: 'GSMJ' - 500 Volt d.c. time constant 20ms.

'GSMK' - 700 Volt d.c. time constant 20ms.

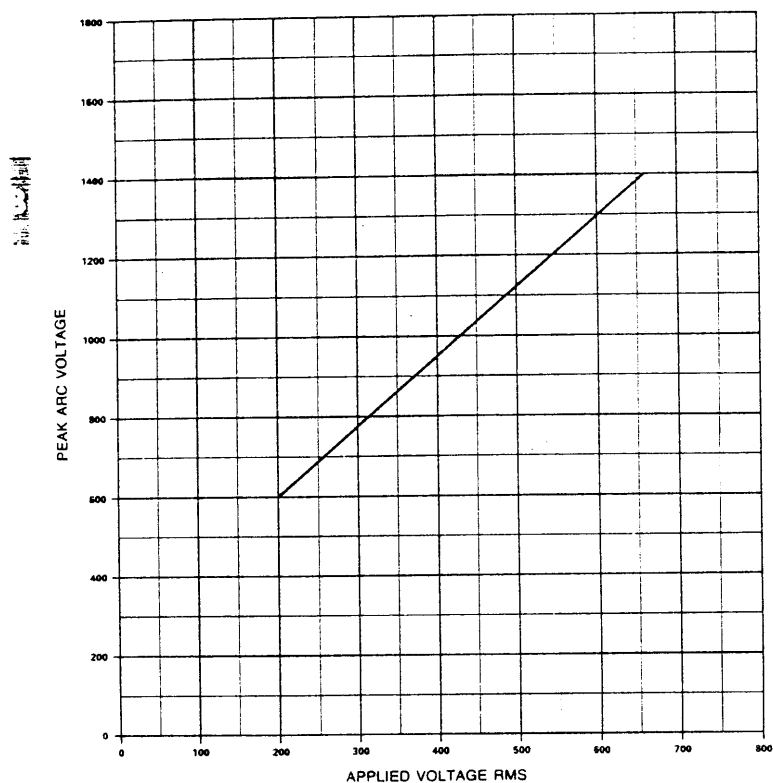
| Voltage Rating                          |                  | Current Rating | List Number | Minimum Pre-Arcing I <sup>2</sup> t | Total I <sup>2</sup> t      | Cut-Off Current | Power Dissipation |          | Top Cap Temp. Rise | Dimensional Reference |
|-----------------------------------------|------------------|----------------|-------------|-------------------------------------|-----------------------------|-----------------|-------------------|----------|--------------------|-----------------------|
| Volt a.c. RMS                           | Volt d.c. @ 20ms | Amp            |             | A <sup>2</sup> sec                  | @ 100kA* A <sup>2</sup> sec | @ 100kA* kA     | @ In              | @ 0.5 in | @ 20°C ambient °C  | (Page 1/42)           |
| ASTA Certified 800 also tested to 880   | 500              | 63             | GSMJ63      | 450                                 | 8,500                       | 5.8             | 16                | 3.0      | 65                 | 11                    |
|                                         |                  | 120            | GSMJ120     | 1,800                               | 32,400                      | 9.0             | 28                | 5.5      | 65                 | 12                    |
|                                         |                  | 180            | GSMJ180     | 4,200                               | 66,600                      | 11.3            | 43                | 9.0      | 68                 | 13                    |
|                                         |                  | 240            | GSMJ240     | 7,500                               | 110,000                     | 13.0            | 56                | 11.0     | 68                 | 14                    |
|                                         |                  | 300            | GSMJ300     | 12,000                              | 165,000                     | 15.6            | 68                | 13.5     | 96                 | 15                    |
|                                         |                  | 350            | GSMJ350     | 17,400                              | 230,000                     | 17.2            | 80                | 16.0     | 84                 | 16                    |
|                                         |                  | 400            | GSMJ400     | 24,000                              | 304,000                     | 19.4            | 91                | 18.0     | 99                 |                       |
|                                         |                  | 460            | GSMJ460     | 32,000                              | 384,000                     | 21.0            | 105               | 21.0     | 89                 |                       |
|                                         |                  | 520            | GSMJ520     | 40,900                              | 478,000                     | 22.5            | 117               | 23.0     | 76                 | 17                    |
|                                         |                  | 580            | GSMJ580     | 51,000                              | 675,000                     | 24.0            | 137               | 27.0     | 92                 |                       |
|                                         |                  | 630            | GSMJ630     | 61,700                              | 690,000                     | 25.6            | 145               | 29.0     | 84                 |                       |
|                                         |                  | 680            | GSMJ680     | 74,900                              | 806,000                     | 27.4            | 155               | 31.0     | 104                |                       |
|                                         |                  | 800            | GSMJ800     | 138,000                             | 1,408,000                   | 33.3            | 157               | 31.5     | 90                 |                       |
|                                         |                  | 1000           | GSMJ1000    | 220,000                             | 2,080,000                   | 39.0            | 195               | 38.0     | 80                 | 18                    |
|                                         |                  | 1200           | GSMJ1200    | 314,000                             | 2,880,000                   | 43.5            | 233               | 46.0     | 110                |                       |
| ASTA Certified 1000 also tested to 1100 | 700              | 32             | GSMK32      | 57                                  | 800                         | 2.7             | 11                | 2.0      | 52                 |                       |
|                                         |                  | 45             | GSMK45      | 180                                 | 2,540                       | 4.0             | 15                | 3.0      | 61                 | 11                    |
|                                         |                  | 63             | GSMK63      | 450                                 | 6,200                       | 5.4             | 22                | 4.2      | 79                 |                       |
|                                         |                  | 120            | GSMK120     | 1,800                               | 24,000                      | 8.2             | 39                | 7.5      | 67                 | 12                    |
|                                         |                  | 180            | GSMK180     | 4,200                               | 49,000                      | 10.4            | 58                | 11.5     | 72                 | 13                    |
|                                         |                  | 240            | GSMK240     | 7,500                               | 81,600                      | 12.8            | 77                | 14.0     | 83                 | 14                    |
|                                         |                  | 300            | GSMK300     | 12,000                              | 120,000                     | 14.7            | 95                | 19.0     | 90                 | 15                    |
|                                         |                  | 350            | GSMK350     | 17,400                              | 166,000                     | 16.6            | 111               | 22.0     | 91                 | 16                    |
|                                         |                  | 400            | GSMK400     | 24,000                              | 223,000                     | 18.0            | 127               | 24.0     | 90                 |                       |
|                                         |                  | 460            | GSMK460     | 32,000                              | 285,000                     | 20.0            | 145               | 28.0     | 120                |                       |
|                                         |                  | 520            | GSMK520     | 40,900                              | 348,000                     | 21.3            | 164               | 32.0     | 95                 | 17                    |
|                                         |                  | 580            | GSMK580     | 51,000                              | 425,000                     | 22.8            | 187               | 36.0     | 96                 |                       |
|                                         |                  | 630            | GSMK630     | 61,700                              | 508,000                     | 23.8            | 198               | 40.0     | 98                 |                       |
|                                         |                  | 680            | GSMK680     | 74,900                              | 590,000                     | 25.7            | 213               | 42.0     | 115                |                       |
|                                         |                  | 800            | GSMK800     | 138,000                             | 1,024,000                   | 30.3            | 215               | 43.0     | 105                |                       |
|                                         |                  | 1000           | GSMK1000    | 220,000                             | 1,520,000                   | 36.2            | 255               | 48.0     | 93                 | 18                    |
|                                         |                  | 1200           | GSMK1200    | 314,000                             | 2,091,000                   | 40.0            | 300               | 54.0     | 110                |                       |

\* GSMJ at 800 Volt RMS  
GSMK at 1000 Volt RMS

Note: Add-on indicator fuse link conversion kits are not available for this range of fuse links.  
For indicated versions order as GSMJ/- - - or GSMK/- - -

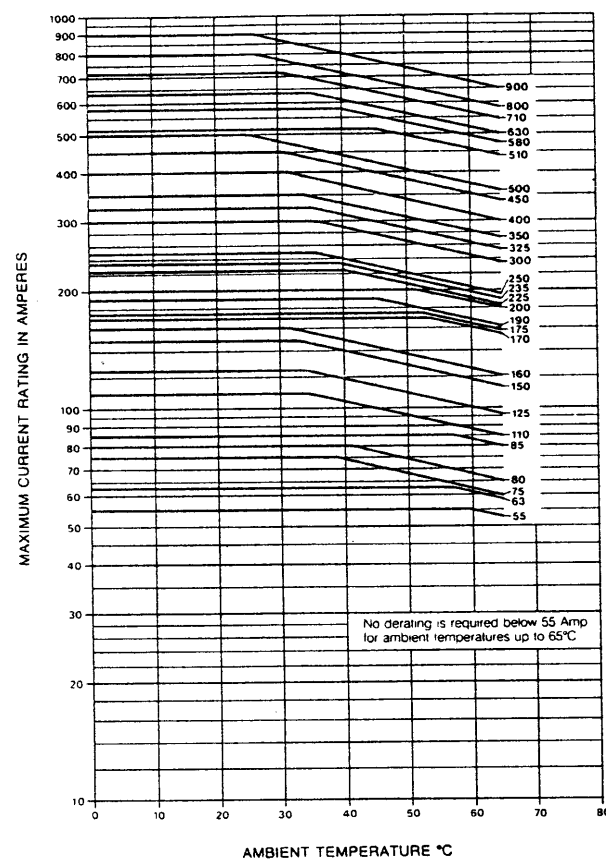
### Type 'GSGB'

Variation of arc voltage with applied voltage



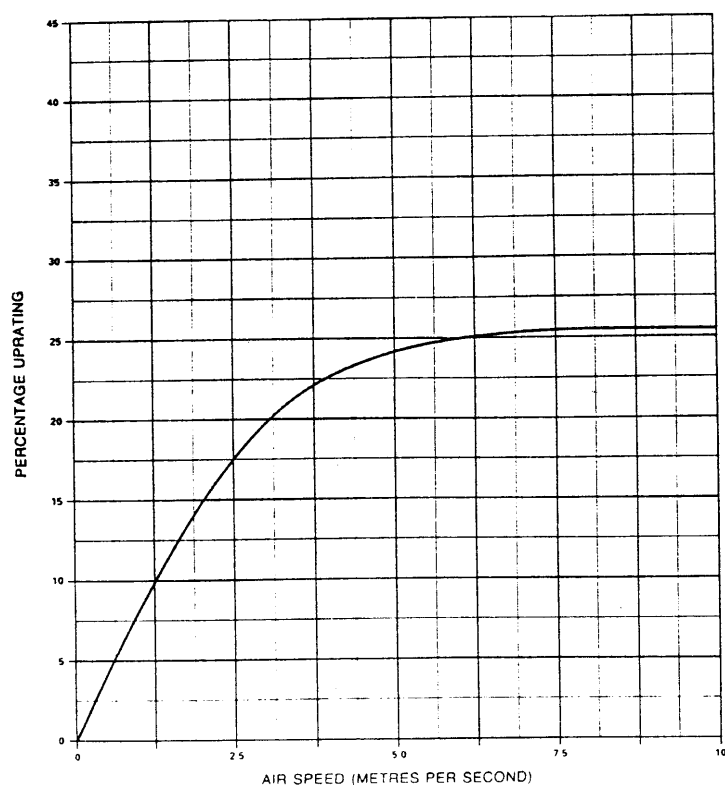
### Type 'GSGB'

De-rating at high ambients



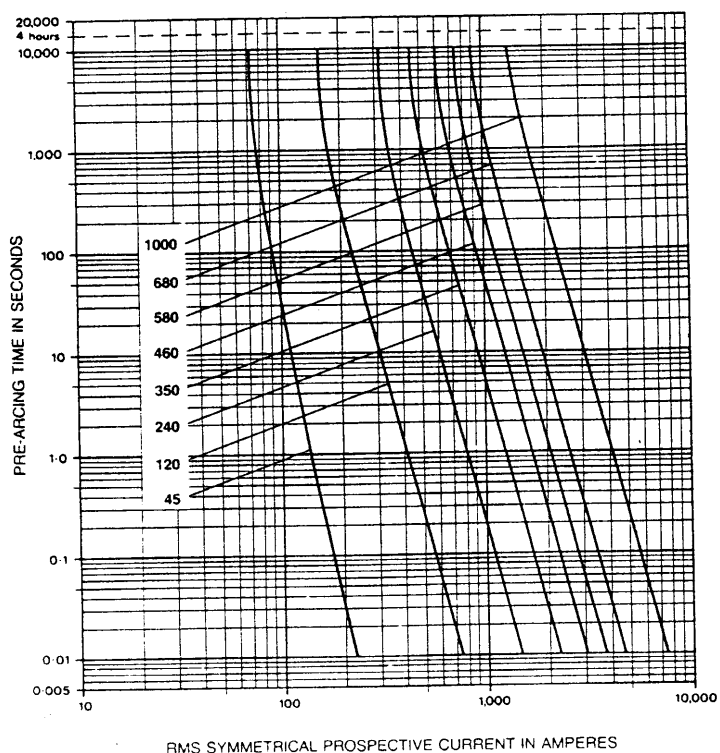
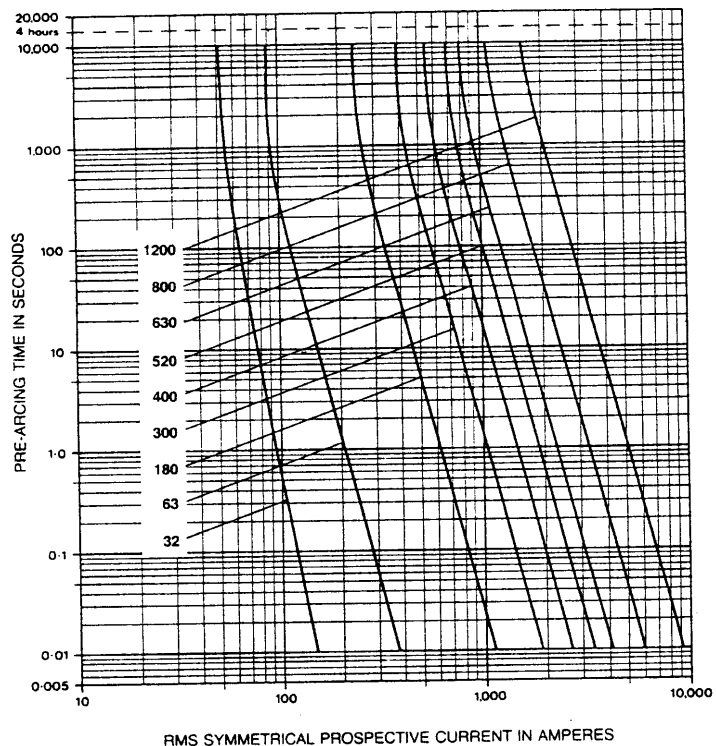
### Type 'GSGB'

Forced air cooling up-rating curve



Type 'GSMK'  
Time/Current Characteristics  
32-1200 Amp

To aid references, characteristics feature alternate ratings.



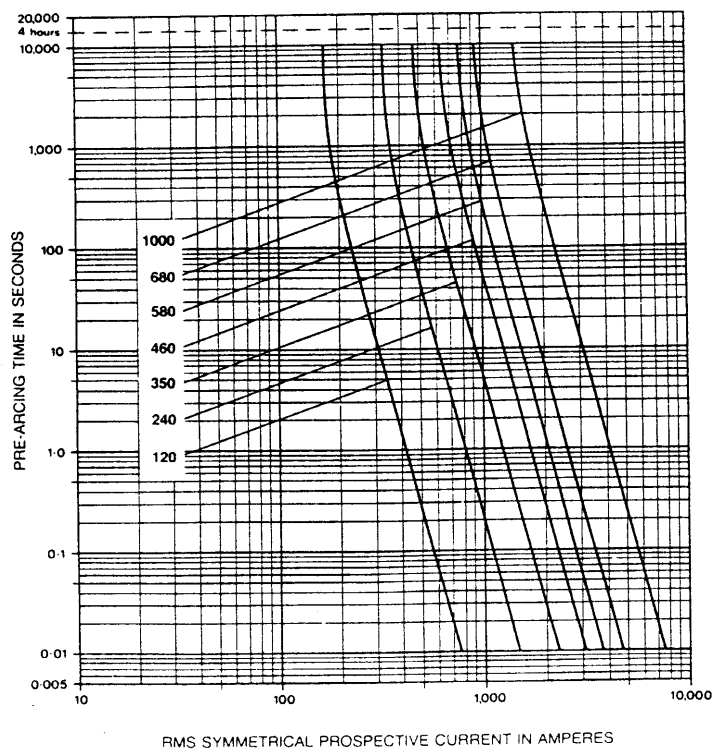
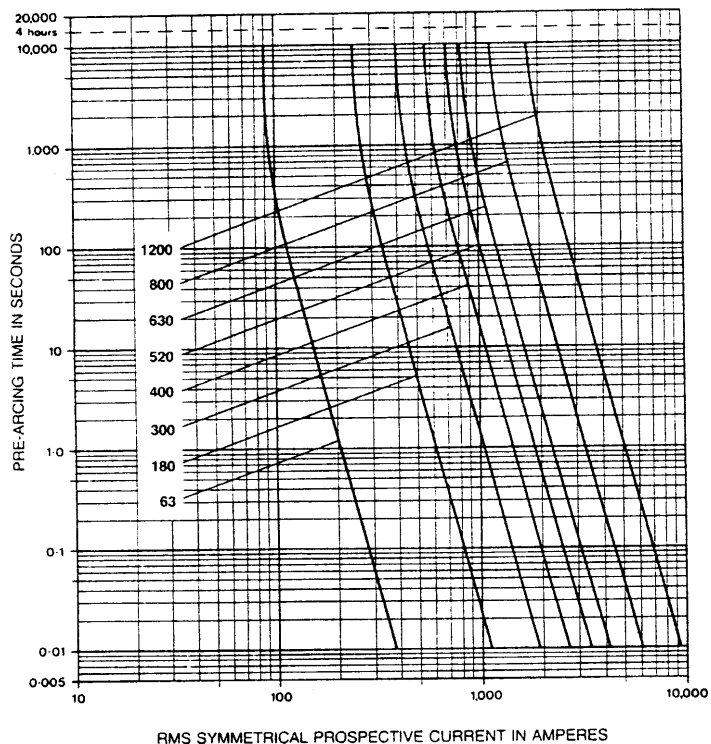
## Characteristics

Type 'GSMJ'

Time/Current Characteristics

63-1200 Amp

To aid references, characteristics feature alternate ratings.

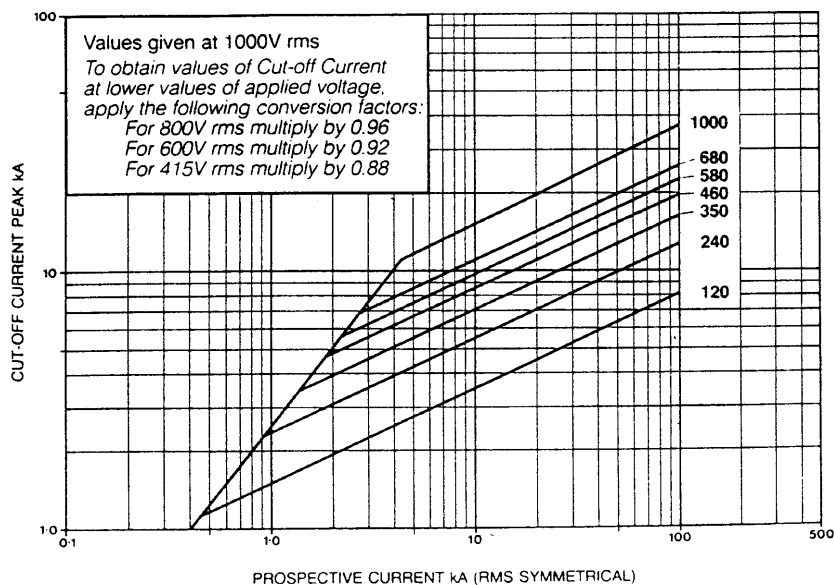
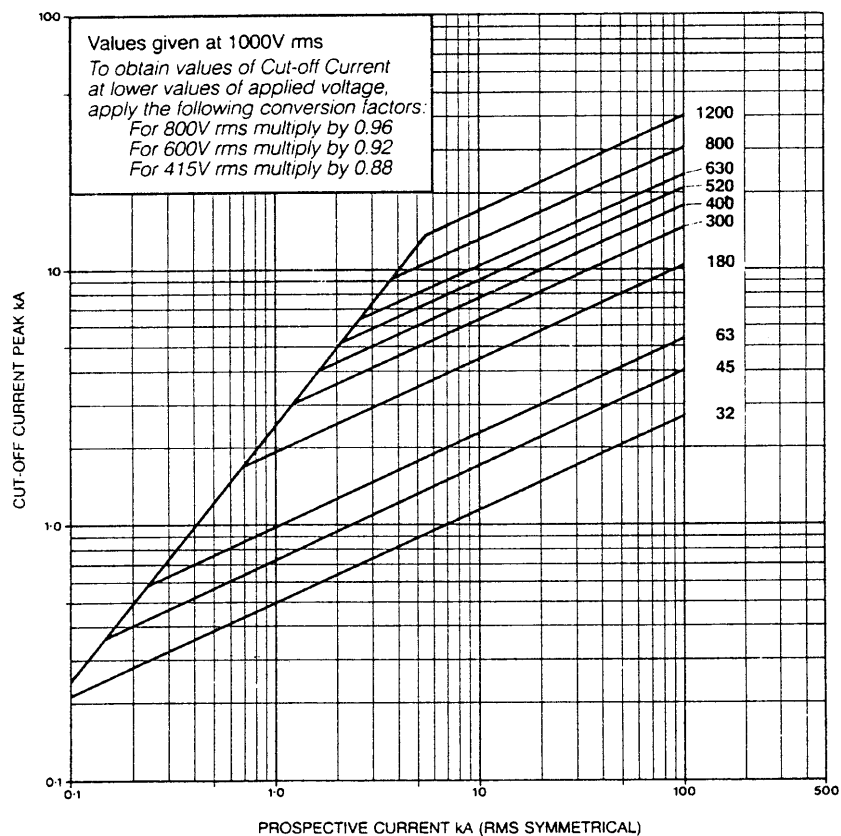


## Type 'GSMK'

### Cut-off Current Characteristics

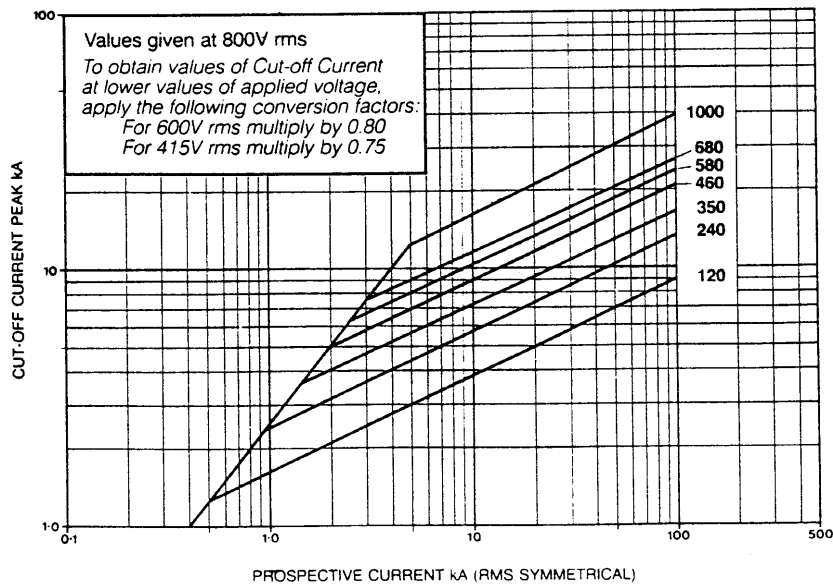
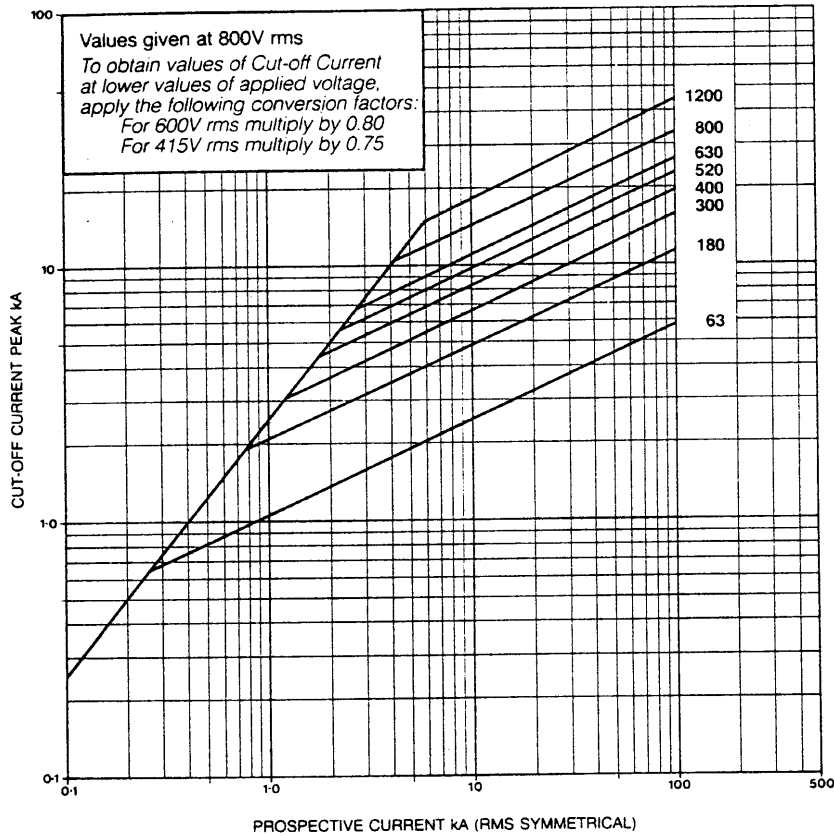
32-1200 Amp

To aid references, characteristics of ratings above 120 Amp alternate between the tables.



**Type 'GSMJ'**  
**Cut-off Current Characteristics**  
**63-1200 Amp**

To aid references, characteristics  
feature alternate ratings.

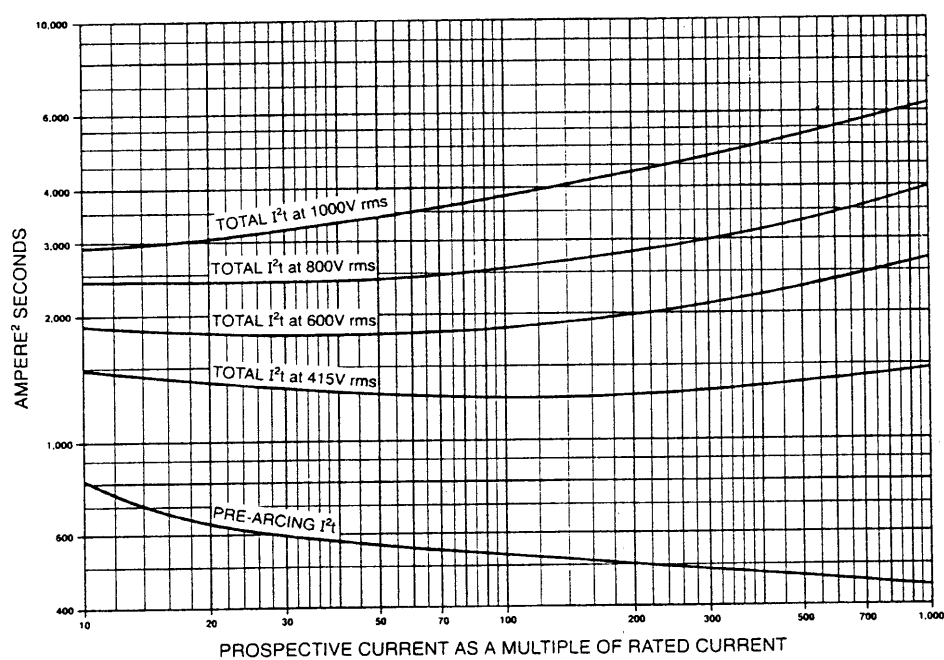


# Type 'GSMK'

## $I^2t$ variations with prospective current

Tested at 0.2 power factor.

(For circuits of power factor  $\geq 0.4$  Total  $I^2t$  values are reduced by 20%).



Pre-arcing  $I^2t$  or Total  $I^2t$  of given fuse link rating is obtained by reading off value on appropriate curve and multiplying by Factor 'A' from Table below.

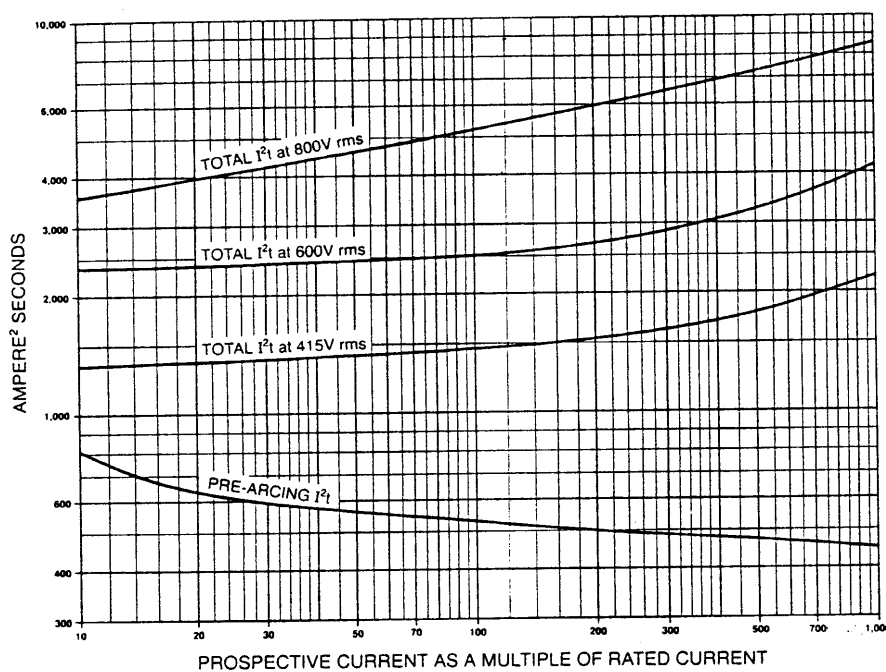
| Fuse Link Rating Amp | 32   | 45   | 63 | 120 | 180 | 240 | 300 | 350 | 400 | 460 | 520 | 580 | 630 | 680 | 800 | 1000 | 1200 |
|----------------------|------|------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| Factor 'A'           | 0.13 | 0.41 | 1  | 4   | 9   | 16  | 25  | 36  | 49  | 64  | 81  | 100 | 121 | 144 | 256 | 400  | 576  |

# Type 'GSMJ'

## $I^2t$ variations with prospective current

Tested at 0.2 power factor.

(For circuits of power factor  $\geq 0.4$  Total  $I^2t$  values are reduced by 20%).

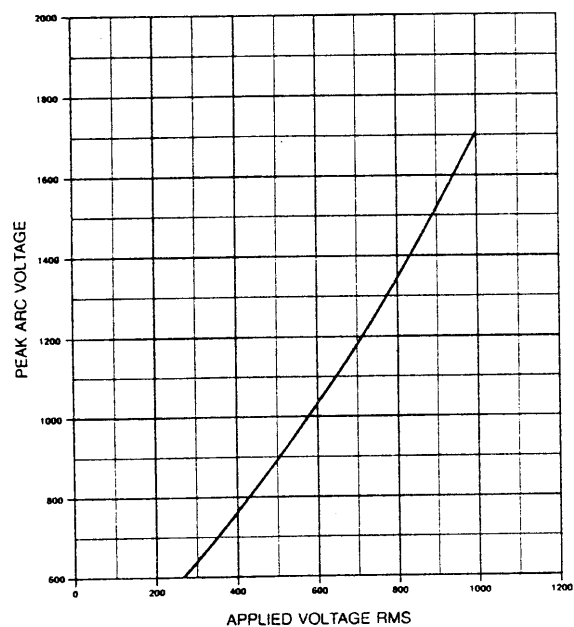


Pre-arcing  $I^2t$  or Total  $I^2t$  of given fuse link rating is obtained by reading off value on appropriate curve and multiplying by Factor 'A' from Table below.

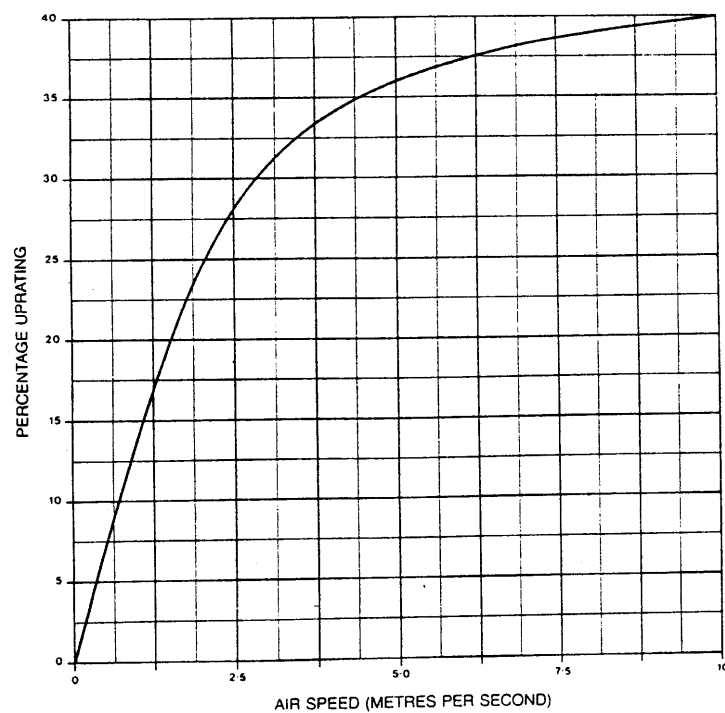
| Fuse Link Rating Amp | 63 | 120 | 180 | 240 | 300 | 350 | 400 | 460 | 520 | 580 | 630 | 680 | 800 | 1000 | 1200 |
|----------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| Factor 'A'           | 1  | 4   | 9   | 16  | 25  | 36  | 49  | 64  | 81  | 100 | 121 | 144 | 256 | 400  | 576  |



Type 'GSMJ' & 'GSMK'  
Variation of arc voltage with  
applied voltage

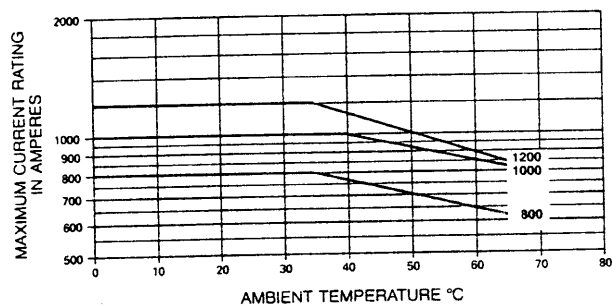


Type 'GSMJ' & 'GSMK'  
Forced air cooling  
up-rating curve



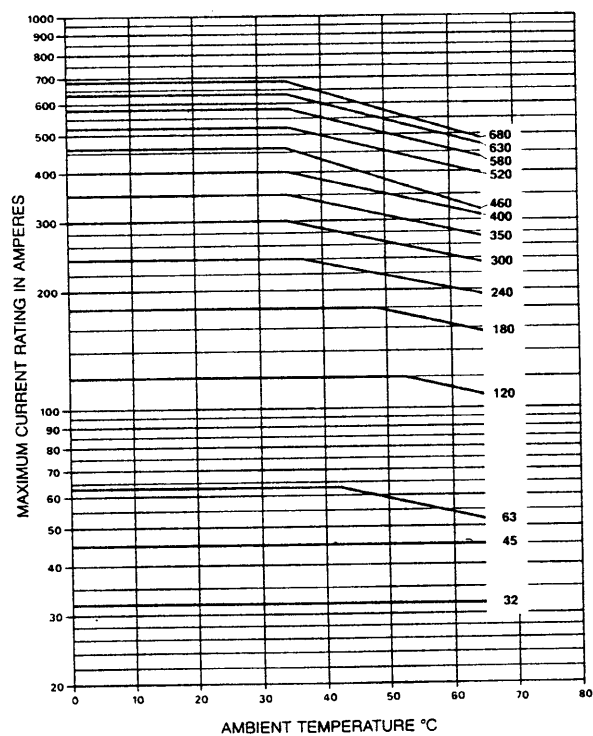
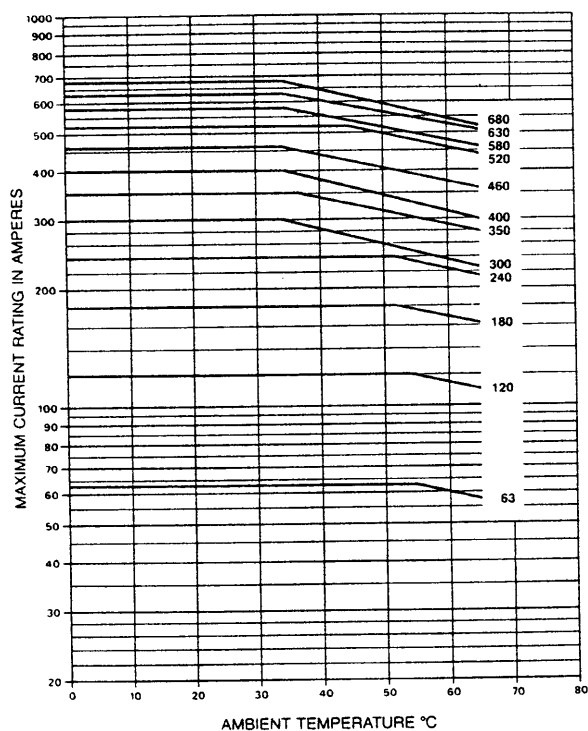
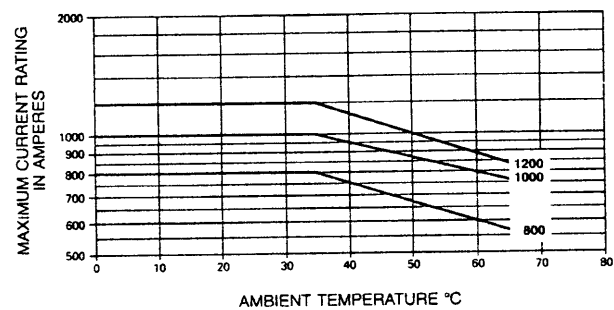
# Type 'GSMJ'

De-rating at high ambients



# Type 'GSMK'

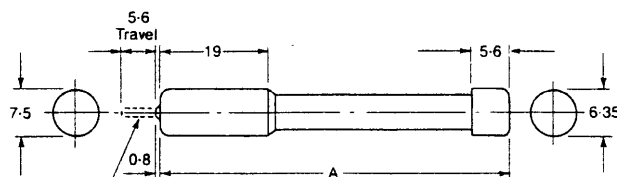
De-rating at high ambients



## Trip Indicator Fuse Links

| A.C.<br>RMS<br>Voltage<br>rating | D.C.<br>Voltage<br>rating | List<br>number | Dimensions<br>in millimetres |
|----------------------------------|---------------------------|----------------|------------------------------|
|                                  |                           |                | A                            |
| 450                              | 200                       | GS700          | 46                           |
| 660                              | 400                       | GSL1000        | 60                           |
| 800                              | 500                       | GSL1200        | 107                          |
| 1300                             | 825                       | GSL2000        | 121.4                        |
|                                  |                           | *GSH2000       |                              |

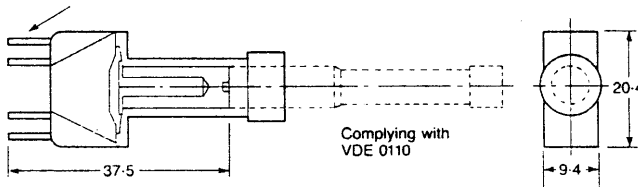
\* For special applications only.



Spring loaded indication plunger (Released when fuse link operates) can also be used for operating auxiliary equipment.

## Micro-switch and Adaptor

Terminals to suit AMP type "110 Faston receptacles"  
List No. 150205-2



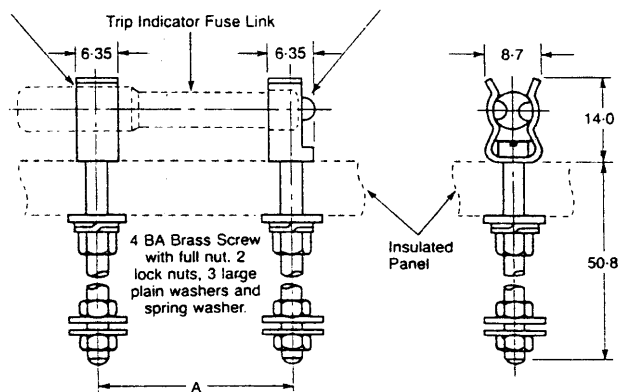
## Contact Clip Assemblies

For use with Trip Indicator Fuse Links.

| For Trip<br>Indicator<br>Fuse Link - | Dimensions<br>in millimetres |
|--------------------------------------|------------------------------|
| A                                    |                              |
| GS700                                | 32                           |
| GSL1000                              | 46                           |
| GSL1200                              | 93                           |
| GSL2000                              | 107.5                        |
| GSH2000                              |                              |

Contact clip assembly  
P. 683-10

Contact clip assembly  
P. 683-20



Types 'GSMJ', 'GISMJ', 'GSMK' & 'GISMK'

Figure 11

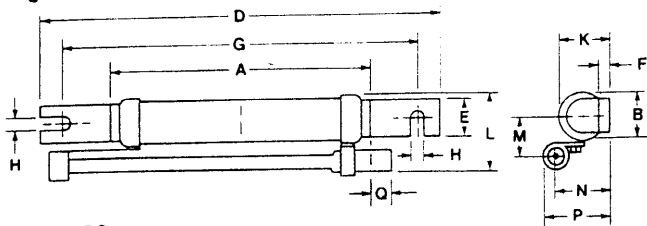


Figure 12

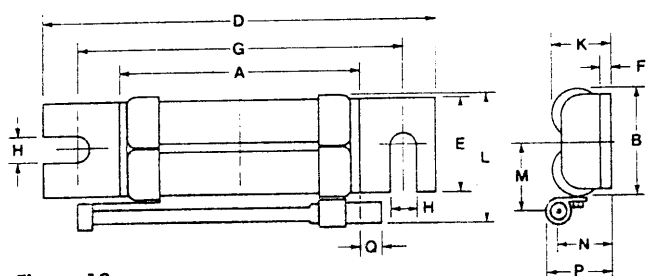


Figure 13

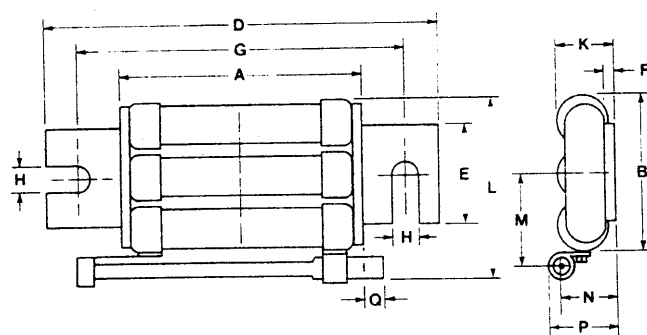


Figure 14

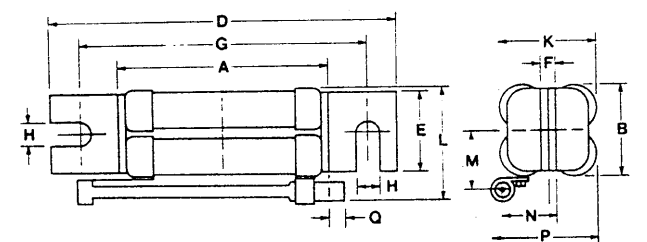


Figure 15

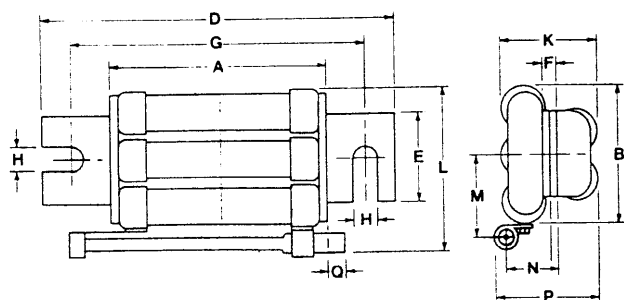


Figure 16

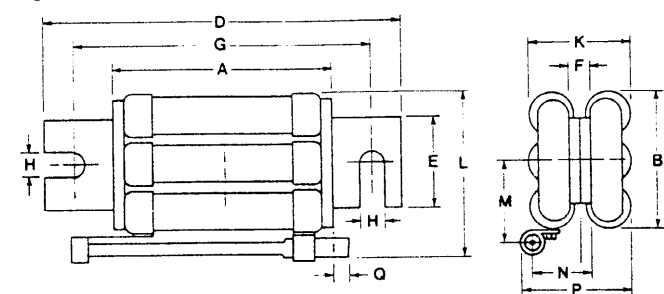


Figure 17

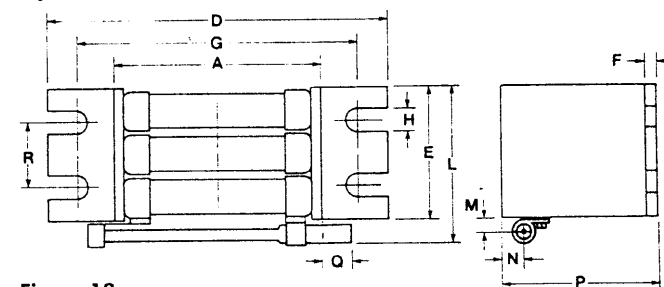
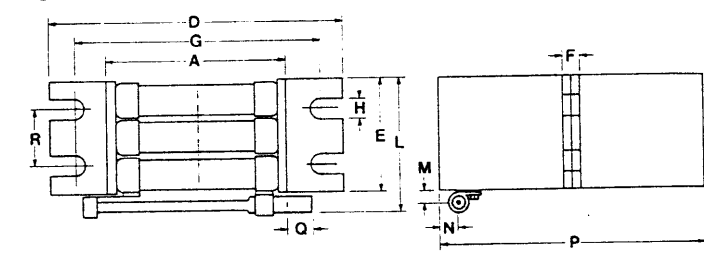


Figure 18



| Type             | Rating<br>Amp | Fig.<br>No. | Dimensions in millimetres |      |     |    |      |     |     |      |      |      |      |      |    |    |
|------------------|---------------|-------------|---------------------------|------|-----|----|------|-----|-----|------|------|------|------|------|----|----|
|                  |               |             | A                         | B    | D   | E  | F    | G   | H   | K    | L    | M    | N    | P    | Q  | R  |
| GSMJ &<br>*GISMJ | 63            | 11          | 75                        | 17.5 | 125 | 12 | 1.6  | 110 | 6.3 | 18.3 | 27.5 | 14   | 19   | 23.4 | 18 | -  |
|                  | 120           | 12          | 75                        | 41   | 135 | 38 | 3.2  | 110 | 11  | 21   | 50   | 25.5 | 20.5 | 25   | 15 | -  |
|                  | 180           | 13          | 75                        | 61   | 135 | 38 | 3.2  | 110 | 11  | 21   | 71   | 36   | 20.5 | 25   | 15 | -  |
|                  | 240           | 14          | 75                        | 41   | 135 | 38 | 6.4  | 110 | 11  | 42   | 50   | 25.5 | 23.7 | 46   | 15 | -  |
|                  | 300           | 15          | 75                        | 61   | 135 | 38 | 6.4  | 110 | 11  | 42   | 71   | 36   | 23.7 | 46   | 15 | -  |
|                  | 350           | 16          | 75                        | 61   | 135 | 38 | 9.6  | 110 | 11  | 45   | 71   | 36   | 26.8 | 49   | 14 | -  |
|                  | 400-460       | 17          | 75                        | -    | 135 | 60 | 4.8  | 110 | 11  | -    | 70   | 5    | 9.5  | 70   | 18 | 30 |
|                  | 520-680       |             | 77                        | -    | 135 | 80 | 6.3  | 110 | 11  | -    | 90   | 5    | 9.5  | 90   | 20 | 40 |
|                  | 800           | 18          | 75                        | -    | 135 | 60 | 9.6  | 110 | 11  | -    | 70   | 5    | 9.5  | 140  | 18 | 30 |
|                  | 1000-1200     |             | 77                        | -    | 135 | 80 | 12.6 | 110 | 11  | -    | 90   | 5    | 9.5  | 180  | 20 | 40 |
| GSMK &<br>*GISMK | 32-63         | 11          | 95                        | 17.5 | 145 | 12 | 1.6  | 130 | 6.3 | 18.3 | 27.5 | 14   | 19   | 23.4 | 11 | -  |
|                  | 120           | 12          | 95                        | 41   | 155 | 38 | 3.2  | 130 | 11  | 21   | 50   | 25.5 | 20.5 | 25   | 9  | -  |
|                  | 180           | 13          | 95                        | 61   | 155 | 38 | 3.2  | 130 | 11  | 21   | 71   | 36   | 20.5 | 25   | 9  | -  |
|                  | 240           | 14          | 95                        | 41   | 155 | 38 | 6.4  | 130 | 11  | 42   | 50   | 25.5 | 23.7 | 46   | 9  | -  |
|                  | 300           | 15          | 95                        | 61   | 155 | 38 | 6.4  | 130 | 11  | 42   | 71   | 36   | 23.7 | 46   | 9  | -  |
|                  | 350           | 16          | 95                        | 61   | 155 | 38 | 9.6  | 130 | 11  | 45   | 71   | 36   | 26.8 | 49   | 7  | -  |
|                  | 400-460       | 17          | 95                        | -    | 155 | 60 | 4.8  | 130 | 11  | -    | 70   | 5    | 9.5  | 70   | 14 | 30 |
|                  | 520-680       |             | 97                        | -    | 155 | 80 | 6.3  | 130 | 11  | -    | 90   | 5    | 9.5  | 90   | 12 | 40 |
|                  | 800           | 18          | 95                        | -    | 155 | 60 | 9.6  | 130 | 11  | -    | 70   | 5    | 9.5  | 140  | 14 | 30 |
|                  | 1000-1200     |             | 97                        | -    | 155 | 80 | 12.6 | 130 | 11  | -    | 90   | 5    | 9.5  | 180  | 12 | 40 |

Note: Indicator fuse link shown shaded if fitted.

\* Add-on indicator fuse link conversion kits are not available for this range of fuse links. For indicated version order as GISMJ/- - - or GISMK/- - -.

Types 'GSA', 'GSD', 'GSB', 'CGS1000'  
& 'CGIS 1000'

Figure 1

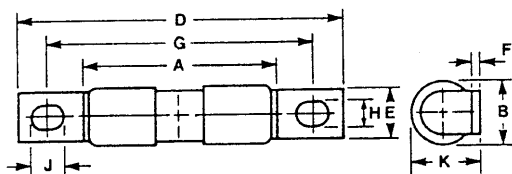


Figure 3

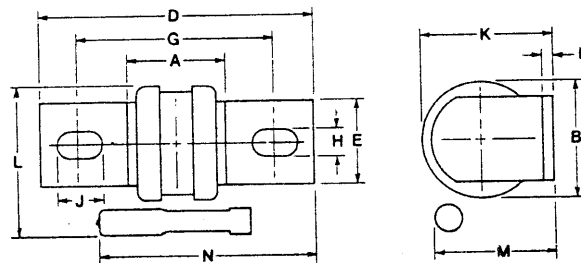


Figure 2

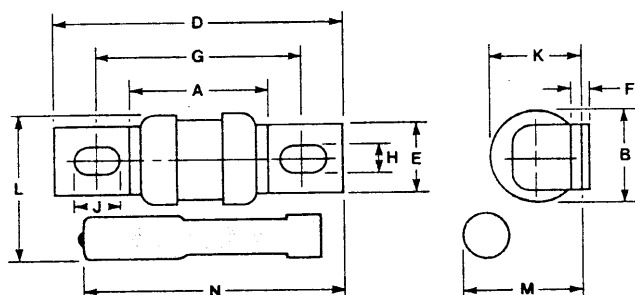


Figure 4

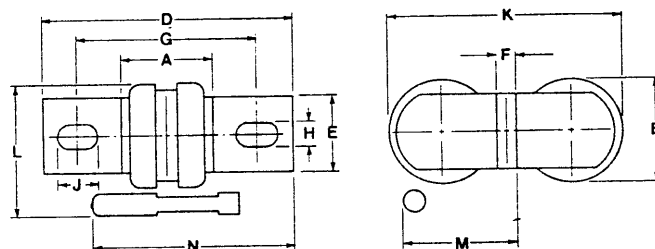
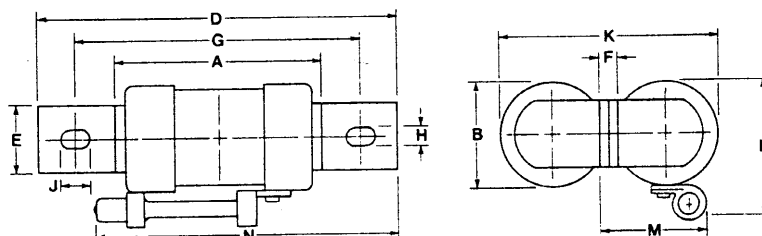


Figure 5



| Type                     | Rating   | Fig.<br>No. | Dimensions in millimetres |      |          |      |     |      |      |      |      |      |      |      |  |
|--------------------------|----------|-------------|---------------------------|------|----------|------|-----|------|------|------|------|------|------|------|--|
|                          | Amp      |             | A<br>max                  | B    | D<br>max | E    | F   | G    | H    | J    | K    | L    | M    | N    |  |
| GSA#                     | 5-20     | 1           | 28.2                      | 8.0  | 47.6     | 6.4  | 0.8 | 38.1 | 3.8  | 5.0  | 8.7  | -    | -    | -    |  |
| GSA                      | 25-100   | 2           | 29.2                      | 17.3 | 58.4     | 12.7 | 1.6 | 41.8 | 6.4  | 7.9  | 18.2 | 28.6 | 24.6 | 52.4 |  |
|                          | 125-250  | 3           | 32.6                      | 34.6 | 85       | 25.4 | 3.2 | 60.3 | 10.3 | 15.5 | 38.8 | 45.3 | 35.2 | 64.3 |  |
|                          | 300-600  | 4           | 32.6                      | 34.6 | 85       | 25.4 | 6.4 | 60.3 | 10.3 | 15.5 | 77.6 | 45.3 | 38.4 | 64.3 |  |
| GSD                      | 125-150  | 2           | 29.2                      | 17.3 | 58.4     | 12.7 | 1.6 | 41.8 | 6.4  | 7.9  | 18.2 | 28.6 | 24.6 | 52.4 |  |
|                          | 300, 350 | 3           | 32.6                      | 34.6 | 85       | 25.4 | 3.2 | 60.3 | 10.3 | 15.5 | 38.8 | 45.3 | 35.2 | 64.3 |  |
|                          | 700      | 4           | 32.6                      | 34.6 | 85       | 25.4 | 6.4 | 60.3 | 10.3 | 15.5 | 77.6 | 45.3 | 38.4 | 64.3 |  |
| GSB                      | 5-20     | 1           | 55.0                      | 8.0  | 74.6     | 6.4  | 0.8 | 65.0 | 3.8  | 5.0  | 8.7  | -    | -    | -    |  |
| GSB                      | 25-75    | 2           | 50.0                      | 17.3 | 79.5     | 12.0 | 1.6 | 61.8 | 6.4  | 7.9  | 18.2 | 28.6 | 24.6 | 70.4 |  |
|                          | 100-250  | 3           | 55                        | 34.6 | 107.0    | 25.4 | 3.2 | 81.7 | 10.3 | 15.5 | 38.8 | 45.3 | 35.2 | 84.1 |  |
|                          | 300-500  | 4           | 55                        | 34.6 | 107.0    | 25.4 | 6.4 | 81.7 | 10.3 | 15.5 | 77.6 | 45.3 | 38.4 | 84.1 |  |
| *CGS 1000 &<br>CGIS 1000 | 400-600  | 5           | 77.8                      | 40.5 | 136.5    | 25.4 | 6.4 | 110  | 10.3 | 15.5 | 83.3 | 49.6 | 35.0 | 113  |  |

Note: Add-on indicator fuse link shown shaded.

\* Add-on indicator fuse link conversion kits are not available for this range of fuse links. For indicated version order as CGIS 1000/- - -.

# Indicator not available on this size.

Figure 6

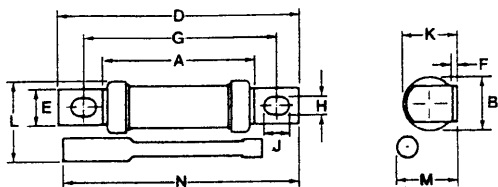


Figure 8

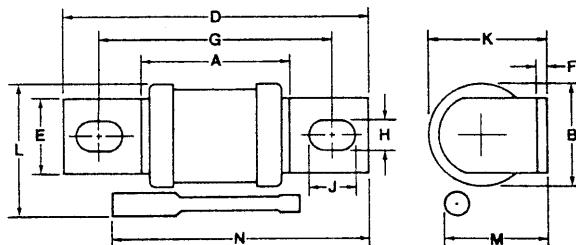


Figure 7

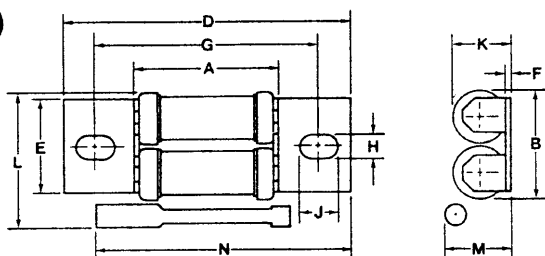


Figure 9

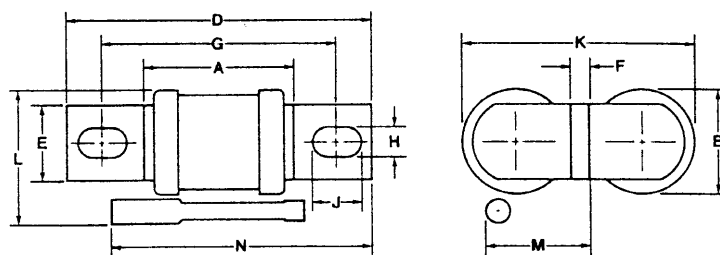
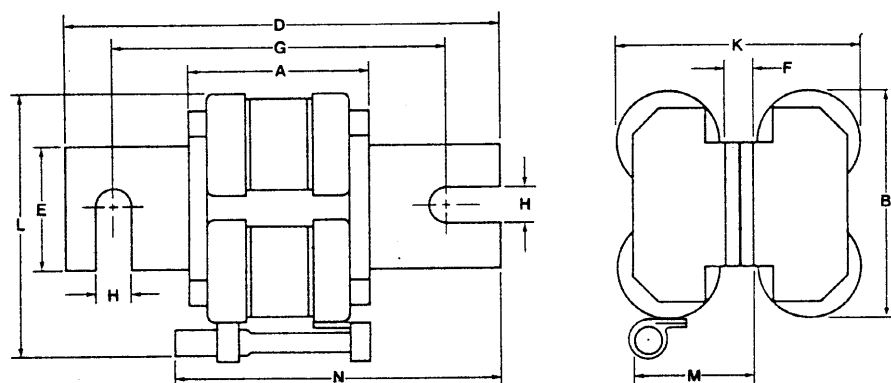


Figure 10



| Type  | Rating  | Fig. No. | Dimensions in millimetres |      |      |      |     |      |      |      |      |      |      |      |
|-------|---------|----------|---------------------------|------|------|------|-----|------|------|------|------|------|------|------|
|       | Amp     |          | A                         | B    | D    | E    | F   | G    | H    | J    | K    | L    | M    | N    |
| GSGB# | 16      | 6        | 50                        | 17.3 | 79.5 | 12   | 1.6 | 61.8 | 6.4  | 7.9  | 18.2 | -    | -    | -    |
| GSGB  | 25-80   | 6        | 50                        | 17.3 | 79.5 | 12   | 1.6 | 61.8 | 6.4  | 7.9  | 18.2 | 28.6 | 24.6 | 70.4 |
|       | 75-160  | 7        | 48                        | 35.7 | 95   | 31.8 | 1.6 | 72   | 8.3  | 13.4 | 19   | 46.4 | 23.8 | 80.2 |
|       | 170-250 | 8        | 55                        | 34.6 | 107  | 25.4 | 3.2 | 81.7 | 10.3 | 15.5 | 38.8 | 45.3 | 35.2 | 84.1 |
|       | 175-500 | 9        | 55                        | 34.6 | 107  | 25.4 | 6.4 | 81.7 | 10.3 | 15.5 | 77.6 | 45.3 | 38.4 | 84.1 |
| *GSGB | 510-900 | 10       | 57.2                      | 73.8 | 143  | 39.7 | 9.6 | 110  | 11.5 | -    | 80.8 | 84.5 | 40.8 | 102  |

Note: Add-on indicator fuse link shown shaded.

\* Add-on indicator fuse link conversion kits are not available for this range of fuse links. For indicated version order as GISGB/- - -.

# Indicator not available on this size.

## 'RED SPOT'

### Adaptor kits for Semi conductor fuse links

GEC ALSTHOM has now introduced a range of 'RED SPOT' adaptor kits which will enable the mounting of 'GS' type semi conductor fuse links, up to 75 Amp rating into 'RED SPOT' fuseholders without the need for a range of 'specials'.

The adaptor kits are designed to simply and quickly modify a 'standard' 'RED SPOT' holder of any connection style.

These kits include a self adhesive label to fit to the front of the fuse carrier to indicate that the fuseholder has been converted.

Full details of 'RED SPOT' fuseholders are shown in publication IEF/415.

Four kits are available as follows:-

| Adaptor Kit | Fuse Links Accommodated | For Use in Fuseholder | Superseded Fuseholder |
|-------------|-------------------------|-----------------------|-----------------------|
| GRS32/A     | GSA 5-20                | RS32                  | SGM20                 |
| *GRS63/A    | GSA 25-50               | RS63                  | MGM50                 |
| GRS100/B    | GSB 5-20                | RS100                 | MGM20                 |
| *GRS100/A-B | GSA 75                  | RS100                 | GM75                  |
|             | GSB 25-50               |                       | MGM50                 |
|             | GSGB 16-45              |                       | MGM50                 |

Note: \* These adaptor kits do not accommodate all fuse links that could be fitted into the superseded fuseholders.