## **BUSSMANN** SERIES

# E-Rated DIN medium voltage fuses, 5.5 to 38 kV, 10 to 450 amps



#### **Catalog symbols:**

- 55GDMSJ\_E
- 55GFMSJ\_E
- 155GXQSJ\_E
- 175GDMSJ\_E
- 175GFMSJ\_E
- 175GXMSJ\_E
- 175GXQSJ\_E
- 258GDQSJ\_E
- 258GXQSJ\_E
- 258GXZSJ\_E
- 38GFZSJ\_E
- 38GCZSJ\_E

#### **Description:**

Bussmann™ series DIN dimensioned E-Rated medium voltage power fuses with striker for indoor use. Available in general purpose (5.5 to 17.5 kV) and full range (25.8 to 38 kV) versions.

#### **Specifications:**

#### **Ratings**

- Volts 5.5 38 kV
- Amps: 10 450
- Interrupting rating: 25 65 kA

#### Agency information

- General purpose E-Rated per ANSI C37.46 (5.5 to 17.5 kV)
- Full range E-Rated per ANSI C37.40 (25.8 to 38 kV)

#### Striker force

• 50 N (11 Lbs)

#### Recommended fuseclips

See page 13 for dimensions.

| Amp range   | Description                              | Catalog no. |
|-------------|--|-------------|
| Up to 200 A | Enclosed fuseclip with wingnut tensioner | A33574745*  |
| Up to 200 A | Open fuseclip with spring tensioner      | 270303      |

<sup>\*</sup> Not sold in pairs.

#### Features and benefits

- · Cool running for lower watts loss
- 100% X-ray inspected to help assure fuse integrity
- Striker provides visual indication of fuse operation or a means to activate a remote monitoring system

#### Typical applications

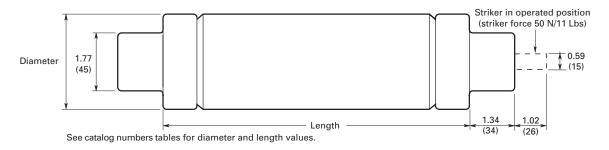
- Primary protection for medium voltage transformers and switch gear
- · Protection of medium voltage feeder circuits
- Direct OEM replacement fuses for 600 A Square D HVLCC and HVL switches — see page 14 for applicable Square D switch catalog symbols and Bussmann series fuse voltage and amp ranges



#### Catalog numbers — general purpose versions

|                     |                                 | Dimensions — in (mm) |          |
|---------------------|---------------------------------|----------------------|----------|
| Catalog numbers Amp | s Interrupting rating (Sym. kA) | Length               | Diameter |
| 5.5 kV              |                                 |                      |          |
| 55GDMSJ10E          |                                 |                      |          |
| 55GDMSJ15E          | 5                               |                      |          |
| 55GDMSJ20E          | 0                               |                      |          |
| 55GDMSJ25 2         | 5                               | 17.4 (442)           | 2 (51)   |
| 55GDMSJ30E          | 0                               |                      |          |
| 55GDMSJ40E          | 0                               |                      |          |
| 55GDMSJ50E          | 0                               |                      |          |
| 55GDMSJ65           | 5                               |                      |          |
| 55GDMSJ80E          | 0                               |                      |          |
| 55GDMSJ100E 10      | 0 65                            |                      |          |
| 55GDMSJ125E 12      | 5                               |                      |          |
| 55GFMSJ150E 15      |                                 |                      | 3 (76)   |
| 55GFMSJ175E 17      | 5                               |                      |          |
| 55GFMSJ200E 20      |                                 |                      |          |
| 55GFMSJ250 25       | 0                               | 17.4 (442)           |          |
| 55GFMSJ300E 30      |                                 | 17.4 (442)           |          |
| 55GFMSJ350E 35      |                                 |                      |          |
| 55GFMSJ400E 40      |                                 |                      |          |
| 55GFMSJ450E 45      | 0                               |                      |          |
| 15.5 kV             |                                 |                      |          |
| 155GXQSJ175E 17     | <u> </u>                        | 21.1 (537)           | 3.5 (89) |
| 155GXQSJ200E 20     | 0                               | 21.1 (557)           |          |
| 17.5 kV             |                                 |                      |          |
|                     | 0                               |                      | 2 (51)   |
| 175GDMSJ15E         | 5                               |                      |          |
|                     | 0                               | 17.4 (442)           |          |
|                     | 5                               |                      |          |
|                     | 0                               |                      |          |
|                     | <u>0</u> 65                     |                      | 3 (76)   |
|                     | 0                               | 17.4 (442)           |          |
|                     | 5                               |                      |          |
|                     | 0                               | 17.4 (442)           | 3.5 (89) |
| 175GXMSJ100E 10     |                                 | 17.7 (772)           |          |
| 175GXQSJ125E 12     |                                 | 21.1 (537)           | 3.5 (89) |
| 175GXQSJ150E 15     | 0                               | 2 (007)              |          |

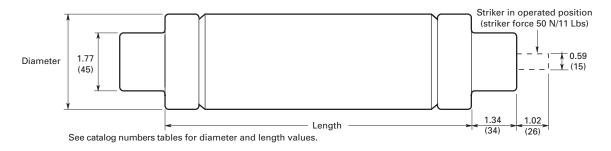
## Dimensions — in (mm)



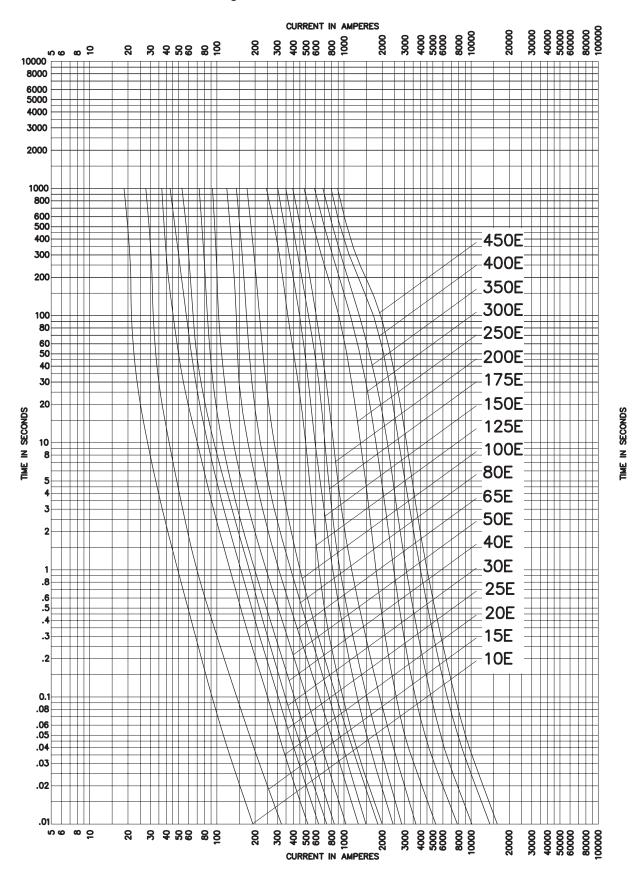
### Catalog numbers — full range versions

|                 |      |                                 | Dimensions — in (mm) |          |
|-----------------|------|---------------------------------|----------------------|----------|
| Catalog numbers | Amps | Interrupting rating (Sym. kA)   | Length               | Diameter |
| 25.8 kV         |      |                                 |                      |          |
| 258GDQSJ10E     | 10   | -<br>-<br>-<br>- 25 -<br>-<br>- | 21.1 (537)           |          |
| 258GDQSJ15E     | 15   |                                 |                      |          |
| 258GDQSJ20E     | 20   |                                 |                      | 2 (51)   |
| 258GDQSJ25      | 25   |                                 |                      |          |
| 258GDQSJ30E     | 30   |                                 |                      |          |
| 258GXQSJ40E     | 40   |                                 | 21.1 (537)           |          |
| 258GXQSJ50E     | 50   |                                 |                      | 3.5 (89) |
| 258GXQSJ65      | 65   |                                 |                      |          |
| 258GXZSJ80E     | 80   |                                 | 28.3 (718)           | 2 F (00) |
| 258GXZSJ100E    | 100  |                                 |                      | 3.5 (89) |
| 38 kV           |      |                                 |                      |          |
| 38GFZSJ10E      | 10   | -<br>-<br>25                    | 28.3 (718)           |          |
| 38GFZSJ15E      | 15   |                                 |                      |          |
| 38GFZSJ20E      | 20   |                                 |                      | 3 (76)   |
| 38GFZSJ25       | 25   |                                 |                      |          |
| 38GFZSJ30E      | 30   |                                 |                      |          |

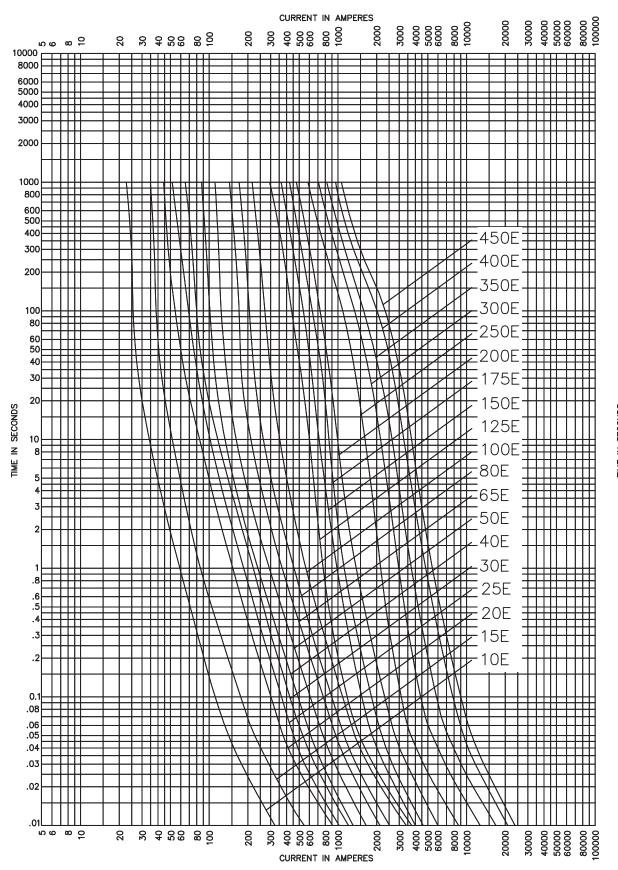
## Dimensions — in (mm)



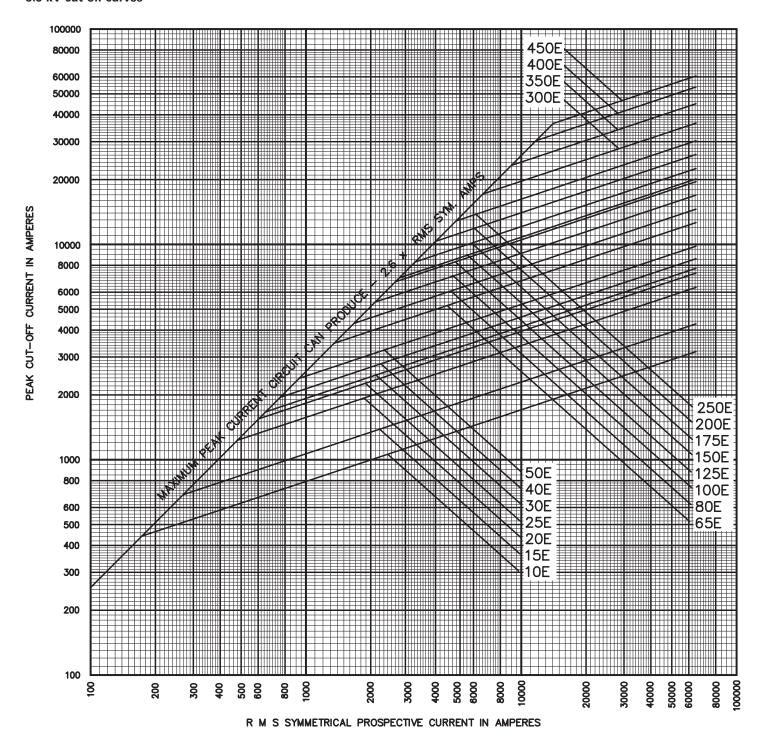
#### 5.5 kV time-current curves - minimum melting



#### 5.5 kV time-current curves - total clearing



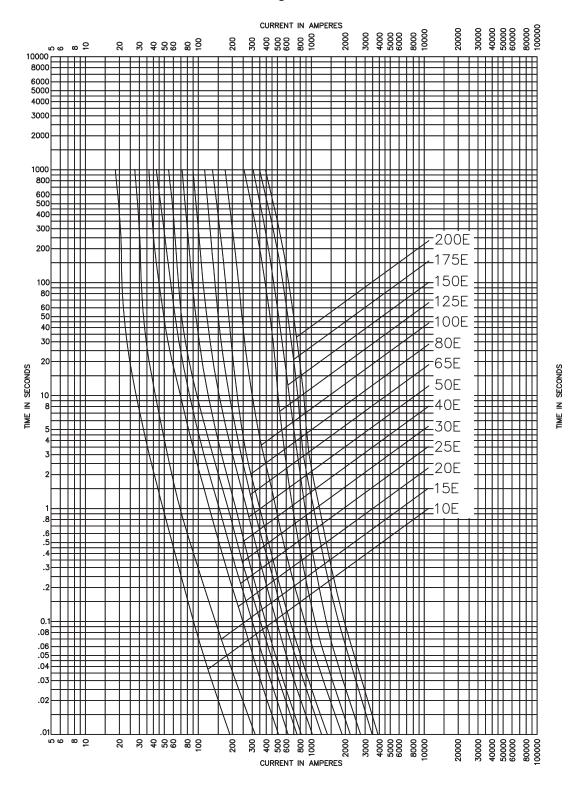
#### 5.5 kV cut-off curves



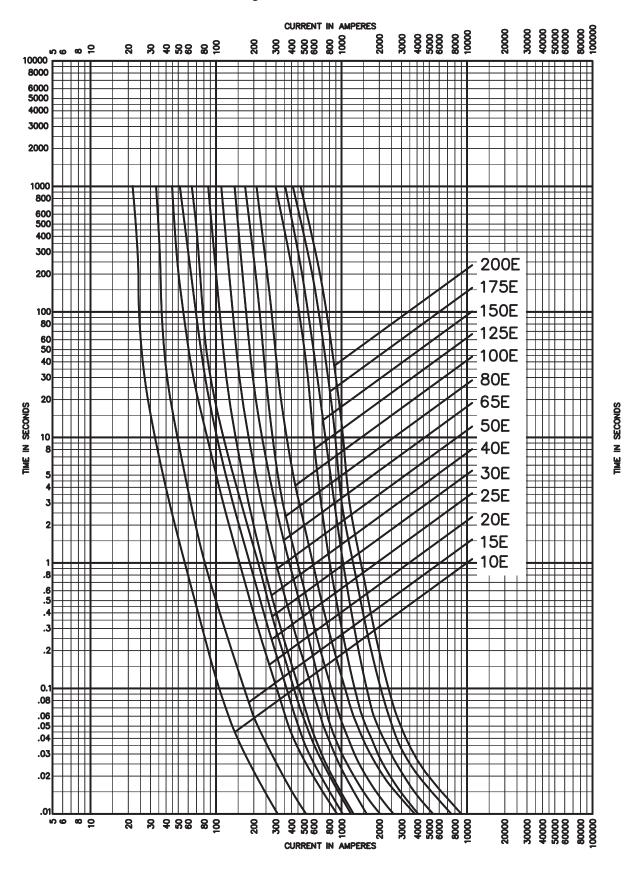
#### Notes:

- 1. Curves show extreme maximum values which will not be exceeded under conditions stated in notes 2 and 3 below.
- 2. For high values of prospective current, a symmetrical fault gives the highest cut-off current. For low values of prospective current, where there is little or no current limitation, an asymmetrical fault passes the highest peak current. The curves are therefore based upon the degree of asymmetry which gives the maximum cut-off current at any particular value of prospective current.
- 3. Curves related to frequency of 60 Hz and a recovery voltage equal to the fuse's rated voltage.

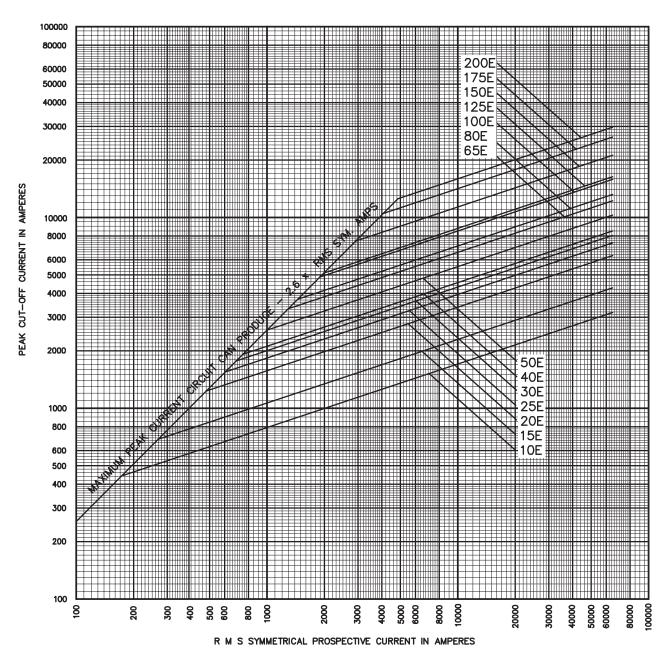
#### 15.5 to 17.5 kV time-current curves - minimum melting



15.5 to 17.5 kV time-current curves — total clearing



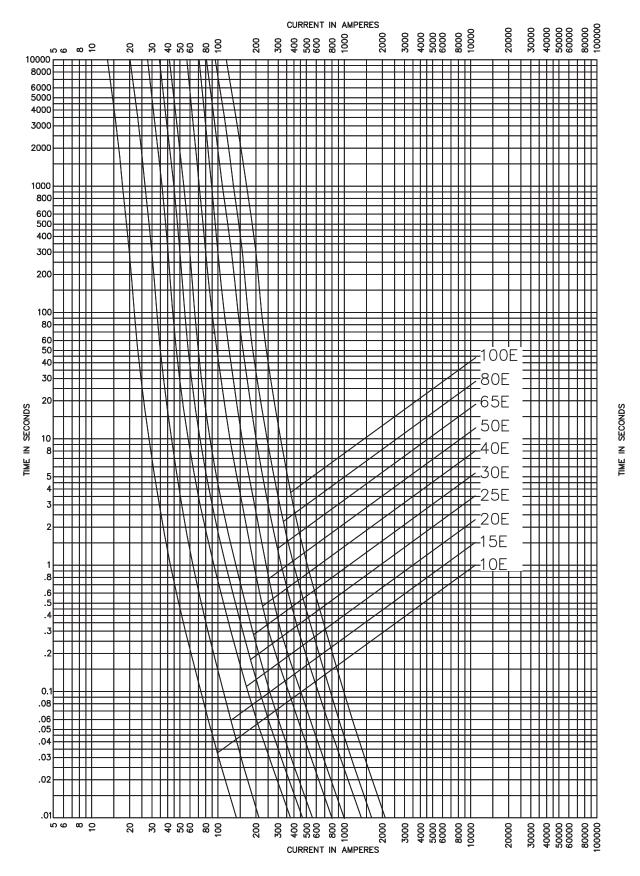
#### 15.5 to 17.5 kV cut-off curves



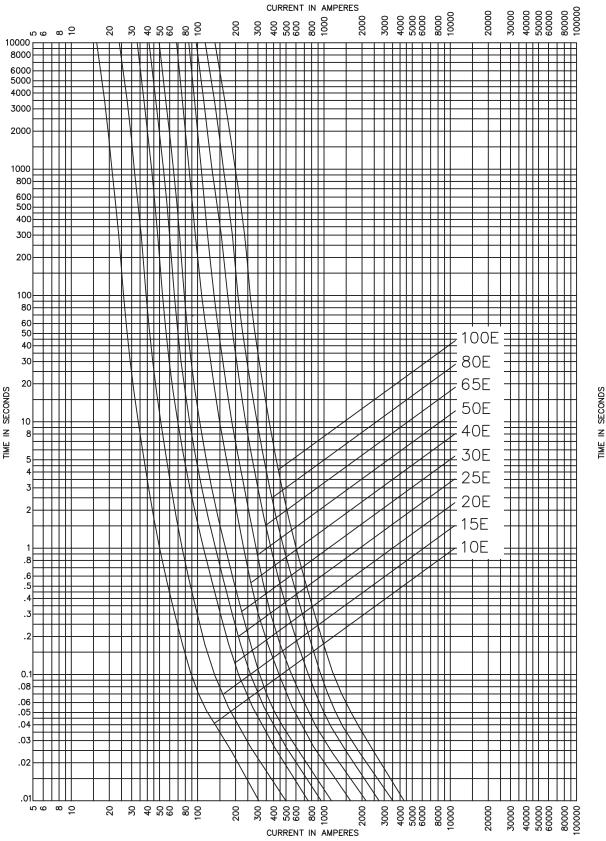
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- 3. Curves related to frequency of 60 Hz and a recovery voltage equal to the fuse's rated voltage.

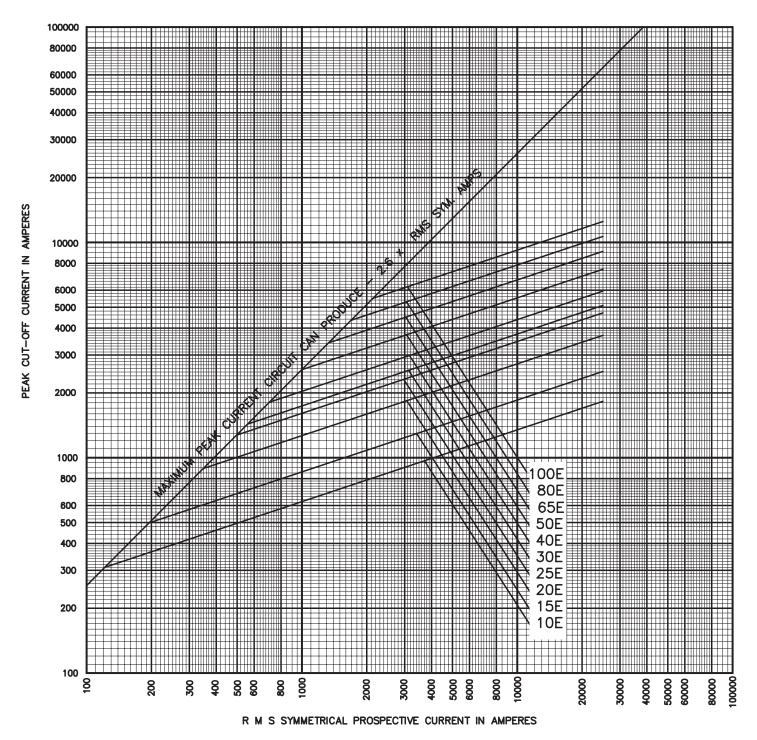
#### 25.8 to 38 kV time-current curves - minimum melting



25.8 to 38 kV time-current curves - total clearing



#### 25.8 to 38 kV cut-off curves

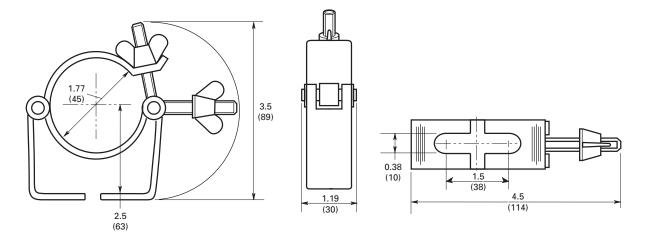


#### Notes:

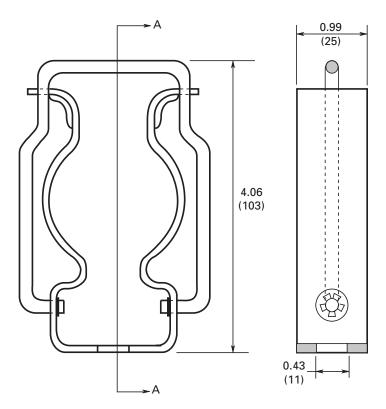
- 1. Curves show extreme maximum values which will not be exceeded under conditions stated in notes 2 and 3 below.
- 2. For high values of prospective current, a symmetrical fault gives the highest cut-off current. For low values of prospective current, where there is little or no current limitation, an asymmetrical fault passes the highest peak current. The curves are therefore based upon the degree of asymmetry which gives the maximum cut-off current at any particular value of prospective current.
- 3. Curves related to frequency of 60 Hz and a recovery voltage equal to the fuse's rated voltage.

#### Fuseclip dimensions in (mm)

### Catalog no. A3354745 — not sold in pairs



### Catalog no. 270303



### Bussmann series fuse amp ranges for Square D 600A HVL/CC and HVL switches

| Catalog numbers                                |   |                   |            |
|--|---|-------------------|------------|
| HVL/CC versions                                | HVL versions  | Fuse voltage (kV) | Fuse range |
| Single switch with Square D fuses              |   |                   |            |
| 4.76 kV switch volts                           |   |                   |            |
| HVLCCA14305D                                   | HVL305DE_   |                   |            |
| HVLCCA20305D                                   | _   |                   | 10.4505    |
| HVLCCB14305D                                   | _   | 5.5               | 10-450E    |
| HVLCCB20305D                                   |   |                   |            |
| 15 kV switch volts                             |   |                   |            |
| HVLCCA14315D                                   | _   |                   |            |
| HVLCCA20315D                                   | _   |                   | =          |
| HVLCCB14315D                                   | _   |                   | 10-200E    |
| HVLCCB20315D                                   | _   |                   |            |
| _  | HVL315DEG2  | 15.5 or 17.5      | 125-200E   |
|  | HVL315DEW2  |                   | 125-200E   |
|  | HVL315DEG1  |                   | 10-100E    |
|  | HVL315DEW1  |                   | 10-100E    |
| "Single" switch for cable connection           | to Power-Dry II, Power-Cast II, and Uni-Cast II tra | ansformers        | 10 1002    |
| 4.76 kV switch volts                           | to rower bry in, rower dust in, and oil dust it the |                   |            |
| HVLCCA14405DGL                                 | HVL405DEG_  |                   |            |
| HVLCCA14405DGR                                 | HVL405DEW   |                   |            |
| HVLCCA20405DGL                                 | —   |                   |            |
| HVLCCA20405DGE                                 |   |                   |            |
| HVLCCB14405DGL                                 |   | 5.5               | 10-450E    |
| HVLCCB14405DGL<br>HVLCCB14405DGR               |   |                   |            |
| HVLCCB20405DGL                                 |   |                   |            |
| HVLCCB20405DGL<br>HVLCCB20405DGR               |   |                   |            |
| 15 kV switch volts                             | <del>_</del>  |                   |            |
| HVLCCA14415DGL                                 |   |                   |            |
| HVLCCA14415DGR                                 | _ <del>_</del>                                      |                   |            |
| HVLCCA20415DGL                                 |   |                   |            |
| HVLCCA20415DGE                                 | _ <del>_</del>                                      |                   |            |
|  |   |                   | 10-200E    |
| HVLCCB14415DGL                                 |   |                   |            |
| HVLCCB14415DGR                                 |   |                   |            |
| HVLCCB20415DGL                                 |   |                   |            |
| HVLCCB20415DGR                                 |   | 15.5 or 17.5      | 10.1005    |
|  | HVL415DEGR1   |                   | 10-100E    |
|  | HVL415DEGR2   |                   | 125-200E   |
| <del></del>                                    | HVL415DEGL1   |                   | 10-100E    |
|  | HVL415DEGL2   |                   | 125-200E   |
|  | HVL415DEWR1H  |                   | 10-100E    |
|  | HVL415DEWR2H  |                   | 125-200E   |
|  | HVL415DEWL1H  |                   | 10-100E    |
| "Download and for a like a second in           | HVL415DEWL2H  |                   | 125-200E   |
| -  | to Power-Dry II, Power-Cast II, and Uni-Cast II tr  | ansformers        |            |
| 4.76 kV switch volts                           | LIVII FOEDEC  |                   |            |
| HVLCCA14505DGL                                 | HVL505DEG_  |                   |            |
| HVLCCA14505DGR                                 | HVL505DEW_  |                   |            |
| HVLCCA20505DGL                                 |   |                   |            |
| HVLCCA20505DGR                                 |   | 5.5               | 10-450E    |
| HVLCCB14505DGL                                 |   |                   |            |
| HVLCCB14505DGR                                 |   |                   |            |
| HVLCCB20505DGL                                 |   |                   |            |
| HVLCCB20505DGR                                 |   |                   |            |
| 15 kV switch volts                             |   |                   |            |
| HVLCCA14515DGL                                 |   |                   |            |
| HVLCCA14515DGR                                 |   |                   |            |
| HVLCCA20515DGL                                 |   |                   |            |
| HVLCCA20515DGR                                 |   |                   | 10-200E    |
| HVLCCB14515DGL                                 |   |                   | 10 2002    |
| HVLCCB14515DGR                                 |   |                   |            |
| HVLCCB20515DGL                                 |   |                   |            |
| HVLCCB20515DGR                                 |   | 15.5 or 17.5      |            |
| <u>—                                      </u> | HVL515DEGR1   | 15.5 or 17.5      | 10-100E    |
| _  | HVL515DEGR2   |                   | 125-200E   |
| _  | HVL515DEGL1   |                   | 10-100E    |
| _  | HVL515DEGL2   |                   | 125-200E   |
| _  | HVL515DEWR1H  |                   | 10-100E    |
| _  | HVL515DEWR2H  |                   | 125-200E   |
| _  | HVL515DEWL1H  |                   | 10-100E    |
| _  | HVL515DEWL2H  |                   | 125-200E   |
|  |   |                   |            |

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