

## Square Body US Style — 690V/700V (IEC): 40-2000A

### 690V/700V (IEC) 40-2000A

#### Specifications

**Description:** Square body US style high speed fuses.

**Dimensions:** See dimensions illustration.

#### Ratings:

Volts: — 690Vac (IEC)

— 700Vac (UL)

Amps: — 40-200A

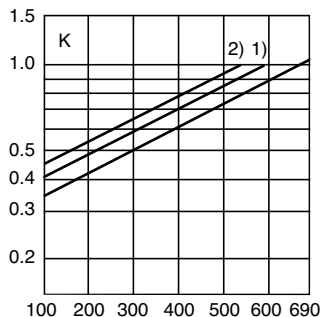
IR: — 200kA RMS Sym.

**Agency Information:** CE, Designed and tested to IEC 60269: Part 4, UL Recognized. Consult Cooper Bussmann for UL Recognition/ CSA Component Acceptance status.

#### Electrical Characteristics

##### Total Clearing $I^2t$

The total clearing  $I^2t$  at rated voltage and at power factor of 15% are given in the electrical characteristics. For other voltages, the clearing  $I^2t$  is found by multiplying by correction factor, K, given as a function of applied working voltage,  $E_g$ , (rms).



1) Rated voltage 600V.  
2) Rated voltage 550V

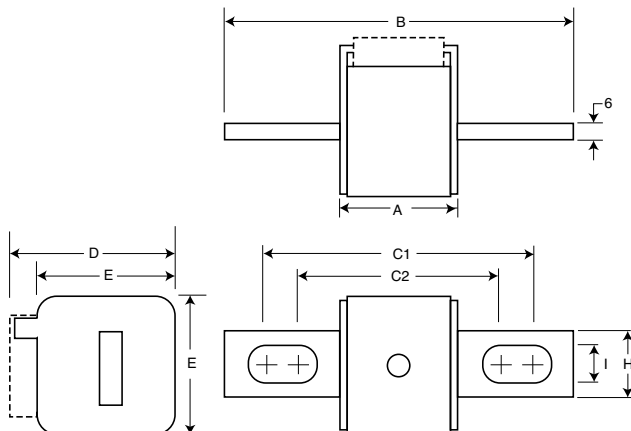
#### Dimensions (mm)

Type -FU/-, -FKE/-, FU/115-, -FKE/115

| Size | A  | B   | B** | C1  | C1** | C2 | C2** | D  | E  | H  | I  |
|------|----|-----|-----|-----|------|----|------|----|----|----|----|
| 1*   | 50 | 110 | 148 | 85  | 123  | 72 | 110  | 59 | 45 | 20 | 10 |
| 1    | 50 | 136 | 157 | 104 | 126  | 78 | 100  | 69 | 53 | 25 | 14 |
| 2    | 50 | 135 | 159 | 105 | 125  | 78 | 99   | 77 | 61 | 25 | 14 |
| 3    | 51 | 135 | 155 | 106 | 125  | 77 | 97   | 92 | 76 | 36 | 16 |

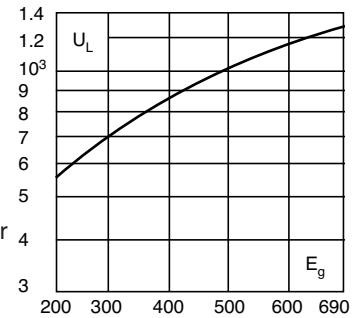
\*\*Valid for fuses type -FU/115 & -FKE/115.

1mm = 0.0394" / 1" = 25.4mm



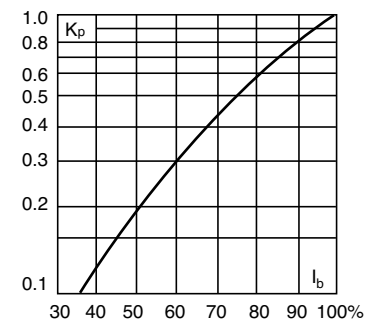
#### Arc Voltage

This curve gives the peak arc voltage,  $U_L$ , which may appear across the fuse during its operation as a function of the applied working voltage,  $E_g$ , (rms) at a power factor of 15%.



#### Power Losses

Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the power losses at load currents lower than the rated current. The correction factor,  $K_p$ , is given as a function of the RMS load current,  $I_b$ , in % of the rated current.



#### Features and Benefits

- Excellent DC performance
- Low arc voltage and low energy let-through ( $I^2t$ )
- Low watts loss
- Superior cycling capability

#### Typical Applications

- DC common bus
- DC drives
- Power converters/rectifiers
- Reduced voltage starters

#### For Other Voltage Ratings in This Body Style

- See pages 150 (1000V) and 164 (1250V/1300V)

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### Catalog Numbers

| Catalog Numbers               |                                            |                                 |                                              | Size  | Electrical Characteristics   |                                     |                     |               |
|-------------------------------|--------------------------------------------|---------------------------------|----------------------------------------------|-------|------------------------------|-------------------------------------|---------------------|---------------|
| -FU/-<br>Without<br>Indicator | -FKE/-<br>Type K<br>Indicator<br>for Micro | -FU/115<br>Without<br>Indicator | -FKE/115<br>Type K<br>Indicator<br>for Micro |       | Rated<br>Current<br>RMS-Amps | P <sub>t</sub> (A <sup>2</sup> Sec) |                     | Watts<br>Loss |
|                               |                                            |                                 |                                              |       |                              | Pre-arc                             | Clearing<br>at 660V |               |
| 170M3608                      | 170M3658                                   | 170M3708                        | 170M3758                                     | 1*    | 40                           | 40                                  | 270                 | 9             |
| 170M3609                      | 170M3659                                   | 170M3709                        | 170M3759                                     |       | 50                           | 77                                  | 515                 | 11            |
| 170M3610                      | 170M3660                                   | 170M3710                        | 170M3760                                     |       | 63                           | 115                                 | 770                 | 14            |
| 170M3611                      | 170M3661                                   | 170M3711                        | 170M3761                                     |       | 80                           | 185                                 | 1250                | 18            |
| 170M3612                      | 170M3662                                   | 170M3712                        | 170M3762                                     |       | 100                          | 360                                 | 2450                | 21            |
| 170M3613                      | 170M3663                                   | 170M3713                        | 170M3763                                     |       | 125                          | 550                                 | 3700                | 26            |
| 170M3614                      | 170M3664                                   | 170M3714                        | 170M3764                                     |       | 160                          | 1100                                | 7500                | 30            |
| 170M3615                      | 170M3665                                   | 170M3715                        | 170M3765                                     |       | 200                          | 2200                                | 15000               | 35            |
| 170M3616                      | 170M3666                                   | 170M3716                        | 170M3766                                     |       | 250                          | 4200                                | 28500               | 40            |
| 170M3617                      | 170M3667                                   | 170M3717                        | 170M3767                                     |       | 315                          | 7000                                | 46500               | 50            |
| 170M3618                      | 170M3668                                   | 170M3718                        | 170M3768                                     |       | 350                          | 10000                               | 68500               | 55            |
| 170M3619                      | 170M3669                                   | 170M3719                        | 170M3769                                     |       | 400                          | 15000                               | 105000              | 60            |
| 170M3620                      | 170M3670                                   | 170M3720                        | 170M3770                                     |       | 450                          | 21000                               | 140000              | 65            |
| 170M3621                      | 170M3671                                   | 170M3721                        | 170M3771                                     |       | 500                          | 27000                               | 180000              | 70            |
| 170M3622                      | 170M3672                                   | 170M3722                        | 170M3772                                     |       | 550                          | 34000                               | 230000              | 75            |
| 170M3623                      | 170M3673                                   | 170M3723                        | 170M3773                                     |       | 630                          | 48500                               | 325000              | 80            |
| 170M4608                      | 170M4658                                   | 170M4708                        | 170M4758                                     | 1     | 200                          | 1650                                | 11500               | 45            |
| 170M4609                      | 170M4659                                   | 170M4709                        | 170M4759                                     |       | 250                          | 3100                                | 21000               | 55            |
| 170M4610                      | 170M4660                                   | 170M4710                        | 170M4760                                     |       | 315                          | 6200                                | 42000               | 58            |
| 170M4611                      | 170M4661                                   | 170M4711                        | 170M4761                                     |       | 350                          | 8500                                | 59000               | 60            |
| 170M4612                      | 170M4662                                   | 170M4712                        | 170M4762                                     |       | 400                          | 13500                               | 91500               | 65            |
| 170M4613                      | 170M4663                                   | 170M4713                        | 170M4763                                     |       | 450                          | 17000                               | 120000              | 70            |
| 170M4614                      | 170M4664                                   | 170M4714                        | 170M4764                                     |       | 500                          | 25000                               | 170000              | 72            |
| 170M4615                      | 170M4665                                   | 170M4715                        | 170M4765                                     |       | 550                          | 34000                               | 230000              | 75            |
| 170M4616                      | 170M4666                                   | 170M4716                        | 170M4766                                     |       | 630                          | 52000                               | 350000              | 80            |
| 170M4617                      | 170M4667                                   | 170M4717                        | 170M4767                                     |       | 700                          | 69500                               | 465000              | 85            |
| 170M4618                      | 170M4668                                   | 170M4718                        | 170M4768                                     |       | 800                          | 105000                              | 725000              | 95            |
| 170M4619                      | 170M4669                                   | 170M4719                        | 170M4769                                     |       | ±900                         | 155000                              | ±850000             | 100           |
| 170M5608                      | 170M5658                                   | 170M5708                        | 170M5758                                     | 2     | 400                          | 11000                               | 74000               | 65            |
| 170M5609                      | 170M5659                                   | 170M5709                        | 170M5759                                     |       | 450                          | 15500                               | 105000              | 70            |
| 170M5610                      | 170M5660                                   | 170M5710                        | 170M5760                                     |       | 500                          | 21500                               | 145000              | 75            |
| 170M5611                      | 170M5661                                   | 170M5711                        | 170M5761                                     |       | 550                          | 28000                               | 190000              | 80            |
| 170M5612                      | 170M5662                                   | 170M5712                        | 170M5762                                     |       | 630                          | 41000                               | 275000              | 90            |
| 170M5613                      | 170M5663                                   | 170M5713                        | 170M5763                                     |       | 700                          | 60500                               | 405000              | 95            |
| 170M5614                      | 170M5664                                   | 170M5714                        | 170M5764                                     |       | 800                          | 86000                               | 575000              | 105           |
| 170M5615                      | 170M5665                                   | 170M5715                        | 170M5765                                     |       | 900                          | 125000                              | 840000              | 110           |
| 170M5616                      | 170M5666                                   | 170M5716                        | 170M5766                                     |       | 1000                         | 180000                              | 1250000             | 115           |
| 170M5617                      | 170M5667                                   | 170M5717                        | 170M5767                                     |       | 1100                         | 245000                              | 1600000             | 120           |
| 170M5618                      | 170M5668                                   | 170M5718                        | 170M5768                                     |       | 1250                         | 365000                              | 2400000             | 130           |
| 170M6608                      | 170M6658                                   | 170M6708                        | 170M6758                                     |       | 3                            | 500                                 | 14000               | 95000         |
| 170M6609                      | 170M6659                                   | 170M6709                        | 170M6759                                     | 550   |                              | 19500                               | 135000              | 100           |
| 170M6610                      | 170M6660                                   | 170M6710                        | 170M6760                                     | 630   |                              | 31000                               | 210000              | 105           |
| 170M6611                      | 170M6661                                   | 170M6711                        | 170M6761                                     | 700   |                              | 44500                               | 300000              | 110           |
| 170M6612                      | 170M6662                                   | 170M6712                        | 170M6762                                     | 800   |                              | 69500                               | 465000              | 115           |
| 170M6613                      | 170M6663                                   | 170M6713                        | 170M6763                                     | 900   |                              | 100000                              | 670000              | 120           |
| 170M6614                      | 170M6664                                   | 170M6714                        | 170M6764                                     | 1000  |                              | 140000                              | 945000              | 125           |
| 170M6615                      | 170M6665                                   | 170M6715                        | 170M6765                                     | 1100  |                              | 190000                              | 1300000             | 130           |
| 170M6616                      | 170M6666                                   | 170M6716                        | 170M6766                                     | 1250  |                              | 290000                              | 1950000             | 140           |
| 170M6617                      | 170M6667                                   | 170M6717                        | 170M6767                                     | 1400  |                              | 370000                              | 2450000             | 155           |
| 170M6618                      | 170M6668                                   | 170M6718                        | 170M6768                                     | 1500  |                              | 460000                              | 3100000             | 160           |
| 170M6619                      | 170M6669                                   | 170M6719                        | 170M6769                                     | 1600  |                              | 580000                              | 3900000             | 160           |
| 170M6620                      | 170M6670                                   | 170M6720                        | 170M6770                                     | †1800 |                              | 880000                              | †5250000            | 165           |
| 170M6621                      | 170M6671                                   | 170M6721                        | 170M6771                                     | ±2000 |                              | 1150000                             | ±6350000            | 175           |

†Rated voltage (IEC) 600V.

‡Rated voltage (IEC) 550V.

• Watts loss provided at rated current.

• Microswitch indicator ordered separately. See accessories on pages 185-186.

• For fuse curves see pages 130 and 131.