

## Square Body Flush End Contact — 1250V/1300V (IEC/UL): 50-1400A

1250V/1300V (IEC/UL) 50-1400A

### Specifications

**Description:** Square body flush end contact high speed fuses.

**Dimensions:** See dimensions illustrations.

### Ratings:

Volts: — 1250Vac (IEC)

— 1300Vac (UL)

Amps: — 50-1400A

IR: — 100kA RMS Sym.

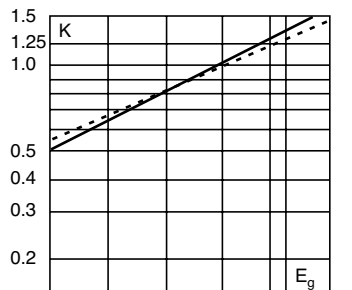
**Agency Information:** CE, Designed and tested to IEC 60269: Part 4, UL Recognized. Consult Cooper Bussmann for UL Recognition/CSA Component Acceptance status.



### Electrical Characteristics

#### Total Clearing I<sup>2</sup>t

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



400 600 800 1000 1200 1400  
Dashed lines (-----) apply to the following amperages:..

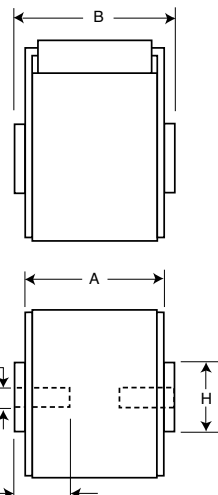
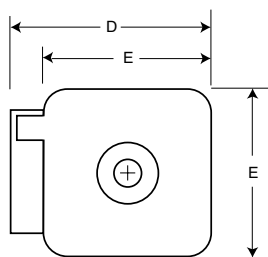
| Size | Amps.     |
|------|-----------|
| 1*   | 400A      |
| 1    | 500-630A  |
| 2    | 630-1000A |
| 3    | 800-1400A |

### Dimensions (mm)

Type -BKN/-, -GKN/-

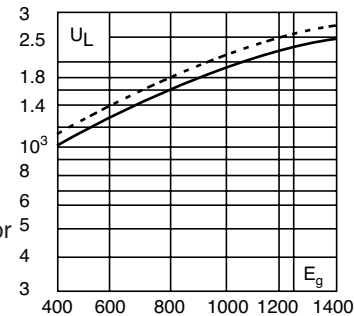
| Size | Type         | A  | B  | D  | E  | F   | F** (In)          | G  | H   |
|------|--------------|----|----|----|----|-----|-------------------|----|-----|
| 1*   | BKN + GKN/75 | 74 | 75 | 59 | 45 | M8  | 5/16" - 18 UNC-2B | 5  | Ø17 |
| 1*   | BKN/80       | 80 | 81 | 59 | 45 | M8  |                   | 5  | Ø17 |
| 1    | BKN + GKN/75 | 74 | 75 | 69 | 53 | M8  | 5/16" - 18 UNC-2B | 8  | Ø20 |
| 1    | BKN/80       | 80 | 81 | 69 | 53 | M8  |                   | 8  | Ø20 |
| 2    | BKN + GKN/75 | 74 | 75 | 77 | 61 | M10 | 3/8" - 16 UNC-2B  | 10 | Ø24 |
| 2    | BKN/80       | 80 | 81 | 77 | 61 | M10 |                   | 10 | Ø24 |
| 2    | BKN + GKN/90 | 80 | 91 | 77 | 61 | M10 | 3/8" - 16 UNC-2B  | 10 | Ø24 |
| 3    | BKN + GKN/75 | 74 | 76 | 92 | 76 | M12 | 1/2" - 13 UNC-2B  | 10 | Ø30 |
| 3    | BKN/80       | 81 | 83 | 92 | 76 | M12 |                   | 10 | Ø30 |
| 3    | BKN + GKN/90 | 81 | 91 | 92 | 76 | M12 | 1/2" - 13 UNC-2B  | 10 | Ø30 |

\*\*Valid for fuses type -GKN/-.  
1mm = 0.0394" / 1" = 25.4mm



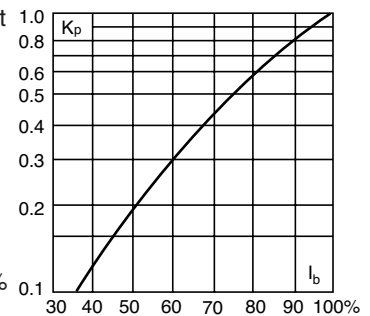
### Arc Voltage

This curve gives the peak arc voltage, U<sub>L</sub>, which may appear across the fuse during its operation as a function of the applied working voltage, E<sub>g</sub>, (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<sub>p</sub>, is given as a function of the RMS load current, I<sub>b</sub>, in % of the rated current.



### Features and Benefits

- Excellent DC performance
- Low arc voltage and low energy let-through (I<sup>2</sup>t)
- 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 124 (690V/700V) and 148 (1000V)

## Square Body Flush End Contact — 1250V/1300V (IEC/UL): 50-1400A

### Catalog Numbers

| Catalog Numbers                             |   |   |   |   | Electrical Characteristics |                                  |                                       |                      |         |               |
|---|---|---|---|---|----------------------------|----------------------------------|---------------------------------------|----------------------|---------|---------------|
| -BKN/75<br>Type K<br>Indicator<br>for Micro | -BKN/80<br>Type K<br>Indicator<br>for Micro | -BKN/90<br>Type K<br>Indicator<br>for Micro | -GKN/75<br>Type K<br>Indicator<br>for Micro | -GKN/90<br>Type K<br>Indicator<br>for Micro | Size                       | Rated<br>Current<br>RMS-<br>Amps | I <sup>2</sup> t (A <sup>2</sup> Sec) |                      |         | Watts<br>Loss |
|   |   |   |   | Pre-arc                                     |                            |                                  | Clearing<br>at 1000V                  | Clearing<br>at 1250V |         |               |
| 170M3388                                    | 170M3438                                    |   | 170M3488                                    |   |                            | 50                               | 135                                   | 815                  | 1100    | 15            |
| 170M3389                                    | 170M3439                                    |   | 170M3489                                    |   |                            | 63                               | 215                                   | 1300                 | 1750    | 20            |
| 170M3390                                    | 170M3440                                    |   | 170M3490                                    |   |                            | 80                               | 420                                   | 2500                 | 3350    | 25            |
| 170M3391                                    | 170M3441                                    |   | 170M3491                                    |   |                            | 100                              | 750                                   | 4450                 | 5950    | 30            |
| 170M3392                                    | 170M3442                                    |   | 170M3492                                    |   |                            | 125                              | 1450                                  | 9000                 | 11500   | 35            |
| 170M3393                                    | 170M3443                                    |   | 170M3493                                    |   | 1*                         | 160                              | 2600                                  | 16000                | 21000   | 40            |
| 170M3394                                    | 170M3444                                    |   | 170M3494                                    |   |                            | 200                              | 5150                                  | 31000                | 41000   | 45            |
| 170M3395                                    | 170M3445                                    |   | 170M3495                                    |   |                            | 250                              | 9200                                  | 54500                | 73000   | 55            |
| 170M3396                                    | 170M3446                                    |   | 170M3496                                    |   |                            | 315                              | 18500                                 | 115000               | 150000  | 60            |
| 170M3397                                    | 170M3447                                    |   | 170M3497                                    |   |                            | 350                              | 27000                                 | 165000               | 220000  | 65            |
|   | 170M3448                                    |   |   |   |                            | 400                              | 53000                                 | 265000               | 335000  | 70            |
| 170M4388                                    | 170M4438                                    |   | 170M4488                                    |   |                            | 160                              | 1900                                  | 11500                | 15500   | 45            |
| 170M4389                                    | 170M4439                                    |   | 170M4489                                    |   |                            | 200                              | 3800                                  | 22500                | 30000   | 50            |
| 170M4390                                    | 170M4440                                    |   | 170M4490                                    |   |                            | 250                              | 7750                                  | 46000                | 61500   | 60            |
| 170M4391                                    | 170M4441                                    |   | 170M4491                                    |   |                            | 315                              | 15000                                 | 90000                | 120000  | 65            |
| 170M4392                                    | 170M4442                                    |   | 170M4492                                    |   |                            | 350                              | 20000                                 | 125000               | 165000  | 70            |
| 170M4393                                    | 170M4443                                    |   | 170M4493                                    |   | 1                          | 400                              | 29500                                 | 175000               | 235000  | 75            |
| 170M4394                                    | 170M4444                                    |   | 170M4494                                    |   |                            | 450                              | 42000                                 | 250000               | 335000  | 80            |
| 170M4395†                                   | 170M4445                                    |   | 170M4495†                                   |   |                            | 500                              | 69500                                 | 340000               | 435000  | 85            |
| 170M4396‡                                   | 170M4446                                    |   | 170M4496‡                                   |   |                            | 550                              | 95000                                 | 465000               | 590000  | 95            |
| 170M4397‡                                   | 170M4447‡                                   |   | 170M4497‡                                   |   |                            | 630                              | 130000                                | 660000               |         | 100           |
| 170M5388                                    | 170M5438                                    |   | 170M5588                                    |   |                            | 250                              | 6500                                  | 38500                | 51500   | 65            |
| 170M5389                                    | 170M5439                                    |   | 170M5589                                    |   |                            | 280                              | 9350                                  | 55500                | 74500   | 70            |
| 170M5390                                    | 170M5440                                    |   | 170M5590                                    |   |                            | 315                              | 13000                                 | 77500                | 105000  | 75            |
| 170M5391                                    | 170M5441                                    |   | 170M5591                                    |   |                            | 350                              | 16500                                 | 97500                | 135000  | 80            |
| 170M5392                                    | 170M5442                                    |   | 170M5592                                    |   |                            | 400                              | 23000                                 | 140000               | 180000  | 85            |
| 170M5393                                    | 170M5443                                    |   | 170M5593                                    |   |                            | 450                              | 34000                                 | 205000               | 270000  | 90            |
| 170M5394                                    | 170M5444                                    | 170M5494                                    | 170M5594                                    | 170M5644                                    | 2                          | 500                              | 48000                                 | 285000               | 380000  | 95            |
| 170M5395                                    | 170M5445                                    | 170M5495                                    | 170M5595                                    | 170M5645                                    |                            | 550                              | 62000                                 | 370000               | 495000  | 100           |
| 170M5396†                                   | 170M5446                                    | 170M5496                                    | 170M5596†                                   | 170M5646                                    |                            | 630                              | 115000                                | 575000               | 730000  | 110           |
| 170M5397‡                                   | 170M5447‡                                   | 170M5497                                    | 170M5597‡                                   | 170M5647                                    |                            | 700                              | 160000                                | 795000               | 1050000 | 115           |
| 170M5398‡                                   | 170M5448‡                                   | 170M5498                                    | 170M5598‡                                   | 170M5648                                    |                            | 800                              | 245000                                | 1200000              | 1550000 | 120           |
|   |   | 170M5499                                    |   | 170M5649                                    |                            | 900†                             | 360000                                | 1750000              |         | 125           |
|   |   | 170M5500                                    |   | 170M5650                                    |                            | 1000†                            | 480000                                | 2350000              |         | 135           |
| 170M6338                                    | 170M6538                                    |   | 170M6588                                    |   |                            | 315                              | 9500                                  | 58000                | 77500   | 85            |
| 170M6339                                    | 170M6539                                    |   | 170M6589                                    |   |                            | 350                              | 13500                                 | 81500                | 110000  | 90            |
| 170M6340                                    | 170M6540                                    |   | 170M6590                                    |   |                            | 400                              | 19500                                 | 120000               | 160000  | 95            |
| 170M6341                                    | 170M6541                                    |   | 170M6591                                    |   |                            | 450                              | 31000                                 | 185000               | 245000  | 100           |
| 170M6342                                    | 170M6542                                    |   | 170M6592                                    |   |                            | 500                              | 39000                                 | 235000               | 310000  | 105           |
| 170M6343                                    | 170M6543                                    |   | 170M6593                                    |   |                            | 550                              | 55000                                 | 325000               | 435000  | 110           |
| 170M6344                                    | 170M6544                                    | 170M6494                                    | 170M6594                                    | 170M6644                                    |                            | 630                              | 83500                                 | 495000               | 665000  | 115           |
| 170M6345                                    | 170M6545                                    | 170M6495                                    | 170M6595                                    | 170M6645                                    | 3                          | 700                              | 115000                                | 705000               | 940000  | 120           |
| 170M6346†                                   | 170M6546                                    | 170M6496¥                                   | 170M6596†                                   | 170M6646¥                                   |                            | 800                              | 205000                                | 995000               | 1300000 | 125           |
| 170M6347‡                                   | 170M6547‡                                   | 170M6497¥                                   | 170M6597‡                                   | 170M6647¥                                   |                            | 900                              | 305000                                | 1500000              | 1900000 | 130           |
| 170M6348‡                                   | 170M6548‡                                   | 170M6498¥                                   | 170M6598‡                                   | 170M6648¥                                   |                            | 1000                             | 450000                                | 2150000              | 2750000 | 135           |
| 170M6349‡                                   | 170M6549‡                                   | 170M6499¥                                   | 170M6599‡                                   | 170M6649¥                                   |                            | 1100                             | 575000                                | 2800000              | 3600000 | 140           |
|   |   | 170M6500                                    |   | 170M6650                                    |                            | 1250†                            | 810000                                | 3950000              |         | 145           |
|   |   | 170M6501                                    |   | 170M6651                                    |                            | 1400†                            | 1250000                               | 6000000              |         | 150           |

†Rated voltage (IEC) 1100V.

‡Rated voltage (IEC) 1000V.

¥Rated voltage (IEC) 1250V.

• Watts loss provided at rated current.

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

• For fuse curves see pages 166 and 167.

High Speed Fuses