250 V and 600 V cable limiters

**Product description:**
Cable limiters are intended to provide short-circuit protection to electrical systems, typically between the transformer and service entrance. Should a short-circuit occur, the cable limiter removes the affected cable(s) from service and permits the other conductors to continue delivering power.

Cable limiters are often used in utility low voltage networks and large multi-cable per phase service entrances.

Unlike fuses, cable limiters are selected by cable size rather than amp rating, e.g., a “4/0” limiter will carry the current of a 4/0 cable.

Limiters are stable, totally self-contained, static devices with unchanging characteristics that operate without venting ionized gases or explosive action.

Under high short-circuit conditions, limiters cut off fault currents within one-half cycle (0.008 second) and reduce insulation damage from the immense heat that is developed by sustained fault current flow. They confine damage to the point of the short-circuit and stop long-length cable burn-back and striking of multiple arcs. This minimizes or eliminates damage to adjacent conductors.

**Features and benefits:**
- Cable limiters enhance multi-conductor system reliability by isolating faulted conductors and taking them offline while the balance of the conductors continue delivering power to their circuits. This is why cable limiters are often used in utility low voltage networks and large multi-cable per phase service entrances.
- Cable limiters enhance service entrance conductor short-circuit protection with current-limiting performance that exceed the typical protection offered by utility overcurrent protective devices.
- Cable limiters meet many system requirements with 250 Vac or 600 Vac ratings for conductor sizes from 12 AWG to 1000 kcmil and terminal options available that make them easy to install including:
  - Tube-to-tube (crimp)
  - Tube-to-offset bolt (crimp/bolt-in)
  - Tube-to-center bolt (crimp/bolt-in)
  - Compression rod-to-tube (crimp)
  - Bolt-to-offset bolt (bolt-in)
- Select cable limiters are UL Listed under File E90818 for use on 600 V circuit for protection against faults up to 200 kA.
250 V UH Series

Catalog Symbol
• UH__

Applications
• The 250 Vac UH cable limiters are designed specifically for use in residential applications.

Ratings
• Volts: up to 250 Vac
• Interrupting rating: 100 kA, RMS Sym.

Terminals
• Center bolt-to-offset bolt — copper or aluminum conductors

Conductors
• Copper or aluminum conductors are permitted per the listed cable size. Select the catalog number for the system conductor size in the table below.

Dimensions — in (mm)

<table>
<thead>
<tr>
<th>Catalog no.</th>
<th>Copper cable size</th>
<th>Aluminum cable size</th>
<th>A₁</th>
<th>A₂</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>UHA</td>
<td>2/0 AWG</td>
<td>4/0 AWG</td>
<td>1.06 (27.0)</td>
<td>1.19 (30.2)</td>
<td>1.44 (36.5)</td>
<td>1.00 (25.4)</td>
<td>0.75 (19.0)</td>
<td>0.12 (3.2)</td>
<td>0.56 (14.3)</td>
<td>0.19 (4.8)</td>
<td>0.59 (15.1)</td>
<td>0.41 (10.3)</td>
</tr>
<tr>
<td>UHJ-M</td>
<td>3/0 AWG</td>
<td>250 kcmil</td>
<td>1.53 (38.9)</td>
<td>1.75 (44.4)</td>
<td>1.59 (40.5)</td>
<td>1.50 (38.1)</td>
<td>1.00 (25.4)</td>
<td>0.25 (6.3)</td>
<td>0.87 (22.2)</td>
<td>0.34 (8.6)</td>
<td>0.69 (17.5)</td>
<td>0.56 (14.3)</td>
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<tr>
<td>UHJ-T</td>
<td>350 kcmil</td>
<td>500 kcmil</td>
<td>1.53 (38.9)</td>
<td>1.75 (44.4)</td>
<td>1.59 (40.5)</td>
<td>1.50 (38.1)</td>
<td>1.00 (25.4)</td>
<td>0.25 (6.3)</td>
<td>0.87 (22.2)</td>
<td>0.34 (8.6)</td>
<td>0.69 (17.5)</td>
<td>0.56 (14.3)</td>
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<tr>
<td>UHJ-W</td>
<td>600 kcmil</td>
<td>800 kcmil</td>
<td>1.53 (38.9)</td>
<td>1.75 (44.4)</td>
<td>1.59 (40.5)</td>
<td>1.50 (38.1)</td>
<td>1.00 (25.4)</td>
<td>0.25 (6.3)</td>
<td>0.87 (22.2)</td>
<td>0.34 (8.6)</td>
<td>0.69 (17.5)</td>
<td>0.56 (14.3)</td>
</tr>
</tbody>
</table>
### 600 V K Series

#### Catalog Symbol
- K_

#### Applications
The 600 Vac K cable limiters are designed for use on non-residential 277/480, 120/208 and 120/240 volt systems.

#### Ratings
- Volts: up to 600 Vac
- Interrupting rating: 200 kA, RMS Sym.

#### Agency information
- UL Listed, File E90818, 600 Vac, 200 kA IR on catalog numbers CDA-W, CDB-W, KCD, KCJ, KCM, KCM-B, KCR, KDD, KDF, KDJ, KDM, KDP, KDR, KDU, KEW, KFM, KFT, KHF, KHJ, KHM, KHR

#### Available terminals
- Tube-to-tube
- Tube-to-offset bolt
- Compression rod-to-tube
- Center bolt-to-offset bolt
- Center bolt-to-tube

#### Conductors
- Copper or aluminum based upon terminal style and permitted conductor material. See catalog number tables for details

#### Tube-to-tube terminals:
- Copper or aluminum conductor — see catalog number table for details

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**Dimensions — in (mm)**

```
<table>
<thead>
<tr>
<th>Catalog number</th>
<th>Copper cable size</th>
<th>Aluminum cable size</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>KCD</td>
<td>2/0 AWG</td>
<td>—</td>
<td>1.63(41.3)</td>
<td>2.625(66.7)</td>
<td>1.25(31.8)</td>
<td>0.44(11.1)</td>
<td>0.39(9.9)</td>
<td></td>
</tr>
<tr>
<td>KCE</td>
<td>3/0 AWG</td>
<td>—</td>
<td>1.63(41.3)</td>
<td>3.63(92.1)</td>
<td>1.44(36.5)</td>
<td>0.61(15.5)</td>
<td>0.48(12.3)</td>
<td></td>
</tr>
<tr>
<td>KCF</td>
<td>4/0 AWG</td>
<td>—</td>
<td>1.75(44.5)</td>
<td>3.63(92.1)</td>
<td>1.44(36.5)</td>
<td>0.75(19.0)</td>
<td>0.59(15.0)</td>
<td></td>
</tr>
<tr>
<td>KCH</td>
<td>250 kcmil</td>
<td>—</td>
<td>1.88(47.6)</td>
<td>3.63(92.1)</td>
<td>1.44(36.5)</td>
<td>0.88(22.2)</td>
<td>0.70(17.9)</td>
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<td>KCM,*,†,**</td>
<td>500 kcmil</td>
<td>—</td>
<td>2.88(73.0)</td>
<td>3.08(78.2)</td>
<td>1.88(47.6)</td>
<td>1.06(27.0)</td>
<td>0.83(21.0)</td>
<td></td>
</tr>
<tr>
<td>KCV</td>
<td>600 kcmil</td>
<td>—</td>
<td>3.5(88.9)</td>
<td>3.08(78.2)</td>
<td>1.88(47.6)</td>
<td>1.155(29.3)</td>
<td>0.92(23.4)</td>
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</tr>
<tr>
<td>KCR,*,†</td>
<td>750 kcmil</td>
<td>—</td>
<td>3.5(88.9)</td>
<td>3.75(96.25)</td>
<td>2.5(63.5)</td>
<td>1.31(33.3)</td>
<td>1.06(27.0)</td>
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<tr>
<td>CDA-W*</td>
<td>—</td>
<td>750 kcmil</td>
<td>4.0(102)</td>
<td>3.01(78)</td>
<td>1.88(47.6)</td>
<td>1.59(40.5)</td>
<td>1.03(26.2)</td>
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</tr>
<tr>
<td>KCS</td>
<td>1000 kcmil</td>
<td>—</td>
<td>5.0(127.0)</td>
<td>3.75(96.25)</td>
<td>2.5(63.5)</td>
<td>1.56(39.7)</td>
<td>1.22(31.0)</td>
<td></td>
</tr>
</tbody>
</table>
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* UL Listed, File E90818, 600 Vac, 200 kA IR.
† Available with shrink tube “-V” suffix.
††Available with molded rubber boot “-B” suffix. Order catalog no. “KCM-B.” Boot can be purchased separately, order Part# - BOOT-KCM

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**Compression rod-to-tube terminals**
- Copper conductor only

```
<table>
<thead>
<tr>
<th>Catalog no.</th>
<th>Copper cable size</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEX</td>
<td>4/0 AWG</td>
<td>2.5</td>
<td>3.63(92.1)</td>
<td>1.75(44.5)</td>
<td>1.44(36.5)</td>
<td>0.69(17.5)</td>
<td>0.55(13.9)</td>
<td>0.5(12.7)</td>
</tr>
<tr>
<td>KFH-A</td>
<td>250 kcmil</td>
<td>2.5</td>
<td>3.63(92.1)</td>
<td>1.88(47.6)</td>
<td>1.44(36.5)</td>
<td>0.75(19.0)</td>
<td>0.28(15.1)</td>
<td>0.56(14.3)</td>
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<tr>
<td>KGO</td>
<td>350 kcmil</td>
<td>2.5</td>
<td>3.63(92.1)</td>
<td>2.0(50.8)</td>
<td>1.63(41.3)</td>
<td>0.88(22.2)</td>
<td>0.70(17.8)</td>
<td>0.81(20.8)</td>
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<tr>
<td>KDT</td>
<td>500 kcmil</td>
<td>2.5</td>
<td>3.08(78.2)</td>
<td>2.88(73.0)</td>
<td>1.88(47.6)</td>
<td>1.06(27.0)</td>
<td>0.83(21.0)</td>
<td>0.81(20.8)</td>
</tr>
</tbody>
</table>
```
**Cable limiters**

* Copper or aluminum conductor — see catalog number table for details

**Dimensions — in (mm)**

- **Center bolt-to-tube terminals**
  - Copper conductor only

**Dimensions — in (mm)**

- **Center bolt-to-offset bolt terminals**
  - Copper or aluminum conductor — see catalog number table for details

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**Effective February 2019**

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**Cable limiters**

- Copper or aluminum conductor — see catalog number table for details

**Dimensions — in (mm)**

- **Center bolt-to-tube terminals**
  - Copper conductor only

**Dimensions — in (mm)**

- **Center bolt-to-offset bolt terminals**
  - Copper or aluminum conductor — see catalog number table for details
Cable limiters

Peak let-through current

<table>
<thead>
<tr>
<th>Cable Size</th>
<th>Current in Amps</th>
<th>Time in Seconds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 AWG</td>
<td>100,000</td>
<td>1</td>
</tr>
<tr>
<td>2 AWG</td>
<td>10,000</td>
<td>0.1</td>
</tr>
<tr>
<td>3 AWG</td>
<td>1,000</td>
<td>0.01</td>
</tr>
<tr>
<td>4 AWG</td>
<td>100</td>
<td>0.001</td>
</tr>
<tr>
<td>6 AWG</td>
<td>10</td>
<td>0.0001</td>
</tr>
<tr>
<td>8 AWG</td>
<td>1</td>
<td>0.00001</td>
</tr>
<tr>
<td>10 AWG</td>
<td>0.1</td>
<td>0.000001</td>
</tr>
<tr>
<td>12 AWG</td>
<td>0.01</td>
<td>0.0000001</td>
</tr>
</tbody>
</table>

Time-current characteristics - total clear

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