# LPS-RK – 600Vac/300Vdc, <sup>1</sup>/<sub>10</sub>-60A, Dual Element, Time-Delay Fuses



**Description:** Ultimate protection Class RK1 dual element, current-limiting, time-delay fuses available with optional open fuse indication on select ratings. Time-delay – 10 seconds (minimum) at 500% of rated current.

Catalog Symbol: LPS-RK-(amp)SP (non-indicating)

LPS-RK-(amp)SPI (indicating)

## **Rating:**

Amps - 1/10-60A

- IR 300kA Vac RMS Sym.
- 100kA DC

### Agency Information:

CE, UL Listed, Guide JDDZ, File E4273

CSA Certified, Class 1422-02, File 53787

Class RK1 per CSA C22.2, No. 248.12

#### Catalog Numbers (amps) - Non-indicating fuses

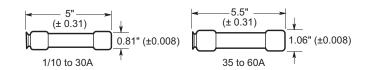
| LPS-RK-1/10SP                            | LPS-RK-1½SP                              | LPS-RK-5SP                               | LPS-RK-20SP* |
|--|--|--|--------------|
| LPS-RK-%SP                               | LPS-RK-1%SP                              | LPS-RK-5%SP                              | LPS-RK-25SP* |
| LPS-RK-3/0SP                             | LPS-RK-1%SP                              | LPS-RK-6SP*                              | LPS-RK-30SP* |
| LPS-RK-1/10SP                            | LPS-RK-2¼SP                              | LPS-RK-6 <sup>1</sup> / <sub>4</sub> SP* | LPS-RK-35SP* |
| LPS-RK- <sup>1</sup> / <sub>2</sub> SP   | LPS-RK-2½SP                              | LPS-RK-7SP*                              | LPS-RK-40SP* |
| LPS-RK-%SP                               | LPS-RK-2%SP                              | LPS-RK-8SP*                              | LPS-RK-45SP* |
| LPS-RK-%SP                               | LPS-RK-3SP                               | LPS-RK-9SP*                              | LPS-RK-50SP* |
| LPS-RK-1SP                               | LPS-RK-3 <sup>2</sup> / <sub>10</sub> SP | LPS-RK-10SP*                             | LPS-RK-60SP* |
| LPS-RK-1%SP                              | LPS-RK-3½SP                              | LPS-RK-12SP*                             |              |
| LPS-RK-1¼SP                              | LPS-RK-4SP                               | LPS-RK-15SP*                             |              |
| LPS-RK-1 <sup>1</sup> / <sub>10</sub> SP | LPS-RK-4½SP                              | LPS-RK-17½SP*                            |              |

\* Open fuse indication available by inserting the suffix "I," e.g., LPS-RK-15SPI. Requires 75Vac minimum voltage.

#### **Carton Quantity and Weight**

| Amp Rating | Carton Qty. |  |
|------------|-------------|--|
| 0–30       | 10          |  |
| 35–60      | 10          |  |

#### **Dimensions - in**



#### Features:

- Industry's only UL Listed and CSA Certified fuse with a 300kA Vac interrupting rating that exceeds requirements for virtually all applications
- Current-limitation for maximum short-circuit protection
- Easy selective coordination with all Low-Peak fuses using simple 2:1 ampacity ratio
- "No damage" Type "2" protection for IEC and NEMA starters when properly sized
- High inrush current motor protection
- Time-delay permits 130% FLA sizing for back-up motor protection
- Protection against single-phase motor damage
- Low watt loss power consumption

### Applications:

- Feeder and Branch Circuits
- Motors
- Transformers
- Solenoids
- General Purpose Circuits

#### **Recommended Fuse Blocks**

| Fuse Amps | 1-Pole   | 2-Pole   | 3-Pole   |
|-----------|----------|----------|----------|
| 0-30      | R60030-1 | R60030-2 | R60030-3 |
| 35-60     | R60060-1 | R60060-2 | R60060-3 |

For additional information on the R600 Series of 600 volt fuse blocks, see data sheet # 1111.

## **Fuse Reducers For Class R Fuses**

| Desired Fuse | Catalog Numbers                  |
|--------------|----------------------------------|
| (Case) Size  | (Pairs) 600V                     |
| 30A          | NO.663-R                         |
| 30A          | NO.216-R                         |
| 60A          | NO.616-R                         |
| 60A          | NO.626-R                         |
|              | (Case) Size<br>30A<br>30A<br>60A |

For additional information on Class R fuse reducers, see Data Sheet 1118.

# LPS-RK - 600Vac/300Vdc, 70-600A, Dual Element, Time-Delay Fuses



**Description:** Ultimate protection Class RK1 current-limiting, dual element, time-delay fuses available with optional open fuse indication.

Catalog Symbols: LPS-RK-(amp)SP (non-indicating) LPS-RK-(amp)SPI (indicating)

#### **Ratings:**

Volts - 600Vac, 300Vdc

Amps - 70-600A

- IR 300kA Vac RMS Sym.
  - 100kA Vdc

## Agency Information:

CE, UL Listed, Guide JDDZ, File E4273

CSA Certified, Class 1422-02, File 53787,

Class RK1 per CSA C22.2 No. 248.12

#### Catalog Numbers (amps) – Non-Indicating Fuses\*

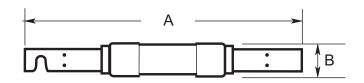
| LPS-RK-70SP  | LPS-RK-150SP | LPS-RK-350SP |
|--------------|--------------|--------------|
| LPS-RK-80SP  | LPS-RK-175SP | LPS-RK-400SP |
| LPS-RK-90SP  | LPS-RK-200SP | LPS-RK-450SP |
| LPS-RK-100SP | LPS-RK-225SP | LPS-RK-500SP |
| LPS-RK-110SP | LPS-RK-250SP | LPS-RK-600SP |
| LPS-RK-125SP | LPS-RK-300SP |              |

\* Open fuse indication available on all part numbers by inserting the suffix "I," e.g., LPS-RK-90SPI. Requires 75Vac minimum voltage.

### Carton Quantity and Weight

| Amp Rating | Carton Qty. |  |
|------------|-------------|--|
| 70–100     | 1           |  |
| 110–200    | 1           |  |
| 225–400    | 1           |  |
| 450–600    | 1           |  |





| Amp Rating | Α               | В             |  |
|------------|-----------------|---------------|--|
| 70-100     | 7.88 (± 0.062)  | 1.11 (± 0.02) |  |
| 110-200    | 9.63 (± 0.062)  | 1.61 (± 0.02) |  |
| 225-400    | 11.63 (± 0.094) | 2.36 (± 0.02) |  |
| 450-600    | 13.38 (± 0.094) | 2.88 (± 0.02) |  |

#### Features:

- Industry's only UL Listed and CSA Certified fuse with a 300kA Vac interrupting rating that exceeds requirements for virtually all applications
- Current-limitation for maximum short-circuit protection and reduced arc flash hazard
- Easy selective coordination with all Low-Peak fuses using simple 2:1 ampacity ratio
- No damage" Type "2" protection for IEC and NEMA starters when properly sized
- High inrush current motor protection
- Time-delay permits 130% FLA sizing for back-up motor overload protection and single-phasing protection
- Low watt loss power consumption
- · Electrically isolated end caps for additional safety

#### **Applications:**

- Feeder and Branch Circuits
- Motors
- Transformers
- Solenoids
- General Purpose Circuits

#### **Recommended Fuse Blocks**

| Fuse Amps | 1-Pole      | 2-Pole      | 3-Pole      |
|-----------|-------------|-------------|-------------|
| 70-100    | RM60100-1CR | RM60100-2CR | RM60100-3CR |
| 110-200   | RM60200-1CR | RM60200-2CR | RM60200-3CR |
| 225-400   | RM60400-1CR | RM60400-2CR | RM60400-3CR |
| 450-600   | RM60600-1CR | RM60600-2CR | RM60100-3CR |

For additional information on the RM Series of 600 volt fuse blocks, see product brochure # 3192.

#### **Fuse Reducers For Class R Fuses**

| Equipment  | Desired Fuse | Catalog Numbers        |  |
|------------|--------------|------------------------|--|
| Fuse Clips | (Case) Size  | (Pairs) 600V           |  |
| 200A       | 100A         | NO.2621-R              |  |
| 400A -     | 100A         | NO.2641-R              |  |
| 400A -     | 200A         | NO.642-R               |  |
|            | 100A         | NO.2661-R              |  |
| 600A       | 200A         | NO.2662-R              |  |
| _          | 400A         | NO.2664-R <sup>†</sup> |  |

† Single reducer only (pair not required).

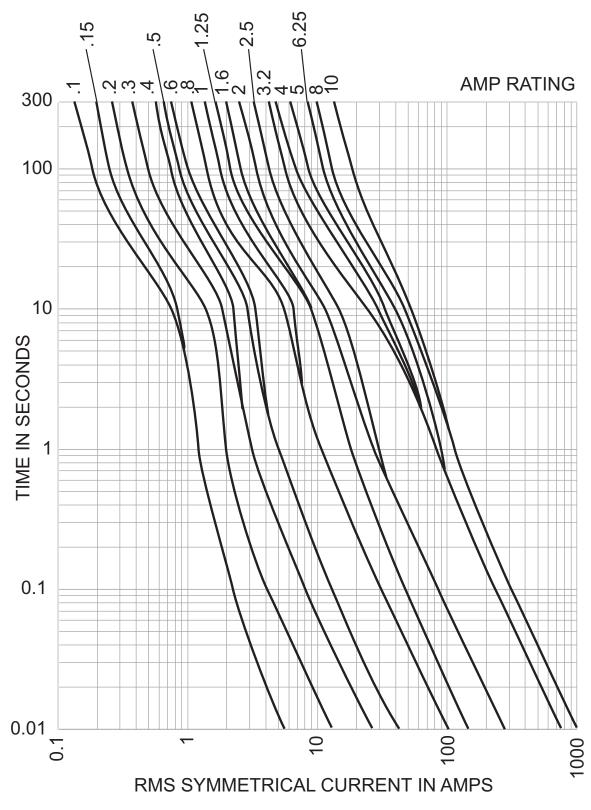
For additional information on Class R fuse reducers, see Data Sheet # 1118.



LPS-RK – 600Vac/300Vdc, <sup>1</sup>/<sub>10</sub>-60A, Dual Element, Time-Delay Fuses

Time-Current Characteristic Curves-Average Melt

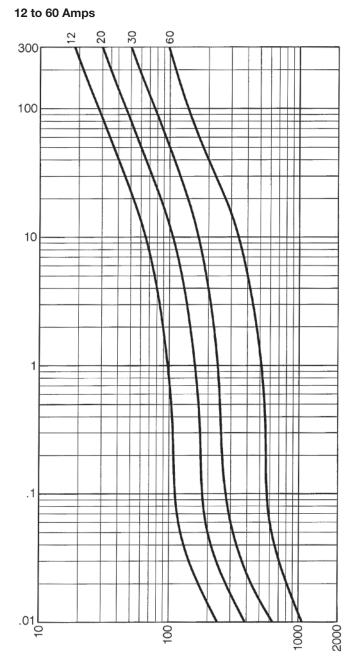
## 1 to 10 Amps

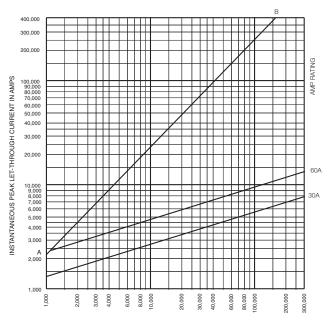


# LPS-RK – 600Vac/300Vdc, <sup>1</sup>/<sub>10</sub>-60A, Dual Element, Time-Delay Fuses

## Time-Current Characteristic Curves-Average Melt







PROSPECTIVE SHORT-CIRCUIT CURRENT - SYMMETRICAL RMS AMPS

#### **Current-Limiting Effects**

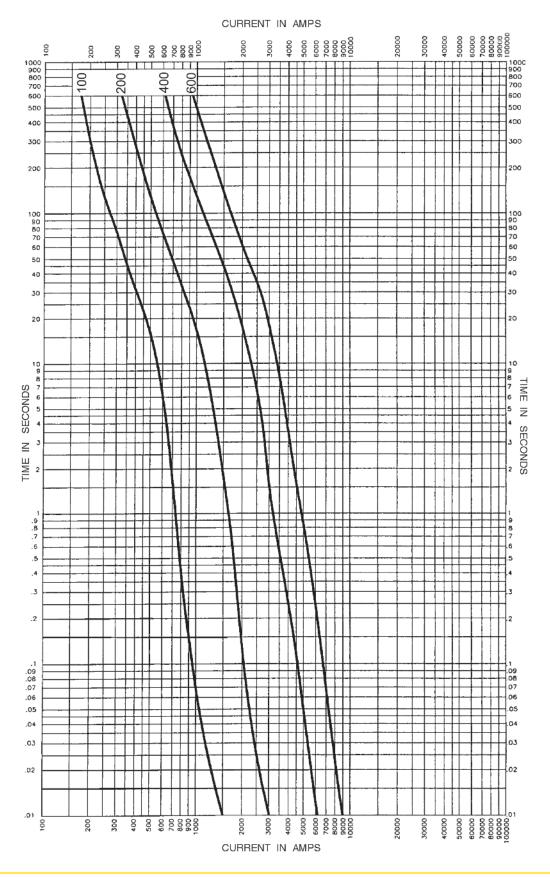
| Current-Limit | •  |      |  |
|---------------|--|------|--|
| Prosp.        | Let-Through Current                        |      |  |
| S.C.C.        | (Apparent RMS Symmetrical Vs. Fuse Rating) |      |  |
|               | 30A  | 60A  |  |
| 1000          | 1000                                       | 1000 |  |
| 2000          | 1000                                       | 1000 |  |
| 3000          | 1000                                       | 1000 |  |
| 5000          | 1000                                       | 2000 |  |
| 10,000        | 1000                                       | 2000 |  |
| 15,000        | 1000                                       | 2000 |  |
| 20,000        | 2000                                       | 3000 |  |
| 25,000        | 2000                                       | 3000 |  |
| 30,000        | 2000                                       | 3000 |  |
| 35,000        | 2000                                       | 3000 |  |
| 40,000        | 2000                                       | 3000 |  |
| 50,000        | 2000                                       | 3000 |  |
| 60,000        | 2000                                       | 4000 |  |
| 70,000        | 2000                                       | 4000 |  |
| 80,000        | 2000                                       | 4000 |  |
| 90,000        | 2000                                       | 4000 |  |
| 100,000       | 2000                                       | 4000 |  |
| 150,000       | 3000                                       | 5000 |  |
| 200,000       | 3000                                       | 5000 |  |
| 250,000       | 3000                                       | 6000 |  |
| 300,000       | 3000                                       | 6000 |  |
|               |  |      |  |

The only controlled copy of this Data Sheet is the electronic read-only version located on the Cooper Bussmann Network Drive. All other copies of this document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Cooper Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Cooper Bussmann also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.



# LPS-RK - 600Vac/300Vdc, 70-600A, Dual Element, Time-Delay Fuses

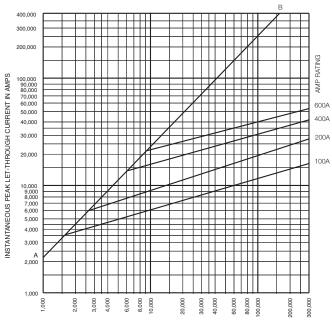
## **Time-Current Curves - Average Melt**





## LPS-RK - 600Vac/300Vdc, 70-600A, Dual Element, Time-Delay Fuses

#### **Current-Limitation Curves**



PROSPECTIVE SHORT-CIRCUIT CURRENT - SYMMETRICAL RMS AMPS

#### **Current-Limiting Effects**

| Prosp.  |         | Let-Thro    | ugh Current |             |
|---------|---------|-------------|-------------|-------------|
| S.C.C.  | (Appare | nt RMS Symr |             | use Rating) |
|         | 100A    | 200A        | 400A        | 600A        |
| 1000    | 1000    | 1000        | 1000        | 1000        |
| 2000    | 2000    | 2000        | 2000        | 2000        |
| 3000    | 2000    | 3000        | 3000        | 3000        |
| 5000    | 2000    | 3000        | 5000        | 5000        |
| 10,000  | 3000    | 4000        | 7000        | 10,000      |
| 15,000  | 3000    | 5000        | 8000        | 11,000      |
| 20,000  | 3000    | 5000        | 9000        | 12,000      |
| 25,000  | 4000    | 6000        | 9000        | 12,000      |
| 30,000  | 4000    | 6000        | 10,000      | 13,000      |
| 35,000  | 4000    | 6000        | 10,000      | 13,000      |
| 40,000  | 4000    | 6000        | 10,000      | 14,000      |
| 50,000  | 5000    | 7000        | 11,000      | 15,000      |
| 60,000  | 5000    | 7000        | 12,000      | 15,000      |
| 70,000  | 5000    | 8000        | 13,000      | 16,000      |
| 80,000  | 5000    | 8000        | 13,000      | 16,000      |
| 90,000  | 5000    | 8000        | 13,000      | 17,000      |
| 100,000 | 6000    | 9000        | 14,000      | 17,000      |
| 150,000 | 6000    | 10,000      | 15,000      | 19,000      |
| 200,000 | 7000    | 11,000      | 16,000      | 21,000      |
| 250,000 | 7000    | 12,000      | 17,000      | 22,000      |
| 300,000 | 7000    | 12,000      | 18,000      | 23,000      |
|         |         |             |             |             |

The only controlled copy of this Data Sheet is the electronic read-only version located on the Cooper Bussmann Network Drive. All other copies of this document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Cooper Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Cooper Bussmann also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.