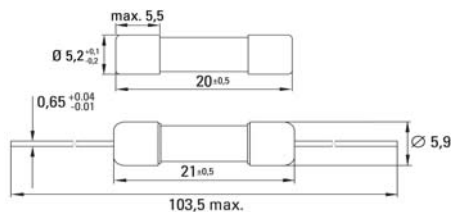


## 5x20 mm / No. 191

This product is not recommended for new designs. Please refer to Littelfuse No. 235.



Dimensions (mm)



Optional Holders

## UL 248-14, 250 V, F

### Time-Current Characteristic

Quick Acting (F)

### Standard

UL 248-14  
CSA C22.2 No. 248.14

### Approvals

UL Listed  
cUL Listed  
METI-PSE

## Features

Visual fault indication  
Direct solderable or plug-in versions  
Internationally approved  
Worldwide availability

## WebLinks

### Further info see:

[www.wickmanngroup.com](http://www.wickmanngroup.com)

### Further application info see fuseology:

[www.wickmanngroup.com/download/fuseology.pdf](http://www.wickmanngroup.com/download/fuseology.pdf)

## Specifications

### Packaging

000: Bulk (1000 pcs.)  
002: Bulk (20x10 pcs.)  
043: With mounted holders - Tape/Reel (1250 pcs.) on request

### Materials

Tube: Glass  
End Caps: Nickel-plated brass  
Optional Holders: Nickel-plated caps  
Tin-plated copper wires

### Operating Temperature

-25 °C to +70 °C (consider de-rating)

### Climatic Category

-25 °C / +70 °C / 21 days  
(IEC 60068-1,-2-1,-2-2,-2-78)

### Stock Conditions

+10 °C to +60 °C  
relative humidity ≤ 75 % yearly average,  
without dew, maximum value for 30 days-95 %

### Vibration Resistance

24 cycles at 15 min. each (EN 60068-6)  
10 - 60 Hz at 0.75 mm amplitude  
60 - 2000 Hz at 10 g acceleration

### Solderability

260 °C, ≤ 3 s (Wave)  
350 °C, ≤ 1 s (Soldering iron)

### Soldering Heat Resistance

260 °C, 10 s (IEC 60068-2-20)

### Marking

 , Current Rating, 250 V AC, 191, Approvals

### Unit Weight

1.0 g (approx.)  
1.9 g (with mounted holders)

### Limits for Pre-arcing Time

| Rated Current     | $1.35 \times I_N$ | $2.0 \times I_N$ | $2.0 \times I_N$  |
|-------------------|-------------------|------------------|------------------------------------------------------------------------------------------------------|
| 250 mA ... 7.00 A | < 1 h             | < 120 s          | < 5 s                                                                                                |



Permissible continuous operating current is ≤ 75 % at ambient temperature of 23 °C (73.4 °F).

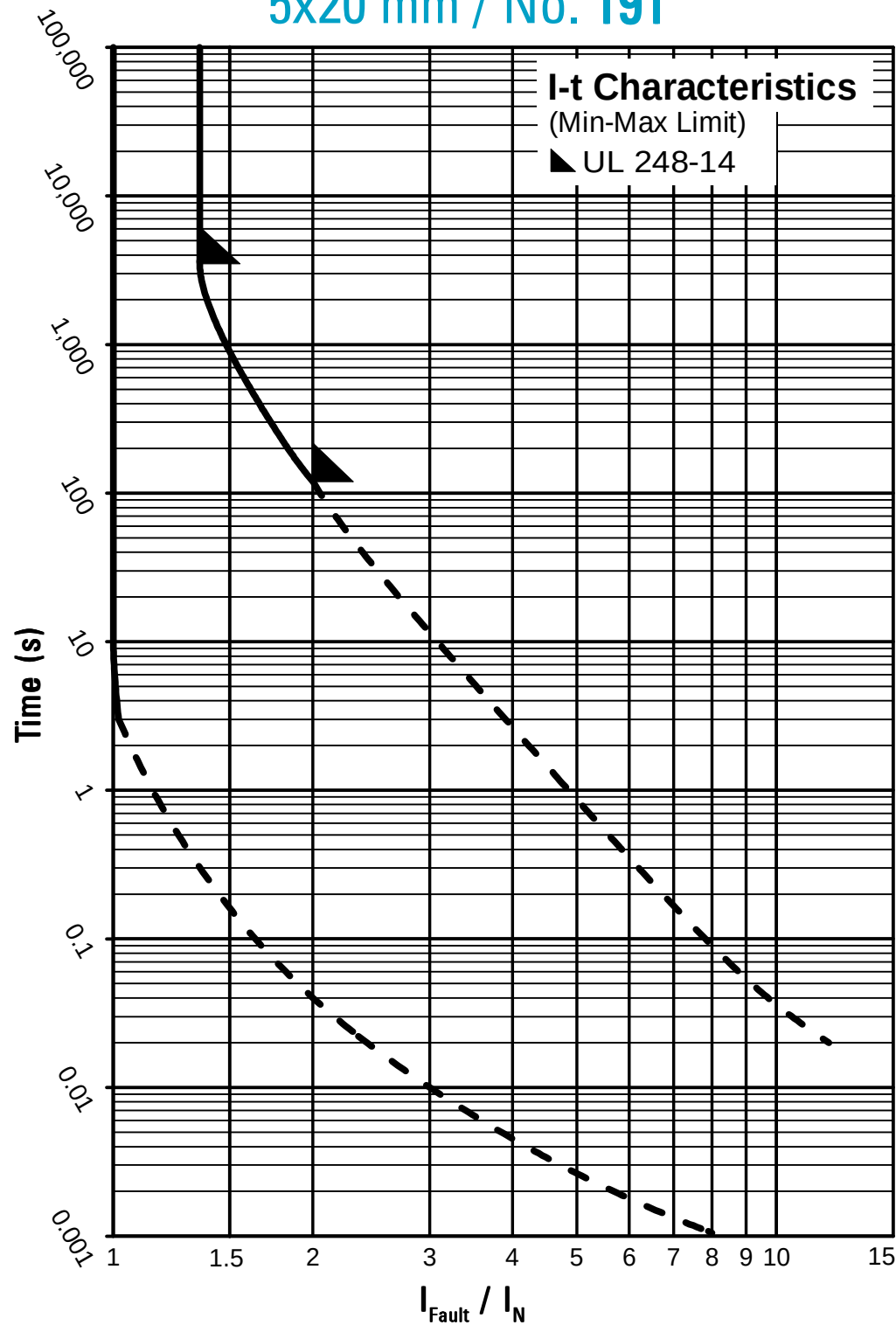
| Rated Current | Amp Code | Voltage Rating | Breaking Capacity | Voltage Drop<br>$1.0 \times I_N$ <br>max. (mV) | Power Dissipation<br>$1.0 \times I_N$ <br>max. (W) | Melting Integral<br>$10 \times I_N$ <br>max. (A²s) | Approvals<br>UL cUL METI-PSE |
|---------------|----------|----------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| 250 mA        | 0250     | 250 V          |                   | 350                                                                                                                               | 0.3                                                                                                                                    | 0.024                                                                                                                                   | • •                          |
| 300 mA        | 0300     | 250 V          |                   | 300                                                                                                                               | 0.3                                                                                                                                    | 0.047                                                                                                                                   | • •                          |
| 350 mA        | 0350     | 250 V          |                   | 300                                                                                                                               | 0.4                                                                                                                                    | 0.081                                                                                                                                   | • •                          |
| 400 mA        | 0400     | 250 V          | 35 A / 250 V AC   | 280                                                                                                                               | 0.4                                                                                                                                    | 0.11                                                                                                                                    | • •                          |
| 500 mA        | 0500     | 250 V          | 10 kA / 125 V AC  | 250                                                                                                                               | 0.4                                                                                                                                    | 0.24                                                                                                                                    | • •                          |
| 600 mA        | 0600     | 250 V          | 50-60 Hz          | 230                                                                                                                               | 0.5                                                                                                                                    | 0.38                                                                                                                                    | • •                          |
| 700 mA        | 0700     | 250 V          | cos φ = 0.7-0.8   | 210                                                                                                                               | 0.5                                                                                                                                    | 0.54                                                                                                                                    | • •                          |
| 800 mA        | 0800     | 250 V          |                   | 200                                                                                                                               | 0.6                                                                                                                                    | 0.6                                                                                                                                     | • •                          |
| 1.00 A        | 1100     | 250 V          |                   | 180                                                                                                                               | 0.6                                                                                                                                    | 1.7                                                                                                                                     | • • •                        |
| 1.25 A        | 1125     | 250 V          |                   | 170                                                                                                                               | 0.7                                                                                                                                    | 2.8                                                                                                                                     | • • •                        |
| 1.60 A        | 1160     | 250 V          | 100 A / 250 V AC  | 150                                                                                                                               | 0.8                                                                                                                                    | 5.4                                                                                                                                     | • • •                        |
| 2.00 A        | 1200     | 250 V          | 10 kA / 125 V AC  | 130                                                                                                                               | 0.9                                                                                                                                    | 11                                                                                                                                      | • • •                        |
| 2.50 A        | 1250     | 250 V          | 50-60 Hz          | 120                                                                                                                               | 1.0                                                                                                                                    | 13                                                                                                                                      | • • •                        |
| 3.00 A        | 1300     | 250 V          | cos φ = 0.7-0.8   | 115                                                                                                                               | 1.1                                                                                                                                    | 21                                                                                                                                      | • • •                        |
| 3.50 A        | 1350     | 250 V          |                   | 110                                                                                                                               | 1.3                                                                                                                                    | 32                                                                                                                                      | • • •                        |
| 4.00 A        | 1400     | 125 V          |                   | 105                                                                                                                               | 1.3                                                                                                                                    | 40                                                                                                                                      | • • •                        |
| 5.00 A        | 1500     | 125 V          | 10 kA / 125 V AC  | 100                                                                                                                               | 1.4                                                                                                                                    | 69                                                                                                                                      | • • •                        |
| 6.00 A        | 1600     | 125 V          | 50-60 Hz          | 95                                                                                                                                | 1.4                                                                                                                                    | 120                                                                                                                                     | • •                          |
| 7.00 A        | 1700     | 125 V          | cos φ = 0.7-0.8   | 90                                                                                                                                | 1.4                                                                                                                                    | 180                                                                                                                                     | • •                          |

### Order Information

| Qty. | Order-Number | Series | Amp Code | Packaging |
|------|--------------|--------|----------|-----------|
|      |              | 191    |          |           |

Specifications are subject to change without notice

5x20 mm / No. 191



Contact WICKMANN for individual I-t curves