## FEATURES

- Miniature ceramic cartridge
- FF Speed rated very fast acting
- $5 \mathrm{~mm} \times 20 \mathrm{~mm}$ cartridge size
- Very high interrupting rating
- High rated voltages Cylindrical shape


# RS PRO, 10A Ceramic Cartridge Fuse, $5 \times 20 \mathrm{~mm}$, Speed FF 

RS Stock No.: 420-145


RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

## Product Description

RS PRO range of miniature ceramic cartridge fuses which are ultra-rapid (FF) that operate at higher temperatures so are ideal to provide circuit protection to semiconductor devices. They are ideal for providing protection to devices or internal circuits from short circuits and overcurrent. They are deliberately weaker components which, when too much current is drawn, will blow. Once the fuse has blown it will need replacing in order to make the circuit complete and allow the flow of current.

General Specifications

| Fuse Speed | FF |
| :--- | :--- |
| Body Material | Ceramic |
| Size Designation | Miniature |
| UL Class | UL 248-13 |
| Applications | Industrial, Commercial, Home/Residential, Automotive |

Electrical Specifications

| Current Rating | 10 A |
| :--- | :--- |
| Voltage Rating | 250 V ac |
| Breaking Capacity (at Maximum Voltage <br> Rating) | 300 kV bei/at, , 250V ac, $\cos \varphi<0.2$ |
| Voltage Drop | 180 mV |
| Power Dissipation | 3.2 W |
| I2t Value | $8.8 \mathrm{~A}^{2} \mathrm{~s}$ |

Mechanical Specifications
Fuse Size
$5 \mathrm{~mm} \times 20 \mathrm{~mm}$

| Overall Length | 20 mm |
| :--- | :--- |
| Diameter | 5 mm |

## Approvals

## Compliance/Certifications UL, RoHS



| Bemessungsstrom Rated current mA/A | Spannungsfall Voltage drop mV | Verlustleistung <br> Power loss <br> bei/at $1 \times \mathrm{I}_{\text {rat }}[\mathrm{W}]$ | Schaltvermögen <br> Breaking capacily kA | $\begin{gathered} \mathrm{I}^{2} \mathrm{ts} \text {-Wert } \\ \text { Pts-value } \\ \mathrm{A}^{2} \mathrm{~s} \mathrm{~s} \end{gathered}$ | $1^{2}$ ta-Wert <br> Pta-value bei/at $U_{\text {ras }}\left[\mathrm{A}^{2} \mathrm{~s}\right]$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 125 mA | 3500 | 0,5 |  | 0,0024 | 0,0034 |
| 160 mA | 1300 | 0,3 |  | 0,004 | 0,0056 |
| 200 mA | 600 | 0,2 |  | 0,01 | 0,011 |
| 250 mA | 550 | 0,2 |  | 0,02 | 0,027 |
| 315 mA | 500 | 0,2 |  | 0,04 | 0,042 |
| 400 mA | 500 | 0,2 |  | 0,07 | 0,084 |
| 500 mA | 550 | 0,3 |  | 0,07 | 0,091 |
| 630 mA | 600 | 0,4 | 2 c | 0,15 | 0,24 |
| 800 mA | 600 | 0,5 | 300 kA bei/at | 0,32 | 0,42 |
| 1 A | 600 | 0,6 | 250 V AC | 0,32 | 0,45 |
| 1,25 A | 400 | 0,5 | $\cos \varphi<0,2$ | 0,20 | 0,28 |
| 1,6 A | 400 | 0,7 |  | 0,31 | 0,51 |
| 2 A | 400 | 0,8 |  | 0,64 | 1,0 |
| 2,5 A | 400 | 1,0 |  | 0,88 | 1,5 |
| $3,15 \mathrm{~A}$ | 400 | 1,3 |  | 1.6 | 2,7 |
| 4 A | 350 | 1,4 |  | 3,2 | 5,4 |
| 5 A | 350 | 1,8 |  | 5.9 | 10 |
| 6,3 A | 250 | 2,8 |  | 1,6 | 4,8 |
| 8 A | 230 | 3,0 |  | 4,5 | 14 |
| 10 A | 180 | 3,2 |  | 8,8 | 26 |
| 12,5 A | 150 | 4,0 |  | 15 | 44 |

Grenzwerte der Schmelzzeit:
Pre-arcing time limits:

| Range | $1 \times$ Irat | $2 \times$ Irat | 2,75 x Irat | $4 \times$ Irat | $10 \times$ Irat |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 125-800 \mathrm{~mA} \\ 1-5 \mathrm{~A} \end{gathered}$ | min. 1 h | $\max .1 \mathrm{~s}$ | $4-100 \mathrm{~ms}$ | $\begin{array}{\|c} \hline \max .60 \mathrm{~ms} \\ 1-25 \mathrm{~ms} \end{array}$ | $\max .6 \mathrm{~ms}$ max. 3 ms |
| Range | 1,2 $\times$ Irat | 1,5 $\times$ Irat | 2,75 x Irat | $4 \times$ Irat | $10 \times$ Irat |
| 6,3-12,5 A | min. 1 h | max. 30 min | 4-300 ms | $1-30 \mathrm{~ms}$ | max. 1 ms |

