# Single Pole Auto-Reset Fuse

## Technical data

Current rating range	0.8~15A
Input voltage rating	125/250 VAC / 24VDC
Contact Endurance	125 VAC x 200% of rated current < 1000 cycles
Reset Time	Within 60 s
Insulation Resistance	> 100 Mohm (DC 500V)
Dielectric Strength	> 1500 VAC 1 min
Breaking Capacity	0.81.0 A, 6 x ln ; AC max 6A 1.11.5 A, 6 x ln ; AC max 9A 1.615 A, 8 x ln ; AC max 45A
Interrupting Capacity	125/250 VAC x 200 A (UL1077)
Operating Ambient Temperature	-10°C to +60°C
Storage Temperature Rating	-20°C to +90°C
Termination	PCB solder terminals

## Trip Time Curves





### **Ambient Temperature Correction Factor**

Ambient temperature	-10°C	0°C	10°C	25°C	35°C	40°C	50°C	60°C
Multiplication factor	*1.3	*1.2	*1.1	*1	*0.94	*0.85	*0.73	*0.68

Time time/current characteristic curv depends on the ambient temperature prevailing. In order to eliminate nuisance tripping, please multiply the circuit breaker current ratings by the derating factor shown below.

Example :

- Normal Continious Current = 1.5A
- Ambient Temprature = 45°C
- Multiplication Factor = 0.85
- Recommended Rating = 1.5/0.85 = 1.76A

#### **Dimensions in mm**









## **Max Internal Resistance**

Max resistance V.S Current rating at 25°C			
Amp rating	Max resistance		
0.8-1.5 A	<0.65 ohm		
1.6-2.0 A	<0.15 ohm		
2.1-2.9 A	<0.1 ohm		
3.0-4.0 A	<0.075 ohm		

# Internal connection diagram





## Select the right value

Considering the following :

- A strip target time to 1 s, so an intensity target value divided by 2.2 (see « Ambient Temperature Correction Factor)
- A 25°C environment, so a correction factor is 1 (see « Ambient Temperature Correction Factor)

We use the following electrical relation :

 $P = i^2 x R | P = Power | i = Intensity | R = Resistance$ 

So, IFuse =  $\sqrt{(P/Znom)} / 2.2$ 

Znom = Voice coil impedance

Example of a 50 watts power handling speaker with an 8 ohm voice coil impedance :

IFuse =  $\sqrt{(50/8)}/2.2 = 1.14$  A, in this case choose the 1.00 A model in order to get a strip sooner than too late.

If you need a quicker strip or if you have a different ambient temperature, please adapt the calculation model.

