

## DC1500V 70A-125A

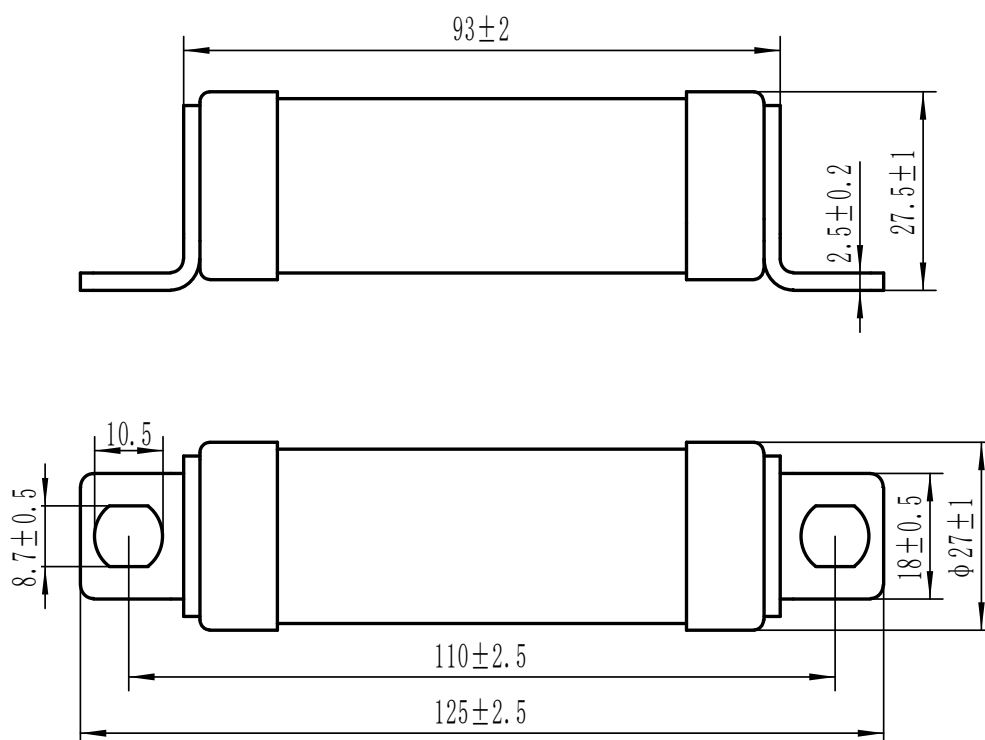
### Basics

- Structure and performance conform to UL248.13
- Rated Voltage: DC1500V
- Rated Current: 70~125A
- Interrupting Rating: 100kA (L/R:  $\leq 3\text{ms}$ )
- RoHS Compliant

This fuse family is suitable for ESS, IGBT and other equipemtn featuring low  $I^2t$ , high breaking capacity and current limiting. Functions as back-up protection.

	Model	Current A	$I^2t (A^2s) 100kA$		Loss W	Weight (g)	Remark
			Prearc	Melt			
1	RS325-8SL70A1500V	70	1090	17850	15.5	166.5±10	
2	RS325-8SL80A1500V	80	1210	20500	20		
3	RS325-8SL100A1500V	100	1490	23600	30		
4	RS325-8SL125A1500V	125	2160	27500	42		

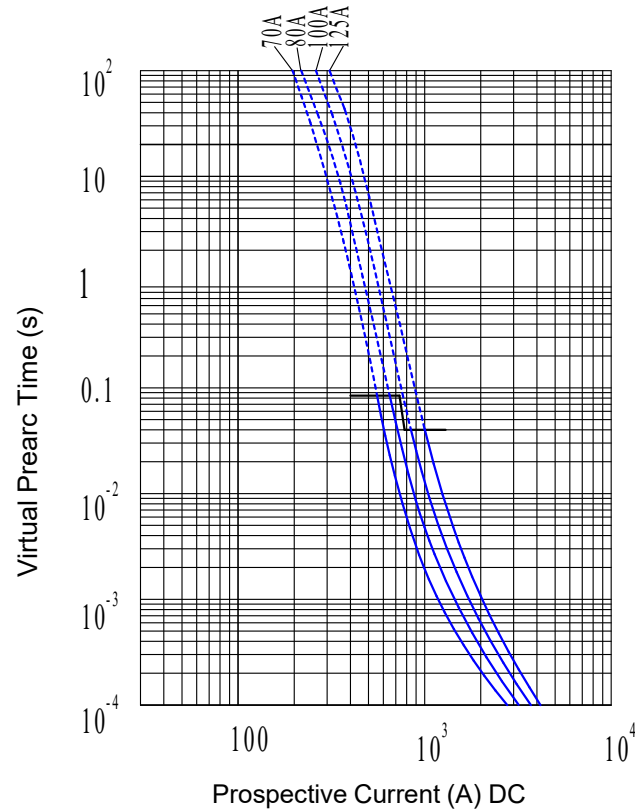
### Dimension (mm)



## DC1500V 70A-125A

### Characteristic Curves

#### Time-Current Curves



### Transport and Storage

#### Transport

Avoid rain/snow or mechanical damage during transportation

#### Storage

Storage temp: -40 °C~120°C. Maximum 70% RH at 40°C;

Maximum 80% RH at 30°C; Maximum 90% RH at 20°C;

Package storage: -40°C~70°C, max 90% RH, no dewing

### Usage Condition

#### Normal Conditions

Correction is not required under normal conditions

For other conditions, if they are within tolerable range, certain correction measures may be required.

If conditions are beyond tolerable range, please consult our team for evaluation and testing.

Long term operation current is recommended to be **maximum 80%**

#### Ambient Temp

Normal Condition

-5°C~40°C

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Tolerable Range

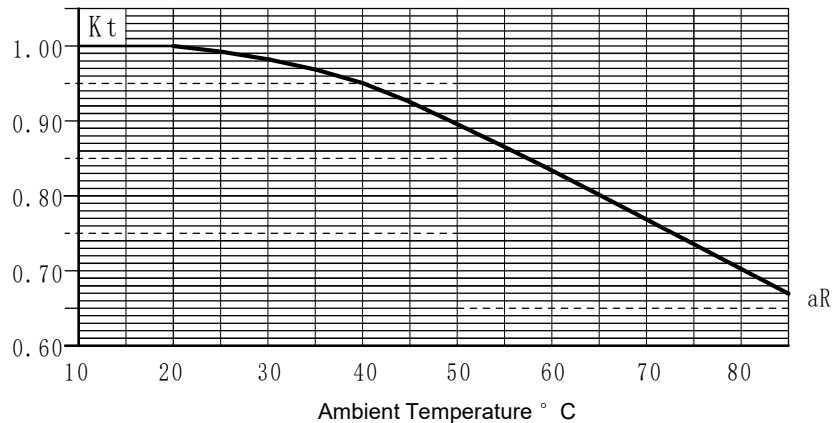
-40°C~85°C

Ambient temperature correction: operating below -5°C, resulting longer pre-arc time under small overcurrent and slightly increased rated current. In this case, often there is no need to enlarge rated current

If above 40°C, rated current is corrected as per factor -Kt

Note 1: Kt value has considered safety margin

Note 2: ambient temperature should last 1-2 hrs before it has significant impact on fuse.



### Altitude

Normal Condition

Below 2000m

Tolerable Condition

2000-4500m

Correction: higher altitude would affect insulation and dissipation, also changes air pressure.

- a) For every 100m higher, fuse temperature rise increases by 0.1-0.5k
- b) For every 100m higher, ambient temperature drops by 0.5k approximately
- c) Normally for fuses in open environment, altitude condition is negligible
- d) For closed environment, if ambient temperature inside remains almost stable under different altitude, If exceed 40°C, fuse should be degraded. For every 1000m, rated current should be degraded by 2%-5%

Note: for any series, larger rated fuse should use higher degrade %, and lower degrade % for smaller one.

Air Insulation Strength (Breakdown)

- a) Air insulation reduces with higher altitude. For 2000-4500m, decreases by 12-15% for every 1000m.

Data above is obtained from GB/T16935.1. Thus adjustment to insulation space is necessary

- b) Space between fuse terminals is often much larger than specified value in standard (GB/T16935.1).
- c) User should consider altitude impact on spacing between fuse and other component, earthing etc.

### Atmosphere

Normal Condition

Clean atmosphere, maximum 50% RH at 40°C

Higher RH is allowed when temperature is low, e.g. maximum 90% at 20 °C

Moderate dewing may occur under temperature changes.

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### Tolerable Conditions

If dewing is minor, RH could be up to 95%.

### Vibration and Seismic

This fuse family has superior vibration performance up to 5g acceleration.

Conform to rail transport vibration grade II

This fuse family satisfy GB/T 28046.3 vibration requirement for elastic vehicle body.

**For severe vibration application, please consult our team for evaluation and testing.**

### Pollution Class

Class 3 pollution withstand

### Mounting Condition

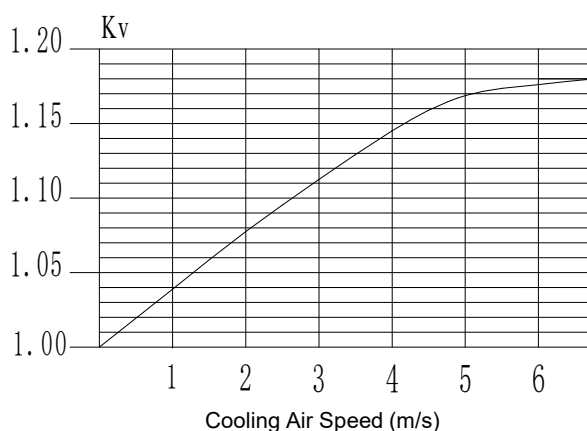
#### Normal Condition

- a) Installed in open air without any ventilation. **No heat source within 1m** except for conducting wires.
- b) Contact of fuses must be securely connected. Contact resistance should not affect operation.
- c) Fuse can be mounted in any orientation. If spring compression is adopted, make sure it is properly mounted to avoid harmful effect due to gravity or vibration

#### Forced Air Cooling

Heat dissipation can be improved by adopting forced air cooling. In this case rated current may be increased.

Correction factor -kv please refer to curve below.



### Safety and Maintenance

- a) Sufficient space must be ensured between installed fuses. Install insulation if necessary.  
This is to avoid possible inter-phase short circuit while replacing fuse.
- b) Periodic maintenance of fuses includes removal of oxidation layer and dusts.
- c) It is compulsory to replace all mechanically damaged fuses.
- d) Unless permissive (eg.fused load-switch), do not replace fuses while energized.