



RSZ307-5-DAV 1500V High Speed Fuse

Specification

ZR/YC-0395 S1

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DC1500V 450A-1800A

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Basics

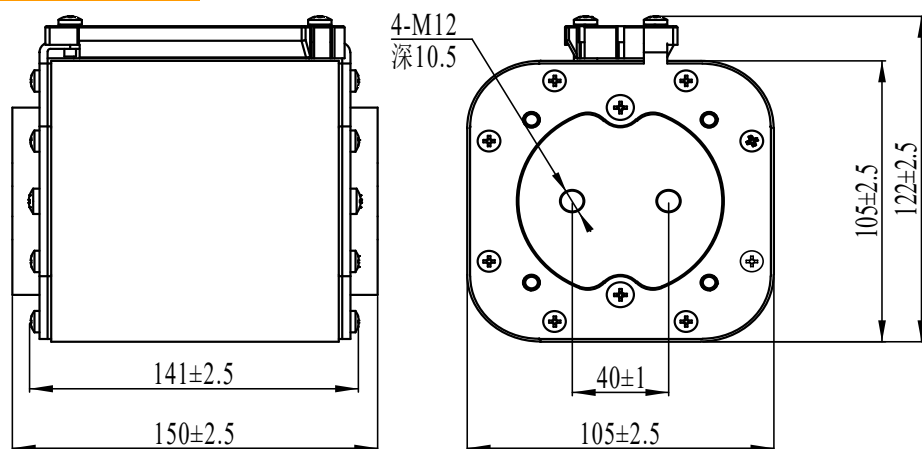
- Conform to: IEC60269/UL248
- Rated Voltage: DC1500V
- Rated Current: 450A-1800A
- Utilization Category: aR
- Breaking Capacity: DC 150kA(Time constant: 10ms-15ms)
DC 250kA(Time constant: ≤5ms)

- CE, UL, TUV certificates, RoHS Compliant

Bolt-on fuse for partial range protection, with strong current limiting, HRC etc. Suitable for energy storage, wind power and other industrial applications. Used as short circuit and backup protection for energy storage system, power system and other devices and equipment.

No.	Part Number	Size	Current (A)	I ² t (A ² s)		Loss W	Weight (g)	Min Package (pcs)	Max Package (pcs)	Mounting
				Prearc	Clearing					
1	RSZ307-5-DAV-450A1500V	5	450	35376	159442	198	4430g±100	1	2	
2	RSZ307-5-DAV-500A1500V		500	47429	213767	211				
3	RSZ307-5-DAV-550A1500V		550	63721	287195	220				
4	RSZ307-5-DAV-630A1500V		630	97235	438245	234				
5	RSZ307-5-DAV-700A1500V		700	134154	604644	246				
6	RSZ307-5-DAV-800A1500V		800	198438	894378	264				
7	RSZ307-5-DAV-900A1500V		900	285751	1287904	279				
8	RSZ307-5-DAV-1000A1500V		1000	388939	1752981	295				
9	RSZ307-5-DAV-1100A1500V		1100	515083	2321518	310				
10	RSZ307-5-DAV-1250A1500V		1250	758868	3420278	330				
11	RSZ307-5-DAV-1400A1500V		1350	1070122	4823127	349				
12	RSZ307-5-DAV-1500A1500V		1500	1307269	5891964	362				
13	RSZ307-5-DAV-1600A1500V		1600	1593020	7179868	373				
14	RSZ307-5-DAV-1800A1500V		1800	2260000	10186000	396				

Note: If no indicator is needed, add -N after the model number, for example: RSZ307-5-DAV-1800A1500V-N (no visual indicator with base).

Outline Dimensions (mm)
Outline Mounting


Note: levelness of contact blades 0.5;

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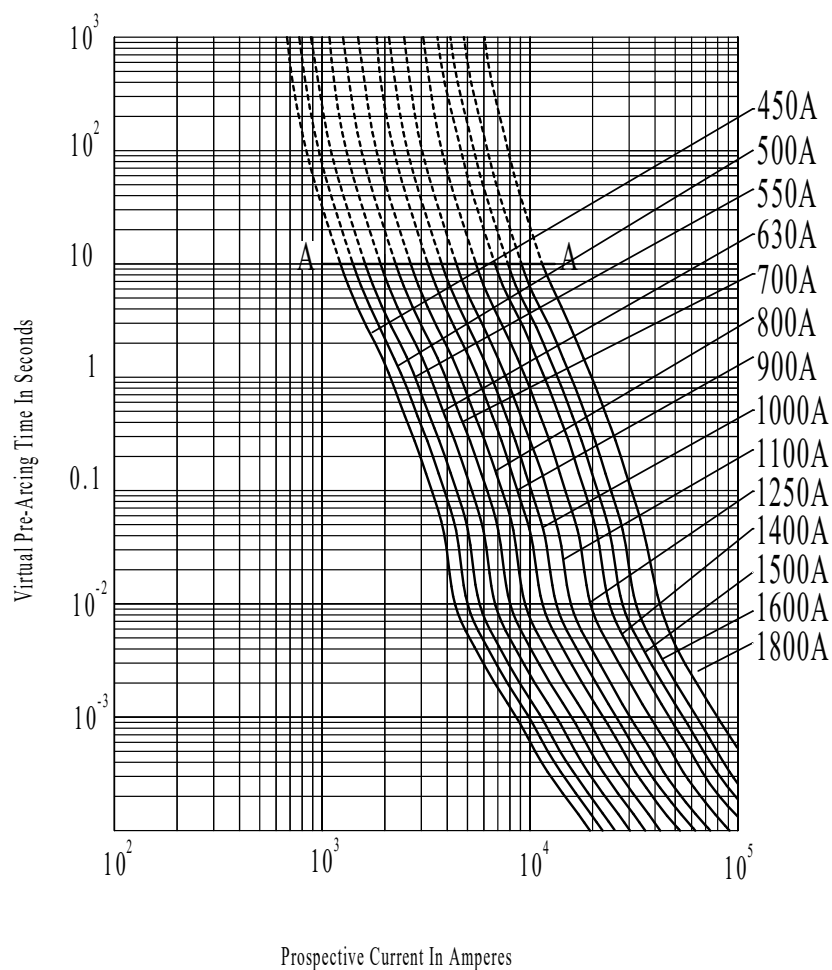
Mounting

- a) When installing, the stud screw-in size shall not exceed 11mm;
- b) When tightening the nut, ensure that the stud does not rotate;
- c) Recommended stud installation, there is no recommended torque when the stud is screwed in, subject to screw-in size.

Nut	Nut tightening torque
M12	46±2N.m

Characteristic Curves:

Time Current Characteristic Curves



Note: The curve below 100ms is the equivalent pre-arcing time

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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 and Storage temp: -40°C~70°C, Maximum 90% RH; no dewing.

Usage Conditions

Normal Condition and Corrections

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 <80% of rated current.

Ambient Temperature

Normal Condition

-5°C~40°C

Tolerable Range

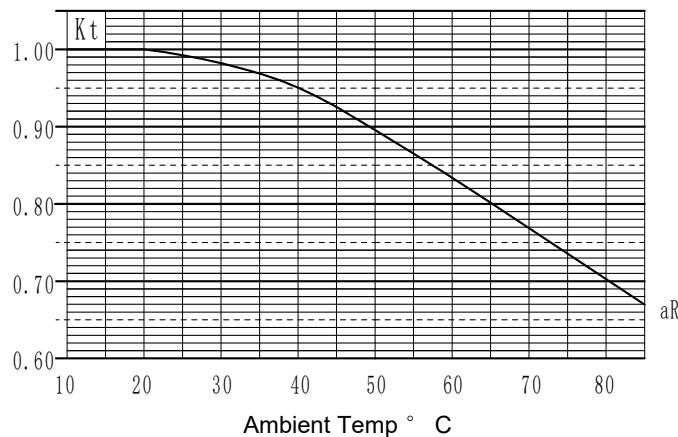
-40°C~85°C

Ambient temperature correction: operating below -5°C, resulting in longer pre-arc time under small overcurrent and slightly increased rated current.

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

Note 1: Kt value has considered safety margin of rated current during normal operation.

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



Altitude

Normal Condition

Below 2000m

Tolerable Condition

Below 4500m

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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 same 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, insulation decreases by 12-15% for every 1000m as per GB/T16935.1. Thus adjust clearing space.
- b) Space between fuse terminals is often much larger than specified value in standard.
- c) User should consider altitude impact on spacing between fuse and other electric component, earthing etc.

Atmosphere

Normal Conditions

- 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.

Tolerable Conditions

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

Vibration

- The withstand to anti-vibration and mechanical shock conforms to rail transport vibration grade II.
- The withstand to anti-vibration and mechanical shock is suitable for general motor vehicle use.
- For severe vibration application, please consult our team for evaluation and testing.

Pollution Class

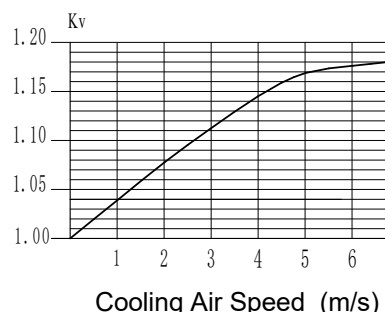
Grade 3 pollution withstand

Mounting Condition

- a) Installed in open air without any ventilation. No heat source within 1m except for conductors.
- 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 and Liquid Cooling

Current carrying capacity of fuse can be improved by implementing forced air or liquid cooling.



DC1500V 450A-1800A**Safety and Maintenance**

a) Make sure sufficient clearance between installed fuses. Install insulation if necessary.

This is to avoid possible inter-phase short circuit while replacing fuse.

b) Periodic maintenance per electric equipment. Remove oxidation, dusts on contacting part.

c) It is compulsory to replace all mechanically damaged fuses.

d) Unless permissive (e.g. fused load-switch), do not replace fuses while energized.

e) While servicing, fuse will not generate gas, dust, noise or others that may harm the environment.

f) Metallic part of fuse can be recycled. Non-metal part can be crushed and treated as normal industry waste. It will not cause further pollution to the environment.