



RS325-12QC DC1500V High Speed Fuse

Specification

ZR/YC-0144 A0

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DC1500V 6A-32A**Content**

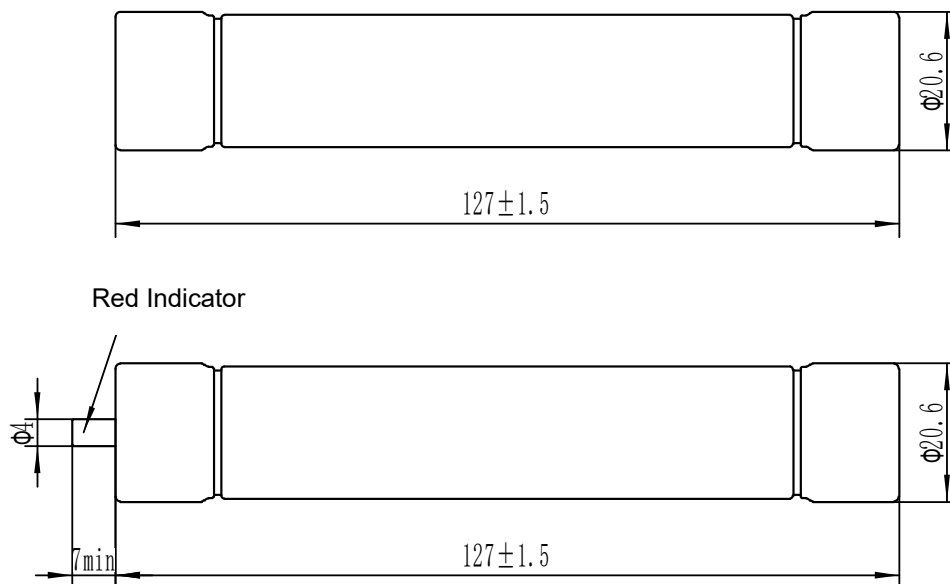
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Basics

- Rated Voltage: DC1500V
- Rated Current: 6-32A
- Utilization Category: gR
- Breaking Capacity: 50kA
- L/R=20ms (test capacity 22.3ms)
- Confrom to GB13539 /IEC60269
- RoHS Compliant

Featuring in a full range protection, low loss, strong current limiting, HRC, high corrosion resistance. Suitable for rail transportation equipment as an overload and short circuit protection.

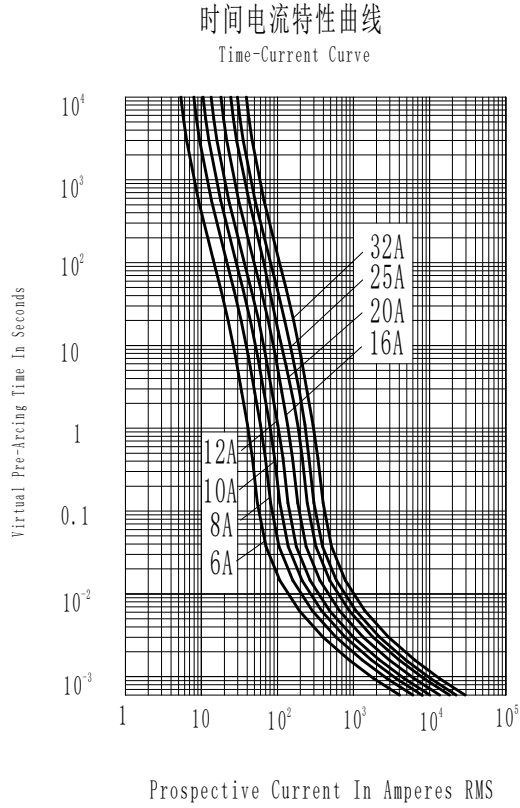
No.	Part number		Current A	I^2t (A ² s)		Loss W	Mounting
	No indicator	Indicator		Prearc	Clearing		
1	RS325-12QC-6A	RS325-12QC-6A-T	6	22	45	5	Equipped with ZL-C127 fuse base
2	RS325-12QC-8A	RS325-12QC-8A-T	8	24	50	6	
3	RS325-12QC-10A	RS325-12QC-10A-T	10	43	86	7	
4	RS325-12QC-12A	RS325-12QC-12A-T	12	67	135	7.5	
5	RS325-12QC-16A	RS325-12QC-16A-T	16	170	340	8	
6	RS325-12QC-20A	RS325-12QC-20A-T	20	300	640	9	
7	RS325-12QC-25A	RS325-12QC-25A-T	25	340	680	10	
8	RS325-12QC-32A	RS325-12QC-32A-T	32	650	1280	13	

Outline Dimensions (mm)


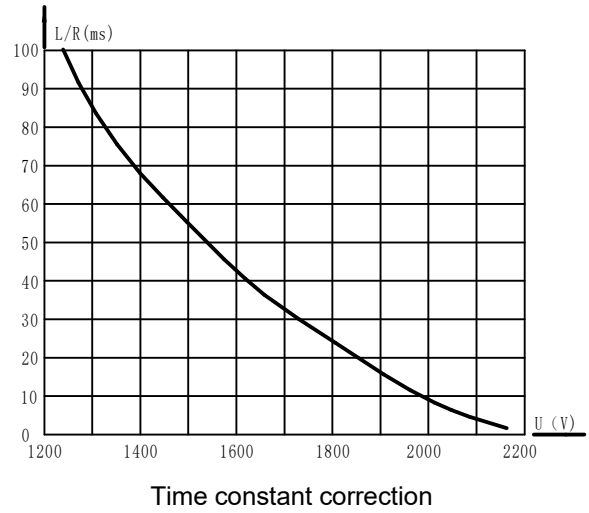
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Electrical Characteristics

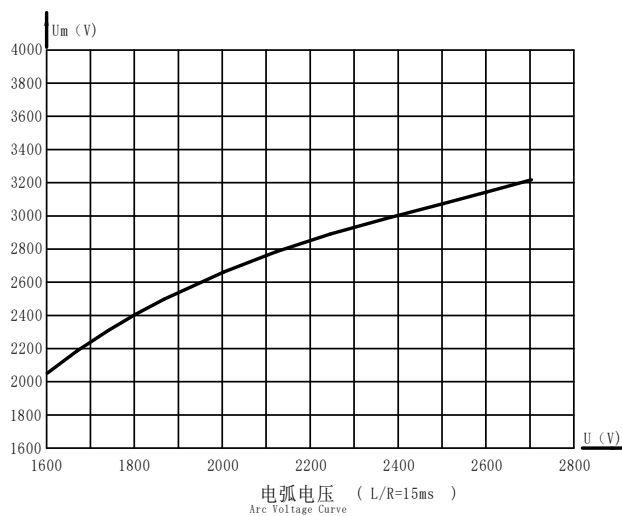
Time-Current Curve:



Time constant correction curve



Arc voltage



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Transport and Storage

Transport

Avoid rain/snow or mechanical damage during transportation.

Storage

Storage temp: $-40^{\circ}\text{C} \sim 120^{\circ}\text{C}$, Maximum 70% RH at 40°C ;
 Maximum 80% RH at 30°C ; Maximum 90% RH at 20°C ;
 Package and Storage temp: $-40^{\circ}\text{C} \sim 70^{\circ}\text{C}$, 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 less than 80% of rated current.

Ambient Temperature

Normal Condition

$-5^{\circ}\text{C} \sim 40^{\circ}\text{C}$

Tolerable Range

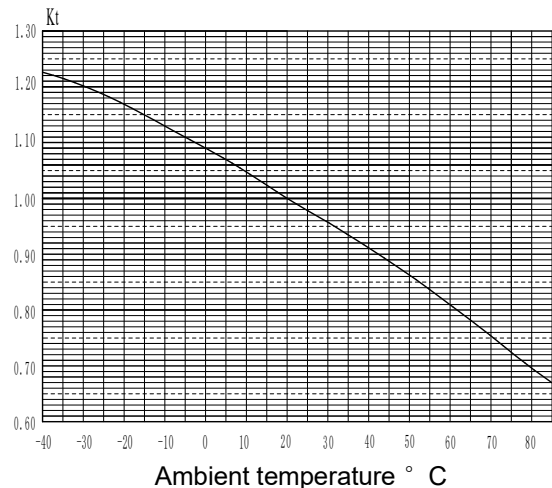
$-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$

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 $-K_t$.

Note 1: K_t 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

2000-4500m

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

- For every 100m higher, fuse temperature rise increases by 0.1-0.5k.
- For every 100m higher, ambient temperature drops by 0.5k approximately.
- Normally for fuses in open environment, altitude condition is negligible.
- 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)

- 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.
- Space between fuse terminals is often much larger than specified value in standard.

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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

Great withstand to anti-vibration and mechanical shock conforms to rail transport vibration grade II.

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

Pollution Class

Grade 3 pollution withstand

Mounting Condition

Normal working conditions

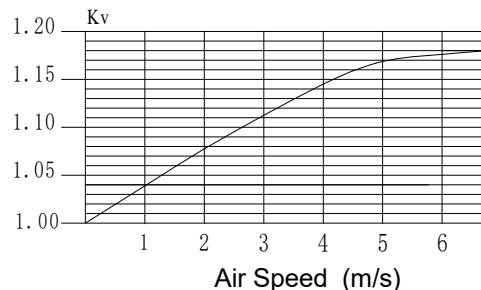
a) Installed in open air without any ventilation. No heat source within 1m except for conductors

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.



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.