



RS308-HB 750VDC Bolted High Speed Fuse

Specification

ZR/YC-0039 A6

Add: 3-10303 Modern Enterprise Center, Xian China 710077
Tel: +86 29 68590655 68590656
Fax: +86 29 68590676
Email: info@sinofuse.com
<http://www.sinofuse.com>

750VDC 50A-400A**Content**

Basics	1
Dimension	2
Characteristic Curves	4
Package, Transport and Storage	5
Usage Conditions	5

750VDC 50A-400A
Basics

- Conform to IEC60269. Environmental reliability conform to ISO 8820 and JASO D622
- Rated Voltage: 750VDC
- Rated Current: 50A~400A
- Breaking Capacity: DC50KA
- Protection: aR
- RoHS compliant
- RS308-HB-5N / 5NM series obtained CCC certification, Conform to GB/T13539 and IEC60269.

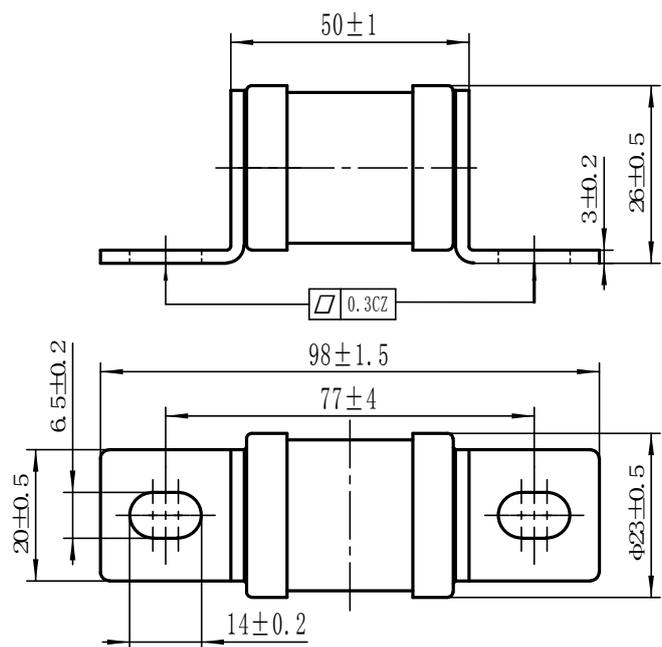
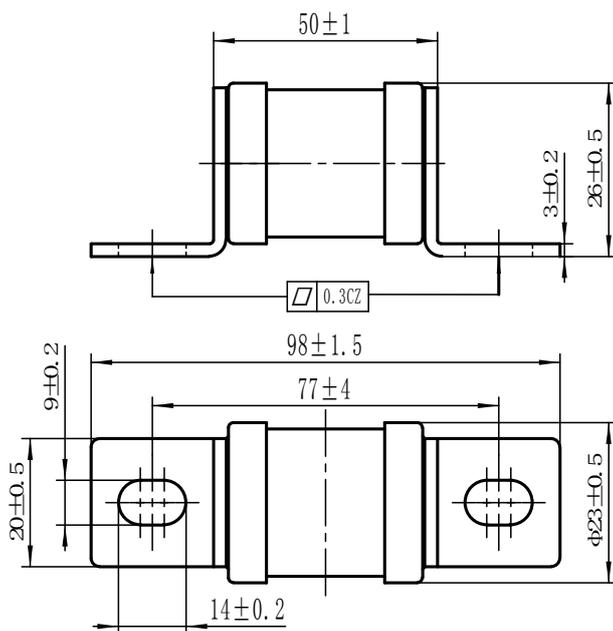
With super strong terminal connection, the design satisfies usage condition on road. Suitable for EV traction, power converter, power storage, capacitor, charger etc. This fuse functions as short circuit and backup protection.

No	Model	Size	Current A	I ² t (A ² s)		Loss W	Weight (g)	Mounting
				Prearc	Clear			
1	RS308-HB-2H50A 750VDC	2H	50	307	1220	11.6	90.7±3.0	Bolt: M8 Torque: (11±1)N·m
2	RS308-HB-2H63A 750VDC		63	559	2224	13.7		
3	RS308-HB-2H80A 750VDC		80	940	3738	17		
4	RS308-HB-2H100A 750VDC		100	1554	6178	20.6		
5	RS308-HB-2H125A 750VDC		125	2763	10984	24.5		
6	RS308-HB-2H160A 750VDC		160	4668	18563	31		
7	RS308-HB-2H200A 750VDC		200	8300	33000	36.6		
8	RS308-HB-2HD50A DC750V	2HD	50	307	1220	11.6	90.0±3.0	Bolt: M6 Torque: (6±1)N·m
9	RS308-HB-2HD63A DC750V		63	559	2224	13.7		
10	RS308-HB-2HD80A DC750V		80	940	3738	17		
11	RS308-HB-2HD100A DC750V		100	1554	6178	20.6		
12	RS308-HB-2HD125A DC750V		125	2763	10984	24.5		
13	RS308-HB-2HD160A DC750V		160	4668	18563	31		
14	RS308-HB-2HD200A DC750V		200	8300	33000	36.6		
15	RS308-HB-5M100A 750VDC	5M	100	734	3506	23.8	161.5±4	Bolt: M8 Torque: (11±1)N·m
16	RS308-HB-5M125A 750VDC		125	1019.4	4871	31.6		
17	RS308-HB-5M160A 750VDC		160	1812	8659	39		
18	RS308-HB-5M200A 750VDC		200	3221	15393	46.1		
19	RS308-HB-5M250A 750VDC		250	5991	28624	53.3		
20	RS308-HB-5M315A 750VDC	5N	315	12596	60182	59.3	228.5±6.0	Bolt: M8 Torque: (11±1)N·m
21	RS308-HB-5N160A 750VDC		160	1988	8715	30.5		
22	RS308-HB-5N200A 750VDC		200	3476	15237	40.5		
23	RS308-HB-5N250A 750VDC		250	5988	26248	47.5		
24	RS308-HB-5N280A 750VDC		280	7952	34857	51		
25	RS308-HB-5N315A 750VDC		315	10269	45010	58.5		
26	RS308-HB-5N350A 750VDC		350	13905	60947	75.5		
27	RS308-HB-5N400A 750VDC	400	23500	103000	81			

750VDC 50A-400A


No	Model	Size	Current A	I ² t (A ² s)		Loss W	Weight (g)	Mounting
				Prearc	Clear			
28	RS308-HB-5NM160A DC750V	5NM	160	1988	8715	30.5	213.5±6.0	Bolt: M8 Torque: (11±1)N·m
29	RS308-HB-5NM 200A DC750V		200	3476	15237	40.5		
30	RS308-HB-5NM 250A DC750V		250	5988	26248	47.5		
31	RS308-HB-5NM 280A DC750V		280	7952	34857	51		
32	RS308-HB-5NM 315A DC750V		315	10269	45010	58.5		
33	RS308-HB-5NM 350A DC750V		350	13905	60947	75.5		
34	RS308-HB-5NM 400A DC750V		400	23500	103000	81		

Note: I²t is obtained under 750VDC 50KA, time constant 10ms

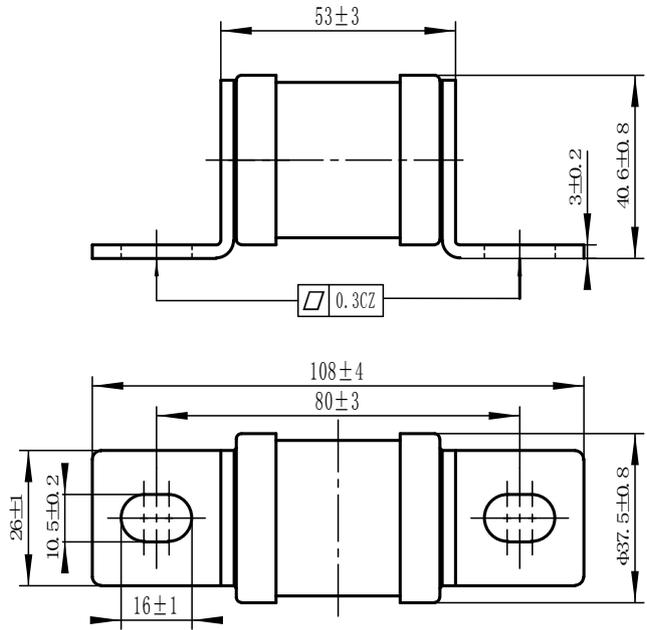
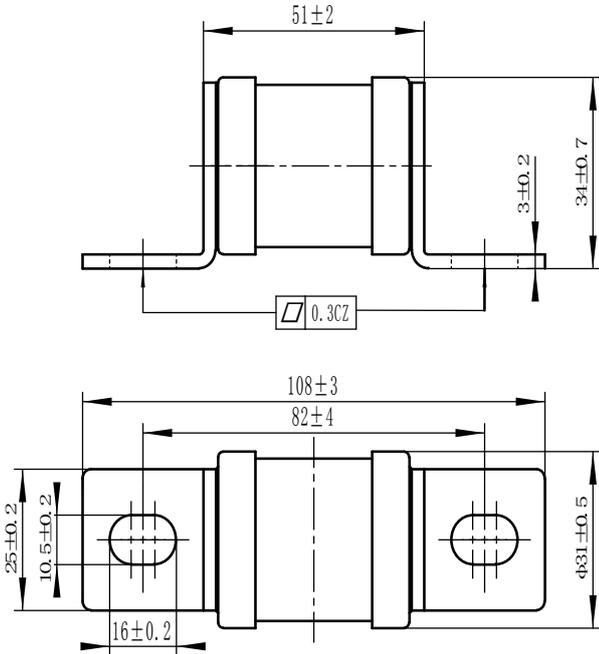
Dimension(mm)
2H-Size
2HD-Size


750VDC 50A-400A

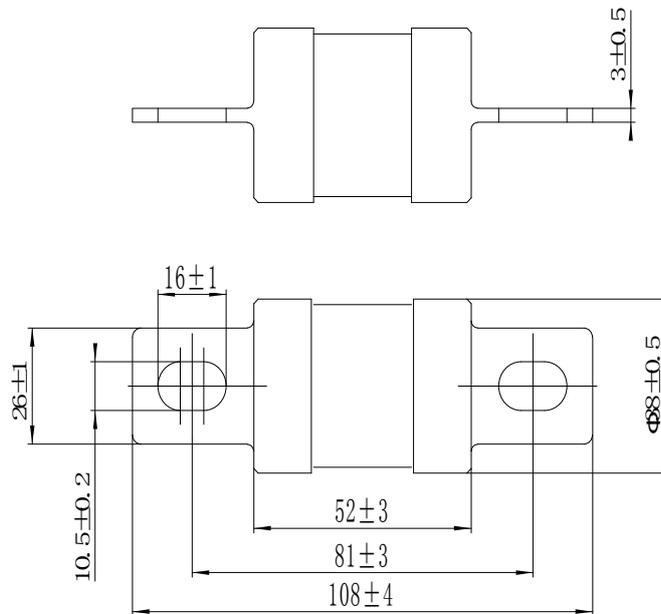
RoHS
COMPLIANT

5M-Size

5N-Size



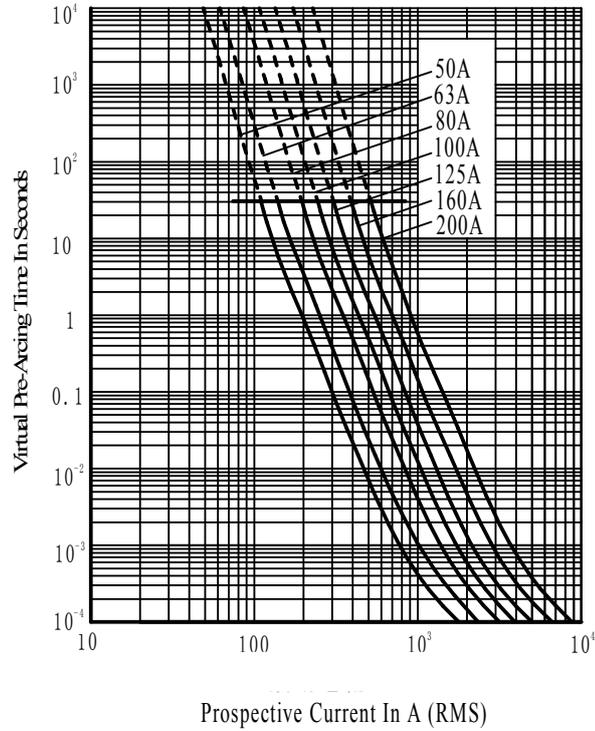
5NM-Size



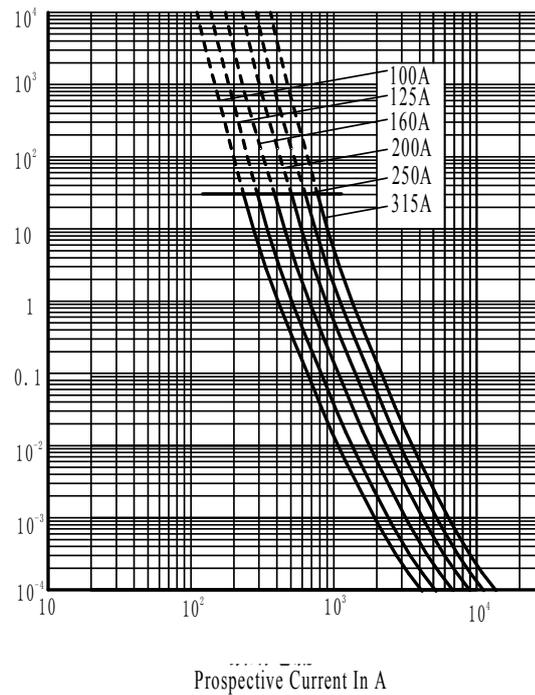
750VDC 50A-400A

Characteristic Curves

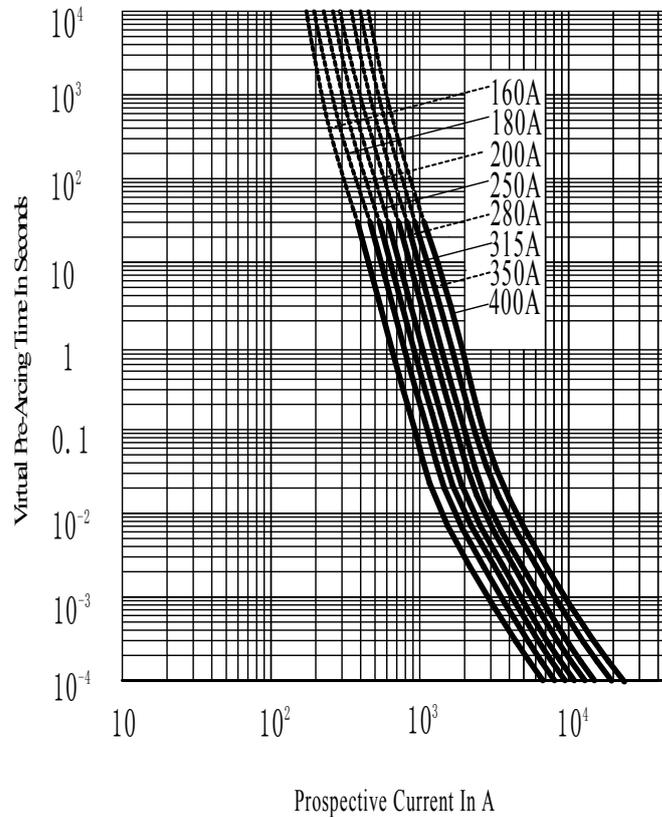
2H/2HD Time-Current Curves



5M Time-Current Curves



750VDC 50A-400A

5N/5NM Time-Current Curves

Transport and Storage
Transport

Avoid rain/snow or mechanical damage during transportation

Storage

Storage temp: -40 °C ~ 70°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 40% RH at 40°C; max 50% RH at 30°C; max 70% RH at 20°C;

Maximum 7 cartons to be stacked, stack height should not exceed 2m.

Avoid fire and water ingress.

Do not damage carton with sharp item.

While handling, free drop height should not exceed 0.6m. Do not land on carton edge or corner.

Avoid corrosive gas or matter.

Usage Conditions
Correction 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.

750VDC 50A-400A

Ambient Temperature

Normal Condition

-5°C ~ 40°C

Tolerable Range

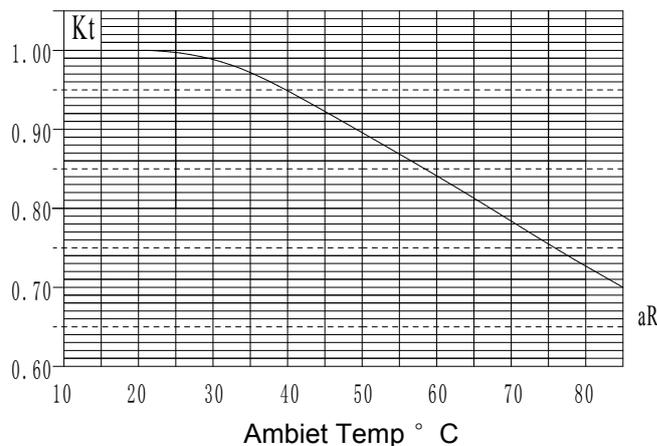
-40°C ~ 85°C

Ambient temperature correction: operating below -5°C, 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 over 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 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, insulation drops by 12-15% for every 1km. 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 electric component, earthing etc.

Atmosphere

Normal Condition

Clean atmosphere, maximum 50% RH at 40°C

750VDC 50A-400A

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

This family of fuse has superior vibration, shock performance as per ISO16750-3 on elastic vibration.

Conform to rail transport vibration grade II

This family of fuses satisfy vehicle usage condition

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

Note: fuse terminal must be securely mounted to avoid extra vibration between fuse terminal and fixture.

Pollution Class

Grade 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

Note: Carry carrying capacity can be improved with forced air cooling.

Forced air cooling

Forced air cooling can be used to enhance heat dissipation thus increasing rated current.

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 (fused load-switch), do not replace fuses while energized.