



Catalog of New Energy Field Thermal Fuse

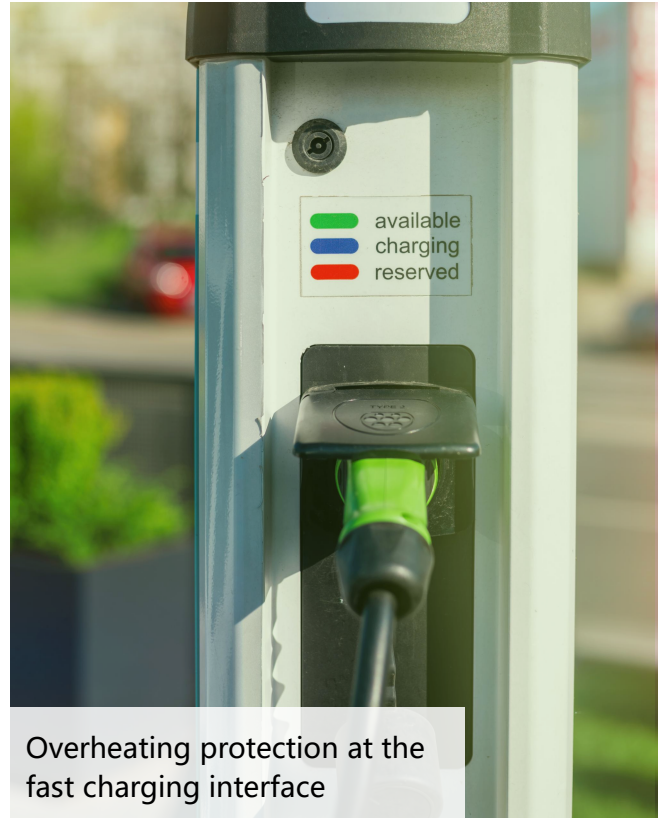
Thermal management accessories
in the field of new energy

AUPO thermal fuse

AUPO high-voltage DC thermal fuse is one-off overheating protection component with sensitive action and excellent breaking performance. The product uses a fusible alloy as the temperature sensing element and is designed with a fully sealed structure. Sensitive to environmental temperature, it can be applied in the field of overheating protection in automotive, energy storage, communication and other scenarios.



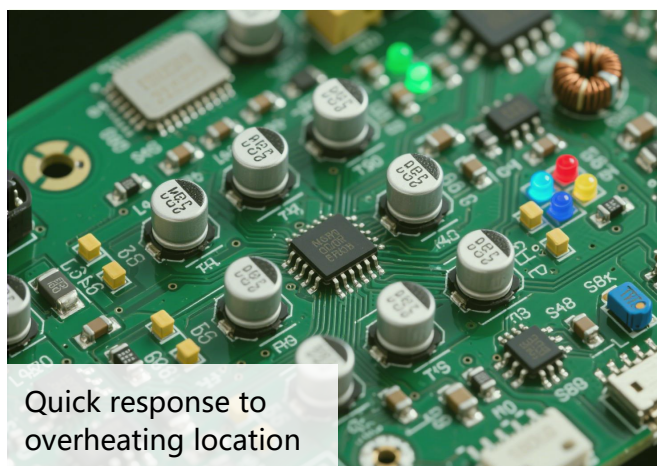
Thermal runaway protection for battery



Overheating protection at the fast charging interface



Compatible with 800V platform

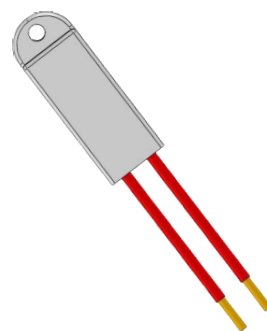


Quick response to overheating location

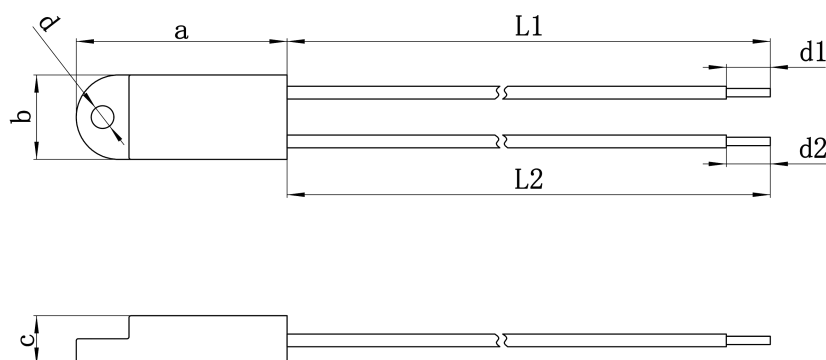
DHx-900-25A

■ Feature

- Ceramic high-temperature resin seal, no risk of arc leakage, ensuring no fire or explosion
- Self developed alloy formula, stable product action, high precision
- Spring type release, quick and safe disconnection
- One action cannot be reset
- Compliant with ROHS and REACH requirements



■ Dimensions



Unit: mm

Part No.	a	b	c	d	L1	L2	d1	d2
DHx-900-25A	38.1±1	17.6±1	10±1	φ4.5	100±5	100±5	5±1	5±1

* Optional wire length range L1/L2: 30–300 mm; strip length range d1/d2: 3–10 mm.

■ Functioning temperature parameter

PN	Rated functioning temperature(°C)	Actual functioning temperature(°C)	Max temperature limit(°C)
DH1-900-25A	102	98±3	250
DH2 -900-25A	115	108±3	250
DH3-900-25A	125	120±3	250
DH4-900-25A	130	126±3	250
DH5-900-25A	135	131±3	250
DH7-900-25A	138	135±3	250
DH12-900-25A	145	140±3	250
DH8-900-25A	150	145±3	250
DH16-900-25A	160	155±3	250
DH15-900-25A	223	218±3	250
DH17-900-25A	187	183±3	250

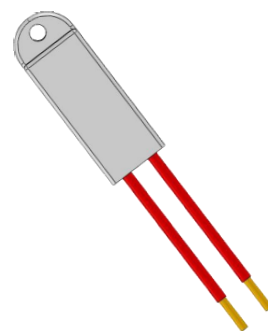
■ Performance parameters

Rated voltage	Rated current	Insulation resistance	Dielectric Strength	
900VDC	25A	≥0.2MΩ	Between the two poles: 1800VDC、60s	Between polar & casing: 2800VDC、60s

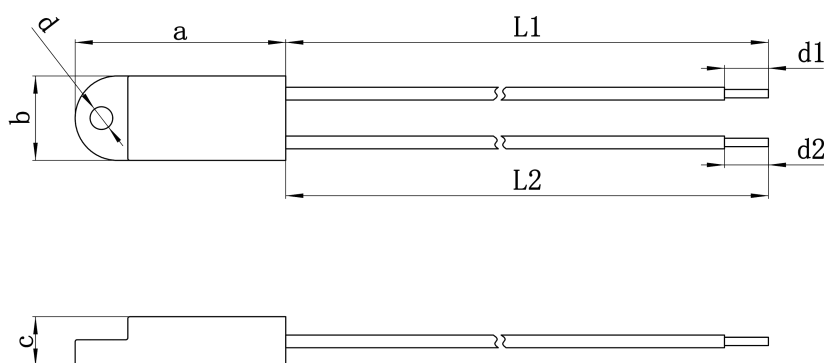
DHx-600-25A

■ Feature

- Ceramic high-temperature resin seal, no risk of arc leakage, ensuring no fire or explosion
- Self developed alloy formula, stable product action, high precision
- Spring type release, quick and safe disconnection
- One action cannot be reset
- Compliant with ROHS and REACH requirements



■ Dimensions



Unit: mm

Part No.	a	b	c	d	L1	L2	d1	d2
DHx-600-25A	32±1	12.8±1	7.5±1	φ3.5	100±5	100±5	5±1	5±1

* Optional wire length range L1/L2: 30–300 mm; strip length range d1/d2: 3–10 mm.

■ Functioning temperature parameter

PN	Rated functioning temperature(°C)	Actual functioning temperature(°C)	Max temperature limit(°C)
DH1-600-25A	102	98±3	250
DH2 -600-25A	115	108±3	250
DH3-600-25A	125	120±3	250
DH4-600-25A	130	126±3	250
DH5-600-25A	135	131±3	250
DH7-600-25A	138	135±3	250
DH12-600-25A	145	140±3	250
DH8-600-25A	150	145±3	250
DH16-600-25A	160	155±3	250
DH15-600-25A	223	218±3	250
DH17-600-25A	187	183±3	250

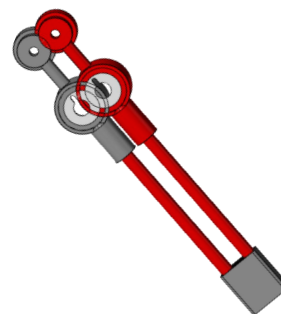
■ Performance parameters

Rated voltage	Rated current	Insulation resistance	Dielectric Strength	
600VDC	25A	≥0.2MΩ	Between the two poles: 1800VDC、60s	Between polar & casing: 2800VDC、60s

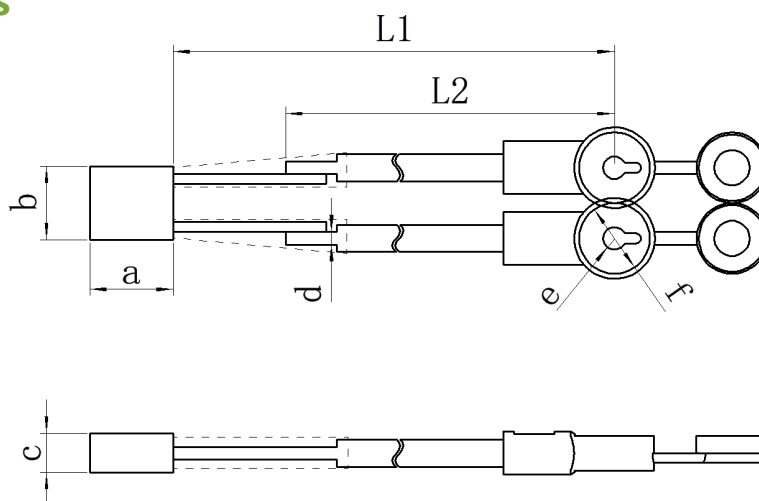
DHx-120-50A

■ Feature

- High temperature resin seal, no risk of arc leakage, ensuring no fire or explosion
- Self developed alloy formula, stable product action, high precision
- One action cannot be reset
- Compliant with ROHS and REACH requirements



■ Dimensions



Unit: mm

Part No.	a	b	c	d	e	f	L1	L2
DHx-120-50A	15.8±0.5	13.9±0.5	5.8±0.5	φ2.5	φ5.1	φ11.3	100±5	74±3

■ Functioning temperature parameter

PN	Rated functioning temperature(°C)	Actual functioning temperature(°C)	Max temperature limit(°C)
DH1-120-50A	102	99±3	203
DH2-120-50A	115	112±3	203
DH3-120-50A	125	122±3	203
DH4-120-50A	130	127±3	203
DH5-120-50A	135	132±3	203
DH7-120-50A	138	135±3	203
DH8-120-50A	150	146±3	203

■ Performance parameters

Rated voltage	Rated current	Insulation resistance	Dielectric Strength	
120VDC	50A	≥0.2MΩ	Between the two poles: 240VAC、60s	Between polar & casing: 1240VAC、60s

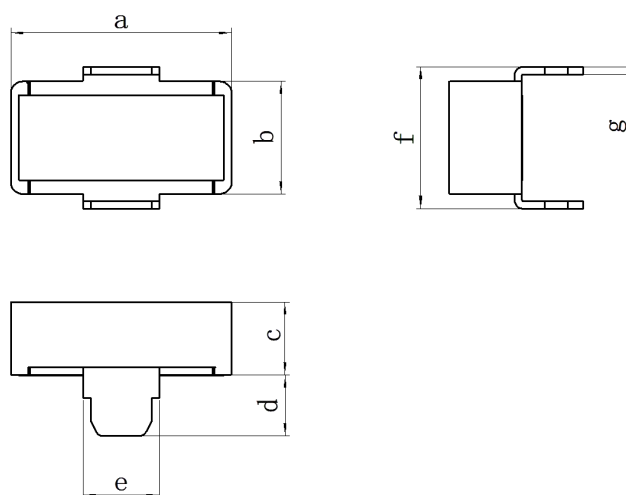
DHx-100-10A

■ Feature

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- One action cannot be reset
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■ Dimensions



Unit: mm

Part No.	a	b	c	d	e	f	g
DHx-100-10A	14.5±1	7.4±1	4.8±1	4±0.2	5±0.2	9.3±0.5	0.5±0.1

■ Functioning temperature parameter

PN	Rated functioning temperature(°C)	Actual functioning temperature(°C)	Max temperature limit(°C)
DH1-100-10A	102	99±3	250
DH2-100-10A	115	112±3	250
DH3-100-10A	125	122±3	250
DH4-100-10A	130	127±3	250
DH5-100-10A	135	132±3	250
DH7-100-10A	138	135±3	250
DH8-100-10A	150	146±3	250

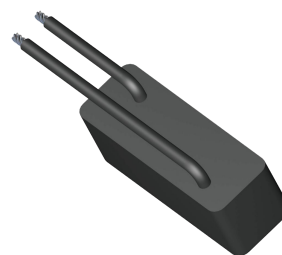
■ Performance parameters

Rated voltage	Rated current	Insulation resistance	Dielectric Strength	
100VDC	10A	≥0.2MΩ	Between the two poles: 500VAC、60s	Between polar & casing: 1500VAC、60s

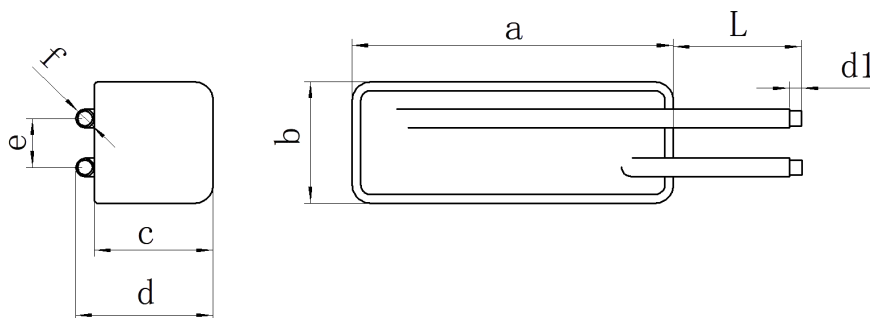
DHx-800-35A

■ Feature

- High temperature resin seal, no risk of arc leakage, ensuring no fire or explosion
- Self developed alloy formula, stable product action, high precision
- One action cannot be reset
- Compliant with ROHS and REACH requirements



■ Dimensions



Unit: mm

Part No.	a	b	c	d	e	f	L	d1
DHx-800-35A	26±1	10±1	9.6±1	12±1	4±0.5	φ1.5	20±3	5±1

■ Functioning temperature parameter

PN	Rated functioning temperature(°C)	Actual functioning temperature(°C)	Max temperature limit(°C)
DH1-800-35A	102	99±3	203
DH2-800-35A	115	112±3	203
DH3-800-35A	125	122±3	203
DH4-800-35A	130	127±3	203
DH5-800-35A	135	132±3	203
DH7-800-35A	138	135±3	203
DH8-800-35A	150	146±3	203

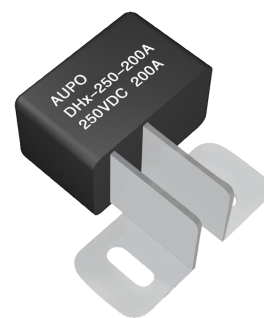
■ Performance parameters

Rated voltage	Rated current	Insulation resistance	Dielectric Strength	
800VDC	35A	≥0.2MΩ	Between the two poles: 1600VAC、60s	Between polar & casing: 2600VAC、60s

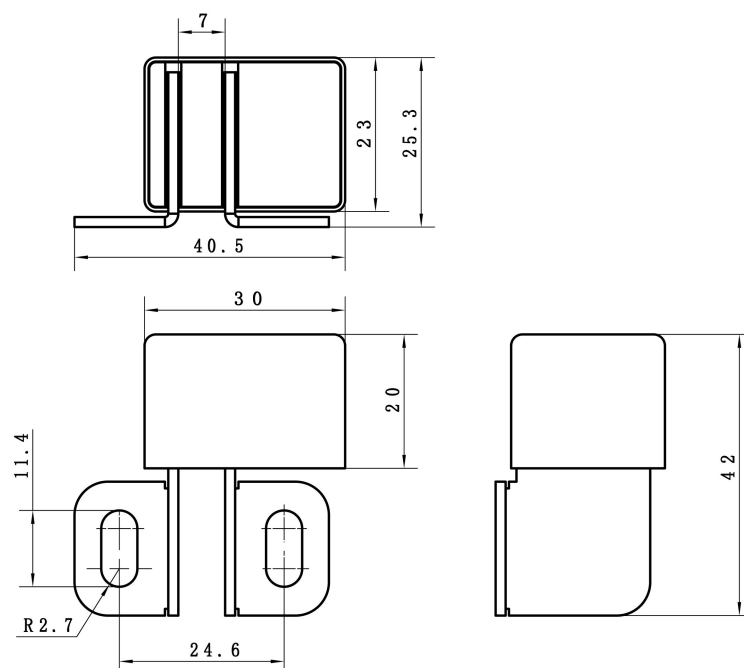
DHx-250-200A

■ Feature

- Ceramic high-temperature resin seal, no risk of arc leakage, ensuring no fire or explosion
- Self developed alloy formula, stable product action, high precision
- Spring type release, quick and safe disconnection
- One action cannot be reset
- Compliant with ROHS and REACH requirements



■ Dimensions



Unit: mm

Part No.	a	b	c	d	e	f	g	h
DHx-250-200A	30±1	20±1	23±1	42±1	7±0.3	24.6±1	R2.7	11.4±0.2

■ Functioning temperature parameter

PN	Rated functioning temperature(°C)	Actual functioning temperature(°C)	Max temperature limit(°C)
DH1-250-200A	102	98±3	250
DH2-250-200A	115	112±3	250
DH3-250-200A	125	120±3	250
DH4-250-200A	130	126±3	250
DH5-250-200A	135	131±3	250
DH7-250-200A	138	135±3	250
DH8-250-200A	150	145±3	250
DH16-250-200A	160	155±3	250
DH15-250-200A	223	218±3	250
DH17-250-200A	187	183±3	250

■ Performance parameters

Rated voltage	Rated current	Insulation resistance	Dielectric Strength	
250VDC	200A	≥0.2MΩ	Between the two poles: 500VAC、60s	Between polar & casing: 1500VAC、60s

Attentions for use

When selecting an installation location for a thermal cutoff (also known as a thermal fuse), ensure that neither the ambient temperature nor the surface temperature of the device under load exceeds the thermal cutoff's holding temperature.

It is not recommended to install thermal cutoffs in locations subject to frequent or severe vibration.

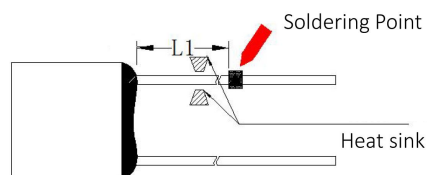
If screw-fastening is used for installation, prevent grease or other foreign substances from adhering to the lead terminals, and ensure that the connecting wires used have an appropriate current-carrying cross-sectional area.

If riveting is used for installation, particular attention must be paid to the contact resistance at the connection point; an improper connection can result in increased contact resistance, which may subsequently generate excessive heat at the junction during operation under load, potentially causing the thermal cutoff to blow prematurely.

If soldering is used for installation, be aware that the high temperatures involved in the soldering process may cause damage to the thermal cutoff.

The table below summarizes recommended parameters for soldering temperature, height, and duration, based on past experience, and is provided for reference purposes.

If secondary soldering or welding is required, allow the thermal cutoff to cool down to room temperature before proceeding.



Rated functioning temperature Tf	Welding Height and Maximum Permissible Welding Time			Welding temperature
	L1=10mm	L1=20mm	L1=30mm	
< 115°C	1s	2s	3s	400°C
115°C~134°C	2s	3s	4s	
135°C~150°C	3s	4s	5s	
> 150°C	4Ss	5s	6s	

Recommendations for Wave Soldering (If the customer intends to utilize wave soldering, please consult with our technical staff regarding relevant precautions).

During the installation or processing of thermal fuses, forceful pressing, stretching, or twisting of the leads must be avoided. If bending of the leads is necessary, ensure that the distance L2 between the bend point and the fuse body is maintained as specified in the table below. Furthermore, pliers or other appropriate tools should be used to secure the lead (as illustrated in the figure below) to prevent external force from being applied directly to the base of the lead, thereby safeguarding the integrity of the thermal fuse's sealant.

Φ (mm)	< 1.0	1.0~1.6	> 1.6
L2 (mm)	> 3	> 7	> 10

