



HPE501 Series

Square Body Fuse-Size 000-1000Vdc-32A~250A



Product Description

HPE501 series products are size 000 ceramic square body DC high speed fuse, the products are partial range protection fuses with bolted tags, low pre-arcing I^2t , strong current limiting capability, high breaking capacity and extremely fast acting. They are designed to protect IGBT modules, battery energy storage system and many DC applications such as DC common bus, DC drives, power converters rectifiers etc.

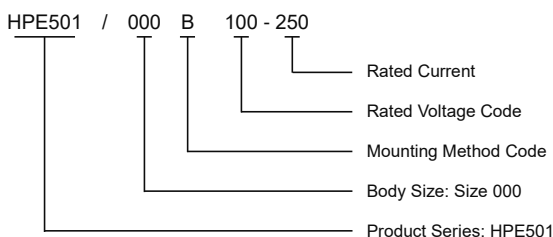
Electrical Ratings

- Rated Voltage: 1000Vdc (IEC)
- Rated Current: 32A~250A
- Breaking Capacity: 5In~50kA@1000Vdc
- Time Constant: 1~3ms
- Operating Class: aR
- Design Standards refer to: IEC 60269-1, IEC 60269-4, IEC 60269-7, UL 248-13

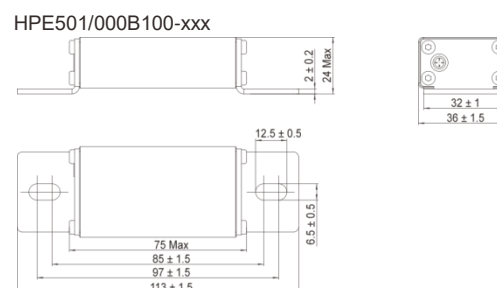
Typical Applications

- IGBT Modules
- Energy Storage System
- DC Charging Pile
- Equipment Backup Protection

Part Numbering System



Product Dimensions (mm)



Electrical Characteristic

Catalog no	Rated Current	Rated Voltage	Pre-arcing I^2t	Clearing I^2t	Breaking Capacity	Watt loss	
	A	Vdc	A ² s	A ² s	1000Vdc	1.0 In	0.7 In
HPE501/000B100-32	32	1000	40	750	50	≤8	≤5
HPE501/000B100-40	40	1000	90	1700	50	≤10	≤7
HPE501/000B100-50	50	1000	130	2500	50	≤14	≤9
HPE501/000B100-63	63	1000	230	4400	50	≤17	≤10
HPE501/000B100-80	80	1000	350	6900	50	≤24	≤14
HPE501/000B100-100	100	1000	600	11800	50	≤28	≤16
HPE501/000B100-125	125	1000	1000	19500	50	≤34	≤19
HPE501/000B100-160	160	1000	1600	33100	50	≤48	≤24
HPE501/000B100-200	200	1000	2800	55500	50	≤54	≤30
HPE501/000B100-250	250	1000	5270	85200	50	≤76	≤36

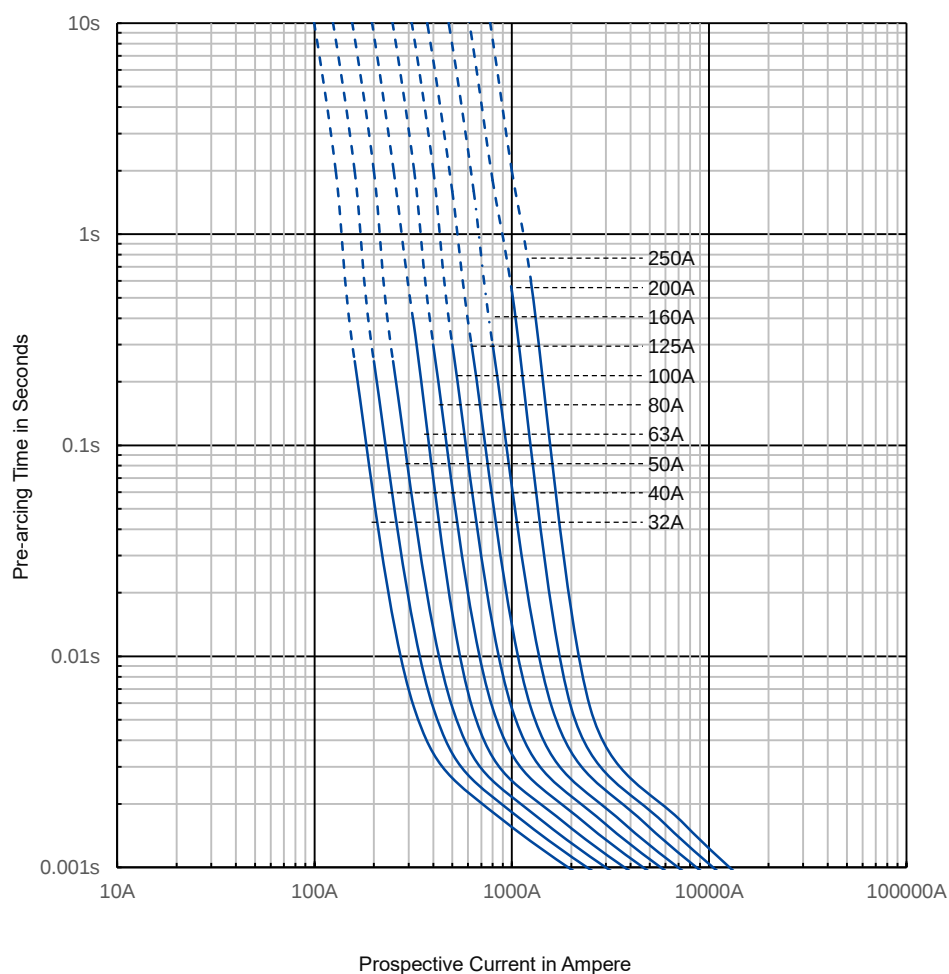
- All data are tested in standard environment , following IEC 60269 standard.
- Watt loss is measured at 1.0 In and 0.7 In.
- The installation surface should be flat and clean without oil stain, etc.
- Bolt Size: M6, Recommended tightening torque: 9±1.0 (N.m).



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Time-Current Curve



- The tolerance of Pre-arcing Time Current curve is $\pm 10\%$ at prospective current direction.

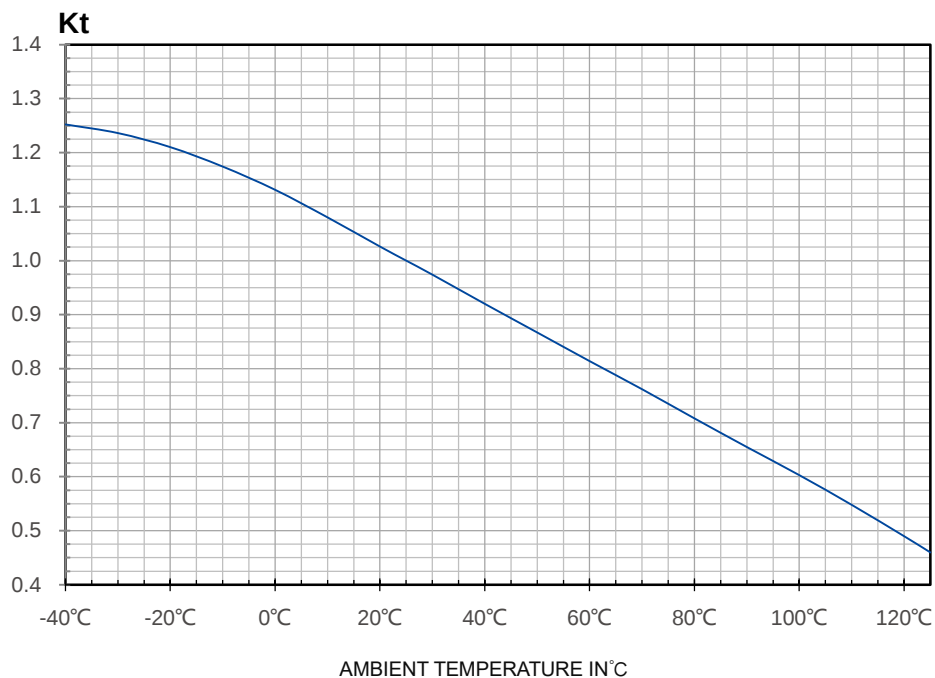
Operating Conditions

- Ambient Temperature : Normal condition $-5^{\circ}\text{C} \sim 40^{\circ}\text{C}$; Allowable condition $-40^{\circ}\text{C} \sim 120^{\circ}\text{C}$.
- Altitude : Normal condition 2500m; Allowable condition 2000m~4500m.
- No additional rating correction when fuse is working in normal condition.
- Please consult Hongfa If the operating condition is in or exceed allowable range, there may need additional evaluation and testing for the special application.
- The long-term current should not exceed 75% of the fuse rated current.
- Parameter modification of ambient air temperature change: working below -5°C , the pre-arc time of the low-power overload current of the fuse is slightly extended, and the rated current is slightly increased, but unless the working range is not above -5°C , it is generally not considered to increase the rated current of the fuse.
- When the ambient temperature is above 40°C , we need refer to the below curve for the correction factor K_t of the current-carry capabilities. Note 1: The factor K_t has included the safety margin when the fuse is working in normal condition.



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Storage and Transportation

- Product storage temperature : -40°C~120°C. Relative humidity $\leq 90\%$ @ 40°C, and avoid condensation.
- Package storage temperature : -40°C~70°C. Relative humidity $\leq 90\%$, no condensation.
- Avoid rain, snow and mechanical damage during transportation.
- Fireproof, waterproof, avoid the shipping case contact liquid water, corrosion material or gas.

Disclaimer Notice:

The datasheet information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Hongfa products are not designed for, and may not be used in, all applications. The product specification are subjected to be changed without notice.