

## Specifications 技术参数

Square body fuse links

### Ratings & Features Applications 电气参数/功能应用领域:

Size: 1#

- ◇ Volts 电压: 500Vdc;
- ◇ Amps 电流: 100-800A;
- ◇ Interrupting Capacity 分断:
  - Max 500Vdc 50kA;(or less)
  - Min BC ≥ 3 In;
- ◇ Time Constant 时间常数: ≤ 3ms; ;
- ◇ Class Type 产品类别: aR;
- ◇ Design For Dc Applications 直流应用设计;
- ◇ Excellent Dc Performance 卓越的直流分断能力;
- ◇ Superior cycling capability 可循环利用率高
- ◇ Low Watt Losses 低功率损耗;
- ◇ Electrical Energy Storage 电能/储能;
- ◇ Battery Pack Protection 动力电池包保护;
- ◇ Backup Protection For Dc Relay 直流继电器保护;



### Standards / Approvals 认证/标准:

- ◇ Refer To UL 248.1/UL 248.13
- ◇ IEC 60269.1/IEC 60269.4
  - 性能参考UL 248.13及IEC60269.4;
- ◇ Reach Declaration Available Upon Request;
  - 可根据要求提供REACH声明;
- ◇ CE;
- ◇ RoHS Compliant.
  - 符合RoHS。

### Features & benefits 产品特性:

Higher voltage rating provides overall system efficiency using smaller, more economical conductors while meeting the needs of higher voltage. Up to ten times faster opening under high fault current conditions helps assure reliable protection of circuits and components. Greater ampacity within sizing guidelines, Excellent power of resisting voltaic impingement and environment temperature tolerance, Excellent resistance to mechanical vibration and impact resistance.

满足高电压、小尺寸、更经济的导体使用，提升整体系统效率，同时满足更高电压的需求。在大的故障电流条件下，断开速度快，确保电路和部件的可靠保护。实现尺寸范围内更大的载流量。良好的抗电流冲击能力以及冷、热环境温度耐受能力，具有优越的抗机械振动与冲击能力。

### Product Model 产品型号说明:

	<b>HC</b>	<b>HV</b>	<b>I</b>	<b>500</b>	:	<b>630</b>	<b>K</b>	:	<b>51E</b>
HC: Company Code									
HV: High Speed									
T: Ceramics									
Rated Voltage: 500: 500V									
Rated Current: 630: 400A									
x: Connect: K (Flush Customize)									
Type Series Code: 1#: 51E									

Optional base indicator, the standard product is the "Default" configuration.

Default: K--with fuse indication, e.g.: HCHVT500-630K-51E;

Optional: KN--without fuse indication, e.g.: HCHVT500-630KN-51E;

#### Fuse Ratings 额定参数

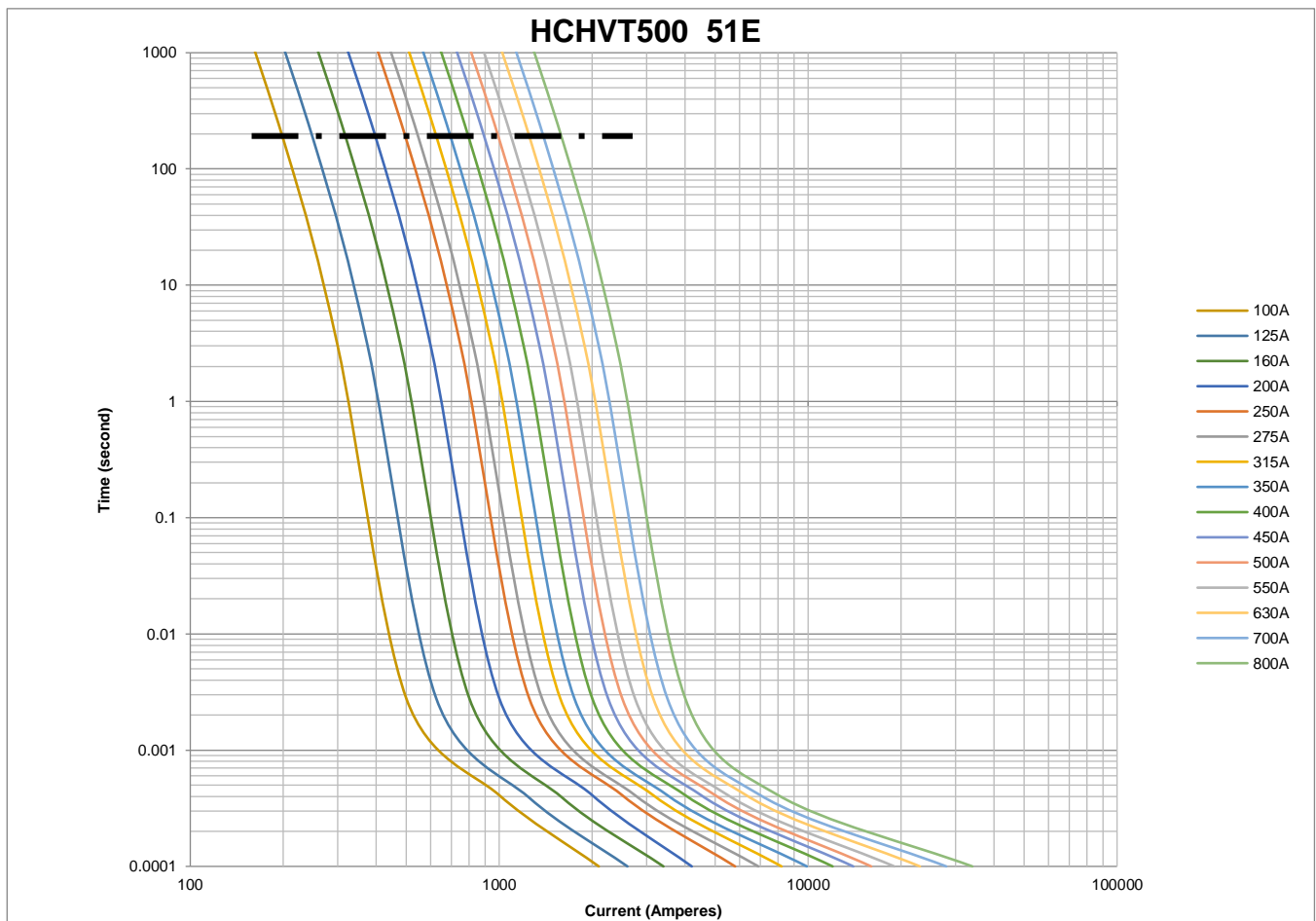
Part No.	Fuse Amps	Size	Average @50KA/500Vdc		Power Loss (W)
			A <sup>2</sup> s Melting	A <sup>2</sup> t Clearing	100%
HCHVT500-100A-51E	100	1#	910	8,190	23
HCHVT500-125A-51E	125	1#	1,490	13,230	28
HCHVT500-160A-51E	160	1#	2,678	23,940	35
HCHVT500-200A-51E	200	1#	3,366	29,900	38
HCHVT500-250A-51E	250	1#	5,610	50,760	52
HCHVT500-275A-51E	275	1#	6,819	65,800	55
HCHVT500-315A-51E	315	1#	8,789	83,400	64
HCHVT500-350A-51E	350	1#	11,688	111,400	68
HCHVT500-400A-51E	400	1#	16,737	159,800	72
HCHVT500-450A-51E	450	1#	23,141	227,950	78
HCHVT500-500A-51E	500	1#	29,733	293,500	87
HCHVT500-550A-51E	550	1#	40,580	403,500	92
HCHVT500-630A-51E	630	1#	59,780	615,800	100
HCHVT500-700A-51E	700	1#	79,500	825,300	102
HCHVT500-800A-51E	800	1#	110,600	1,150,000	113

Optional base indicator, the standard product is the "Default" configuration.

**Default: K--with fuse indication, e.g.: HCHVT500-630K-51E;**

**Optional: KN--without fuse indication, e.g.: HCHVT500-630KN-51E;**

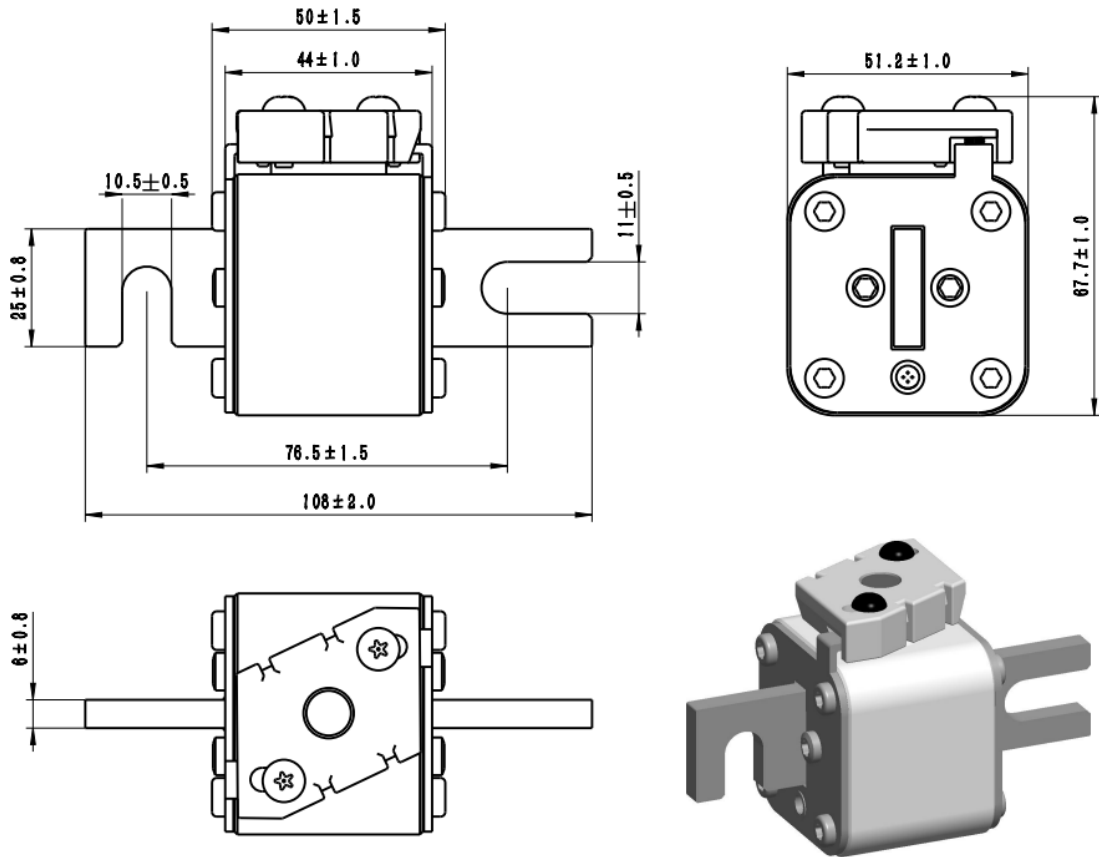
#### Time-Current Curve 时间电流曲线图



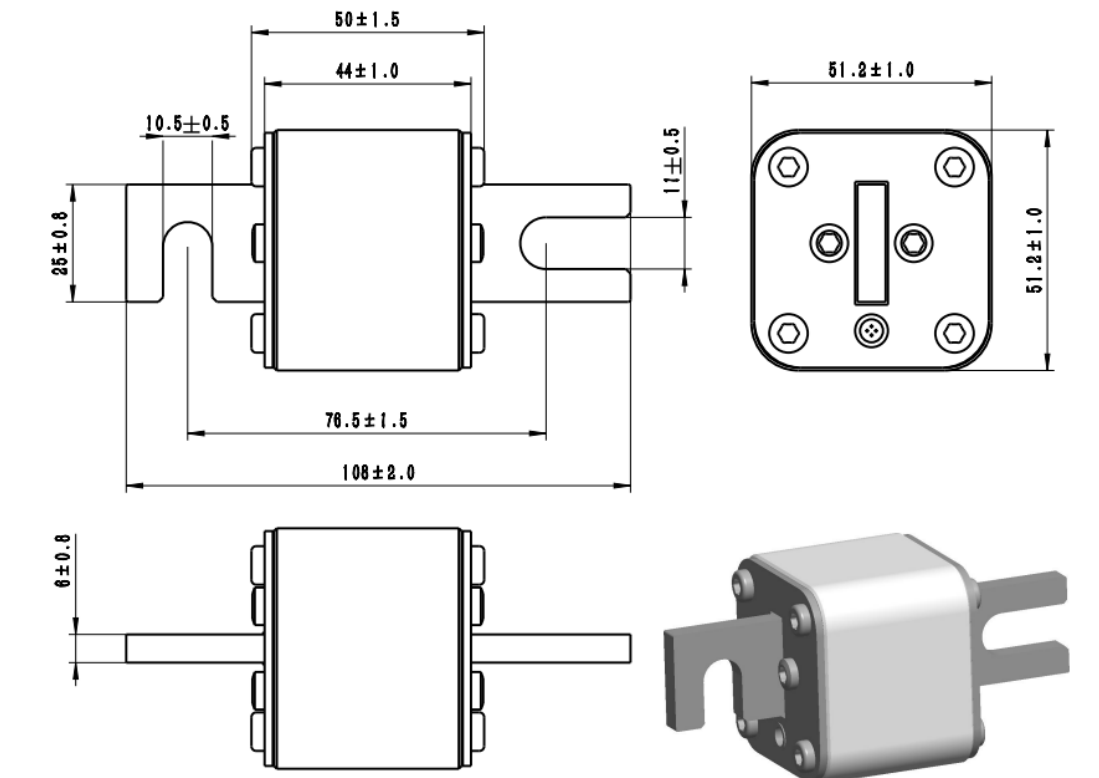
1: The accuracy of the characteristic curve is ±15% of the current direction error;

2: Minimum breaking current: 3.0 I<sub>n</sub>

#### Dimensions(mm) 尺寸



HCHVT500-xxx K-51E



HCHVT500-xxx KN-51E

#### Operating conditions 使用条件

- ◇ Product storage Temperature:  $-40^{\circ}\text{C}\sim 120^{\circ}\text{C}$ ( $-40^{\circ}\text{F}\sim 248^{\circ}\text{F}$ );  
产品存储温度:  $-40^{\circ}\text{C}\sim 120^{\circ}\text{C}$ , 在 $40^{\circ}\text{C}$ 时相对湿度不大于70%;
- ◇ Product storage Humidity:  $T=40^{\circ}\text{C}$  RH $\leq$ 70%,  $T\leq 30^{\circ}\text{C}$  RH $\leq$ 80%,  $T\leq 20^{\circ}\text{C}$  RH $\leq$ 90%;  
在 $30^{\circ}\text{C}$ 以下, 产品相对湿度不大于80, 在 $20^{\circ}\text{C}$ 以下, 相对湿度不大于90%;
- ◇ Fuses can perform regularly under the flowing conditions without corrections;  
熔断器在下述的正常使用条件下工作, 不需要额外的修正;
- ◇ Regular current flow should  $\leq 75\%$  of recommended rated current;  
推荐长期通流的电流值不大于额定电流的75%;
- ◇ High frequency vibration resistance: $\geq 20\text{g}$ ;  
本系列熔断器有良好的抗振动和冲击的耐受能力, 可承受20g以上的加速度;
- ◇ Operating temperature:  $-5^{\circ}\text{C}\sim 40^{\circ}\text{C}$  ( $23^{\circ}\text{F}\sim 104^{\circ}\text{F}$ );  
正常使用条件:  $-5^{\circ}\text{C}\sim 40^{\circ}\text{C}$ ;
- ◇ Allowable operating temperature: $-40^{\circ}\text{C}\sim 125^{\circ}\text{C}$  ( $-40^{\circ}\text{F}\sim 257^{\circ}\text{F}$ );  
允许使用条件:  $-40^{\circ}\text{C}\sim 125^{\circ}\text{C}$ ;
- ◇ Temperature correction factors: when below  $-5^{\circ}\text{C}$  ( $23^{\circ}\text{F}$ ), low overload (L.O.) pre-arcing time will slightly extend, rated current will slightly increase;  
周围空气温度变化的参数修正: 在低于 $-5^{\circ}\text{C}$ 下工作, 熔断器的低倍过载电流的弧前时间略有延长, 额定电流略有增大, 但是除非 $-5^{\circ}\text{C}$ 以上不是工作范围, 一般不参考增加熔断器额定电流;
- ◇ If operating above  $40^{\circ}\text{C}$  ( $104^{\circ}\text{F}$ ), rated current need extra corrections, factors:  $-Kt$ ①.  
熔断器在 $40^{\circ}\text{C}$ 以上工作, 额定电流需要额外的修正, 修正系数为 $-Kt$ 。  
\*Note①:  $Kt$  value has already considered the safety current allowance under regular operating scenarios.  
\*注1:  $Kt$ 的取值已考虑熔断器在正常工作条件下的额定电流安全余量的影响。

