

Specifications 技术参数

Square body fuse links
ESS4

Size: 4

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

- ✧ Volts电压: 1500Vdc;
- ✧ Amps电流: 400-2000A;
- ✧ Interrupting Capacity分断: 1500Vdc 50kA (L/R≤15ms);
Min BC: > 3 In;
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
- ✧ Application: Industrial ESS



Standards / Approvals 认证/标准:

- ✧ Refer To UL 248-13;
性能参考UL 248-13;
- ✧ Reach Declaration Available Upon Request;
可根据要求提供REACH声明;
- ✧ CE
- ✧ RoHS Compliant.
符合RoHS。

Work/Storage condition 工作及储存条件:

Work within the temperature -40°C to +100°C range.

工作温度范围: -40°C~100°C;

Fuses should be stored in their original boxes under typical warehouse conditions for electromechanical products (free from any dirt and dust). Storage conditions should be no more than 70 percent relative humidity and in the -40°C to +85°C range.

熔断器应保存在机电产品的典型仓库条件下(无任何污垢和灰尘)的原箱中。储存条件应不超过 70%的相对湿度, 在-40°C至+85°C 范围内。

This product is a bolt connected fuse for partial range protection, with strong current limiting, high breaking capacity and other characteristics. It is suitable for energy storage, wind power and other industry applications, which can be used as short-circuit protection for energy storage systems, power systems and other devices and equipments.

系列产品为螺栓连接式部分范围保护用熔断器, 有限流、高分断能力等特点。适用于储能、风电等行业应用。可作为储能系统、动力系统及其他器件和设备的短路保护。

Product Model 产品型号说明:

HC **B** **FG** **4** **=** **1800** **S** **=** **105ES**

HC: Company Code

B: Square body fuse links

FG: 1500V Fast-Acting

4: Size: body 4 #

Rated Current: 1800: 1800A

x: Connect: A, D, S

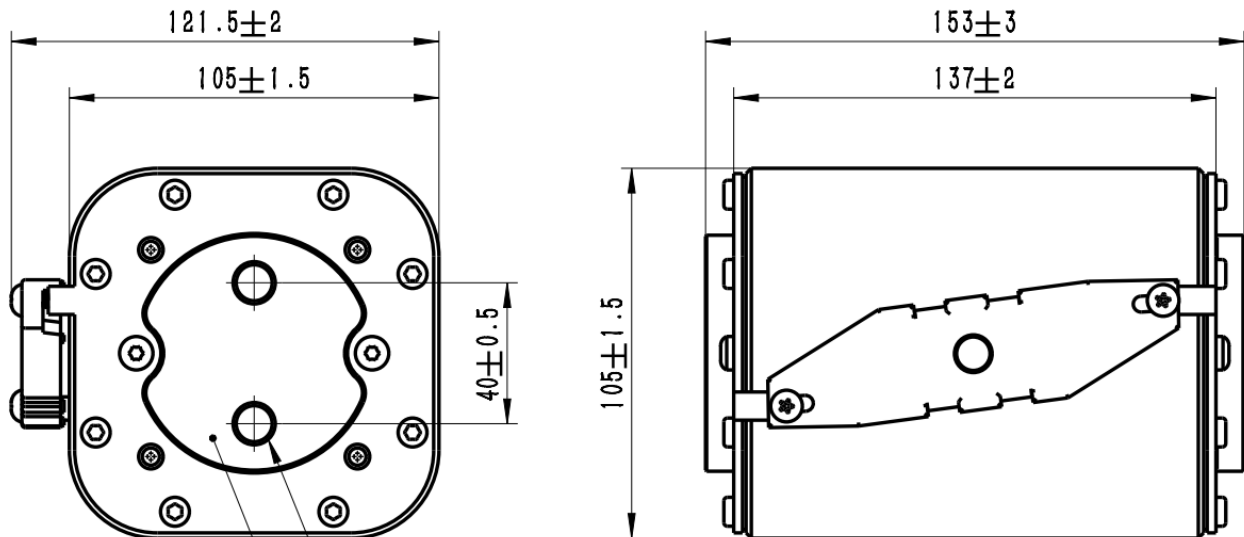
Type Series Code: 50kA 4#: 105ES

Fuse Ratings 额定参数

Part No.	Fuse Amps	Size	Average @ 50KA/1500Vdc		Power Loss (W) 1.0In
			A²s Melting	A²s Clearing	
HCBFG4-400S-105ES	400	4 #	42,250	255,800	168
HCBFG4-500S-105ES	500	4 #	93,500	585,500	175
HCBFG4-630S-105ES	630	4 #	163,000	1,020,500	185
HCBFG4-700S-105ES	700	4 #	225,500	1,320,000	192
HCBFG4-800S-105ES	800	4 #	310,000	1,970,000	196
HCBFG4-900S-105ES	900	4 #	425,000	2,600,000	200
HCBFG4-1000S-105ES	1000	4 #	640,000	4,005,000	210
HCBFG4-1100S-105ES	1100	4 #	780,300	4,950,000	220
HCBFG4-1200S-105ES	1200	4 #	915,000	5,865,500	242
HCBFG4-1250S-105ES	1250	4 #	1,080,000	7,150,600	255
HCBFG4-1300S-105ES	1300	4 #	1,300,000	8,040,000	260
HCBFG4-1350S-105ES	1350	4 #	1,320,000	9,060,000	266
HCBFG4-1400S-105ES	1400	4 #	1,665,000	10,700,000	275
HCBFG4-1500S-105ES	1500	4 #	1,870,000	11,950,500	282
HCBFG4-1600S-105ES	1600	4 #	2,235,000	14,880,000	294
HCBFG4-1800S-105ES	1800	4 #	2,850,000	17,950,000	313
*HCBFG4-2000S-105ES	*2000	4 #	3,750,000	23,900,000	345

*: If there are any requirements, please communicate with the original factory staff first.

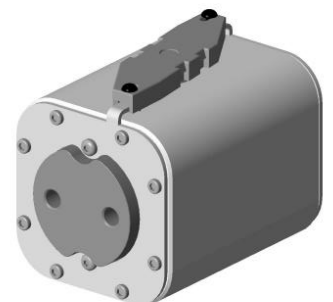
Dimensions (mm) 尺寸



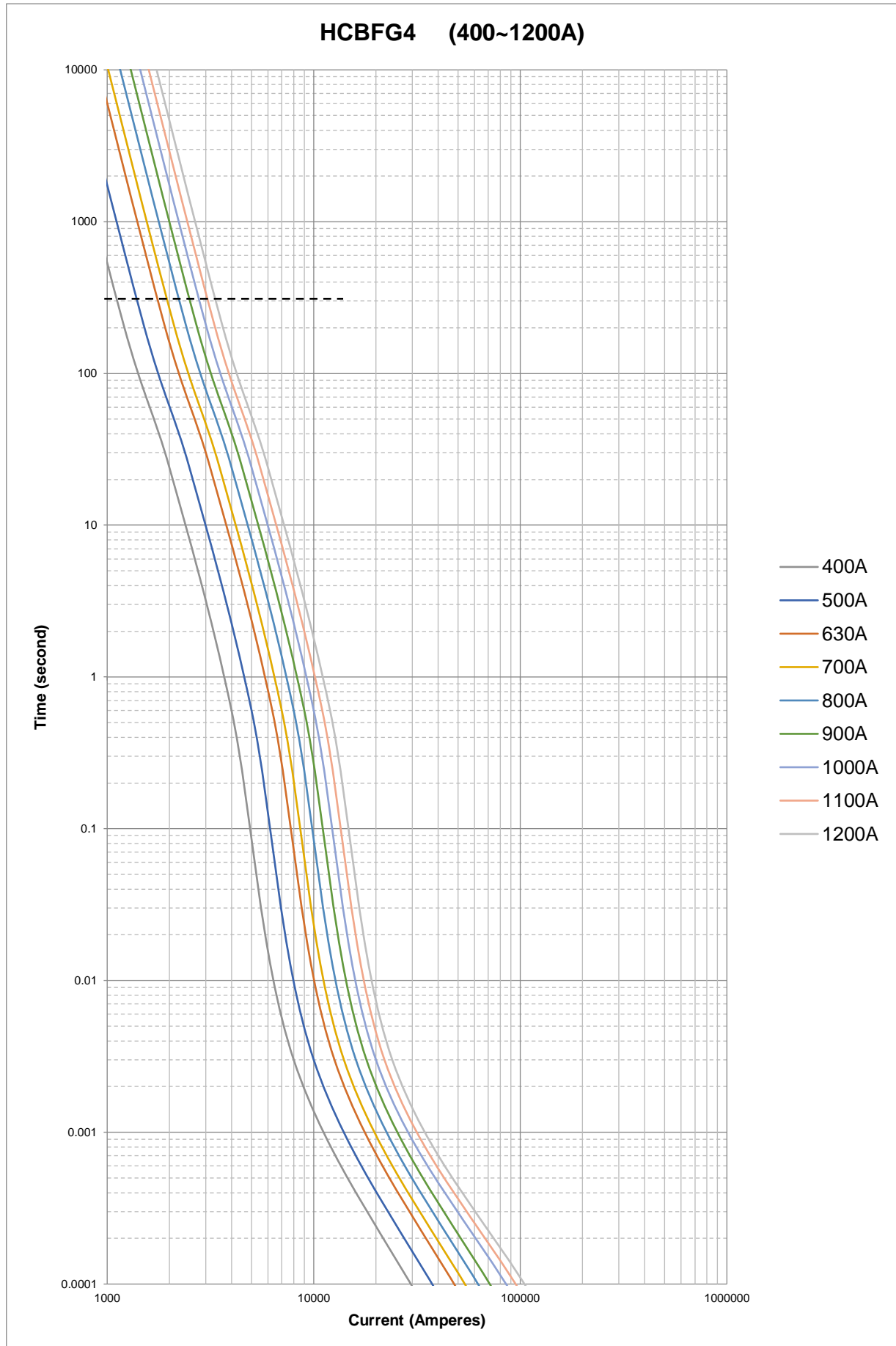
2pcs M12

Max depth of hole 12.5mm. Min length of thread 12mm.

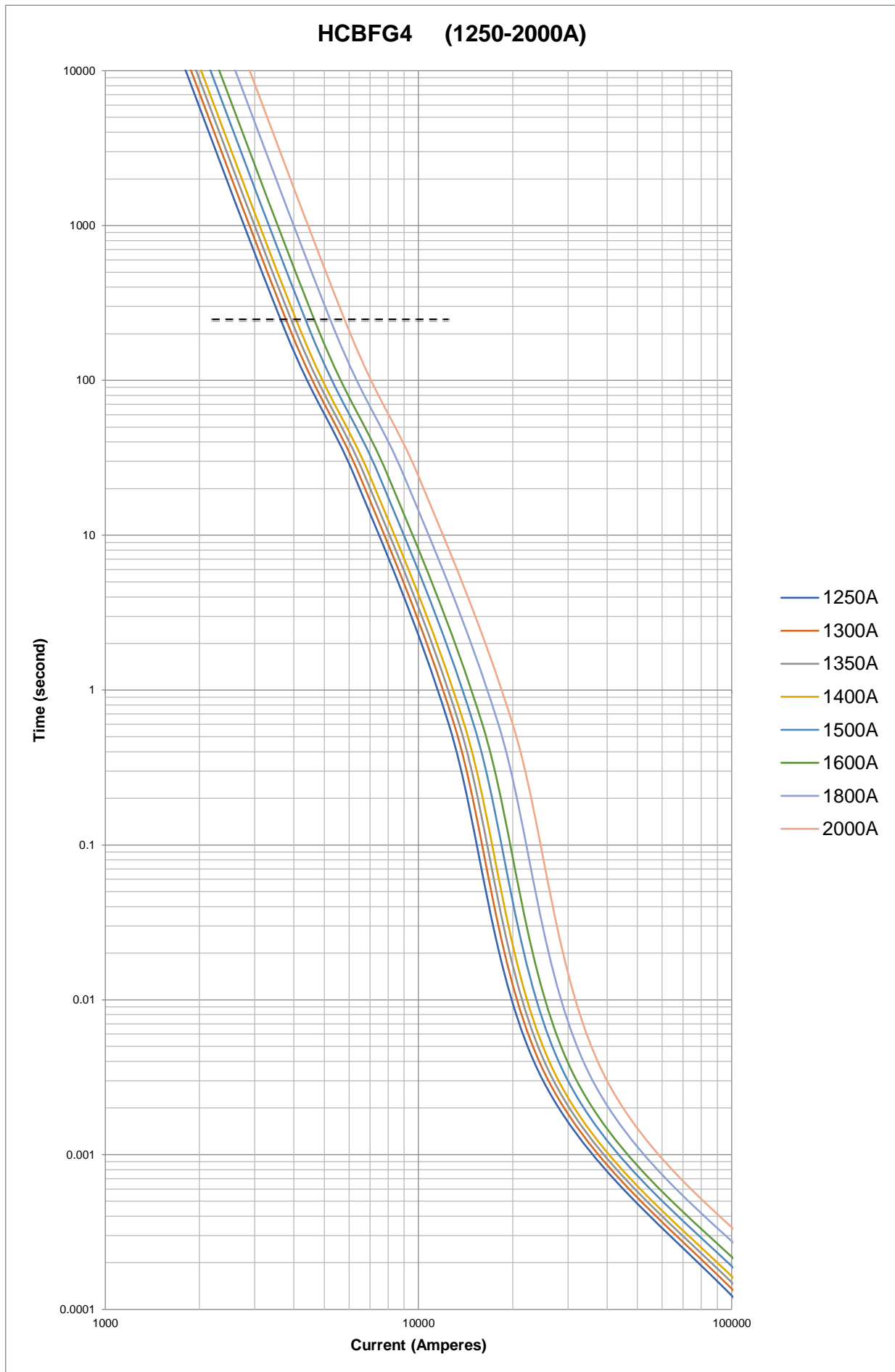
Tin(Sn) plate 3 to 5 microns



Time-Current Curve 时间电流曲线图



- 1: The accuracy of the characteristic curve is $\pm 15\%$ of the current direction error;
- 2: Minimum breaking current: $3.0 I_n$



1: The accuracy of the characteristic curve is $\pm 15\%$ of the current direction error;

2: Minimum breaking current: 3.0 In

Operating conditions 使用条件

- ✧ Package storage Temperature: -40°C~85°C; < 70%RH;
包装存储温度: -40°C~85°C; 湿度 < 70%RH
- ✧ Operating temperature: -5°C~40°C;
正常使用条件: -5°C~40°C;
- ✧ Allowable operating temperature: -40°C~100°C;
允许使用条件: -40°C~100°C;
- ✧ 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%;

- ✧ Installation conditions: The fuse should be mounted to busbar with 2pcs M12 socket set screws at each side, the screws according to ISO4026/DN913 or ISO4029/DIN916 are recommended. The studs must be tightened carefully applying a torque of 5-8 N.m, recommended nut tightening torques is $35\pm 4\%$ N.m.
应正确安装在母线上, 两侧各有2个M12内六角螺钉。建议使用符合ISO4026/DN913或ISO4029/DIN916标准的螺钉。施加5-8 N.m的扭矩, 推荐的螺母拧紧扭矩为 $35\pm 4\%$ N.m。
- ✧ Replacing fuses if damaging facilities;
对有机损伤的熔断器必须进行更换;

- ✧ Temperature correction factors: when below -5°C (23°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°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°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°C (104°F) , rated current need extra corrections, factors: $-Kt$ ①.
熔断器在40°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。

