

HFR高压滤波电阻

High Voltage Filter Resistors



● 产品特点

我司采用优质的电阻专用合金材料作为电阻片、电阻丝原料，经特殊工艺冲制或编制成各种片状、网状，可组合成任意功率与阻值、功率的滤波电阻器单元。最高可应用于800KV以上高压系统中。

Our company uses high-quality special alloy as raw materials for the resistors, resistance wire, through the special craft punch or compiled into various plate, mesh, which can be combined into filter resistor unit with any power and resistance value. The application can be 800KV and higher system.

● 应用范围

主要适用于高压/超高压输变电系统、工厂供配电系统、及其它阻尼滤波回路或无功补偿回路等，消除或减少谐波。

Mainly suitable for HV/EHV power transmission system, factory power supply and distribution system, and the damping filter circuits or other reactive compensation circuit, etc., to eliminate or reduce the harmonic.

● 外形及尺寸

根据客户要求订制 Customized as requirement



● 性能指标

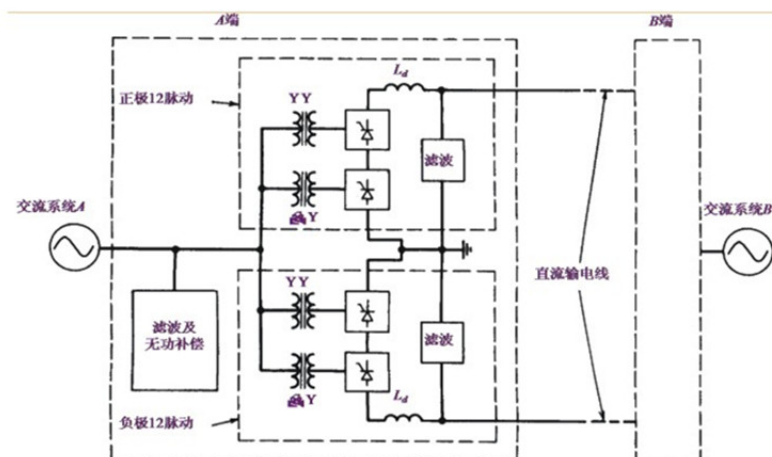
类别 Type	参数 Parameter	备注 Remark
热态额定值 Thermal rating	500 Ω +/-2.5% (2个箱体, Two boxes)	
最大持续运行电流 Max. continuous operation current	13.8A	
运行周期 operation cycle	长期通流 Long term flow	
冷却方式 Cooling method	自然风力 Nature	
安装方式 Installation method	二层安装 Two layer Installation	
重量 Weight	约1200公斤/箱体 About1200KG/box	
外形尺寸 Dimension	长 (Length): 2343m	含进出线端子 Include terminal of inlets and outlets
	宽 (Width): 1580m	二层总高 Total height of two layers
	高 (height): 4806m	
雷电波耐受水平 BIL	450KV	两端间 Between two ends. HV/LV
最小爬行比距 Min. creepage distance	43.3mm/KV	
箱体防护等级 Protection degree	IP 23	
接地 Grounding	箱体带电, 不可接地 The box carries electricity, no grounding allowed	

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外观图形
Appearance Graphics



● 性能特点

- ◎电阻采用专用镍铬合金，工作温度最高可承受1200度；
Adopt specific Ni-Gr alloy, working temperature up to 1200 degree;
- ◎电阻原件电感小，可控制至uH级数；
Small inductance for original resistance, can be controlled to the level of uH;
- ◎功率大，单片功率可达1800W；
Large power, single chip power can be as high as 1800W;
- ◎阻值变化小，额定高温状态下，阻值变化率可控制在10%；
Resistance value changes small, resistance value changeable rate can be controlled below 10% under rated high temperature;
- ◎结构紧凑，将外壳与电阻中间电位连接，降低BIL冲击强度，从而绝缘距离大大减少；
Compact structure, BIL impact strength and insulation distance is greatly reduced by connecting the shell with resistance medium potential;
- ◎可靠性强，多重绝缘，电阻内外及电阻原件均采用特殊材质绝缘及支撑；
Reliability, multiple insulation, resistor inside and outside and original resistance adopt special material for insulation and support;
- ◎污秽等级高，散热可靠同时保证户外恶劣环境下的绝缘。
Pollution level is high, the cooling is reliable and at the same time guarantee the outdoor insulation under the bad environment.

● 应用环境

按DL/T593-1996 3.1的规定。

Refer to DL/T593-1996 3.1

户内:

Indoor:

周围空气温度: +40°C~-25°C;

Environment temperature: +40°C~-25°C

日温差: ≤15K;

Daily Range of Temperature: ≤15K;

海拔: ≤3000m;

Elevation: ≤3000m;

最小公称爬电比距: 瓷质不小于18mm/kV,

Minimal creepage distance: higher than 18mm/kV for ceramics;

有机材料不小于20mm/kV。
higher than 20mm/kV for organics.

户外:

Outdoor:

周围空气温度: +40°C~-35°C;

Environment temperature: +40°C~-25°C

日温差: ≤25K;

Daily Range of Temperature: ≤15K;

海拔: ≤3000m;

Elevation: ≤3000m;

最小公称爬电比距: II级20mm/kV, III级25mm/kV,

Minimal creepage distance: II Level 20mm/kV, III Level 25mm/kV,

IV级31mm/kV。

IV Level 31mm/kV.

注: 超过正常使用条件时, 由用户与制造厂协商确定。

Remark: when the using conditions are beyond the normal ones, the user should make confirmation with the manufacturer.

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● 温升

通电电流 Current	通电时间 Time	电阻元件表面限温升 (°C) Surface limited temperature rise	阻值偏差 Resistance tolerance
瞬时过载电流 Instant overload current	30s	60	-----
短时过载电流 Short time overload current	10min	385	-----
最大持续电流 Max. continuous current	1h	385	+10%
正常电流 Normal current	1h	200	+5%

● 结构特点

1、电阻单元的连接简单、可靠

Resistor components connection is simple and stable.

螺栓连接--操作方便, 提高工作效率, 连接可靠性高; 维修时只需更换单片电阻片, 操作简单, 快捷。

Bolt connection, easy operation, high working efficiency, reliable connection; just change single resistor for mending, easy and convenient to handle.

2、防震动, 防腐蚀

Shock proof, anti-corrosion

整箱内部采用对称性结构设计, 抗震性能高; 内外部均采用高性能抗腐蚀材料制作, 防腐性好。

Inner box is designed by symmetrical structure for well earthquake resistance. Both inner and outer parts are made from corrosion resistant material for strong corrosion resistance.

3、结构非常紧凑, 性价比高

Compact structure, best quality with competitive price.

电阻器中位点与外罩连接, 有效降低雷电冲击强度, 从而使电阻器整箱体积大大减小。

The whole case volume of resistor box and lightning impulse is greatly reduced by connecting the resistor neutral point with outer cover.

4、绝缘可靠性高

Good insulation

箱体内外部、电阻元件间采用特殊绝缘材料进行绝缘及支撑。

Resistor inside and outside and original resistance adopt special material for insulation and support.

● 型号说明

HFR	210kW	60A	175kV	80R	IP23
产品类别 Style	额定功率 Power	电流 Current	雷电冲击 BIL	阻值 Value	IP等级 IP
HFR 高压滤波电阻器 High Voltage Filter Resistor	210kW	60A	175kV	80 Ω	IP23