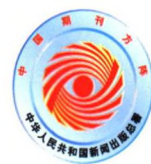




# 高电压技术



Compendex 核心期刊

高比例新能源电力系统稳定性分析与控制专题

October 2021 Vol.47, No.10

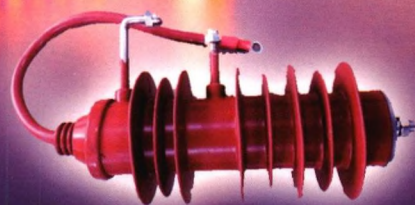
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- ▶ 防雷可靠性大幅度提高
- ▶ 提升配网防雷装置的运维便利性
- ▶ 避免各运行单位反复试错



根据标准化设计遵循“安全可靠、坚固耐用、标准统一、广泛适用”的原则，针对配网架空线路自身特点，雷电防护要求，制定标准化避雷器整体结构、电气参数、机械参数及相关工艺要求等。





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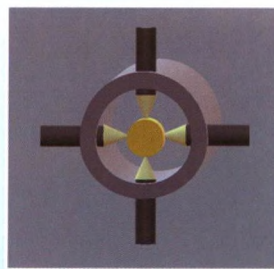
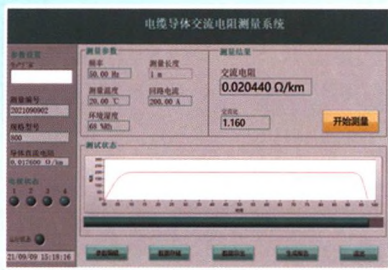
中国电力科学研究院有限公司  
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## 电缆导体交流电阻测量系统 (HVCRM-AC4500型)

“电缆导体交流电阻测量系统”由中国电科院自主研发，适用于精确测量大截面电缆导体的交流电阻值。系统通过同步测量电缆导体样品的电压、电流以及电压电流的相位差，计算得到导体的交流电阻值。系统在CIGRE工作组推荐方法基础上深度优化设计，测试精度高，操作简便，可实现电缆导体电阻的交流电阻的快速测量。

### 系统优势及特点

- 高精度24位AD、低谐波大电流交流电源、高精度互感器、快速DSP数字信号处理芯片进行运算控制，保证信号的原始采集精度。
- 回流套管设计和4电极同步采集方法，测量更准确，重复性更好，抗干扰性更强。
- 多通道对称测量电极设计，克服绞合导体磁场畸变的影响。
- 液压夹具使样品通过电流更均匀，减小测量误差。



### 主要参数

项目	分辨率	精确度	量程
电压	1 $\mu$ V	0.05%	10~40 mV
电流	1 mA	0.05%	20~1 000 A
相位	0.01°	0.05%	0° ~180°
测量长度	0.02 mm	0.05%	1 m
温度	0.01 $^{\circ}$ C	0.1%	-5 ~100 $^{\circ}$ C
交流电阻	0.001 $\mu$ $\Omega$	0.2%	5~50 $\mu$ $\Omega$



邓显波



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