



EHC-RCT 系列罗氏线圈

EHC-RCT Series rogowski coil

特点/用途 Key Features/Application:

- 柔性设计采用高弹性、耐弯曲材料，可贴合不规则形状导体，适用于狭小或复杂空间安装。
- 宽频带响应，频率范围广，可精准测量高频瞬态电流。
- 无磁饱和基于电磁感应原理（非磁性材料），无铁芯结构，避免传统 CT 的磁饱和问题，适合测量大电流（如短路电流、脉冲电流）。
- 高线性度与精度 输出信号与电流变化呈线性关系，误差率低（典型精度 $\pm 1\%$ 以内），适用于高精度需求场景。
- 电气隔离安全，无需直接接触导体，提供高压隔离，保障操作安全。

Product Features:

- Flexible design Adopt high elasticity, bending resistance material, can fit irregularly shaped conductors, suitable for installation in narrow or complex spaces.
- Wide band response, wide frequency range, can accurately measure high-frequency transient current.
- No magnetic saturation Based on the principle of electromagnetic induction (non-magnetic material), the iron-core structure avoids the magnetic saturation problem of traditional CT, and is suitable for measuring large currents (such as short-circuit current and pulse current).
- High linearity and accuracy The output signal has a linear relationship with the current change, and the error rate is low (the typical accuracy is within $\pm 1\%$), which is suitable for high-precision scenarios.
- Galvanic Isolation Safety No direct contact with conductors is required, providing high-voltage isolation for safe operation.

以下所示是此系列产品中较有代表性的几种，我们可以根据用户的特殊需求来设计和生产产品。

Only few typical products of this series are shown in the following pages. EHC is capable of making other customized design and manufacturing per user request.

规格及参数 Specifications and Parameters:

技术参数/ Technical parameters	指标/Data
最大一次电流/Maximum primary current I_{max}	100A~10kA
变比（可定制）/ Transformation ratio (customizable)	500A/400mV; 1000A/400mV; 2000A/400mV;
额定频率/ Rated frequency	50Hz/60Hz
固定位置准确度等级 / Fixed position accuracy grade	0.5S级 Class 0.5S
线性度/ Linearity	0.1%
温度漂移/ Temperature drift	$\leq 0.5\%$
直流偏置/ DC bias	$\leq 0.1mV$
带宽（-3dB）/ Bandwidth（-3dB）	45Hz~5kHz
输出内阻/ Output internal resistance	40 Ω ~ 200 Ω
带载能力/ Carrying capacity	5k Ω
最高电压/ Maximum voltage	600V
交流耐电压/ AC withstand voltage	4.5KVAC 50Hz 1min
工作温度范围/ Operating temperature range	-40℃~+70℃
相对湿度/ Relative humidity	$\leq 80\%RH$
海拔/ Altitude	$\leq 4000m$
外壳阻燃等级/ Flame retardant grade of the shell	UL94 V-0
<p>注 1/Remark 1: 固定位置安装时，精度等级为0.5S，误差极限见 6.2.2; When installed at a fixed position, the accuracy grade is 0.5 seconds, and the error limit is shown in 6.2.2.</p> <p>注 2/Remark 2: 非固定位置安装时，电流线路垂直通过线圈的误差偏移$\leq 0.8\%$，倾斜通过线圈的误差偏移$\leq 1.2\%$。When installed at a non-fixed position, the error offset of the current line passing through the coil vertically is $\leq 0.8\%$, and the error offset of the current line passing through the coil inclined is $\leq 1.2\%$.</p>	

产品典型外观 Product appearance

