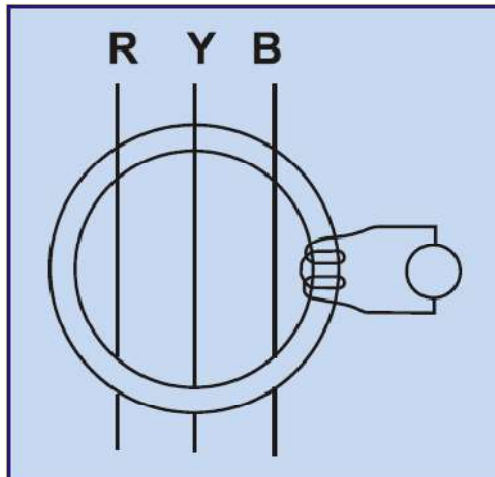


CORE BALANCE CURRENT TRANSFORMERS – CBCT/ ZCT



Kappa CBCT s (Zero-sequence CTs) offer a very sensitive method of detecting earth fault and earth leakage currents.

When an earth fault occurs in any system, sensitive protection can be obtained by using a relay that responds only to the residual current in the system. When the system is healthy, i.e, fault-free, the currents in the three phases sum up to zero. When an earth fault occurs, a residual current flows. This residual current can be extracted from the system in a number of ways, one of which is by using the core balance current transformer or CBCT. It is also known as a zero sequence CT, as the zero sequence currents that flow during an earth fault set up a flux that cause the CT to operate the relay. Thus, in a healthy system, there is no output from the CT.

CBCT S are always of low voltage, ring type construction, as they are used with cables insulated for the system voltage. The three core cable or all three single phase cables pass through the inner diameter of the CBCT.

Kappa CBCT s are customized to suit any system parameters and any type of relay. Our CBCTs are designed to optimize the effective pick-up current. CBCT s are especially recommended for sensitive earthfault protection where low effective setting is required.

Specs required for design and manufacture:

- Relay type
- Relay burden
- Relay setting current, upper and lower
- CBCT inner diameter
- Primary operating current