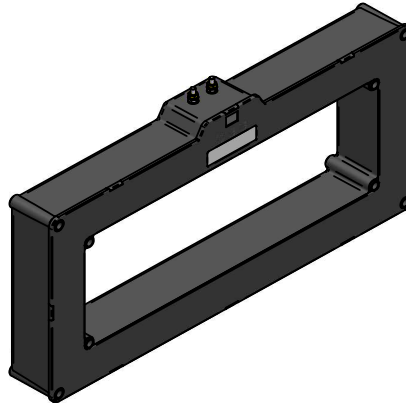


CORE BALANCE CURRENT TRANSFORMERS



B198



TA470



P150

- Network current from 1 to 4,000A
- Windows size from 33 x 23 mm to Ø 450 mm
- Indoor or outdoor installation depending on model

CBCT's, also known as zero-sequence transformers, are used for earth leakage and earth fault protection.

The three phase cables or single phase cable pass through the transformer. In the absence of default, no current flows in the secondary. In case of earth fault, the residual current flows through the secondary of the CBCT and trips the earth fault protection of the relay.

Our zero-sequence transformers are adaptable to all market relays.

Split-core versions are particularly suitable for retrofit operations and maintenance of existing facilities.

To define the transformer, we need window size required, the type of relay, the relay setting and its ratio.

Technical data

Highest voltage for equipment	0.72 kV
Power-frequency withstand voltage	3 kV
Network current I _{pn}	1 to 4,000 A
Secondary current I _{sn}	0.005 to 10 A
Frequency	50 or 60 Hz
Continuous thermal current	1.2 I _{pn}
Short-time thermal current I _{th}	80 I _{pn} .1s
Dynamic current I _{dyn}	2.5 I _{th}
Insulation class	E
Ambient temperature	-25 °C to +40 °C
Case	Thermoplastic or polyurethane
Standards	IEC - IEEE - CSA - AS - BS

Other characteristics on request

Highest voltage for equipment	Up to 2400 V
Power-frequency withstand voltage	Up to 11 kV
Knee voltage E _k	<10 to 100V
Resistance of the secondary winding	<0.1 to 10 Ohms
Ambient temperature	-40 °C to +70 °C

Accessories / Options

See transformers datasheets	www.rsisolsec.com
Secondary shunt bracket	To install split-core CTs
Outdoor / split-core	According to datasheets of each type

CORE BALANCE CURRENT TRANSFORMERS - APPLICATION NOTE

Customers

- ABB
- Alstom MiCOM
- Basler Electric BE1
- Bender
- CEE - ICE - ITH7111
- EATON
- Delta
- Microelettrica Scientifica
- Mitsubishi Electric MELPRO
- Schneider Electric MiCOM - VAMP - SEPAM
- SEL

Usual designations

- EPATR Core 1500/1
- BTF100P - BTF 150W cores
- BTO 100P - BTO 150W cores
- PWH 100/1 Protection
- 0.5 VA cl1 no sat at 4In
- 0.5 VA cl10P10
- 1 VA cl3
- Core balance CT 470/1
- 100 turns core, 1500 turns core
- Ratio 25, 50, 80, 470, 600
- PWLH Zero-sequence protection

Window for	Type	Useful dimension <i>mm</i>	Casing	Model	Datasheet <i>RS Isolsec catalog</i>	Weight <i>approx. kg</i>
Cable	Solid core	Ø 80	PA66 casing	P80	M1CA	3
Cable	Solid core	Ø 110	Resin casing	P150-110	M1CD	4
Cable	Solid core	Ø 150	Resin casing	P150	M1CD	3
Cable	Solid core	Ø 150	Molded resin	B146UL15	M1FN	4
Cable	Solid core	Ø 198	Molded resin	B198	M1FN	10
Cable	Solid core	Ø450	Molded resin	B450	M1FN	95
Cable	Split-core	Ø 81	Molded resin	TO81	M1GA	5
Cable	Split-core	Ø 110	Resin casing	PO150-110	M1CD	4
Cable	Split-core	Ø 121	Molded resin	TO121	M1GA	5
Cable	Split-core	Ø 150	Resin casing	PO150	M1CD	3
Busbar	Solid core	280 x 115	Resin casing	TA280	M1EF	17
Busbar	Solid core	470 x 160	Resin casing	TA470	M1EF	25

To precisely define the core balance current transformer you need, our engineers are available:

rsisolsec@rsisolsec.com

ph: +34 93 568 7310 in English, Spanish, Catalan

ph: +33 2 38 85 62 62 in English, French, Spanish

Installation

- Warning ! Never install a split-core CT on a live primary conductor. Unless you use the terminals to short circuit the secondary (optional)
- Caution! Never leave the secondary circuit open while the primary conductor is energized. High voltages might surge at secondary terminals, which might be hazardous to people and destroy the current transformer. Unless you use a voltage limiter device (see datasheet M2MA index 17)