CTG

Core balance transformer



Benefits

- **High sensisitivity**.
- **Wide range**.
- **Easy installation**.

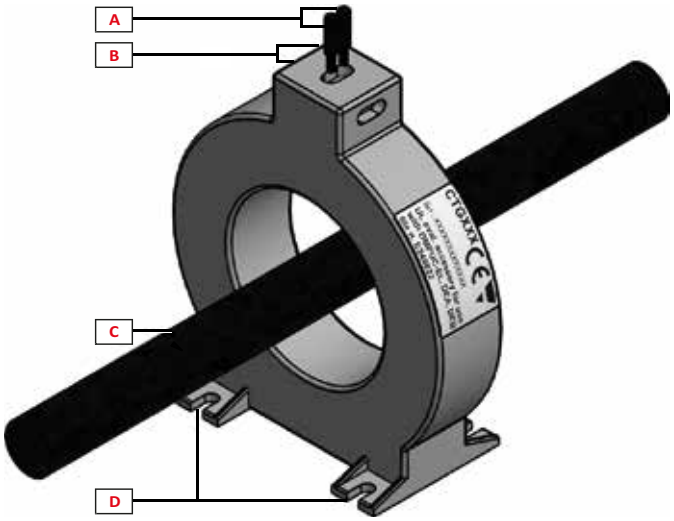
Description

CTG is a family of "core balance transformers".
These devices detect the difference in the current flow on the lines running through the coil.
They work on either single phase or three-phase mains.
When the vectorial sum of the current flowing to the load and the one flowing on the NEUTRAL cable (if present) is different from "0" (zero), a current on the CT secondary circuit is generated.
The current difference is usually caused by a leak which may cause an hazard.
The output signal can be used by a residual current monitoring device which will disconnect the monitored load or send an alarm signal.

Applications

CTGs are used for detecting current leaks, potentially hazardous, on electric loads. Typically on electric motors, pumps or devices installed in metallic structures. They are approved to be used in conjunction with Carlo Gavazzi DEA71 and DEB71 earth leakage monitoring relays.

Structure

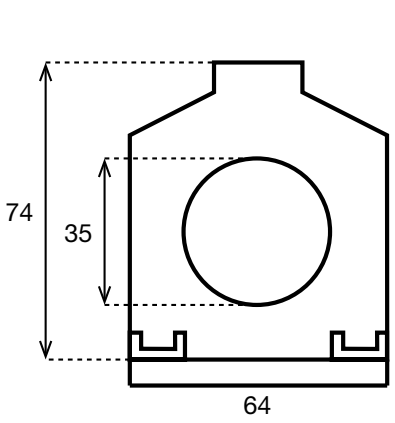


Element	Component	Function
A	Terminals	CT secondary, connection cables
B	Terminals screws	CT secondary, tightening screws
C	Monitored line	Monitored mains line Multi wire cable: - Single phase: Line + Neutral - Three Phase: L1, L2, L3 or L1, L2, L3 +N Important Note: Do not route earth wire through the CTG
D	Fixing flange	Panel mount fixing flange (CTG035 also with DIN rail adapter)

Features

General

Protection degree	IP20
Weight (packaging included)	CTG035: Approx. 80 g CTG050: Approx. 100 g CTG070: Approx. 125 g CTG120: Approx. 235 g CTG160: Approx. 1220 g CTG210: Approx. 1860 g
Dimensions (mm) (WxHxD)	CTG035: 64 x 74 x 20 mm CTG050: 87 x 98 x 20 mm CTG070: 105 x 117 x 20 mm CTG120: 155 x 170 x 20 mm CTG160: 241 x 254 x 33 mm CTG210: 290 x 304 x 33 mm
Internal diameter	CTG035: 35mm CTG050: 50mm CTG070: 70mm CTG120: 120mm CTG160: 161mm CTG210: 210mm



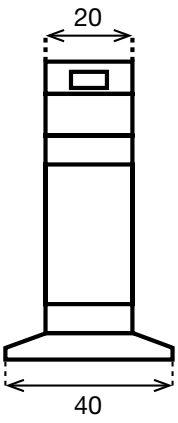
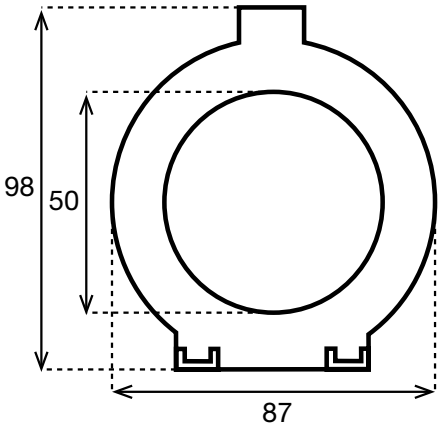


Fig. 1 *CTG035*



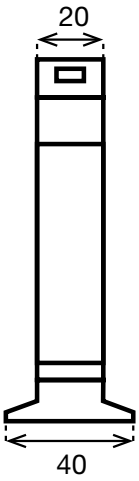


Fig. 2 *CTG050*

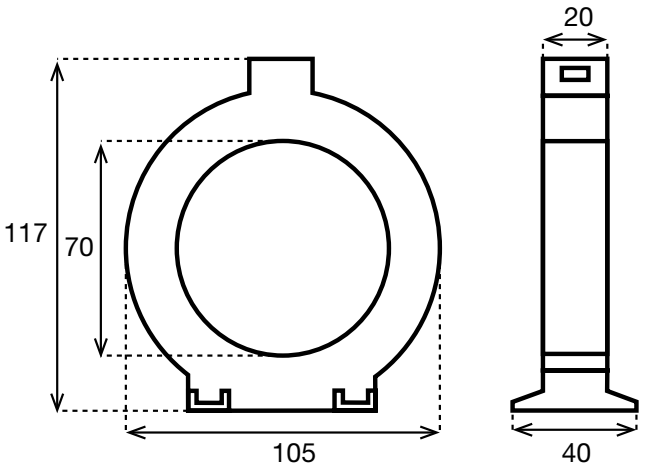


Fig. 3 *CTG070*

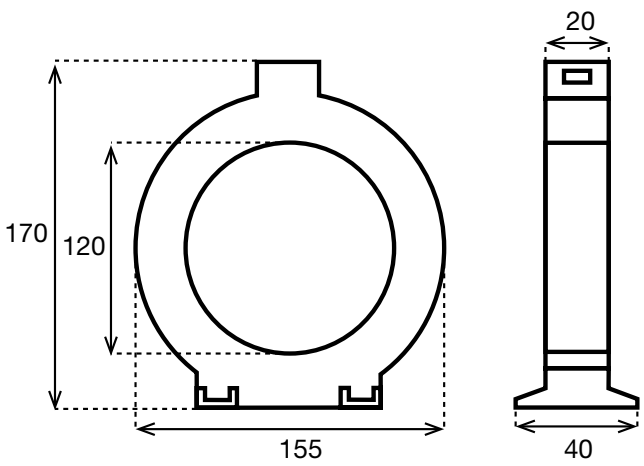


Fig. 4 *CTG120*

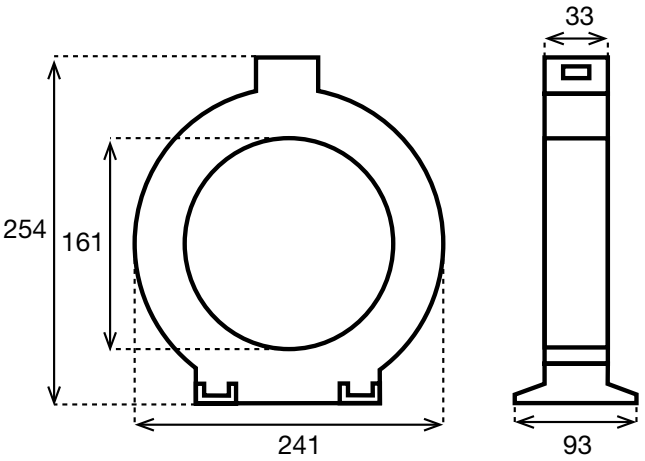


Fig. 5 *CTG160*

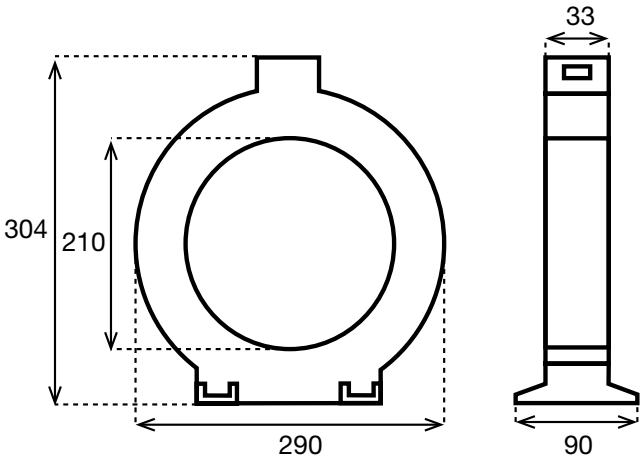


Fig. 6 *CTG210*

Environmental

Operating temperature	-5°C to +50°C (+23°F to 122°F)
Storage temperature	-5°C to +50°C (+23°F to 122°F)

Compatibility and conformity

Standard compliance	According to IEC44-1, IEC185
Approvals	cUL (when used in conjuction with Carlo Gavazzi devices: DEA71, DEB71 or DMPUC-EL)
CE-marking	L.V. Directive EN60947-5-1, EMC Directive EN 60947-2 Annex M, EN60947-8

Input/Output

Current transfomer ratio	1000/1
Operating frequency	50-60 Hz
Max. system voltage	720 VAC
Rated insulation level	3 kV AC

Connections

Primary connection	Single phase or 3 phase mains, pass through
Secondary connection	Screw type 2 x 2.5mm²

Type selection

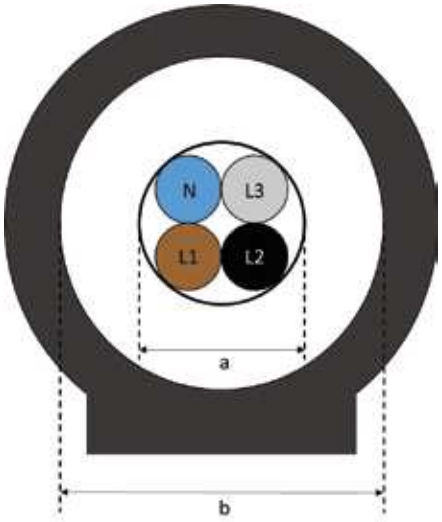


Fig. 7 *Selection*

Select the correct CTG size according to mains cable dimension: referring to fig. 7 the dimension of CTG shall be: b ≥ 1.5 * a.

References

Further reading

Information	Document	Where to find it
DEA71 Datasheet	dea71_ds.pdf	http://www.productselection.net/PDF/UK/dea71_ds.pdf
DEB71 Datasheet	deb71_ds.pdf	http://www.productselection.net/PDF/UK/deb71_ds.pdf
DEA/DEB/CTG Instruction manual	dea_deb_im.pdf	http://www.productselection.net/manuals/UK/dea_deb_im.pdf
2D drawings	2D_CTG.zip	http://www.productselection.net/dxf/2D_ctg.zip
3D drawings	3D_CTG.zip	http://www.productselection.net/dxf/3D_ctg.zip

Order code

CTG□

Complete the code entering the corresponding option instead of □

Code	Option	Description
CTG	-	Core balance transformer
□	035	35 mm Internal diameter
	050	50 mm Internal diameter
	070	70 mm Internal diameter
	120	120 mm Internal diameter
	160	160 mm Internal diameter
	210	210 mm Internal diameter

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