

Circular Toroid (Zero Current Transformer)



Features

- For use in conjunction with Broyce "Type A" Earth Leakage Relays.
 - Designed to detect leakage current and transmit a proportional signal to an Earth Leakage Relay.
 - Surface mounting with 4 fixing slots.
 - Slim design.
- DIN Rail fixing clip available.

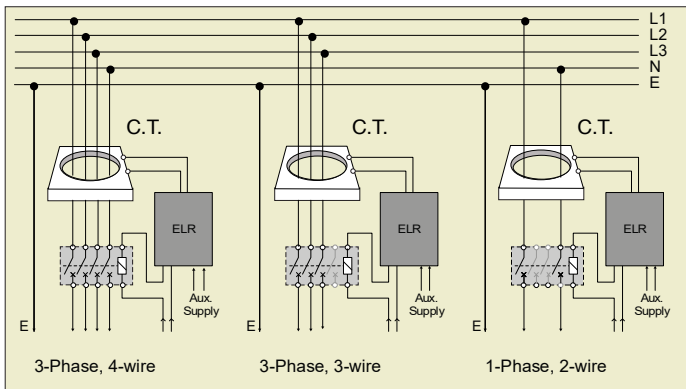


Technical Specification

Internal diameter:	35mm
Rated system voltage:	720VAC
Insulation level:	3kVAC
Current ratio:	1/1000
Rated operational current (I.e.):	65A (25mm ²). Max. cross-section/phase cable size shown in brackets and assumes 3P + N copper cables.
Maximum permissible current:	1kA cont., 5kA for 1.5s, 100kA for 0.05s
Minimum I Δ n setting on Earth Leakage Relay for each type of toroid:	0.03A
Max. Distance	50m (max.) Between toroid and ELR
Ambient temperature:	-20 to +60°C
Relative humidity:	+95%
Housing:	Grey ABS
Mounting option:	Surface mount only using fixing slots provided.
Terminal conductor size:	≤ 2.5mm ² solid / ≤ 1.5mm ² stranded
Approvals:	CE Compliant. Conforms to: IEC61869 parts 1 and 2

Function Diagram

Typical connection examples are shown below.



Installation Note

- Installation work must be carried out by qualified personnel.
- Before installation, isolate the supply to the cables that are to be passed through the toroid.
- Installation of the toroid, along with the Earth Leakage Relay must be carried out in accordance with the latest wiring practices and regulations.

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Installation DO's and DONT's

Correct installation of the Earth Leakage Relay and toroid should ensure trouble free operation, in particular, if this document is followed.

1. Always ensure the Earth conductor DOES NOT pass through the toroid. If this is unavoidable, the Earth must be routed back through the toroid again and around, as shown in Fig.1.
2. DO NOT pass individual conductors through separate toroids, as shown in Fig. 3.
3. Ensure the cable is central in the toroid (see Fig. 4)
4. As a rule, select a toroid that has an inside diameter which is twice that or greater than the outsider diameter of the cable(s) to be passed through (see Fig. 5)
5. Place the toroid on a straight section of cable, not near a bend (see Fig. 6)
6. Keep the cable and toroid away from intense magnetic fields from nearby equipment.

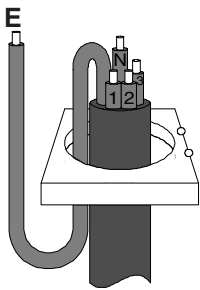


Fig. 1

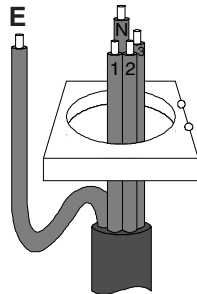


Fig. 2

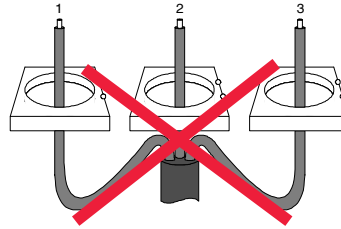


Fig. 3

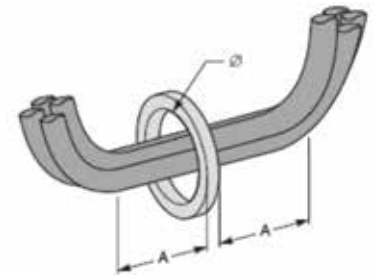


Fig. 6

$A \geq \varnothing$

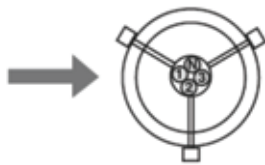


Fig. 4

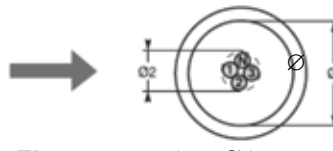


Fig. 5

$\varnothing 1 \geq \varnothing 2$

Dimensions (in mm)

Toroid Type:	A Dia.	B	C	D	E	F	Weight
BZCT035	35	64	74	40	20	32	77g

^exc. mounting feet

