

ACCUline BCT-C

Customisable high-accuracy current transformer for billing
from 0.2 to 2400 A



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The solution for

- > Energy
- > Infrastructure & Transport
- > Industry

Strong points

- > Exceptional accuracy
- > Multiple ratings
- > Easy to install
- > Infinitely customisable

Conformity to standards

- > IEC 61869-2
- > IEC 61010

Function

BCT-Cs are current transformers that offer accurate measurement of currents up to 2400 A. BCT-C current transformers play a crucial role in billing applications and those that require state-of-the-art accuracy. Their level of accuracy ensures extremely reliable and true-to-life measurements.

Advantages

Exceptional accuracy

Accuracy class 0.2S ensures very high quality measurement, even at very low loads. Accuracy class 0.2Smax, exclusive to Socomec, ensures extremely accurate measurements, from 0.2 to 120% I_n , with a constant accuracy of 0.2% over the entire range.

Ultra-wide measurement range

BCT-C performance reduces the number of references needed in the field. A single BCT-C can cover a current range from 4 to 2400 A.

Easy to install

Several mounting options are available, enabling installation on a backplate, a DIN rail or directly on the bar or cable itself.

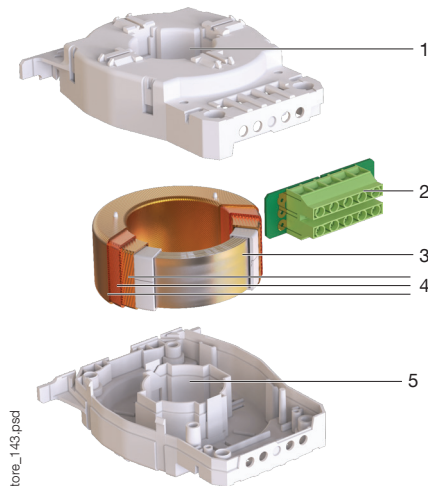
Infinitely customisable

The technical specifications are fully customisable, from rated current to the number of turns desired.

Current transformers adaptable to all your requirements

Socomec's BCT-C range can meet all your requirements thanks to its high capacity for customisation. From primary current rating to number of turns, the technical specifications can be adjusted to perfectly align with the requirements of your applications.

List of customisable characteristics



1. Product type:
 - Solid-core current transformer
2. Secondary signal:
 - 1 A, 5 A, 333 mV
 Output type:-
 - Terminal block
3. Accuracy class:
 - 0.2S / 0.2S max
4. Rated current range:
 - 100...2000 A
 - Optimisation of measurement range with three separate windings
5. Aperture size:
 - 40...105*42

Selection guide

Need to configure your current transformers? Use the table below to guide your selection. Start by selecting the dimensions of your frame. The technical specifications can be fully adapted.

Parameters	BCT-C-40	BCT-C-90	BCT-C-105.42	without frame
Rated current range (A) ⁽¹⁾	100...500	200...2000	500...2000	Contact us
Actual current range (A) ⁽²⁾	0.2...600	0.4...2400	1...2400	
Aperture size (mm)	40	90	105*42	
Accuracy class	0.2S 0.2S max			
Secondary signal	1 A 5 A 333 mV			
Frequency (Hz)	50			
Output type	Terminal block			
Phase-neutral voltage	720 V			
Measurement category	CAT III			
Rated withstand voltage	3 kV			
IP Rating	IP20 / IK 07			
Operating altitude	<2000 m			
Operating temperature	-10...+70 °C			
Ambient storage temperature	-25...+85 °C			

1. The rated current of the current transformer is within the range of values specified.

2. In accordance with IEC 61869-2, accuracy class 0.2S is specified for a current between 0.01I_n and 1.2I_n.

For example, a current transformer with BCT-C-90, having a rated current of 2000 A and an accuracy class of 0.2S, covers a current range of 20 to 2400 A, while 0.2S_{max} units provide an accuracy of 0.2% from 0.002 I_n to 1.2 I_n.

References

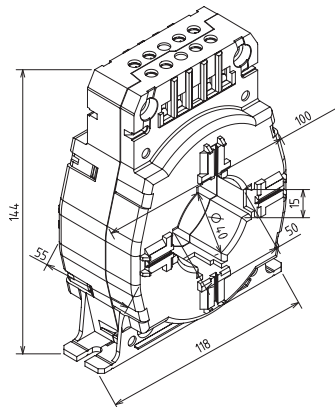
The ACCULine range offers the ability to adjust all parameters to create the perfect current transformer for your requirements. Do not hesitate to ask for advice or to obtain a quote by contacting your local Socomec dealer.

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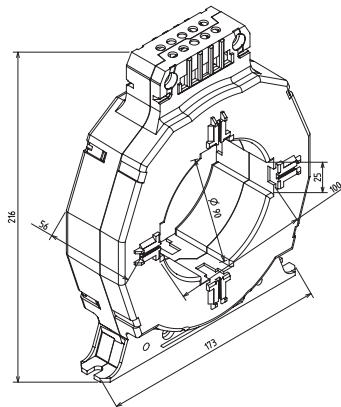
Dimensions (mm)

BCT-C-40



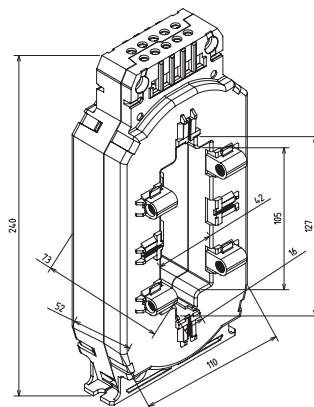
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BCT-C-90



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BCT-C-105.42

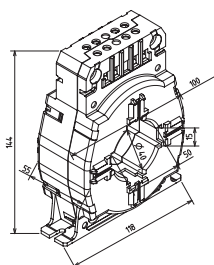


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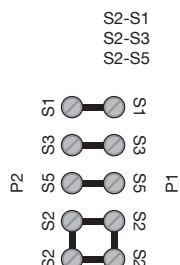
Multi-ratings

The BCT-C range frames are equipped with various output terminal blocks and grouped under a single reference, which makes it possible to cover a current range from 20 to 2400 A while maintaining accuracy class 0.2S. The advantage of using a single reference is in its versatility, enabling use in various locations. Gain agility during your installations and optimise your resources.

As BCT-Cs are multi-rating, selection of the ratio is made with reference to the diagram below.



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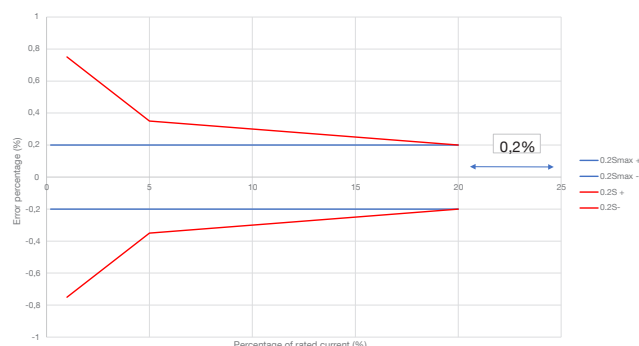
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Ratio	Connection
2000/5 ⁽¹⁾	S2-S1
1000/5 ⁽¹⁾	S2-S3
5000/5 ⁽¹⁾	S2-S5

(1). The specified ratios are given as an example and can be adjusted according to your requirements.

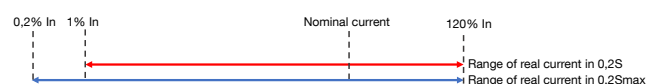
Discover the 0.2Smax accuracy class

Socomec's 0.2Smax class offers you unequalled performance. BCT-C current transformers in class 0.2Smax are 40% more efficient in amplitude and 30% more efficient in phase shift than current transformers in class 0.2S at low load. This efficiency gain enables you to minimise technical losses.



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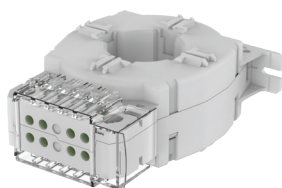
Accuracy class 0.2Smax enables even wider measurement ranges to be achieved, while guaranteeing 0.2% accuracy over the entire range.



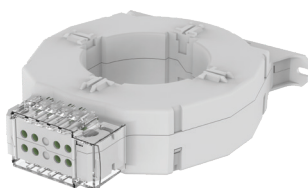
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Sealing

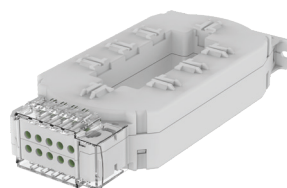
(Optional) sealing enables the cover to be sealed preventing any unauthorised modification of the connections.



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Compatible accessories

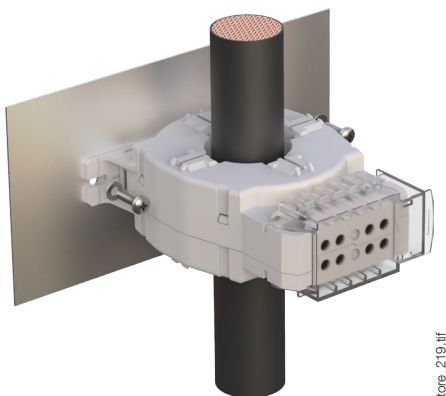
Simplified installation

The design of the BCT-C range simplifies installation. Whether in a conventional environment (DIN rail or backplate) or not, you can choose between the following mounting options:

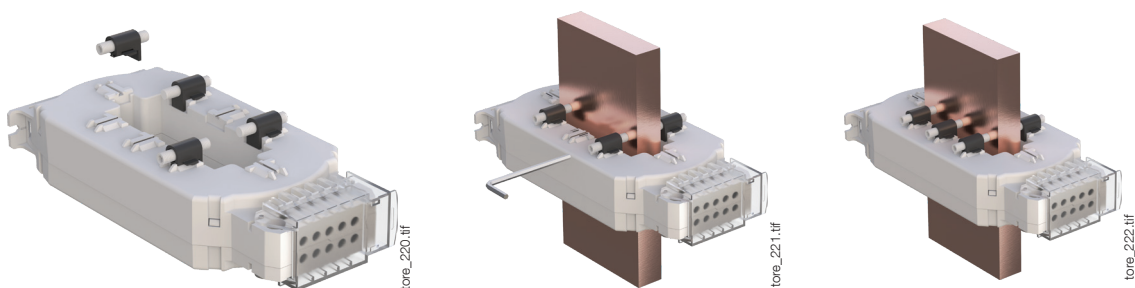
On DIN rail



On backplate



On bar or on cable



The entire BCT-C range is equipped with fixing screws for installation on one or more bars.