

PRODUCT FOR HIGH VOLTAGE APPLICATION

## **ELK CN3-720**

# Current transformer for Gas -insulated Switchgear ELK-3



01 Example of secondary terminal marking -IEC standard marking

<sup>02</sup> Example of secondary terminal marking - IEEE standard marking

Technical parameters of CT	Value
Highest voltage for equipment	420 kV
Rated power frequency test voltage	650 kV
Rated primary current	100 - 4 000 A
Rated short-time thermal current	≤63 kA/3s
Rated dynamic current	≤171 kA

#### Description

The current transformer type ELK CN3 without a primary conductor is designed for installation in SF<sub>6</sub> GIS indoor or outdoor systems. The ELK CN3 current transformers have the possibility of reconnection on the secondary side. The maximum number of secondary windings is 5; another number of secondary windings may be agreed between the supplier and purchaser upon request. The maximum number of taps per secondary winding is 5; another number of taps may be agreed between the supplier and purchaser upon request. The number and possible combinations of ring cores with extreme parameters are sometimes limited by the space available within the core housing. There are more details about ELK CN3 current transformer installation in a separate manual available upon request.

The secondary windings are designed for metering or protection purposes. One terminal of each used secondary winding and one terminal of unused winding have to be earthed during the transformer operation (unused short-circuited also).

The terminals allow M4 connection.

#### Technical data

The current transformers are connected to various types of protection and measuring equipment and the specific requirements are accordingly multiple. In principle the current transformers can be assigned to two ranges of application:

- a) Measuring;
- b) Protection (possibly with transient requirements).

Any accuracy class defined by international standards is possible:

- IEC 61869-1; IEC 61869-2;
- IEC 60044-1;

- IEC 60044-6 protective types for transient performance;
- ANSI/IEEE C57.13;
- GOST 7746-2001;
- Additional national standards and regulations on request.

The transformer can be installed by an authorized person only and needs to comply with instructions for installation, use and maintenance.

Technical data of switchgear ELK-3	Value
Rated voltage	up to 420 kV
Rated power-frequency withstand voltage, 1 min	650 kV
Rated lightning impulse withstand voltage, 1.2/50 $\mu$ s.	1 425 kV
Rated switching impulse withstand voltage, 250/2 500 µs	1 050 kV
Highest voltage for equipment	420 kV
Rated frequency	50/60 Hz
Rated continuous thermal current	≤4 000/5 000 A
Rated dynamic current	≤171 kA
Rated short-time thermal current	≤63 kA/3s
Rated primary current	100 to 4 000 A
Minimum functional pressure of SF <sub>6</sub> -gas (20°C)	450 kPa
Maximum ambient temperature	40°C
Minimum ambient temperature	-40°C

The above data are not limiting values. Additional data on request. We reserve the right to alter data and technical details without notice.

#### Marking of current transformer outlets



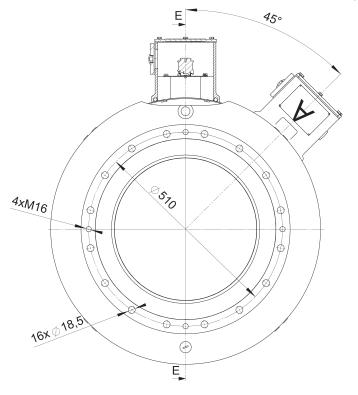


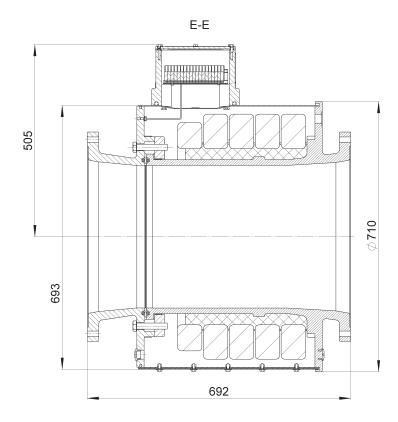
0:

### **Dimensional Drawing**

**ELK CN3-720** 

Drawing No.: 2RKA014241A0220







CONTACT US
ABB s.r.o.
EPDS Brno
Videnska 117, 619 00 Brno,
Czech Republic

Tel.: +420 547 152 021 +420 547 152 854 Fax: +420 547 152 626 E-mail: kontakt@cz.abb.com We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents in whole or in parts - is forbidden without prior written consent of ABB.

Copyright© 2019 ABB All rights reserved