MEDIUM VOLTAGE PRODUCT

KOKM for primary GIS

Indoor cable current transformers

Contents

KOKM for new generation GIS Ring core current transformers

Introduction

Ring core current transformers are used for feeder metering in termination panels. They are located on the outer cone outside the gas compartment. The winding of the ring core current transformer is enclosed in cast resin. The cross-section of the connecting wiring is 2.5 mm² (larger cross-sections on request). The possible technical data can be found in the chapter for each type separatelly.

Dimensioning of current transformers
The stipulations and recommendations of IEC 61936, section 6.2.4.1 “Current transformers” and IEC 61869-2 are to be observed in the design of current transformers. The rated overcurrent factor and rated burden of current transformer cores are to be selected in such a way that protection devices can function correctly and measuring systems are not damaged in the event of a short-circuit.

Protection purposes
Protection cores are logically operated at above rated current. The function of the selected protection system is essentially determined by the connected current transformer. The requirements to be fulfilled by the current transformers for the selected protection or combination device can be found in the documentation from the protection equipment supplier. For an accurate switchgear proposal, these current transformer data are to be provided with the product enquiry and then finally agreed by the operator and manufacturer in the order.

The direct path to the right current transformers is via the technical documentation of the selected protection device. The current transformer requirements of the relay can be found there.

Measuring purposes
In order to protect measuring and metering devices from damage in the case of a fault, they should go into saturation as early as possible. The rated burden of the current transformer should be approximately the same as the operating burden consisting of the measuring instrument and cable. Further details and designations can be found in IEC 61869-2.

Recommendations
In principle, we recommend a rated secondary current of 1 A. The current transformer ratings for ABB protection devices are known. The transformer data can be selected to suit the protection application and the network parameters. If, however, third party devices are to be connected, we recommend a review by our engineers at an early stage. Taking account of the burdens and overload capacities, our experts can examine the entire current transformer requirements of the third party protection devices on request.

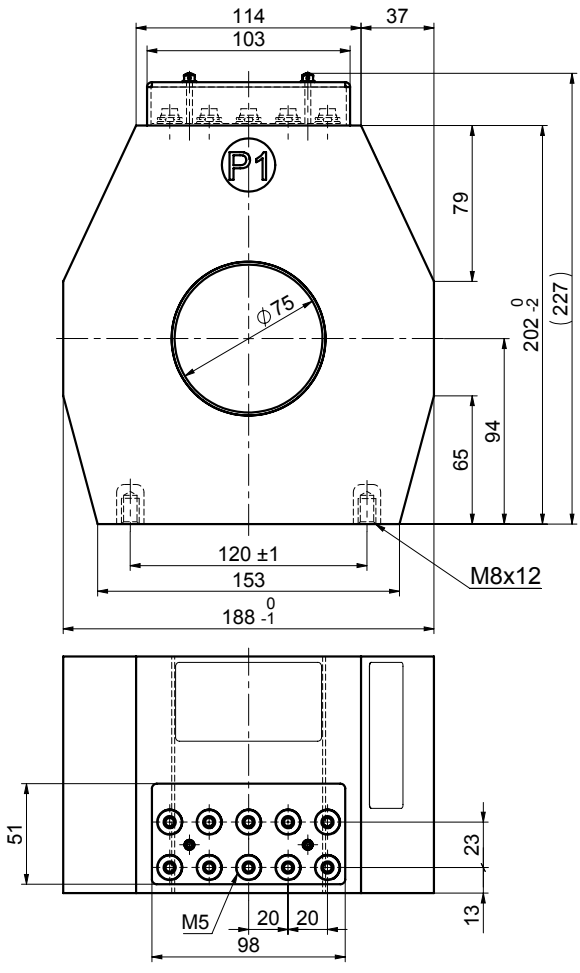
Further information for different protection systems
If the current transformers to be used in the network concerned (e.g. on the opposite side of the network) have already been specified, early coordination of the switchgear configuration is advisable. This requires, but is not limited to, the provision of data on the ratio, rated capacity, accuracy class, and the resistance of the secondary winding and secondary wiring. Further configurations for the particular application can then be requested.

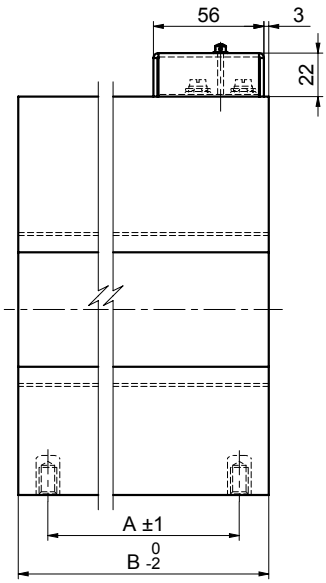
KOKM 072 EF

Technical parameters	Transformer type: KOKM 072 EF
Highest voltage for equipment, U_m	0.72 kV
Rated power-frequency withstand voltage	3 kV
Rated lightning impulse withstand voltage	-
Rated frequency f_R	50 or 60 Hz
Rated primary current, I_{pr}	50 – 2 500 A
Rated secondary current, I_{sr}	1 or 5 A
Extended current rating	1.2 × I_{pr} A
Rated short-time thermal current, I_{th}	max. 50 kA/1s
Rated dynamic current, I_{dyn}	2.5 × I_{th} kA
Conformity with standards	IEC, ANSI, GOST, others on request
Maximal number of cores	5

KOKM 072 EF – is the indoor, cable, low-voltage current transformer in resin insulation. This type is suitable for the measurement of phase currents. A busbar or cable serve as the primary conductor. Current transformers from the KOKM series can also be used to measure phase currents at voltages higher than 0.72 kV if the insulation of the high-voltage primary conductor fulfils the requirements of the relevant standards related to the working voltage. KOKM 072 EF has inner diameter 75 mm.

Identification for customer:
KOKM 072 EF RC10





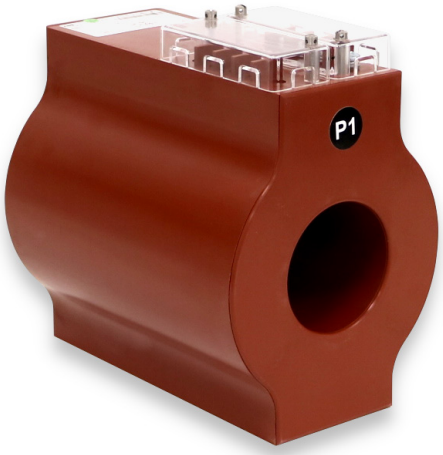
Drawing number	Type	A (mm)	B (mm)	Suitable for Prime Gear
1VL4900391R0108	KOKM 072 EF 12	90	120	YES
1VL4900391R0109	KOKM 072 EF 14	110	140	YES
1VL4900391R0110	KOKM 072 EF 15	120	150	-
1VL4900391R0111	KOKM 072 EF 16	130	160	-
1VL4900391R0112	KOKM 072 EF 18	150	180	-
1VL4900391R0113	KOKM 072 EF 20	170	200	-
1VL4900391R0114	KOKM 072 EF 22	190	220	-

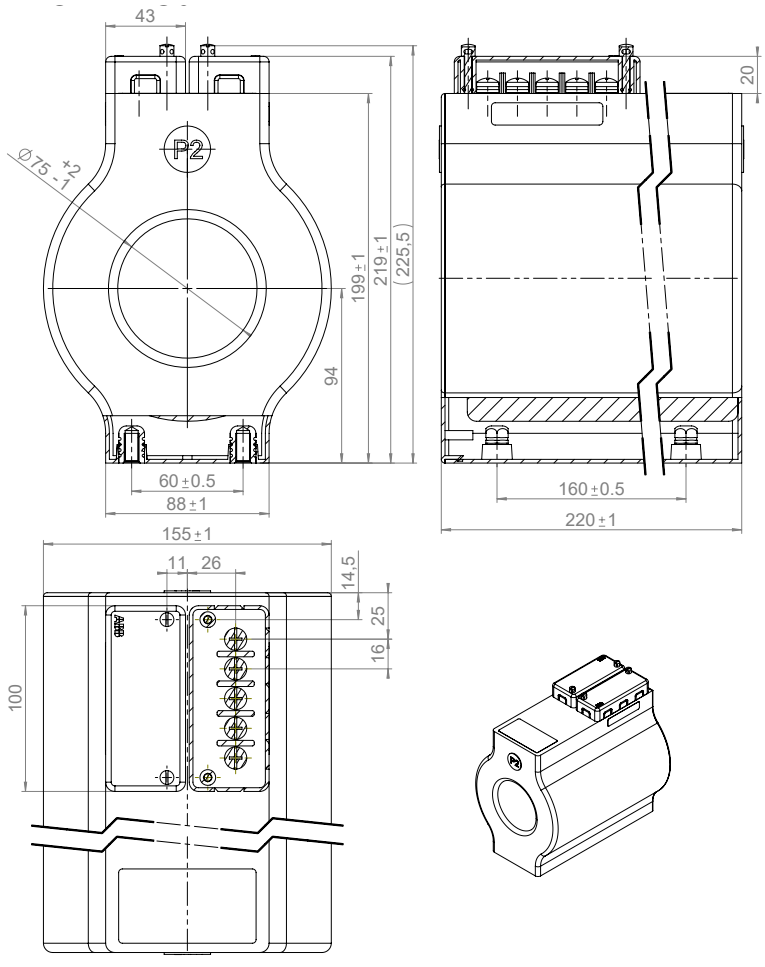
KOKM PG01 22

Technical parameters	Transformer type: KOKM PG01 22
Highest voltage for equipment, U_m	0.72 kV
Rated power-frequency withstand voltage	3 kV
Rated lightning impulse withstand voltage	-
Rated frequency f_R	50 or 60 Hz
Rated primary current, I_{pr}	50 – 1 250 A
Rated secondary current, I_{sr}	1 or 5 A
Extended current rating	1.2 × I_{pr} A
Rated short-time thermal current, I_{th}	max. 70 kA/1s
Rated dynamic current, I_{dyn}	2.5 × I_{th} kA
Conformity with standards	IEC, ANSI, GOST, others on request
Maximal number of cores	5

KOKM PG01 22 – is the indoor, cable, low-voltage current transformer in resin insulation. This type is suitable for the measurement of phase currents. A busbar or cable serve as the primary conductor. Current transformers from the KOKM series can also be used to measure phase currents at voltages higher than 0.72 kV if the insulation of the high-voltage primary conductor fulfils the requirements of the relevant standards related to the working voltage. KOKM PG01 22 has inner diameter 75 mm.

Identification for customer:
KOKM PG01 22





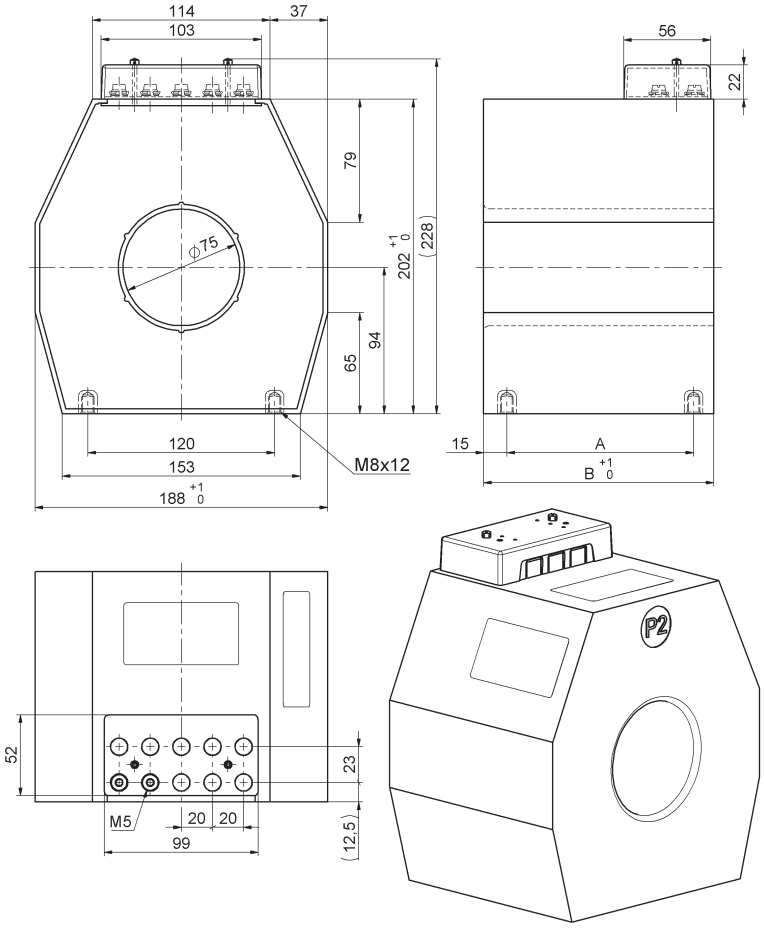
DRAWING NUMBER	TYPE
2RKA027095A0001	KOKM PG01 22

KOKM PG03

Technical parameters	Transformer type: KOKM PG03
Highest voltage for equipment, U_m	0.72 kV
Rated power-frequency withstand voltage	3 kV
Rated lightning impulse withstand voltage	-
Rated frequency f_R	50 or 60 Hz
Rated primary current, I_{pr}	50 – 2 500 A
Rated secondary current, I_{sr}	1 or 5 A
Extended current rating	1.2 × I_{pr} A
Rated short-time thermal current, I_{th}	max. 50 kA/1s
Rated dynamic current, I_{dyn}	2.5 × I_{th} kA
Conformity with standards	IEC, ANSI, GOST, others on request
Maximal number of cores	5

KOKM PG03 – is the indoor, cable, low-voltage current transformer in resin insulation. This type is suitable for the measurement of phase currents. A busbar or cable serve as the primary conductor. Current transformers from the KOKM series can also be used to measure phase currents at voltages higher than 0.72 kV if the insulation of the high-voltage primary conductor fulfils the requirements of the relevant standards related to the working voltage. KOKM PG03 has inner diameter 75 mm.

Identification for customer:
KOKM PG03



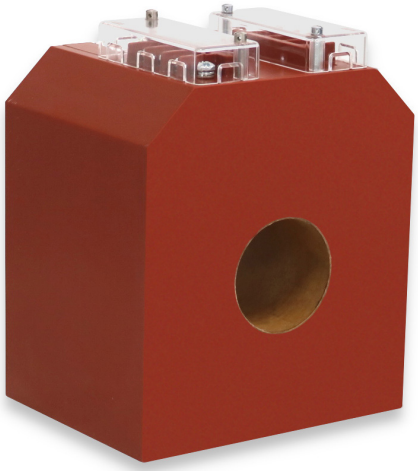
DRAWING NUMBER	TYPE	A [mm]	B [mm]
1VL4900391R0210	KOKM PG03 15	120	148
1VL4900391R0214	KOKM PG03 22	190	218

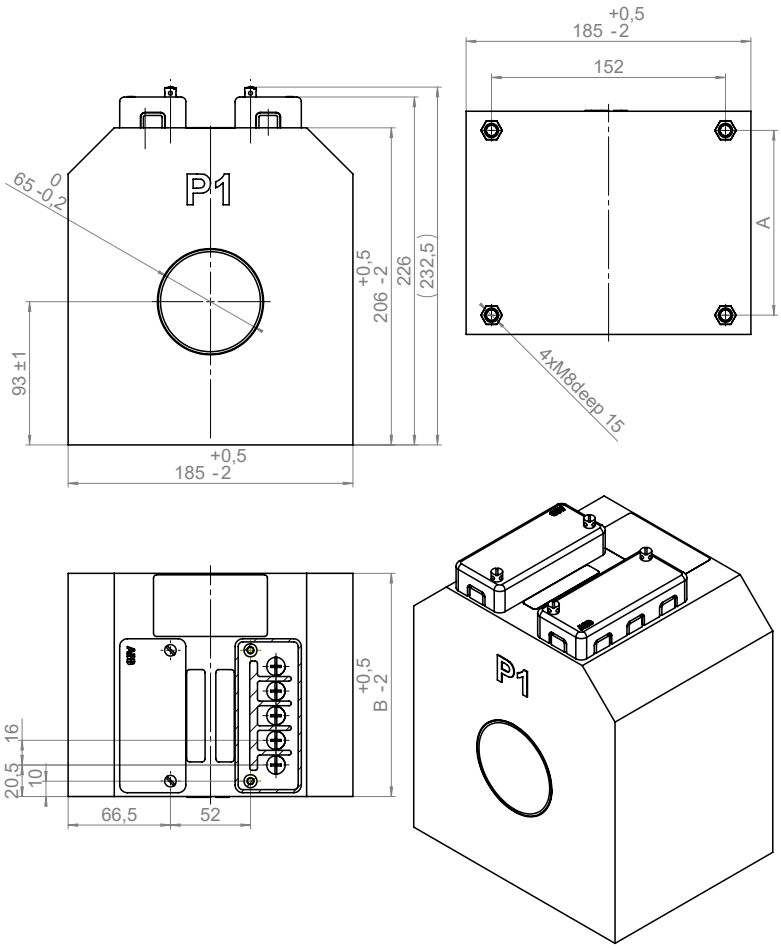
KOKM PG04 14

Technical parameters	Transformer type: KOKM PG04 14
Highest voltage for equipment, U_m	0.72 kV
Rated power-frequency withstand voltage	3 kV
Rated lightning impulse withstand voltage	-
Rated frequency f_R	50 or 60 Hz
Rated primary current, I_{pr}	50 – 1 250 A
Rated secondary current, I_{sr}	1 or 5 A
Extended current rating	1.2 × I_{pr} A
Rated short-time thermal current, I_{th}	max. 70 kA/1s
Rated dynamic current, I_{dyn}	2.5 × I_{th} kA
Conformity with standards	IEC, ANSI, GOST, others on request
Maximal number of cores	5

KOKM PG04 14 – is the indoor, cable, low-voltage current transformer in resin insulation. This type is suitable for the measurement of phase currents. A busbar or cable serve as the primary conductor. Current transformers from the KOKM series can also be used to measure phase currents at voltages higher than 0.72 kV if the insulation of the high-voltage primary conductor fulfils the requirements of the relevant standards related to the working voltage. KOKM PG04 14 has inner diameter 65 mm.

Identification for customer:
KOKM PG04 14





DRAWING NUMBER	TYPE	A [mm]	B [mm]
2RKA027178A0001	KOKM PG04 14	120	145

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