

Outline diagram and table

a [mm]	b [mm]
370	295
505	340
	370

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MAS⁻¹²-24 -40

Synthetic resin insulated outdoor current transformer range

Zici

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TYPE MARKING

The letters and numerals applied in type marking have the following meanings:

Μ	synthetic resin insulated			
А	current transformer			
S	outdoor design			
12,24,40	highest voltage for equipment			

GENERAL DESCRIPTION

The current transformers types MAS-12, -24, -40 are manufactured for 10-600 A, with primary changeover for 2x5-2x300 A rated primary currents. The current transformers comply with the specifications of MSZ EN 60044-1 and EN 60044-1 standards. It is also possible to produce according to other standards, differing from the afore-mentioned. The MAS-12, -24, -40 loop type current transformers are manufactured of single or double core design, with synthetic resin insulation for outdoor use with primary changeover possibility. The secondary winding is wound up to a ring core, made of cold rolled electrical steel. The primary connection is possible to cylindrical terminal blocks located on the upper part of the device. In case of primary changeover the current transformer will be manufactured with 10 x 60 x 163 mm primary terminals of copper. The changeover can be carried out by means of connecting lamellas according to the connection drawing. The terminals and lamellas are protected by plating. The lower part of the device is made of cast aluminium. On this casting can be found the secondary terminals, closed with a watertight sealable cover. The connecting wires can be lead through a PM16 stuffing box.

PACKING, DELIVERY

The current transformer is delivered in a finish suitable for use under normal climatic conditions, packed in corrugated paper box, but upon agreement also in packing fit for marine or aerial transport.

STORAGE

In case of a long-term storage, it is practical, to keep the current transformer in a covered, well ventilated room.

INSTALLATION, PUTTING INTO OPERATION, OPERATION

Before installation the current transformer has to be checked in order to discover on the surface, or on the terminals any possible damages occurred during the transportation or the storage. The soundness of the synthetic resin body, the terminal blocks, the secondary cover, the connection lamellas (in case of primary changeover) and the availableness of the attached primary terminals are to be controlled. The current transformer can be lifted by means of the two eye bolts attached. Rough lifting, pull about must be avoided. The current transformer can be installed only in upright position. The fastening to the supporting structure can be accomplished by four M12 bolts. The M12 earthing screw (for protective earthing) can be found on the lower part of the cast aluminium on the opposite side to the secondary terminals. The connection to the secondary terminals is achieved by M6 screw. The earthing of one point of the secondary winding (system earthing) suggested. The operation is possible keeping the prescriptions of the relevant security-, labour- and property-protection directives. Any faults and breakdowns emerging in the customer's sphere of interest due to breaching, disobeying the afore-mentioned, exempt the manufacturer from the warranty and guarantee liabilities.

MAINTENANCE

The maintenance consists of works to be done according to the general rules for outdoor instruments and discontinuing of the accidental irregularities.

These are: - periodical inspection of the contamination and cleaning, depending on the degree of impurity,

- -inspection of the surfaces,
- periodical inspection and tightening of the bolts of the primary and secondary terminals,

STATE VERIFICATION

The secondary windings of the current transformers in classes 0.2 and 0.5 are manufactured in finish suitable for verification. The verification will be made only on special request, in this case the verification will be accomplished and documented by an official seal or an affixed verification stamp, by the State Office for Measurement.

DATA TO BE SUBMITTED WITH THE ORDER

- type (e.g. MAS-24),
- rated insulation level (e.g. 24/50/125 kV),
- rated primary and secondary currents (e.g. 200/5/5 A or in case of primary changeover function 2x100/5/5 A),
- accuracy class, output and instrument security factor or accuracy limit factor of the secondary windings. (e.g. class 0.5, 15 VA, Fs10 or 15 VA 10P10),
- the values of the short time thermal current and its correlating time (e.g. Ith = 20 kA, 1 sec, in case of changeover possibility Ith =10/20 kA, 1 sec),
- quantity.
- requested term of delivery.

OTHER OR SPECIAL REQUIREMENTS

- climatic zone of use other than normal,
- language of the rating plate,
- packing.
- number of pieces and sort of the documentation to be attached.

WARRANTY PERIOD, GUARANTEE

The warranty period is 12 months and otherwise it can also be established upon the mutual agreement of the parties respectively.

TECHNICAL DATA						
Туре	MAS-12 MAS-24 MAS-40					
Highest voltage for equipment [kV]	12	24	36	40,5		
Rated frequency [Hz]	50					
Power frequency withstand voltage [kV] (r.m.s)	28	50	70	80		
Rated lightning impulse withstand voltage [kV] (peak)	75	125	170	190		
Rated primary currents (Ipn) [A]	10, 15, 20, 25, 30, 40, 50, 60, 75, 100, 150, 200, 250, 300, 400, 500, 600					
Rated primary curents in case of primary changeover function (Ipn) [A]	2x5, 2x10, 2x15, 2x20, 2x25, 2x30, 2x40, 2x50, 2x75, 2x100, 2x150, 2x200, 2x250, 2x300					
Rated secondary current (Isn) [A]	1 or 5					
Accuracy class	0,2; 0,5; 1 or 3					
Output [VA]	5-30					
Instrument security factor or Accuracy limit factor (np)	Fs5-Fs20 5P5-5P10 or 10P5-10P10					
Rated continuous thermal current [A]	$I_{cth} = 1,2 \times I_{pn}$					
Rated short time thermal current (Ith) [kA] (r.m.s.)	Ith=100 x Ipn Ith=100 x Ipn Ith=200 x		Ith=200 x Ipn			
Rated dynamic current [kA] (peak)	$I_{dyn} = 2.5 \text{ x } I_{th}t$, but max 125 kA _{peak}					
Class of insulation	В					
Climatic zone of use	According to agreement					
Mass [kg]		-				
- with primary changeover	4	0	1	70		
- without primary changeover	3	5	6	62		
Dimensions [mm]	According to fig 1 and the correlating table					

Remark: The afore-mentioned technical data (minimal and maximal values) can be interpreted exclusively in themselves. The possibilities of the mounting in the required type of equipment, or the implementation, are determined by the complex interpretation of the given technical data. The installation of the device in electrical network therefore needs a previous check up. For this reason, please contact us by means of any modes given in our technical publications.

