

INA

INDOOR EPOXY RESIN CURRENT TRANSFORMERS

HIGHEST VOLTAGE FOR EQUIPMENT UP TO 36 kV

Application

INA type current instrument transformers are single-phase and single pole insulated transformers. They are used to step-down current to defined values, and thus provide standardized, useable levels of current in a variety of power monitoring, measurement and protection applications while insulating the measurement and protection equipment from high system voltage.

Transformers of this type are provided for indoor installation in various positions.

Description of Main Parts

INA type transformers are designed for facilities with rated primary currents up to 2500 A. The transformers can either be produced with primary reconnection 1:2 for currents up to 2x400 A or without reconnection for currents up to 2500 A. Primary reconnection is performed through the use of connectors. When necessary, transformation ratios can be selected by using secondary winding taps.

Cores are made either of cold-rolled grain-oriented magnetic steel sheets or a high quality soft magnetic material, depending on the required accuracy class and rated primary current.

The main insulation is a mixture of quartz flour and two-component resin. After cross-linking at high temperatures, the mixture takes on excellent insulating characteristics and required mechanical features. Mixture preparation and casting of the active part is performed using gravity and under vacuum.

Primary terminals are made of electrolytic copper or brass and can be corrosion protected through galvanic tinning or silver plating when necessary.

Secondary terminals are placed in a sealed box with U16 cable glands. They are M5 in size and are of stainless steel threaded bolt type. The protection level is IP40. The earthing terminal is marked with \perp and must be earthed.

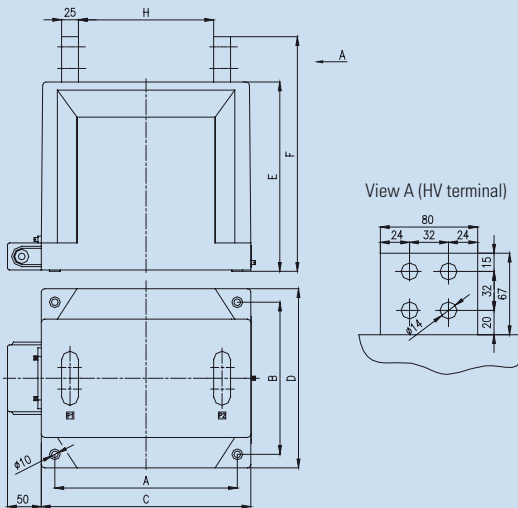
The transformers can contain up to four protective or measurement cores. Primary winding is designed as a loop. Secondary windings are made of high quality enamelled copper wire.



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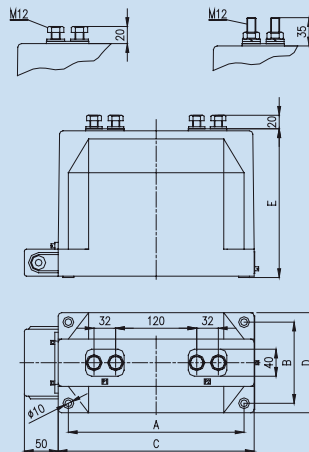
**Rated current:
1600 up to 2500 A**



Size	Um (kV)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	H (mm)	Weight (kg)
1	12-24	200	200	240	240	280	347	120	35
2	12-24	280	200	320	240	280	347	200	45
3	12-24	330	200	370	240	280	347	250	55
1	12-24	270	225	310	265	280	347	200	45
1	36	200	200	240	240	350	317	120	44
2	36	280	200	320	240	350	317	200	56

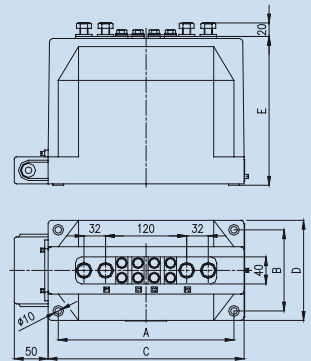
Rated current:

up to 800 A 900 up to 1500 A



Um (kV)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Weight (kg)
12	200	120	230	148	220	17
12	260	120	290	148	220	20
12	300	120	330	148	220	22
24	205	150	235	178	265	22
24	265	150	295	178	265	27
24	315	150	345	178	265	32
36	205	165	235	195	325	30
36	315	165	345	195	325	40

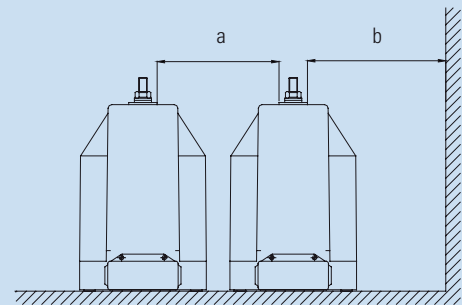
**Rated current:
up to 2x400 A**



Technical Data

TRANSFORMER TYPE	INA - 12	INA - 24	INA - 38
Highest voltage for equipment (kV)	12	24	36
Rated primary current (A)	up to 2500 A or up to 2x400 A		
Rated secondary current (A)	1, 2 or 5		
Rated burden of measuring core (VA)	1.25; 2.5; 3.75; 5; 7.5; 10; 12.5; 15; 20; 25; 30		
Accuracy class of measuring core	0.1; 0.2; 0.2S; 0.5; 0.5S or 1		
Instrument security factor	5 or 10		
Rated burden of protection core (VA)	1.25; 2.5; 3.75; 5; 7.5; 10; 12.5; 15; 20; 25; 30		
Accuracy class of protection core	5P or 10P		
Accuracy limit factor	5; 10; 15; 20		
Rated short circuit current (I _{th})	100 - 600 I _n (max 40 kA) / 1 s		
Power frequency withstand voltage (kV)	28	50	70
Lightning impulse withstand voltage (kV)	75	125	170
Test voltage of secondary windings (kV)	3		
Number of secondary cores	up to 4		

Minimal distances at the installation



Um (kV)	a (mm)	b (mm)
12	100	110
24	190	210
36	270	290

NOTE: given indicative values refer to our standard versions and vary depending on electrical, mechanical and environmental parameters specified in the customers' inquiry. These values are susceptible to change in the course of technical developments.

KONČAR

KONČAR - Instrument transformers Inc.
P.O. Box 202
HR-10002 Zagreb, Croatia
phone: +385 1 379 4112
fax: +385 1 379 4040
e mail: info@koncar-mjt.hr
www.koncar-mjt.hr

Quality Assurance

Končar current transformers are designed in compliance with IEC, ANSI/IEEE, GOST, AS, IS, CAN/CSA, or any other relevant standard.

Product quality is assured through a certified quality standard, the ISO 9001. Končar - Instrument transformers Inc. is ISO 14001 and OHSAS 18001 certified, ensuring environmental and occupational health standards are met.