
CATALOGUE

2024

LOW VOLTAGE TRANSFORMERS FOR METERING AND PROTECTION



Bluelektra

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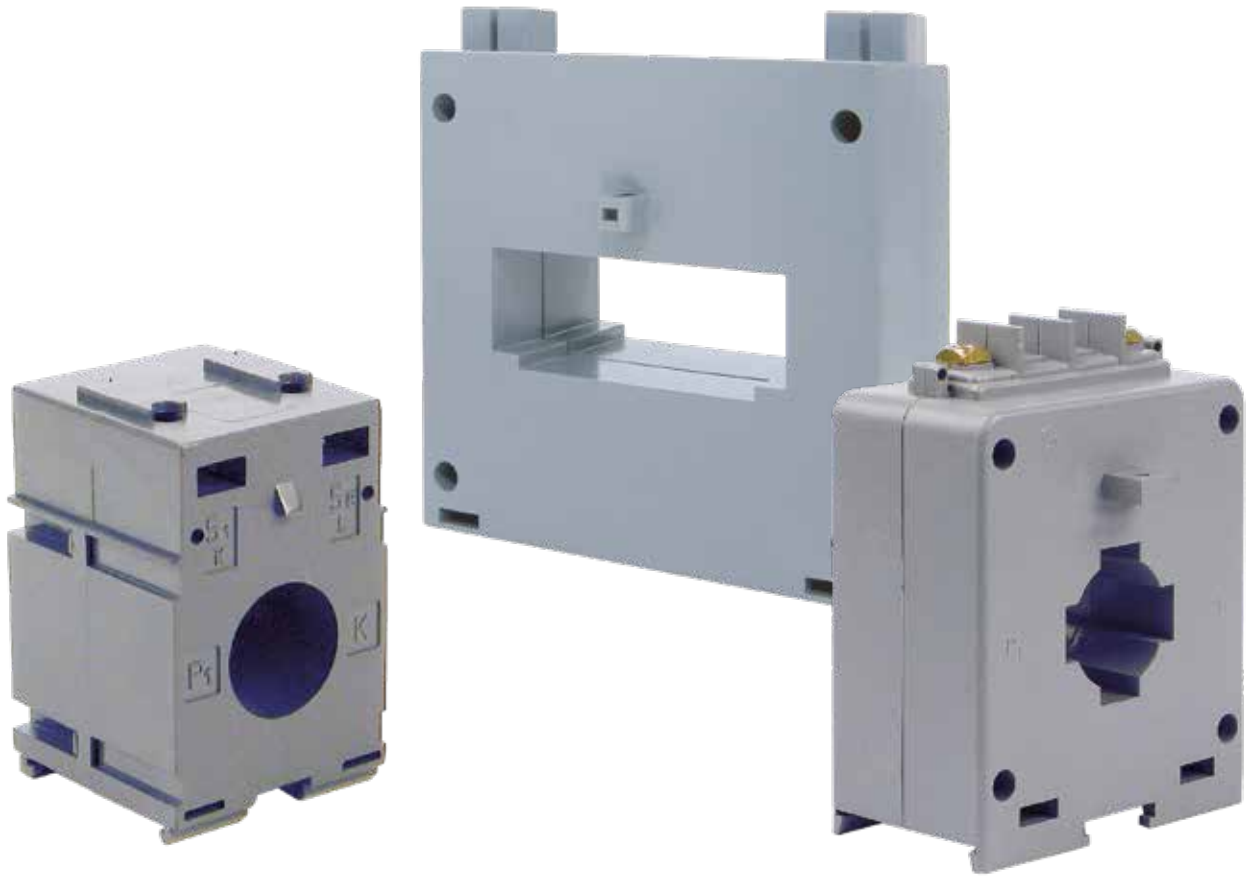
GENERAL CONDITIONS OF SALE

- > The customer accepts, without exception, all the conditions out below gives the order, even if not explicitly stated.
- > Unless otherwise specifically agreed the customer accepts in writing to only stay at our terms therefore nullify or supersede the terms of purchase of the buyer, without prior written notification.
- > Our sales prices, can be subject to changes without further notice due to changes, these are those existing at the time of the shipment of the material ordered.
- > Our terms of delivery, even if agreed in writing, they are not strictly binding us. In the event of a late delivery or shipment, the purchaser may reject all or part of the goods and/or ask for refund in case of direct or indirect damage.
- > The goods, carefully packed, are at the risk and peril of the purchaser, even if shipped prepaid. We do not cover liability for theft, damage or tampering that may occur in shipping the goods.
- > The warrantors, both legal and contractual, is limited to the efforts of eliminating the material or manufacturing flaws due to poor quality, excluding incidental or consequential damages coming from manufacturing flaws.
- > The warranty on BLUELEKTRA SRL is 12 months of operation, but not later than 18 months from the date of delivery, it does not include normal wear and tear, neither the consequences due to an incorrect installation, or to the malfunctions and failures due to neglect or inexperience, and can even be called when the purchaser has tampered with the material, without our consent.
- > The delivery of the material means, made and accepted with the agreement of our retention of title to the total fulfillment of payment obligations with us waiting.
- > In case of late payment agreed, default interest will be charged on the basis of the bank rate liabilities in force at the time of the delay, plus three points.
- > Complaints must be notified in writing within eight days of receipt, after this point there are no rights for a complain or refund.
- > We do not accept returns of materials unless previously authorized in writing by the BLUELEKTRA SRL's Director.
- > Any material returned must be sent to our office, shipment is paid by the customer.
- > The goods being manufactured will be credited at purchase price and burdened with a reimbursement of administrative and tax by 10% (ten percent).
- > For any dispute the competent Court of Milan was elected as our legal address the party accept their conditions.

The information and technical data of this document are subject to change; BLUELEKTRA SRL reserves its right to change any specifications without further notice at any time, pending on the evolution of materials and technologies.

The product installation must be performed in accordance with the applicable laws.

BLUELEKTRA SRL assumes no responsibility regarding the use of the products, this provides specific rules on the environment and/or its installation, to follow these is the responsibility of the installer.



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GENERAL INFORMATIONS

CURRENT TRANSFORMER

APPLICATION

The Current transformers for low-voltage equipments are designed to allow the measurement of very high currents using normal reading instruments, and / or for the protection of electrical circuits in the most varied applications. They are built for secondary currents of 1A and 5A (different secondary currents can be made on request). The range of primary currents influence the size of the transformers and may vary from 1A up to 6000 A.

OPERATING CONDITIONS

The transformers are designed to operate in a protected ambient with climatic conditions of moderate temperature (standard construction) or tropical (on request). The thermal current is measured at 100% of rated current, while a current range of 150%, 200% or 400% is possible following a specific customer's request. The temperature range of operation is defined between -25 °C and + 40 °C; while the relative humidity should be of about 85% as a maximum.

PROJECT

These current transformers are intended for single-phase low voltage and transform the current flowing through the primary circuit into a current in the secondary circuit (normally lower) with a level of accuracy specified by the relevant standards. Their insulation class is of type E; the windings of the circuits are enclosed in plastic housings made in material resistant to heat, fire, fungi and termites and are produced for different types of primary circuit that use busbars or cables. As mentioned above, the range of the primary current goes from 1A to 6000A (other flow can be realized on specific request). Models TN, TR, TS, TA have a sealable terminal cover for closing the secondary terminals (supplied for some types, optional on others)

MOUNTING

The transformers are permanently marked with the sense of input and output of the current on the two sides of the housing; They have accessories that allow the fixing on horizontal or vertical bars, on cables, on DIN bars, directly on the panels or plates by means of screws; They can be mounted in any position but **cannot be used as supporting elements for the current busbars**. The details of the different installation options are displayed chapter by chapter.

OPERATION

Current transformers must not work with the secondary winding open because of dangerous surges that may ensue. These overvoltages are proportional to the ratio of the transformer and then to the number of the turns and the section of the core. You could also have an undesirable magnetization of the core, which can impair the precision of the transformer. In case of maintenance, to short circuit the secondary. To avoid the problem against accidental openings of the circuit must be to use the electronic circuit of automatic protection (ACC-PROTEL) that with automatic and instantaneous intervention keeps the voltage below 15V RMS.

PACKING, TRANSPORT, STORAGE

The current transformers must be packed in a convenient way to avoid damage in transit, especially for long distances; given their weight, it is recommended not to place delicate items below them. They must also be stored in a dry and with temperatures between -25°C and + 80 °C.

HANDLING AND DISPOSAL OF PRODUCTS USED

Thanks to the materials and technology used in their manufacture, the transformers do not present a danger to the environment. The products used or damaged must be removed by segregating the various parts of steel, nonferrous metals, plastics and rubber. Parties so segregated must be recycled or disposed of by specialized companies.

CERTIFICATION

BLUELEKTRA is able to provide certification of the metering equipment if the Technical Department of Finance requests it. While the certification of the entire plant is to be requested to the competent UTF local offices. In the case of a group of three measurement, systems consisting of 3 current transformers and a kWh-meter, 5 verification certificates are necessary. When the measurement group to be certified is a 2 systems, 4 certificates are necessary as that the CTs involved are only two.

This certificate, as well as the test report (accuracy curve) must be requested when ordering. The transformer should in fact be present in the company for the collection of data.

DEFINITIONS

- Thermal current (I_{th}): is the highest primary current (effective value) the transformer can withstand for 1 second without causing damage due to excessive overloads, with secondary shorted.
- Dynamic current (I_{din}): is the highest primary current (peak value) that the transformer can withstand without causing damage due to electromagnetic efforts, with secondary shorted.
- Maximum operating voltage: is the highest value of the voltage (rms) that the transformer can withstand.
- Test voltage: is the voltage at power frequency, for the isolation, that the transformer bears for 1 minute between primary and secondary to ground, and between the secondary to ground.
- Safety factor (FS): is the ratio between the value of the primary current which causes saturation of the core and the value of the nominal primary current. Lower is the value of "FS" and more the instrument is protected.

DIMENSIONING THE LOAD

The total load that will be connected to the transformer, must take into account the consumption of the connected device, the self-consumption of the transformer, as well as the losses due to the connection cables. Below the table upon consumption of the cables in relation to their length and section:

Cable section mm ²	Secondary 5A						Secondary 1A					
	10 m						10 m	20 m	40 m	80 m		
1							0,36	0,71	1,43	2,14	2,85	3,57
1,5	0,58	1,15	2,31	3,46	4,62	5,77	0,23	0,46	0,92	1,39	1,85	2,31
2,5	0,36	0,71	1,43	2,14	2,86	3,57	0,14	0,29	0,57	0,86	1,14	1,43
4	0,22	0,45	0,89	1,34	1,79	2,24	0,09	0,18	0,36	0,54	0,71	0,89
6	0,15	0,30	0,60	0,89	1,19	1,49	0,06	0,12	0,24	0,36	0,48	0,60
10	0,09	0,18	0,36	0,54	0,71	0,89	0,04	0,07	0,14	0,21	0,29	0,36

Below the table of the maximum permissible load in amperes, of copper bars under current rules:

Dimension	Rated current (In) A			Dimensione	1 bar		
	1 bar				1 bar		
20x5 mm	325	560		40x10	715	1290	1770
20x10 mm	427	925	1180	50x10	852	1510	2040
30x5 mm	379	672	896	60x10	985	1720	2300
30x10 mm	573	1060	1480	80x10	1240	2110	2790
40x5 mm	482	836	1090	100x10	1490	2480	3260

PRECISION CLASS FOR MEASURING CURRENT TRANSFORMERS

Under the current rules, the limits of current error and the error limits of the phase angle of each transformer, must be included between the data in the table:

Accuracy class	Current error (ratio) in percent (+/-) of the rated current under specified					Angle error (+/-) as a percentage of rated current shown below							
						Minutes				Centiradians			
	5	20	0,1	0,1	5	20	5	5	5	20	0,15	0,15	
0,1	0,4	0,2	0,1	0,1	15	8	5	5	0,45	0,24	0,15	0,15	
0,2	0,75	0,35	0,2	0,2	30	15	10	10	0,9	0,45	0,3	0,3	
0,5	1,5	0,75	0,5	0,5	90	45	30	30	2,7	1,35	0,9	0,9	
1	3	1,50	1,0	1,0	180	90	60	60	5,4	2,7	1,8	1,8	
3	da 0,5 ln a 1,2 ln ± 3					no prescription							

In many systems, the application requires transformers class 0.2S or 0.5S.

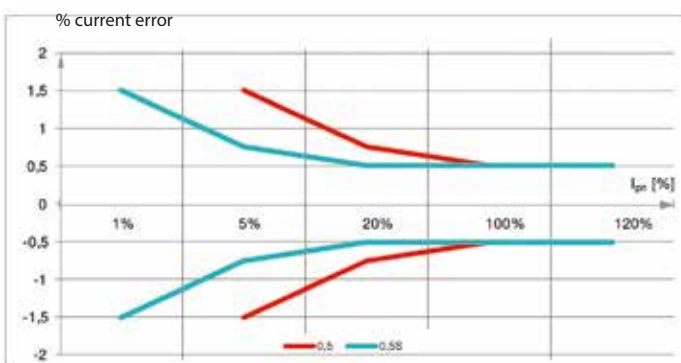
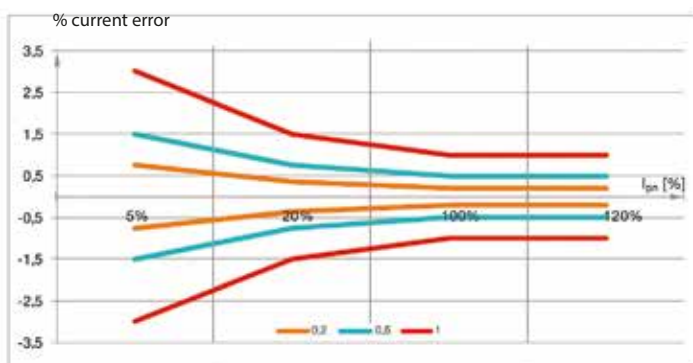
It is therefore necessary that they meet the required values even from 1% of the nominal load as the table:

Accuracy class	Current error (ratio) in percent (+/-) of the rated current under specified					Angle error (+/-) as a percentage of rated current shown below									
						Minutes					Centiradians				
	1	5	20	0,2	0,2	1	5	20	10	10	10	1	5	0,3	0,3
0,2 S	0,75	0,35	0,2	0,2	0,2	30	15	10	10	10	0,9	0,45	0,3	0,3	0,3
0,5 S	1,5	0,75	0,5	0,5	0,5	90	45	30	30	30	2,7	0,35	0,9	0,9	0,9

CHARACTERISTIC CURVE OF ERRORS

Class 0.2 - 0.5 to 1 0.5

Comparison between class 0,5 and class 0,5S



PRECISION CLASS FOR PROTECTION CURRENT TRANSFORMERS

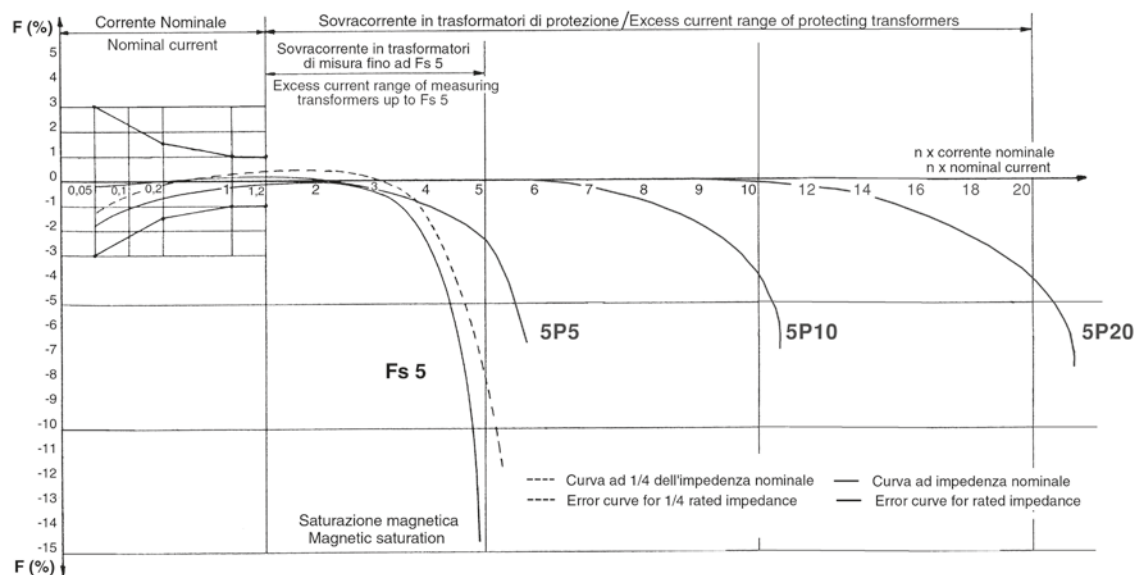
Under the current rules, the limits of current error and the error limits of the phase angle of each transformer must be included between the data in the table:

Accuracy class	Errore di corrente (rapporto) in percento (+/-) della corrente nominale sotto indicata	Current error (ratio) in percent (+/-) of the rated current under specified		Angle error (+/-) as a percentage of the rated current under specified
		Minutes	Centiradians	
5P	1	60	1,8	5
10P	3			10

In some protection systems, where the characteristics of the current transformers depend on the overall design of the equipment, additional requirements are set out in the rules for class PX.

With this class, identifies a current transformer with low leakage reactance, for which the knowledge of the secondary excitation characteristic, the resistance of the secondary winding, the resistance of the benefit and secondary turns ratio, are sufficient to evaluate its performance in relation to the type of protection relay with which must be used.

SATURATION CURVES OF SAFETY AND PROTECTION TRANSFORMERS



RESISTIVE NOMINAL PERFORMANCE (RB)

Nominal value of the resistive performance connected to the secondary, in ohms.

STRENGTH OF THE SECONDARY WINDING (RCT)

DC resistance of the secondary winding, in ohms, reported at 75 °C or other temperature if specified.

NOMINAL F.E.M. OF KNEE POINT (EK)

The minimum sinusoidal F.E.M. (effective value at rated frequency, when applied to the secondary terminals of the transformer with all other terminals open circuit, determine, with an increase of 10%, an increase of the effective value of the excitation current not exceeding the 50% (the effective f.e.m. of knee point will be \geq to the nominal f.e.m. of knee point).

NOMINAL TURNS RATIO

The prescribed ratio between the number of primary turns and the number of turns in the secondary. Example 1: 1/600 (one primary turn with six hundred secondary turns).

Example 2: 2/1200 (current transformer ratio similar to the previous example that uses two primary turns, 600 turns).

TURNS RATIO ERROR

The difference between the nominal and effective turns ratio, expressed in %.

$$\text{Error turns ratio (\%)} = \frac{\text{effective turns ratio} - \text{nominal turns ratio}}{\text{Nominal turns ratio}} \times 100$$

DIMENSIONING FACTOR (KX)

Factor assigned by the buyer to indicate the multiple of the rated secondary current (I_{sn}) that you may have in case of failure, including safety factors, up to which the transformer must meet the requirements of operation.

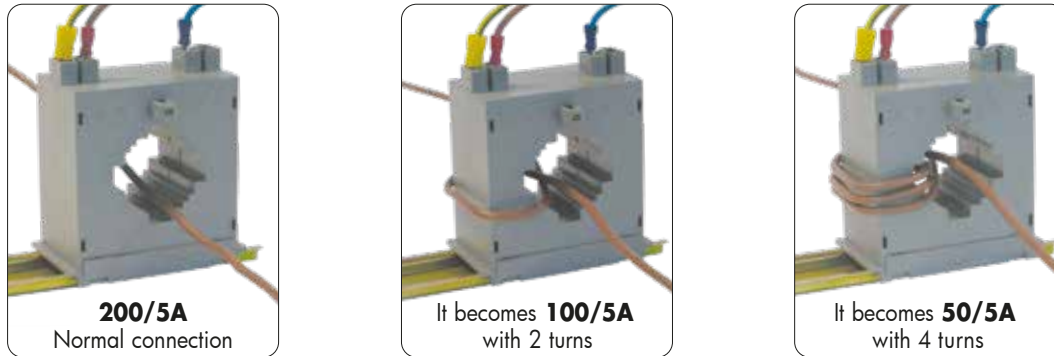
- Class 0.5 is required for the energy meters.
- Class 1 is required for measures and unofficial energy counters.

HOW TO CALCULATE THE DIAMETER OF A CABLE

To go back to the diameter of a cable (for example) of 95 mm², reference should be made to the following formula:
 Section $r \times r \times 3.14 = 3.14 \times r^2$ where: $r = \sqrt{\text{sezione} / 3.14}$; $r = \sqrt{95 / 3.14} = \sqrt{30.25} = 5.5$ mm, therefore, the radius is 5.5 mm Diameter = $r + r$ then the diameter is equal to 5.5 + 5.5 mm = 11 mm (diameter of only copper, to which the thickness of the insulating material must be added, \varnothing total about 20 mm)

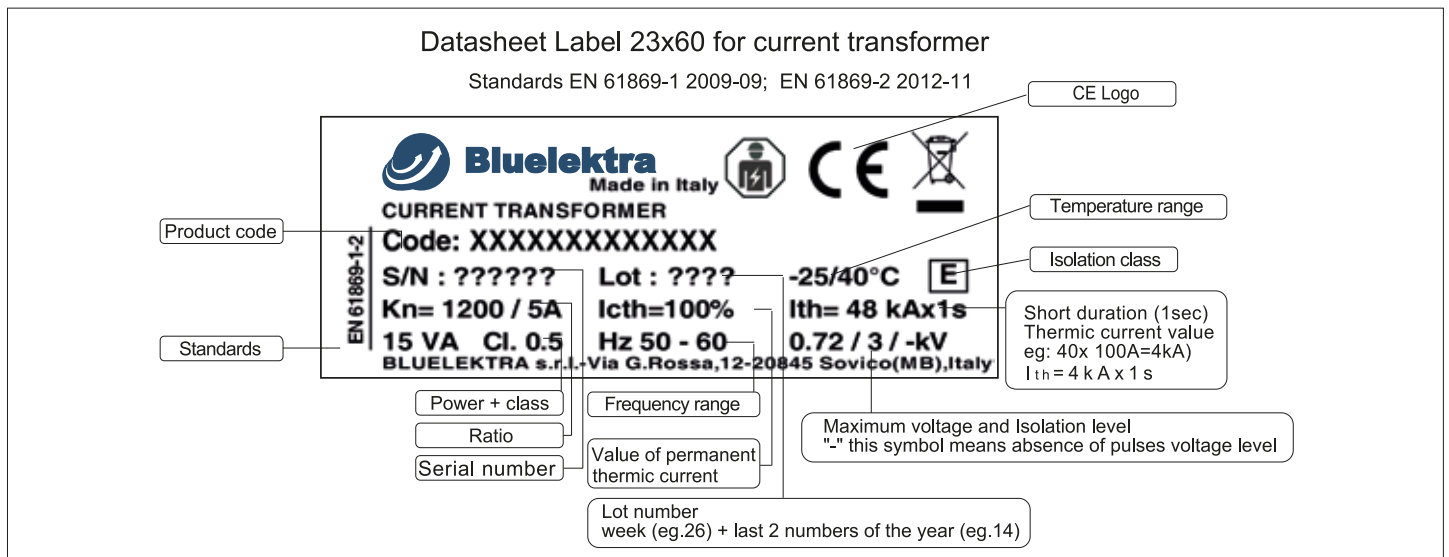
USING THE SAME TRANSFORMER, FOR DIFFERENT CAPACITIES

Having dire need, you can use the same current transformer getting different primary currents; because in fact the effective primary current is the ratio between the rated current and number of turns, you can reduce the value of the primary current (while maintaining the values of the secondary current, performance and accuracy class) in the following way:



PRODUCT LABEL SYMBOLOGY

Below is an example of explanation



ELECTRICAL CHARACTERISTICS

Standards reference : All current transformers are built in accordance with the new European standards IEC 61869-1 and IEC 61869-2 (which replace the old standards IEC 60044-1).

Rated primary current (I _{pn})	1A ..6000A to be specified
Rated secondary current (I _{sn})	1A o 5A or other to be specified
Accuracy class for measuring	3 - 1 - 0,5 - 0.5S - 0,2 - 0,2S - 0,1
Accuracy class for protection	5P5 - P10 - P15 - P20 - 10P5 - P10 - PX to be specified
Operating Frequency	50..60Hz (other on request)
Rated continuous thermal current (I _{cth})	100%
Rated thermal short circuit (I _{th})	40I _n /1s
Rated dynamic current (I _{dyn})	2,5x I _{th}
Safety factor (FS)	≤ 2.....≤ 15 according to the type and range
Nominal Power	1...50VA depending of model
Maximum allowable temperature on f the cable or bar	+115°C

INSULATION

Dry transformer with air insulation

Class E, where the limit of the over temperature on the windings is K = 75 °C

Resin insulation on request

0,72kV (1,2 kV on request)

3kV (6 kV on request)

Maximum operating voltage (U_m)

Test voltage

ENVIRONMENTAL CONDITIONS

To use in a protected environment with an altitude up to 2000m above sea level. The dew is permissible	
Reference temperature	+20°C +/-1%
Operating temperature	-25°C ...+40°C
Storage temperature	-25°C ...+80°C
Relative Humidity	≤ 85%

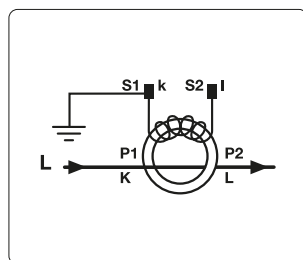
HOUSING

Polycarbonate self-extinguishing material	V0
Protection degree	IP30

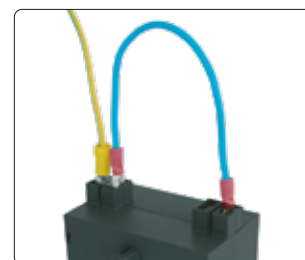
TERMINALS

Protection degree	IP00 (IP40 with the use of the sealable terminal cover)
Material	Brass CuZn37
Value of torque for screws M4x6	1,9Nm
Value of torque for nuts M4	1,0Nm
Value of traction for M4x6 screws	440 N/mm ²
Limit of elasticity for M4x6 screws	340 N/mm ²
Marking terminals	P1-P2(K-L) / s1-s2(k-l)
	P1(K) primary winding input
	s1(k) secondary winding input
	P2(L) primary winding output
	s2(l) secondary winding output

CONNECTIONS



During installation, ensure precise sense input (P1-K) and output (P2-L) of the primary current. In models with primary and secondary current on terminals, do not invert the two connections. It is always advisable grounding the transformers. If you need to disconnect the load from transformers with the system on, **it's necessary to short-circuit the two secondary terminals of the transformer.**



HOW TO ORDER

In order to place an order, you must include the following data:

- Transformer type (size of the bar or cable to use; maximum dimensions)
- Primary current (I_{pn})
- Secondary current (I_{sn})
- Power in VA
- Accuracy class for measuring or protection
- Safety factor (FS5 or FS10 where required);
- Climatic conditions in which you will install the transformer; moderate or tropical (for moderate climate is considered standard for tropical climate is to be specified when ordering)
- Number of pieces
- Possible particular executions

WARRANTY

The manufacturer provides a warranty of 12 months from the date of commissioning, but not more than 18 months from the date of delivery. The manufacturer is not liable for defects or damage arising from incorrect transport and never after the reception of the transformers by the customer; by a bad preservation; by incorrect installation or improper selection of the transformer for an electrical specific system.

CURRENT TRANSFORMERS – TR SERIES

Range of transformers with standard dimensions in which the short circuit on terminals or the connection of grounding can be made using the double fast-on (present in the sacket of accessories), or by wiring the two wires on the same terminal.

ASSEMBLY INSTRUCTIONS

With the transformer it is provided a sacket containing a series of accessories that depending on the model, allow various types of fixations:

- The mounting on DIN rail EN 50022 is performed using the fork accessory
- The wall mounting using the two brackets
- The direct mounting on the cable or on the bar, using screws

These fixations must be made in the manner indicated in the figure; no special tools are required even for the release of the transformer having to remove it.



Place the transformer on a DIN rail, insert the fork in their seats and push it as shown in the figures

Wall fixing



Insert the brackets into the proper places as shown in the figure, then secure them to the wall with two screws (not supplied)

Mounting on cable or primary busbar



Fixing possible for all codes, using the two screws supplied with the transformers, as shown in the figure. In this case, be sure to protect the tips to avoid the piercing of the primary cable.

WIRING INSTRUCTION



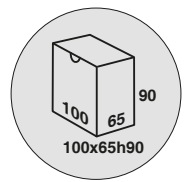
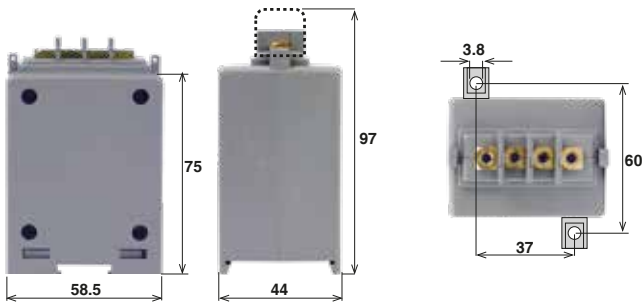
The cables of the secondary current must be connected to each of their terminal, S1 and S2. The cable/bar of the primary current must be inserted into the transformer paying attention to the flow direction of the current, which must always in the direction P1 -> P2.



The double fast-on terminals as accessory, allows you to make a short circuits when it is necessary to disconnect the load from the transformer, so as not to damage the transformer or the operator, or make the ground if you do not want to use the same terminal used for connection to the load.

TRP1E

Transformer with wounded primary where the primary and secondary currents are present on the terminals on top of the transformer.

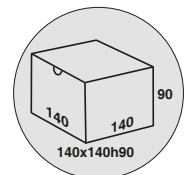
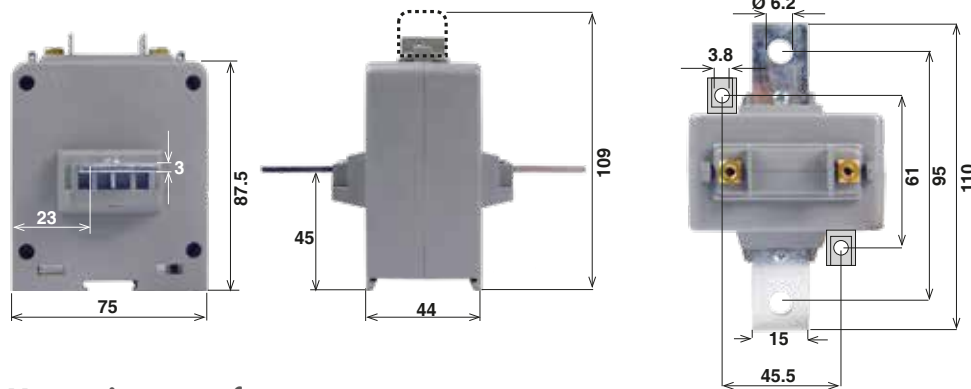


Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
1	1	3	TRP1E-001A5-1-3VA	TRP1E-001A1-1-3VA	0,40
5	1	3	TRP1E-005A5-1-3VA	TRP1E-005A1-1-3VA	0,40
10	1	3	TRP1E-010A5-1-3VA	TRP1E-010A1-1-3VA	0,40
15	1	3	TRP1E-015A5-1-3VA	TRP1E-015A1-1-3VA	0,40
20	1	3	TRP1E-020A5-1-3VA	TRP1E-020A1-1-3VA	0,40
25	1	3	TRP1E-025A5-1-3VA	TRP1E-025A1-1-3VA	0,40
30	1	3	TRP1E-030A5-1-3VA	TRP1E-030A1-1-3VA	0,40
40	1	3	TRP1E-040A5-1-3VA	TRP1E-040A1-1-3VA	0,40

TRP2E

Transformer with primary wounded where the primary current is present on the central bar 15x3mm, incorporated in the transformer.

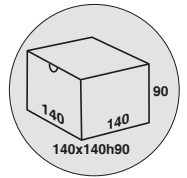
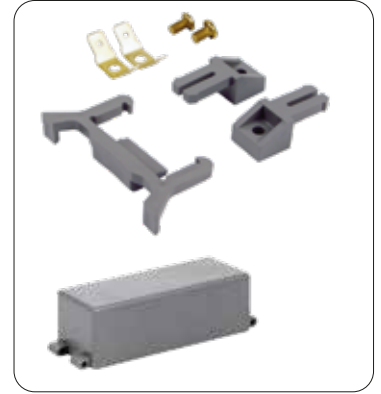
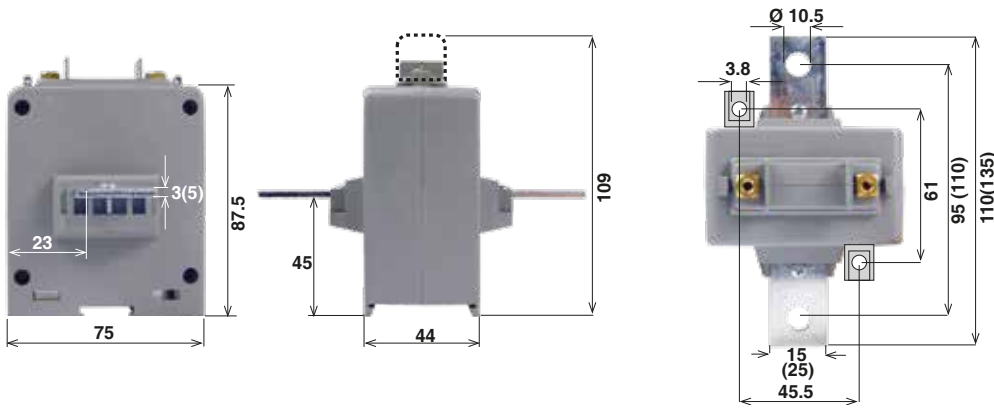


Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
50	1	3	TRP2E-050A5-1-3VA	TRP2E-050A1-1-3VA	0,50
60	1	3	TRP2E-060A5-1-3VA	TRP2E-060A1-1-3VA	0,50
75	1	3	TRP2E-075A5-1-3VA	TRP2E-075A1-1-3VA	0,50
80	1	3	TRP2E-080A5-1-3VA	TRP2E-080A1-1-3VA	0,50
100	1	3	TRP2E-100A5-1-3VA	TRP2E-100A1-1-3VA	0,50
120	1	3	TRP2E-120A5-1-3VA	TRP2E-120A1-1-3VA	0,50
125	1	3	TRP2E-125A5-1-3VA	TRP2E-125A1-1-3VA	0,50
150	1	3	TRP2E-150A5-1-3VA	TRP2E-150A1-1-3VA	0,50

TRP2

Primary wounded Transformer where the primary current is present on the central bar incorporated in the transformer.
 -with primary current from 50A to 80A the central bar has 15x3x110mm dimensions and fixing holes 6mm diameter
 -with primary current from 100A to 300A the central bar has 25x3x135mm dimensions and fixing holes 10mm diameter
 -with primary current from 400A to 500A the central bar has 25x5x135mm dimensions and fixing holes 10mm diameter



Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
50	0.5	6	TRP2-050A5-0.5-6VA	TRP2-050A1-0.5-6VA	0,50
60	0.5	6	TRP2-060A5-0.5-6VA	TRP2-060A1-0.5-6VA	0,50
75	0.5	6	TRP2-075A5-0.5-6VA	TRP2-075A1-0.5-6VA	0,50
80	0.5	6	TRP2-080A5-0.5-6VA	TRP2-080A1-0.5-6VA	0,50
100	0.5	6	TRP2-100A5-0.5-6VA	TRP2-100A1-0.5-6VA	0,50
120	0.5	6	TRP2-120A5-0.5-6VA	TRP2-120A1-0.5-6VA	0,50
125	0.5	6	TRP2-125A5-0.5-6VA	TRP2-125A1-0.5-6VA	0,50
150	0.5	6	TRP2-150A5-0.5-6VA	TRP2-150A1-0.5-6VA	0,50
200	0.5	6	TRP2-200A5-0.5-6VA	TRP2-200A1-0.5-6VA	0,50
250	0.5	6	TRP2-250A5-0.5-6VA	TRP2-250A1-0.5-6VA	0,50
300	0.5	6	TRP2-300A5-0.5-6VA	TRP2-300A1-0.5-6VA	0,50
400	0.5	6	TRP2-400A5-0.5-6VA	TRP2-400A1-0.5-6VA	0,50
500	0.5	6	TRP2-500A5-0.5-6VA	TRP2-500A1-0.5-6VA	0,50

Protection transformers

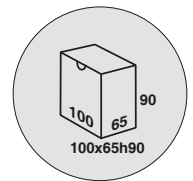
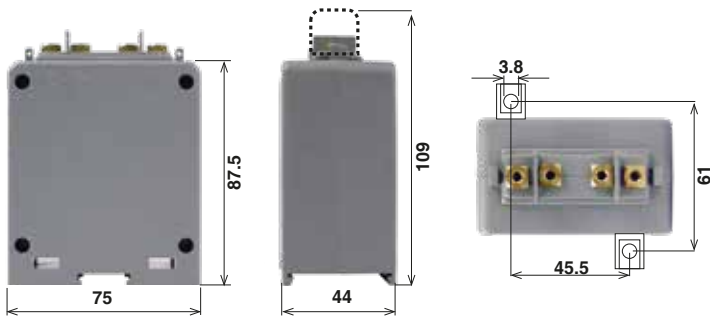
Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
50	5P5	4	TRP2P-050A5-5P5-4VA	TRP2P-050A1-5P5-4VA	0,50
50	5P10	2	TRP2P-050A5-5P10-2VA	TRP2P-050A1-5P10-2VA	0,50
60	5P5	4	TRP2P-060A5-5P5-4VA	TRP2P-060A1-5P5-4VA	0,50
60	5P10	2	TRP2P-060A5-5P10-2VA	TRP2P-060A1-5P10-2VA	0,50
75	5P5	4	TRP2P-075A5-5P5-4VA	TRP2P-075A1-5P5-4VA	0,50
75	5P10	2	TRP2P-075A5-5P10-2VA	TRP2P-075A1-5P10-2VA	0,50
80	5P5	4	TRP2P-080A5-5P5-4VA	TRP2P-080A1-5P5-4VA	0,50
80	5P10	2	TRP2P-080A5-5P10-2VA	TRP2P-080A1-5P10-2VA	0,50
100	5P5	4	TRP2P-100A5-5P5-4VA	TRP2P-100A1-5P5-4VA	0,50
100	5P10	2	TRP2P-100A5-5P10-2VA	TRP2P-100A1-5P10-2VA	0,50
120	5P5	4	TRP2P-120A5-5P5-4VA	TRP2P-120A1-5P5-4VA	0,50
120	5P10	2	TRP2P-120A5-5P10-2VA	TRP2P-120A1-5P10-2VA	0,50
125	5P5	4	TRP2P-125A5-5P5-4VA	TRP2P-125A1-5P5-4VA	0,50
125	5P10	2	TRP2P-125A5-5P10-2VA	TRP2P-125A1-5P10-2VA	0,50
150	5P5	4	TRP2P-150A5-5P5-4VA	TRP2P-150A1-5P5-4VA	0,50
150	5P10	2	TRP2P-150A5-5P10-2VA	TRP2P-150A1-5P10-2VA	0,50

Double ratio transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
5-10	0.5	5-15	TRP2D-010A5-0.5-5VA15	TRP2D-010A1-0.5-5VA15	0,60
10-20	0.5	5-15	TRP2D-020A5-0.5-5VA15	TRP2D-020A1-0.5-5VA15	0,60
15-30	0.5	5-15	TRP2D-030A5-0.5-5VA15	TRP2D-030A1-0.5-5VA15	0,60
20-40	0.5	5-15	TRP2D-040A5-0.5-5VA15	TRP2D-040A1-0.5-5VA15	0,60
25-50	0.5	5-15	TRP2D-050A5-0.5-5VA15	TRP2D-050A1-0.5-5VA15	0,60
30-60	0.5	5-15	TRP2D-060A5-0.5-5VA15	TRP2D-060A1-0.5-5VA15	0,60
40-80	0.5	5-15	TRP2D-080A5-0.5-5VA15	TRP2D-080A1-0.5-5VA15	0,60
50-100	0.5	6-6	TRP2D-100A5-0.5-6VA6	TRP2D-100A1-0.5-6VA6	0,60
60-120	0.5	6-6	TRP2D-120A5-0.5-6VA6	TRP2D-120A1-0.5-6VA6	0,60
75-150	0.5	6-6	TRP2D-150A5-0.5-6VA6	TRP2D-150A1-0.5-6VA6	0,60
80-160	0.5	6-6	TRP2D-160A5-0.5-6VA6	TRP2D-160A1-0.5-6VA6	0,60
100-200	0.5	6-6	TRP2D-200A5-0.5-6VA6	TRP2D-200A1-0.5-6VA6	0,60
120-240	0.5	6-6	TRP2D-240A5-0.5-6VA6	TRP2D-240A1-0.5-6VA6	0,60
125-250	0.5	6-6	TRP2D-250A5-0.5-6VA6	TRP2D-250A1-0.5-6VA6	0,60
150-300	0.5	6-6	TRP2D-300A5-0.5-6VA6	TRP2D-300A1-0.5-6VA6	0,60
200-400	0.5	6-6	TRP2D-400A5-0.5-6VA6	TRP2D-400A1-0.5-6VA6	0,60
250-500	0.5	6-6	TRP2D-500A5-0.5-6VA6	TRP2D-500A1-0.5-6VA6	0,60

TRP1

Transformer with primary wounded where the primary and secondary currents are present on the top terminals of transformer.



Measuring transformers

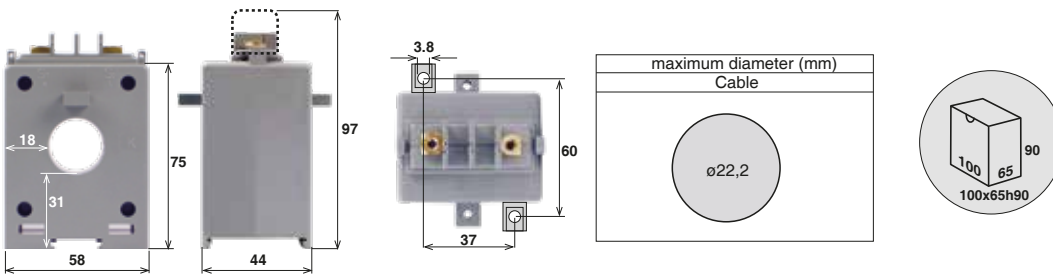
Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
1	0.5	6	TRP1-001A5-0.5-6VA	TRP1-001A1-0.5-6VA	0,40
5	0.5	6	TRP1-005A5-0.5-6VA	TRP1-005A1-0.5-6VA	0,40
10	0.5	6	TRP1-010A5-0.5-6VA	TRP1-010A1-0.5-6VA	0,40
15	0.5	6	TRP1-015A5-0.5-6VA	TRP1-015A1-0.5-6VA	0,40
20	0.5	6	TRP1-020A5-0.5-6VA	TRP1-020A1-0.5-6VA	0,40
25	0.5	6	TRP1-025A5-0.5-6VA	TRP1-025A1-0.5-6VA	0,40
30	0.5	6	TRP1-030A5-0.5-6VA	TRP1-030A1-0.5-6VA	0,40
40	0.5	6	TRP1-040A5-0.5-6VA	TRP1-040A1-0.5-6VA	0,40

Protection transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
5	5P5	4	TRP1P-005A5-5P5-4VA	TRP1P-005A1-5P5-4VA	0,40
5	5P10	2	TRP1P-005A5-5P10-2VA	TRP1P-005A1-5P10-2VA	0,40
10	5P5	4	TRP1P-010A5-5P5-4VA	TRP1P-010A1-5P5-4VA	0,40
10	5P10	2	TRP1P-010A5-5P10-2VA	TRP1P-010A1-5P10-2VA	0,40
15	5P5	4	TRP1P-015A5-5P5-4VA	TRP1P-015A1-5P5-4VA	0,40
15	5P10	2	TRP1P-015A5-5P10-2VA	TRP1P-015A1-5P10-2VA	0,40
20	5P5	4	TRP1P-020A5-5P5-4VA	TRP1P-020A1-5P5-4VA	0,40
20	5P10	2	TRP1P-020A5-5P10-2VA	TRP1P-020A1-5P10-2VA	0,40
25	5P5	4	TRP1P-025A5-5P5-4VA	TRP1P-025A1-5P5-4VA	0,40
25	5P10	2	TRP1P-025A5-5P10-2VA	TRP1P-025A1-5P10-2VA	0,40
30	5P5	4	TRP1P-030A5-5P5-4VA	TRP1P-030A1-5P5-4VA	0,40
30	5P10	2	TRP1P-030A5-5P10-2VA	TRP1P-030A1-5P10-2VA	0,40
40	5P5	4	TRP1P-040A5-5P5-4VA	TRP1P-040A1-5P5-4VA	0,40
40	5P10	2	TRP1P-040A5-5P10-2VA	TRP1P-040A1-5P10-2VA	0,40

TR1

Transformer suitable for primary current by cable with maximum diameter 20mm.



Measuring transformers

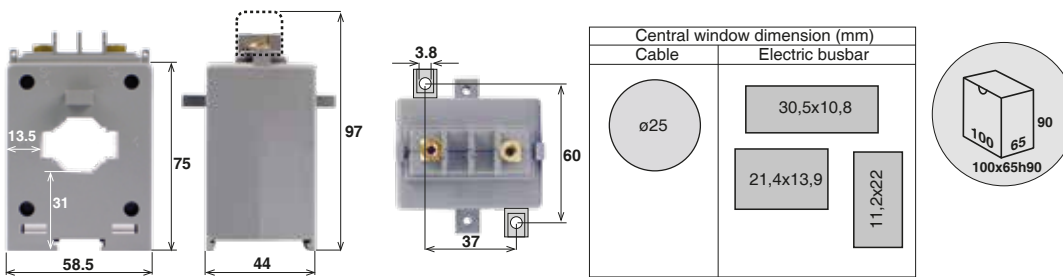
Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
40	3	2	TR1-040A5-3-2VA	TR1-040A1-3-2VA	0,30
50	3	2	TR1-050A5-3-2VA	TR1-050A1-3-2VA	0,30
60	3	3	TR1-060A5-3-3VA	TR1-060A1-3-3VA	0,30
75	3	3	TR1-075A5-3-3VA	TR1-075A1-3-3VA	0,30
80	3	3	TR1-080A5-3-3VA	TR1-080A1-3-3VA	0,30
100	1	3	TR1-100A5-1-3VA	TR1-100A1-1-3VA	0,30
120	1	3	TR1-120A5-1-3VA	TR1-120A1-1-3VA	0,30
125	0.5	2	TR1-125A5-0.5-2VA	TR1-125A1-0.5-2VA	0,30
150	0.5	3	TR1-150A5-0.5-3VA	TR1-150A1-0.5-3VA	0,30
200	0.5	3	TR1-200A5-0.5-3VA	TR1-200A1-0.5-3VA	0,30
250	0.5	5	TR1-250A5-0.5-5VA	TR1-250A1-0.5-5VA	0,30

Double ratio transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
40-80	3	2-3	TR1D-080A5-3-2VA3	TR1D-080A1-3-2VA3	0,60
50-100	3	2-3	TR1D-100A5-3-2VA3	TR1D-100A1-3-2VA3	0,60
60-120	3	3-3	TR1D-120A5-3-3VA3	TR1D-120A1-3-3VA3	0,60
75-150	3	3-3	TR1D-150A5-3-3VA3	TR1D-150A1-3-3VA3	0,60
80-160	3	3-3	TR1D-160A5-3-3VA3	TR1D-160A1-3-3VA3	0,60
100-200	1-0.5	3-3	TR1D-200A5-105-3VA3	TR1D-200A1-105-3VA3	0,60
120-240	1-0.5	3-3	TR1D-240A5-105-3VA3	TR1D-240A1-105-3VA3	0,60
125-250	0.5-0.5	2-5	TR1D-250A5-0505-2VA5	TR1D-250A1-0505-2VA5	0,60
150-300	0.5-0.5	3-5	TR1D-300A5-0505-3VA5	TR1D-300A1-0505-3VA5	0,60
200-400	0.5-0.5	3-5	TR1D-400A5-0505-3VA5	TR1D-400A1-0505-3VA5	0,60
250-500	0.5-0.5	5-5	TR1D-500A5-0505-5VA5	TR1D-500A1-0505-5VA5	0,60

TR3

Transformer suitable for primary current by cable with a maximum diameter of 21mm, by horizontal bar 20x10mm or vertical bar 10x20mm.



Measuring transformers

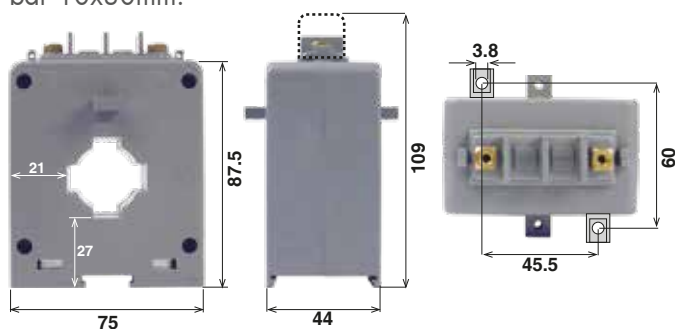
Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
40	3	1	TR3-040A5-3-1VA	TR3-040A1-3-1VA	0,30
50	3	1,5	TR3-050A5-3-1.5VA	TR3-050A1-3-1.5VA	0,30
60	3	2	TR3-060A5-3-2VA	TR3-060A1-3-2VA	0,30
75	3	2	TR3-075A5-3-2VA	TR3-075A1-3-2VA	0,30
80	3	2	TR3-080A5-3-2VA	TR3-080A1-3-2VA	0,30
100	1	2,5	TR3-100A5-1-2.5VA	TR3-100A1-1-2.5VA	0,30
120	1	2,5	TR3-120A5-1-2.5VA	TR3-120A1-1-2.5VA	0,30
125	1	3	TR3-125A5-1-3VA	TR3-125A1-1-3VA	0,30
150	0.5	3	TR3-150A5-0.5-3VA	TR3-150A1-0.5-3VA	0,30
200	0.5	3	TR3-200A5-0.5-3VA	TR3-200A1-0.5-3VA	0,30
250	0.5	4	TR3-250A5-0.5-4VA	TR3-250A1-0.5-4VA	0,30
300	0.5	5	TR3-300A5-0.5-5VA	TR3-300A1-0.5-5VA	0,30
400	0.5	6	TR3-400A5-0.5-6VA	TR3-400A1-0.5-6VA	0,30
500	0.5	6	TR3-500A5-0.5-6VA	TR3-500A1-0.5-6VA	0,30
600	0.5	6	TR3-600A5-0.5-6VA	TR3-600A1-0.5-6VA	0,30

Double ratio transformers

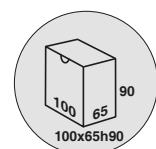
Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
100-200	1-0.5	2.5-3	TR3D-200A5-105-2.5VA3	TR3D-200A1-105-2.5VA3	0,60
120-240	1-0.5	2.5-4	TR3D-240A5-105-2.5VA4	TR3D-240A1-105-2.5VA4	0,60
125-250	1-0.5	3-4	TR3D-250A5-105-3VA4	TR3D-250A1-105-3VA4	0,60
150-300	0.5	3-5	TR3D-300A5-0.5-3VA5	TR3D-300A1-0.5-3VA5	0,60
200-400	0.5	3-6	TR3D-400A5-0.5-3VA6	TR3D-400A1-0.5-3VA6	0,60
250-500	0.5	4-6	TR3D-500A5-0.5-4VA6	TR3D-500A1-0.5-4VA6	0,60
300-600	0.5	5-6	TR3D-600A5-0.5-5VA6	TR3D-600A1-0.5-5VA6	0,60

TR43

Transformer suitable for primary current by cable with a maximum diameter of 25mm, by horizontal bar 30x10mm or vertical bar 10x30mm.



Central window dimension (mm)	
Cable	Electric busbar
<p>ø25</p>	<p>30,5x10,6 10,6x30,5</p>

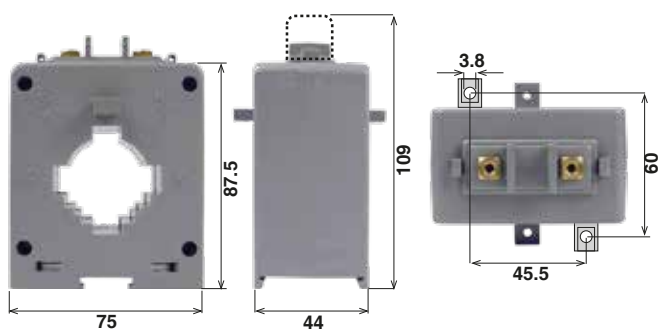


Measuring transformers

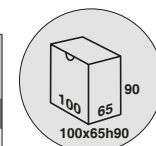
Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
100	0.5	2,5	TR43-100A5-0.5-2.5VA	TR43-100A1-0.5-2.5VA	0,70
120	0.5	3	TR43-120A5-0.5-3VA	TR43-120A1-0.5-3VA	0,70
125	0.5	3	TR43-125A5-0.5-3VA	TR43-125A1-0.5-3VA	0,70
150	0.5	5	TR43-150A5-0.5-5VA	TR43-150A1-0.5-5VA	0,70
200	0.5	6	TR43-200A5-0.5-6VA	TR43-200A1-0.5-6VA	0,70
250	0.5	10	TR43-250A5-0.5-10VA	TR43-250A1-0.5-10VA	0,70
300	0.5	10	TR43-300A5-0.5-10VA	TR43-300A1-0.5-10VA	0,70
400	0.5	10	TR43-400A5-0.5-10VA	TR43-400A1-0.5-10VA	0,70
500	0.5	10	TR43-500A5-0.5-10VA	TR43-500A1-0.5-10VA	0,70
600	0.5	10	TR43-600A5-0.5-10VA	TR43-600A1-0.5-10VA	0,70

TR4

Transformer suitable for primary current by cable with a maximum diameter of 21mm, by horizontal bar 20x10mm or vertical bar 10x20mm.



Central window dimension (mm)	
Cable	Electric busbar
<p>ø32</p>	<p>40,7x11,2 33x20 25,8x25 11,1x40,7 20,9x30</p>



Measuring transformers

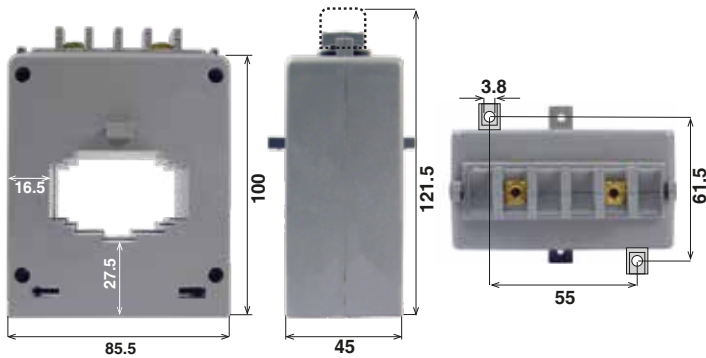
Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
100	1	3	TR4-100A5-1-3VA	TR4-100A1-1-3VA	0,50
120	1	3	TR4-120A5-1-3VA	TR4-120A1-1-3VA	0,50
125	1	3	TR4-125A5-1-3VA	TR4-125A1-1-3VA	0,50
150	1	3	TR4-150A5-1-3VA	TR4-150A1-1-3VA	0,50
200	0.5	3	TR4-200A5-0.5-3VA	TR4-200A1-0.5-3VA	0,50
250	0.5	4	TR4-250A5-0.5-4VA	TR4-250A1-0.5-4VA	0,50
300	0.5	6	TR4-300A5-0.5-6VA	TR4-300A1-0.5-6VA	0,50
400	0.5	10	TR4-400A5-0.5-10VA	TR4-400A1-0.5-10VA	0,50
500	0.5	10	TR4-500A5-0.5-10VA	TR4-500A1-0.5-10VA	0,50
600	0.5	10	TR4-600A5-0.5-10VA	TR4-600A1-0.5-10VA	0,50
750	0.5	10	TR4-750A5-0.5-10VA	TR4-750A1-0.5-10VA	0,50
800	0.5	10	TR4-800A5-0.5-10VA	TR4-800A1-0.5-10VA	0,50
1000	0.5	10	TR4-1K0A5-0.5-10VA	TR4-1K0A1-0.5-10VA	0,50

Double ratio transformers

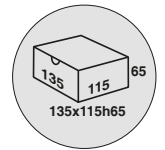
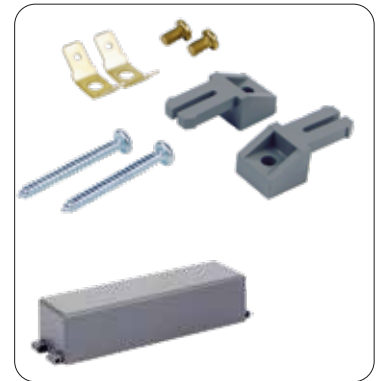
Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
100-200	1	3-4	TR4D-200A5-1-3VA4	TR4D-200A1-1-3VA4	0,70
120-240	1	3-6	TR4D-240A5-1-3VA6	TR4D-240A1-1-3VA6	0,70
125-250	1	3-6	TR4D-250A5-1-3VA6	TR4D-250A1-1-3VA6	0,70
150-300	1-0.5	3-6	TR4D-300A5-105-3VA6	TR4D-300A1-105-3VA6	0,70
200-400	0.5	3-10	TR4D-400A5-0.5-3VA10	TR4D-400A1-0.5-3VA10	0,70
250-500	0.5	4-10	TR4D-500A5-0.5-4VA10	TR4D-500A1-0.5-3VA10	0,70
300-600	0.5	6-10	TR4D-600A5-0.5-6VA10	TR4D-600A1-0.5-6VA10	0,70
400-800	0.5	10-10	TR4D-800A5-0.5-10VA10	TR4D-800A1-0.5-10VA10	0,70

TR5

Transformer suitable for primary current by cable with a maximum diameter of 30mm, by horizontal bar 30x30mm, 40x25mm, 50x20mm or vertical bar 30x30mm, 25x40mm, 20x50mm.



Central window dimension (mm)	
Cable	Electric busbar
 $\varnothing 30$	 52,1x21,4
	 42,2x25,3
	 34,3x34,2
	 34,2x12



Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
200	1	4	TR5-200A5-1-4VA	TR5-200A1-1-4VA	0,50
250	0.5	3	TR5-250A5-0.5-3VA	TR5-250A1-0.5-3VA	0,50
300	0.5	4	TR5-300A5-0.5-4VA	TR5-300A1-0.5-4VA	0,50
400	0.5	6	TR5-400A5-0.5-6VA	TR5-400A1-0.5-6VA	0,50
500	0.5	10	TR5-500A5-0.5-10VA	TR5-500A1-0.5-10VA	0,50
600	0.5	10	TR5-600A5-0.5-10VA	TR5-600A1-0.5-10VA	0,50
750	0.5	10	TR5-750A5-0.5-10VA	TR5-750A1-0.5-10VA	0,50
800	0.5	10	TR5-800A5-0.5-10VA	TR5-800A1-0.5-10VA	0,50
1000	0.5	10	TR5-1K0A5-0.5-10VA	TR5-1K0A1-0.5-10VA	0,50
1200	0.5	10	TR5-1K2A5-0.5-10VA	TR5-1K2A1-0.5-10VA	0,50
1250	0.5	10	TR5-1K25A5-0.5-10VA	TR5-1K25A1-0.5-10VA	0,50
1500	0.5	20	TR5-1K5A5-0.5-20VA	TR5-1K5A1-0.5-20VA	0,50

Protection transformers

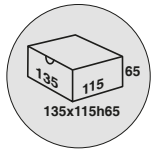
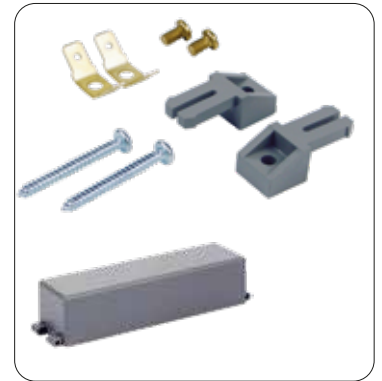
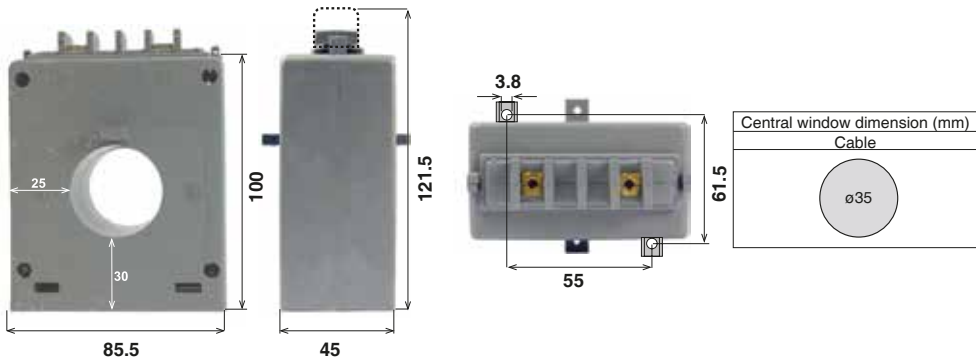
Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
250	5P5	3	TR5P-250A5-5P5-3VA	TR5P-250A1-5P5-3VA	0,50
250	5P10	1	TR5P-250A5-5P10-1VA	TR5P-250A1-5P10-1VA	0,50
300	5P5	3	TR5P-300A5-5P5-3VA	TR5P-300A1-5P5-3VA	0,50
300	5P10	1	TR5P-300A5-5P10-1VA	TR5P-300A1-5P10-1VA	0,50
400	5P5	3,5	TR5P-400A5-5P5-3.5VA	TR5P-400A1-5P5-3.5VA	0,50
400	5P10	1	TR5P-400A5-5P10-1VA	TR5P-400A1-5P10-1VA	0,50
500	5P5	3,5	TR5P-500A5-5P5-3.5VA	TR5P-500A1-5P5-3.5VA	0,50
500	5P10	1	TR5P-500A5-5P10-1VA	TR5P-500A1-5P10-1VA	0,50
600	5P5	5	TR5P-600A5-5P5-5VA	TR5P-600A1-5P5-5VA	0,50
600	5P10	1	TR5P-600A5-5P10-1VA	TR5P-600A1-5P10-1VA	0,50
750	5P5	6	TR5P-750A5-5P5-6VA	TR5P-750A1-5P5-6VA	0,50
750	5P10	1	TR5P-750A5-5P10-1VA	TR5P-750A1-5P10-1VA	0,50
800	5P5	6	TR5P-800A5-5P5-6VA	TR5P-800A1-5P5-6VA	0,50
800	5P10	1	TR5P-800A5-5P10-1VA	TR5P-800A1-5P10-1VA	0,50
1000	5P5	8	TR5P-1K0A5-5P5-8VA	TR5P-1K0A1-5P5-8VA	0,50
1000	5P10	1	TR5P-1K0A5-5P10-1VA	TR5P-1K0A1-5P10-1VA	0,50

Double ratio transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
200-400	1-0.5	4-6	TR5D-400A5-105-4VA6	TR5D-400A1-105-4VA6	0,70
250-500	0.5	3-10	TR5D-500A5-0.5-3VA10	TR5D-500A1-0.5-3VA10	0,70
300-600	0.5	4-10	TR5D-600A5-0.5-4VA10	TR5D-600A1-0.5-4VA10	0,70
400-800	0.5	6-10	TR5D-800A5-0.5-6VA10	TR5D-800A1-0.5-6VA10	0,70
500-1000	0.5	10-10	TR5D1K0A5-0.5-10VA10	TR5D1K0A1-0.5-10VA10	0,70

TR535

Transformer suitable for primary current by cable with a maximum diameter of 35mm.



Measuring transformers

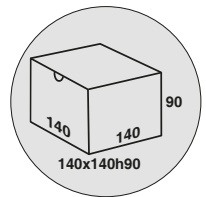
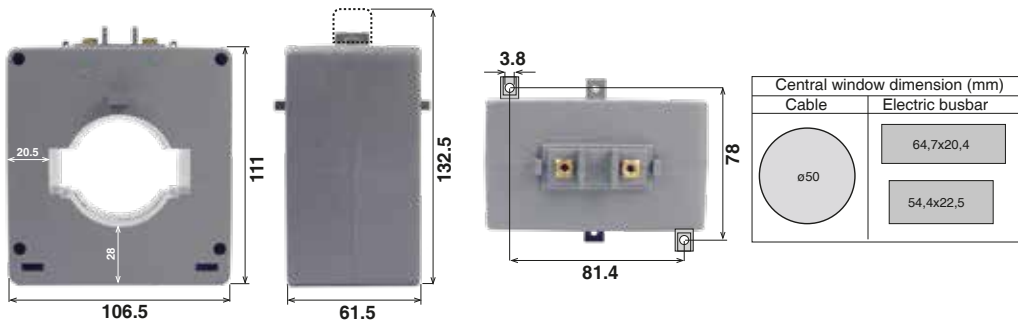
Primary current	Class	Power	Secondary current		Weight
			5A	1A	
A	VA		5A	1A	Kg
120	0.5	2.5	TR535-120A5-0.5-2.5VA	TR535-120A1-0.5-2.5VA	0,70
125	0.5	2.5	TR535-125A5-0.5-2.5VA	TR535-125A1-0.5-2.5VA	0,70
150	0.5	3	TR535-150A5-0.5-3VA	TR535-150A1-0.5-3VA	0,70
200	0.5	6	TR535-200A5-0.5-6VA	TR535-200A1-0.5-6VA	0,90
250	0.5	10	TR535-250A5-0.5-10VA	TR535-250A1-0.5-10VA	0,90
300	0.5	15	TR535-300A5-0.5-15VA	TR535-300A1-0.5-15VA	1,00
400	0.5	20	TR535-400A5-0.5-20VA	TR535-400A1-0.5-20VA	1,00
500	0.5	25	TR535-500A5-0.5-25VA	TR535-500A1-0.5-25VA	0,60
600	0.5	30	TR535-600A5-0.5-30VA	TR535-600A1-0.5-30VA	0,70
750	0.5	30	TR535-750A5-0.5-30VA	TR535-750A1-0.5-30VA	0,60
800	0.5	30	TR535-800A5-0.5-30VA	TR535-800A1-0.5-30VA	0,70
1000	0.5	30	TR535-1k0A5-0.5-30VA	TR535-1k0A1-0.5-30VA	0,50

Protection transformers

Primary current	Class	Power	Secondary current		Weight
			5A	1A	
A	VA		5A	1A	Kg
150	5P5	4.5	TR535P-150A5-5P5-4.5VA	TR535P-150A1-5P5-4.5VA	0,70
150	5P10	1.75	TR535P-150A5-5P10-1.75VA	TR535P-150A1-5P10-1.75VA	0,70
150	5P15	1	TR535P-150A5-5P15-1VA	TR535P-150A1-5P15-1VA	0,70
200	5P5	6	TR535P-200A5-5P5-6VA	TR535P-200A1-5P5-6VA	0,90
200	5P10	2.5	TR535P-200A5-5P10-2.5VA	TR535P-200A1-5P10-2.5VA	0,90
200	5P15	1	TR535P-200A5-5P15-1VA	TR535P-200A1-5P15-1VA	0,90
250	5P5	8	TR535P-250A5-5P5-8VA	TR535P-250A1-5P5-8VA	0,90
250	5P10	3	TR535P-250A5-5P10-3VA	TR535P-250A1-5P10-3VA	0,90
250	5P15	1.5	TR535P-250A5-5P15-1.5VA	TR535P-250A1-5P15-1.5VA	0,90
300	5P5	10	TR535P-300A5-5P5-10VA	TR535P-300A1-5P5-10VA	1,00
300	5P10	3.5	TR535P-300A5-5P10-3.5VA	TR535P-300A1-5P10-3.5VA	1,00
300	5P15	2	TR535P-300A5-5P15-2VA	TR535P-300A1-5P15-2VA	1,00
400	5P5	13	TR535P-400A5-5P5-13VA	TR535P-400A1-5P5-13VA	1,00
400	5P10	5	TR535P-400A5-5P10-5VA	TR535P-400A1-5P10-5VA	1,00
400	5P15	2.5	TR535P-400A5-5P15-2.5VA	TR535P-400A1-5P15-2.5VA	1,00
500	5P5	8	TR535P-500A5-5P5-8VA	TR535P-500A1-5P5-8VA	0,60
500	5P10	2.5	TR535P-500A5-5P10-2.5VA	TR535P-500A1-5P10-2.5VA	0,60
600	5P5	10	TR535P-600A5-5P5-10VA	TR535P-600A1-5P5-10VA	0,70
600	5P10	3	TR535P-600A5-5P10-3VA	TR535P-600A1-5P10-3VA	0,70
750	5P5	10	TR535P-750A5-5P5-10VA	TR535P-750A1-5P5-10VA	0,60
750	5P10	3	TR535P-750A5-5P10-3VA	TR535P-750A1-5P10-3VA	0,60
800	5P5	10	TR535P-800A5-5P5-10VA	TR535P-800A1-5P5-10VA	0,70
800	5P10	3	TR535P-800A5-5P10-3VA	TR535P-800A1-5P10-3VA	0,70
1000	5P5	6	TR535P-1K0A5-5P5-6VA	TR535P-1K0A1-5P5-6VA	0,70
1000	5P10	2	TR535P-1K0A5-5P10-2VA	TR535P-1K0A1-5P10-2VA	0,70

TR6

Transformer suitable for primary current by cable with a maximum diameter of 50mm, by horizontal bar 50x20mm, 60x20mm or vertical bar 20x50mm, 20x60mm.



Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
200	0.5	3	TR6-200A5-0.5-3VA	TR6-200A1-0.5-3VA	1,00
250	0.5	5	TR6-250A5-0.5-5VA	TR6-250A1-0.5-5VA	1,00
300	0.5	5	TR6-300A5-0.5-5VA	TR6-300A1-0.5-5VA	1,00
400	0.5	6	TR6-400A5-0.5-6VA	TR6-400A1-0.5-6VA	1,00
500	0.5	6	TR6-500A5-0.5-6VA	TR6-500A1-0.5-6VA	1,00
600	0.5	10	TR6-600A5-0.5-10VA	TR6-600A1-0.5-10VA	0,70
750	0.5	10	TR6-750A5-0.5-10VA	TR6-750A1-0.5-10VA	0,70
800	0.5	10	TR6-800A5-0.5-10VA	TR6-800A1-0.5-10VA	0,70
1000	0.5	10	TR6-1K0A5-0.5-10VA	TR6-1K0A1-0.5-10VA	0,70
1200	0.5	15	TR6-1K2A5-0.5-15VA	TR6-1K2A1-0.5-15VA	0,70
1250	0.5	15	TR6-1K25A5-0.5-15VA	TR6-1K25A1-0.5-15VA	0,70
1500	0.5	20	TR6-1K5A5-0.5-20VA	TR6-1K5A1-0.5-20VA	0,80
1600	0.5	20	TR6-1K6A5-0.5-20VA	TR6-1K6A1-0.5-20VA	0,80
2000	0.5	20	TR6-2K0A5-0.5-20VA	TR6-2K0A1-0.5-20VA	0,80
2500	0.5	20	TR6-2K5A5-0.5-20VA	TR6-2K5A1-0.5-20VA	1,00

Protection transformers

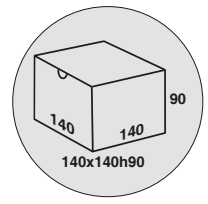
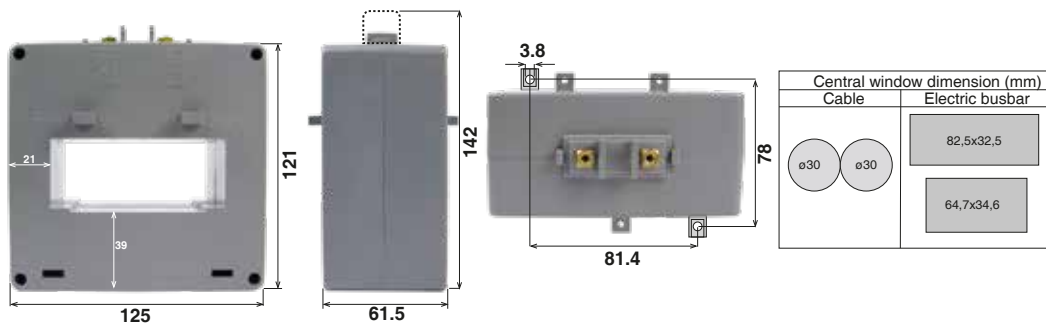
Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
250	5P5	5	TR6P-250A5-5P5-5VA	TR6P-250A1-5P5-5VA	1,00
250	5P10	2	TR6P-250A5-5P10-2VA	TR6P-250A1-5P10-2VA	1,00
300	5P5	6	TR6P-300A5-5P5-6VA	TR6P-300A1-5P5-6VA	1,00
300	5P10	2,5	TR6P-300A5-5P10-2.5VA	TR6P-300A1-5P10-2.5VA	1,00
400	5P5	8	TR6P-400A5-5P5-8VA	TR6P-400A1-5P5-8VA	1,20
400	5P10	4	TR6P-400A5-5P10-4VA	TR6P-400A1-5P10-4VA	1,20
500	5P5	12	TR6P-500A5-5P5-12VA	TR6P-500A1-5P5-12VA	1,20
500	5P10	5	TR6P-500A5-5P10-5VA	TR6P-500A1-5P10-5VA	1,20
600	5P5	12	TR6P-600A5-5P5-12VA	TR6P-600A1-5P5-12VA	1,20
600	5P10	5	TR6P-600A5-5P10-5VA	TR6P-600A1-5P10-5VA	1,20
750	5P5	15	TR6P-750A5-5P5-15VA	TR6P-750A1-5P5-15VA	1,20
750	5P10	6	TR6P-750A5-5P10-6VA	TR6P-750A1-5P10-6VA	1,20
800	5P5	18	TR6P-800A5-5P5-18VA	TR6P-800A1-5P5-18VA	1,20
800	5P10	7	TR6P-800A5-5P10-7VA	TR6P-800A1-5P10-7VA	1,20
1000	5P5	20	TR6P-1K0A5-5P5-20VA	TR6P-1K0A1-5P5-20VA	1,40
1000	5P10	8	TR6P-1K0A5-5P10-8VA	TR6P-1K0A1-5P10-8VA	1,40
1200	5P5	25	TR6P-1K2A5-5P5-25VA	TR6P-1K2A1-5P5-25VA	1,40
1200	5P10	10	TR6P-1K2A5-5P10-10VA	TR6P-1K2A1-5P10-10VA	1,40
1250	5P5	20	TR6P-1K25A5-5P5-20VA	TR6P-1K25A1-5P5-20VA	1,40
1250	5P10	6	TR6P-1K25A5-5P10-6VA	TR6P-1K25A1-5P10-6VA	1,40
1500	5P5	30	TR6P-1K5A5-5P5-30VA	TR6P-1K5A1-5P5-30VA	1,40
1500	5P10	12	TR6P-1K5A5-5P10-12VA	TR6P-1K5A1-5P10-12VA	1,40

Double ratio transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
250-500	0.5	5-6	TR6D-500A5-0.5-5VA6	TR6D-500A1-0.5-5VA6	1,30
300-600	0.5	5-10	TR6D-600A5-0.5-5VA10	TR6D-600A1-0.5-5VA10	1,30
400-800	0.5	5-10	TR6D-800A5-0.5-5VA10	TR6D-800A1-0.5-5VA10	1,30
500-1000	0.5	10-20	TR6D-1K0A5-0.5-10VA20	TR6D-1K0A1-0.5-10VA20	1,30
600-1200	0.5	10-15	TR6D-1K2A5-0.5-10VA15	TR6D-1K2A1-0.5-10VA15	1,00
750-1500	0.5	10-20	TR6D-1K5A5-0.5-10VA20	TR6D-1K5A1-0.5-10VA20	1,00
800-1600	0.5	10-20	TR6D-1K6A5-0.5-10VA20	TR6D-1K6A1-0.5-10VA20	1,00
1000-2000	0.5	10-20	TR6D-2K0A5-0.5-10VA20	TR6D-2K0A1-0.5-10VA20	1,00

TR8

Transformer suitable for primary current by one or two cables with a maximum diameter of 53mm, by horizontal bar 60x30mm, 80x30mm or vertical bar 30x60mm, 30x80mm.



Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
300	0.5	5	TR8-300A5-0.5-5VA	TR8-300A1-0.5-5VA	0,80
400	0.5	6	TR8-400A5-0.5-6VA	TR8-400A1-0.5-6VA	0,80
500	0.5	10	TR8-500A5-0.5-10VA	TR8-500A1-0.5-10VA	1,00
600	0.5	10	TR8-600A5-0.5-10VA	TR8-600A1-0.5-10VA	1,00
750	0.5	10	TR8-750A5-0.5-10VA	TR8-750A1-0.5-10VA	1,00
800	0.5	10	TR8-800A5-0.5-10VA	TR8-800A1-0.5-10VA	1,00
1000	0.5	10	TR8-1K0A5-0.5-10VA	TR8-1K0A1-0.5-10VA	0,70
1200	0.5	15	TR8-1K2A5-0.5-15VA	TR8-1K2A1-0.5-15VA	0,70
1250	0.5	15	TR8-1K25A5-0.5-10VA	TR8-1K25A1-0.5-10VA	0,70
1500	0.5	20	TR8-1K5A5-0.5-20VA	TR8-1K5A1-0.5-20VA	1,00
1600	0.5	20	TR8-1K6A5-0.5-20VA	TR8-1K6A1-0.5-20VA	1,00
2000	0.5	20	TR8-2K0A5-0.5-20VA	TR8-2K0A1-0.5-20VA	1,00
2500	0.5	20	TR8-2K5A5-0.5-20VA	TR8-2K5A1-0.5-20VA	1,00
3000	0.5	20	TR8-3K0A5-0.5-20VA	TR8-3K0A1-0.5-20VA	1,50
3200	0.5	20	TR8-3K2A5-0.5-20VA	TR8-3K2A1-0.5-20VA	1,50

Protection transformers

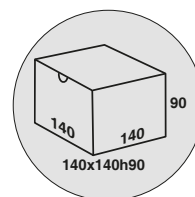
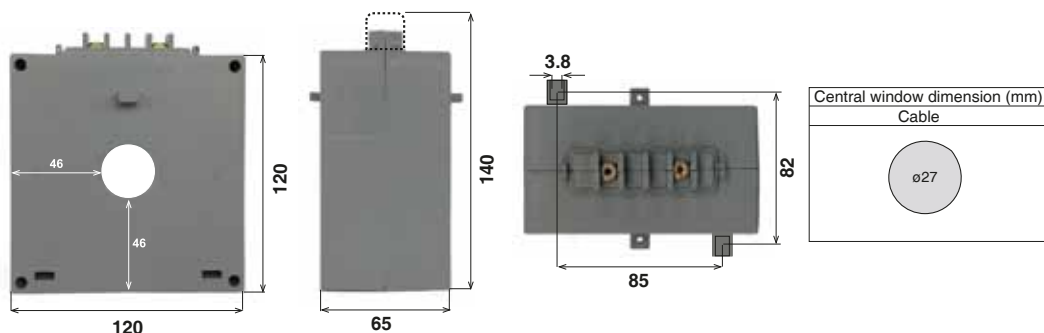
Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
300	5P5	4	TR8P-300A5-5P5-4VA	TR8P-300A1-5P5-4VA	0,70
300	5P10	1	TR8P-300A5-5P10-1VA	TR8P-300A1-5P10-1VA	0,70
400	5P5	5	TR8P-400A5-5P5-5VA	TR8P-400A1-5P5-5VA	0,70
400	5P10	1,5	TR8P-400A5-5P10-1.5VA	TR8P-400A1-5P10-1.5VA	0,70
500	5P5	7	TR8P-500A5-5P5-7VA	TR8P-500A1-5P5-7VA	0,90
500	5P10	2	TR8P-500A5-5P10-2VA	TR8P-500A1-5P10-2VA	0,90
600	5P5	8	TR8P-600A5-5P5-8VA	TR8P-600A1-5P5-8VA	0,90
600	5P10	2,5	TR8P-600A5-5P10-2.5VA	TR8P-600A1-5P10-2.5VA	0,90
750	5P5	10	TR8P-750A5-5P5-10VA	TR8P-750A1-5P5-10VA	0,90
750	5P10	3	TR8P-750A5-5P10-3VA	TR8P-750A1-5P10-3VA	0,90
750	5P15	1	TR8P-750A5-5P15-1VA	TR8P-750A1-5P15-1VA	0,90
800	5P5	10	TR8P-800A5-5P5-10VA	TR8P-800A1-5P5-10VA	0,90
800	5P10	3,5	TR8P-800A5-5P10-3.5VA	TR8P-800A1-5P10-3.5VA	0,90
800	5P15	1	TR8P-800A5-5P15-1VA	TR8P-800A1-5P15-1VA	0,90
1000	5P5	13	TR8P-1K0A5-5P5-13VA	TR8P-1K0A1-5P5-13VA	0,70
1000	5P10	4,5	TR8P-1K0A5-5P10-4.5VA	TR8P-1K0A1-5P10-4.5VA	0,70
1000	5P15	1	TR8P-1K0A5-5P15-1VA	TR8P-1K0A1-5P15-1VA	0,70
1200	5P5	16	TR8P-1K2A5-5P5-16VA	TR8P-1K2A1-5P5-16VA	0,70
1200	5P10	5	TR8P-1K2A5-5P10-5VA	TR8P-1K2A1-5P10-5VA	0,70
1200	5P15	1	TR8P-1K2A5-5P15-1VA	TR8P-1K2A1-5P15-1VA	0,70
1250	5P5	17	TR8P-1K25A5-5P5-17VA	TR8P-1K25A1-5P5-17VA	0,70
1250	5P10	5	TR8P-1K25A5-5P10-5VA	TR8P-1K25A1-5P10-5VA	0,70
1250	5P15	1	TR8P-1K25A5-5P15-1VA	TR8P-1K25A1-5P15-1VA	0,70
1500	5P5	20	TR8P-1K5A5-5P5-20VA	TR8P-1K5A1-5P5-20VA	1,00
1500	5P10	6	TR8P-1K5A5-5P10-6VA	TR8P-1K5A1-5P10-6VA	1,00
1500	5P15	1	TR8P-1K5A5-5P15-1VA	TR8P-1K5A1-5P15-1VA	1,00
1600	5P5	22	TR8P-1K6A5-5P5-22VA	TR8P-1K6A1-5P5-22VA	1,00
1600	5P10	7	TR8P-1K6A5-5P10-7VA	TR8P-1K6A1-5P10-7VA	1,00
1600	5P15	1,5	TR8P-1K6A5-5P15-1.5VA	TR8P-1K6A1-5P15-1.5VA	1,00
2000	5P5	25	TR8P-2K0A5-5P5-25VA	TR8P-2K0A1-5P5-25VA	1,00
2000	5P10	8	TR8P-2K0A5-5P10-8VA	TR8P-2K0A1-5P10-8VA	1,00
2000	5P15	1,5	TR8P-2K0A5-5P15-1.5VA	TR8P-2K0A1-5P15-1.5VA	1,00
2500	5P5	30	TR8P-2K5A5-5P5-30VA	TR8P-2K5A1-5P5-30VA	1,20
2500	5P10	8	TR8P-2K5A5-5P10-8VA	TR8P-2K5A1-5P10-8VA	1,20

Double ratio transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
400-800	0.5	6-10	TR8D-800A5-0.5-6VA10	TR8D-800A1-0.5-6VA10	1,30
500-1000	0.5	10-10	TR8D-1K0A5-0.5-10VA10	TR8D-1K0A1-0.5-10VA10	1,30
600-1200	0.5	10-15	TR8D-1K2A5-0.5-10VA15	TR8D-1K2A1-0.5-10VA15	1,00
750-1500	0.5	10-20	TR8D-1K5A5-0.5-10VA20	TR8D-1K5A1-0.5-10VA20	1,00
800-1600	0.5	10-20	TR8D-1K6A5-0.5-10VA20	TR8D-1K6A1-0.5-10VA20	1,00
1000-2000	0.5	10-20	TR8D-2K0A5-0.5-10VA20	TR8D-2K0A1-0.5-10VA20	1,00
1200-2400	0.5	15-20	TR8D-2K4A5-0.5-15VA20	TR8D-2K4A1-0.5-15VA20	1,00
1500-3000	0.5	20-20	TR8D-3K0A5-0.5-20VA20	TR8D-3K0A1-0.5-20VA20	1,00

TR827

Transformer suitable for primary current by one or two cables with a maximum diameter of 27mm.



Measuring transformers

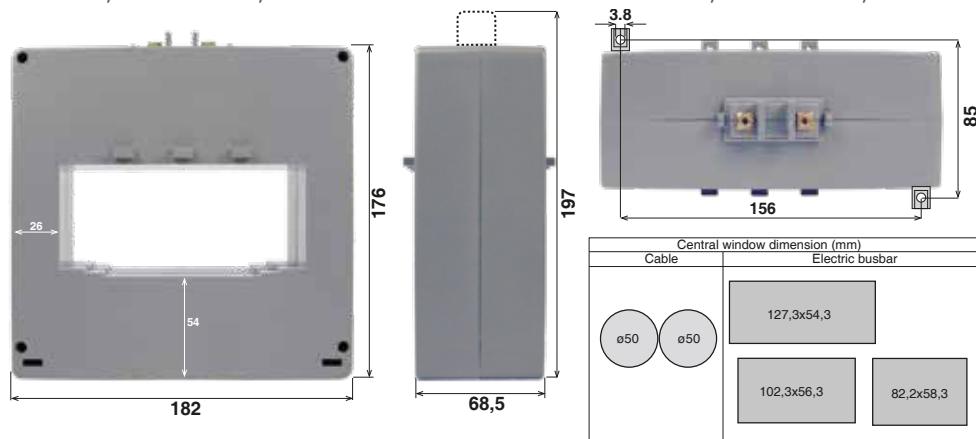
Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
100	0.5	5	TR827-100A5-0.5-5VA	TR827-100A1-0.5-5VA	3,20
120	0.5	5	TR827-120A5-0.5-5VA	TR827-120A1-0.5-5VA	3,20
125	0.5	5	TR827-125A5-0.5-5VA	TR827-125A1-0.5-5VA	3,20
150	0.5	10	TR827-150A5-0.5-10VA	TR827-150A1-0.5-10VA	3,20
200	0.5	15	TR827-200A5-0.5-15VA	TR827-200A1-0.5-15VA	3,30
250	0.5	20	TR827-250A5-0.5-20VA	TR827-250A1-0.5-20VA	3,20

Protection transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
100	5P5	10	TR827P-100A5-5P5-10VA	TR827P-100A1-5P5-10VA	2,60
100	5P10	4	TR827P-100A5-5P10-4VA	TR827P-100A1-5P10-4VA	2,60
100	5P15	2.5	TR827P-100A5-5P15-2.5VA	TR827P-100A1-5P15-2.5VA	2,60
100	5P20	1.5	TR827P-100A5-5P20-1.5VA	TR827P-100A1-5P20-1.5VA	2,60
120	5P5	10	TR827P-120A5-5P5-10VA	TR827P-120A1-5P5-10VA	2,60
120	5P10	4	TR827P-120A5-5P10-4VA	TR827P-120A1-5P10-4VA	2,60
120	5P15	2.5	TR827P-120A5-5P15-2.5VA	TR827P-120A1-5P15-2.5VA	2,60
120	5P20	1.5	TR827P-120A5-5P20-1.5VA	TR827P-120A1-5P20-1.5VA	2,60
125	5P5	10	TR827P-125A5-5P5-10VA	TR827P-125A1-5P5-10VA	2,60
125	5P10	4	TR827P-125A5-5P10-4VA	TR827P-125A1-5P10-4VA	2,60
125	5P15	2.5	TR827P-125A5-5P15-2.5VA	TR827P-125A1-5P15-2.5VA	2,60
125	5P20	1.5	TR827P-125A5-5P20-1.5VA	TR827P-125A1-5P20-1.5VA	2,60
150	5P5	15	TR827P-150A5-5P5-15VA	TR827P-150A1-5P5-15VA	2,60
150	5P10	7	TR827P-150A5-5P10-7VA	TR827P-150A1-5P10-7VA	2,60
150	5P15	4	TR827P-150A5-5P15-4VA	TR827P-150A1-5P15-4VA	2,60
150	5P20	2.5	TR827P-150A5-5P20-2.5VA	TR827P-150A1-5P20-2.5VA	2,60
200	5P5	20	TR827P-200A5-5P5-20VA	TR827P-200A1-5P5-20VA	2,60
200	5P10	10	TR827P-200A5-5P10-10VA	TR827P-200A1-5P10-10VA	2,70
200	5P15	5	TR827P-200A5-5P15-5VA	TR827P-200A1-5P15-5VA	2,70
200	5P20	3.5	TR827P-200A5-5P20-3.5VA	TR827P-200A1-5P20-3.5VA	2,70
250	5P5	25	TR827P-250A5-5P5-25VA	TR827P-250A1-5P5-25VA	2,70
250	5P10	12	TR827P-250A5-5P10-12VA	TR827P-250A1-5P10-12VA	2,70
250	5P15	7	TR827P-250A5-5P15-7VA	TR827P-250A1-5P15-7VA	2,70
250	5P20	5	TR827P-250A5-5P20-5VA	TR827P-250A1-5P20-5VA	2,70

TR12

Transformer suitable for primary current by one, two or three cables with a maximum diameter of 50mm, by horizontal bar 80x50mm, 100x50mm, 125x50mm or vertical bar 50x80mm, 50x100mm, 50x125mm.



Measuring transformers

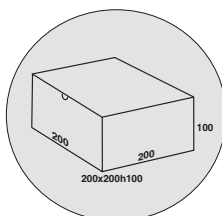
Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
500	0.5	10	TR12-500A5-0.5-10VA	TR12-500A1-0.5-10VA	1,50
600	0.5	10	TR12-600A5-0.5-10VA	TR12-600A1-0.5-10VA	1,50
750	0.5	10	TR12-750A5-0.5-10VA	TR12-750A1-0.5-10VA	1,50
800	0.5	15	TR12-800A5-0.5-15VA	TR12-800A1-0.5-15VA	1,50
1000	0.5	20	TR12-1K0A5-0.5-20VA	TR12-1K0A1-0.5-20VA	1,50
1200	0.5	20	TR12-1K2A5-0.5-20VA	TR12-1K2A1-0.5-20VA	1,50
1250	0.5	20	TR12-1K25A5-0.5-20VA	TR12-1K25A1-0.5-20VA	1,50
1500	0.5	20	TR12-1K5A5-0.5-20VA	TR12-1K5A1-0.5-20VA	1,50
1600	0.5	20	TR12-1K6A5-0.5-20VA	TR12-1K6A1-0.5-20VA	1,50
2000	0.5	30	TR12-2K0A5-0.5-30VA	TR12-2K0A1-0.5-30VA	1,60
2500	0.5	40	TR12-2K5A5-0.5-40VA	TR12-2K5A1-0.5-40VA	1,60
3000	0.5	40	TR12-3K0A5-0.5-40VA	TR12-3K0A1-0.5-40VA	1,60
3200	0.5	40	TR12-3K2A5-0.5-40VA	TR12-3K2A1-0.5-40VA	1,60
3500	0.5	40	TR12-3K5A5-0.5-40VA	TR12-3K5A1-0.5-40VA	1,60
4000	0.5	50	TR12-4K0A5-0.5-50VA	TR12-4K0A1-0.5-50VA	2,00

Protection transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
400	5P5	10	TR12P-400A5-5P5-10VA	TR12P-400A1-5P5-10VA	2,00
400	5P10	4,5	TR12P-400A5-5P10-4.5VA	TR12P-400A1-5P10-4.5VA	2,00
400	5P15	2,5	TR12P-400A5-5P15-2.5VA	TR12P-400A1-5P15-2.5VA	2,00
400	5P20	1	TR12P-400A5-5P20-1VA	TR12P-400A1-5P20-1VA	2,00
500	5P5	15	TR12P-500A5-5P5-15VA	TR12P-500A1-5P5-15VA	2,00
500	5P10	6	TR12P-500A5-5P10-6VA	TR12P-500A1-5P10-6VA	2,00
500	5P15	3	TR12P-500A5-5P15-3VA	TR12P-500A1-5P15-3VA	2,00
500	5P20	2	TR12P-500A5-5P20-2VA	TR12P-500A1-5P20-2VA	2,00
600	5P5	16	TR12P-600A5-5P5-16VA	TR12P-600A1-5P5-16VA	2,20
600	5P10	7	TR12P-600A5-5P10-7VA	TR12P-600A1-5P10-7VA	2,20
600	5P15	4	TR12P-600A5-5P15-4VA	TR12P-600A1-5P15-4VA	2,20
600	5P20	2	TR12P-600A5-5P20-2VA	TR12P-600A1-5P20-2VA	2,20
750	5P5	20	TR12P-750A5-5P5-20VA	TR12P-750A1-5P5-20VA	2,20
750	5P10	8	TR12P-750A5-5P10-8VA	TR12P-750A1-5P10-8VA	2,20
750	5P15	4	TR12P-750A5-5P15-4VA	TR12P-750A1-5P15-4VA	2,20
750	5P20	2	TR12P-750A5-5P20-2VA	TR12P-750A1-5P20-2VA	2,20
800	5P5	20	TR12P-800A5-5P5-20VA	TR12P-800A1-5P5-20VA	2,20
800	5P10	8	TR12P-800A5-5P10-8VA	TR12P-800A1-5P10-8VA	2,20
800	5P15	6	TR12P-800A5-5P15-6VA	TR12P-800A1-5P15-6VA	2,20
800	5P20	3	TR12P-800A5-5P20-3VA	TR12P-800A1-5P20-3VA	2,20
1000	5P5	20	TR12P-1K0A5-5P5-20VA	TR12P-1K0A1-5P5-20VA	2,20
1000	5P10	12	TR12P-1K0A5-5P10-12VA	TR12P-1K0A1-5P10-12VA	2,20
1000	5P15	6	TR12P-1K0A5-5P15-6VA	TR12P-1K0A1-5P15-6VA	2,20
1000	5P20	2	TR12P-1K0A5-5P20-2VA	TR12P-1K0A1-5P20-2VA	2,20
1200	5P5	30	TR12P-1K2A5-5P5-30VA	TR12P-1K2A1-5P5-30VA	2,40
1200	5P10	15	TR12P-1K2A5-5P10-15VA	TR12P-1K2A1-5P10-15VA	2,40
1200	5P15	8	TR12P-1K2A5-5P15-8VA	TR12P-1K2A1-5P15-8VA	2,40
1200	5P20	4	TR12P-1K2A5-5P20-4VA	TR12P-1K2A1-5P20-4VA	2,40
1250	5P5	30	TR12P-1K25A5-5P5-30VA	TR12P-1K25A1-5P5-30VA	2,40
1250	5P10	15	TR12P-1K25A5-5P10-15VA	TR12P-1K25A1-5P10-15VA	2,40
1250	5P15	8	TR12P-1K25A5-5P15-8VA	TR12P-1K25A1-5P15-8VA	2,40
1250	5P20	4	TR12P-1K25A5-5P20-4VA	TR12P-1K25A1-5P20-4VA	2,40
1500	5P5	40	TR12P-1K5A5-5P5-40VA	TR12P-1K5A1-5P5-40VA	2,50
1500	5P10	18	TR12P-1K5A5-5P10-18VA	TR12P-1K5A1-5P10-18VA	2,50
1500	5P15	10	TR12P-1K5A5-5P15-10VA	TR12P-1K5A1-5P15-10VA	2,50
1500	5P20	5	TR12P-1K5A5-5P20-5VA	TR12P-1K5A1-5P20-5VA	2,50
1600	5P5	40	TR12P-1K6A5-5P5-40VA	TR12P-1K6A1-5P5-40VA	2,50
1600	5P10	18	TR12P-1K6A5-5P10-18VA	TR12P-1K6A1-5P10-18VA	2,50
1600	5P15	10	TR12P-1K6A5-5P15-10VA	TR12P-1K6A1-5P15-10VA	2,50
1600	5P20	5	TR12P-1K6A5-5P20-5VA	TR12P-1K6A1-5P20-5VA	2,50
2000	5P5	50	TR12P-2K0A5-5P5-50VA	TR12P-2K0A1-5P5-50VA	2,80
2000	5P10	25	TR12P-2K0A5-5P10-25VA	TR12P-2K0A1-5P10-25VA	2,80
2000	5P15	12	TR12P-2K0A5-5P15-12VA	TR12P-2K0A1-5P15-12VA	2,80
2000	5P20	6	TR12P-2K0A5-5P20-6VA	TR12P-2K0A1-5P20-6VA	2,80
2500	5P5	75	TR12P-2K5A5-5P5-75VA	TR12P-2K5A1-5P5-75VA	3,00
2500	5P10	30	TR12P-2K5A5-5P10-30VA	TR12P-2K5A1-5P10-30VA	3,00
2500	5P15	15	TR12P-2K5A5-5P15-15VA	TR12P-2K5A1-5P15-15VA	3,00
2500	5P20	8	TR12P-2K5A5-5P20-8VA	TR12P-2K5A1-5P20-8VA	3,00
3000	5P5	40	TR12P-3K0A5-5P5-40VA	TR12P-3K0A1-5P5-40VA	3,00
3000	5P10	20	TR12P-3K0A5-5P10-20VA	TR12P-3K0A1-5P10-20VA	3,00
3000	5P15	15	TR12P-3K0A5-5P15-15VA	TR12P-3K0A1-5P15-15VA	3,00
3000	5P20	10	TR12P-3K0A5-5P20-10VA	TR12P-3K0A1-5P20-10VA	3,00
4000	5P5	50	TR12P-4K0A5-5P5-50VA	TR12P-4K0A1-5P5-50VA	3,00
4000	5P10	25	TR12P-4K0A5-5P10-25VA	TR12P-4K0A1-5P10-25VA	3,00
4000	5P15	15	TR12P-4K0A5-5P15-15VA	TR12P-4K0A1-5P15-15VA	3,00
4000	5P20	12	TR12P-4K0A5-5P20-12VA	TR12P-4K0A1-5P20-12VA	3,00

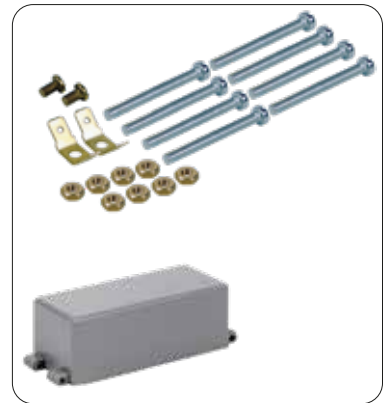
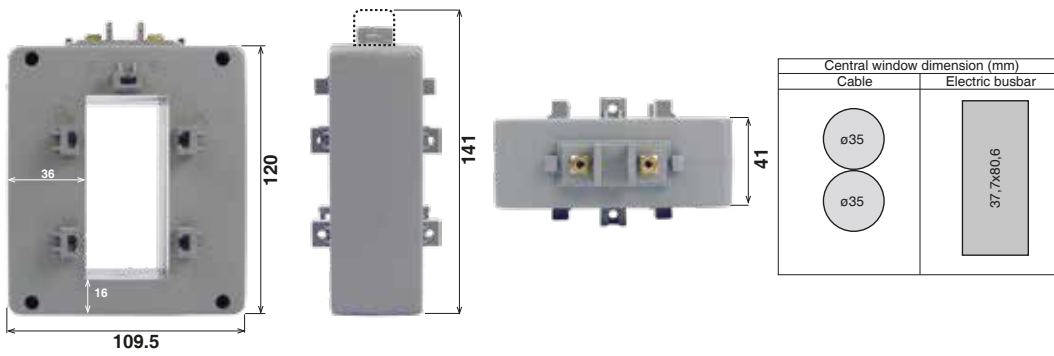
Double ratio transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
800-1600	0.5	15-20	TR12D-1K6A5-0.5-15VA20	TR12D-1K6A1-0.5-15VA20	1,50
1000-2000	0.5	20-30	TR12D-2K0A5-0.5-20VA30	TR12D-2K0A1-0.5-20VA30	1,50
1200-2400	0.5	20-40	TR12D-2K4A5-0.5-20VA40	TR12D-2K4A1-0.5-20VA40	1,50
1250-2500	0.5	20-40	TR12D-2K25A5-0.5-20VA40	TR12D-2K25A1-0.5-20VA40	1,50
1500-3000	0.5	20-40	TR12D-3K0A5-0.5-20VA40	TR12D-3K0A1-0.5-20VA40	2,00
2000-4000	0.5	30-50	TR12D-4K0A5-0.5-30VA50	TR12D-4K0A1-0.5-30VA50	2,00



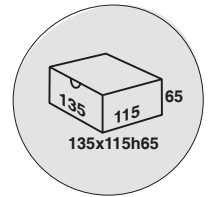
TR8V

Transformer suitable for primary current by one or two cables with a maximum diameter of 35mm or by vertical bar 30x80mm.



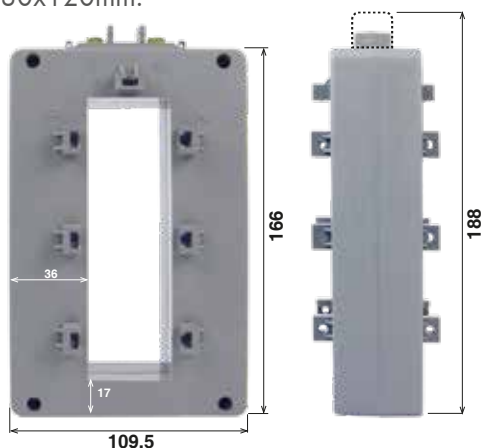
Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
400	0,5	6	TR8V-400A5-0.5-6VA	TR8V-400A1-0.5-6VA	0,70
500	0,5	10	TR8V-500A5-0.5-10VA	TR8V-500A1-0.5-10VA	0,70
600	0,5	10	TR8V-600A5-0.5-10VA	TR8V-600A1-0.5-10VA	0,70
750	0,5	10	TR8V-750A5-0.5-10VA	TR8V-750A1-0.5-10VA	0,70
800	0,5	10	TR8V-800A5-0.5-10VA	TR8V-800A1-0.5-10VA	0,70
1000	0,5	10	TR8V-1K0A5-0.5-10VA	TR8V-1K0A1-0.5-10VA	0,70
1200	0,5	15	TR8V-1K2A5-0.5-10VA	TR8V-1K2A1-0.5-10VA	0,70
1250	0,5	15	TR8V-1K25A5-0.5-10VA	TR8V-1K25A1-0.5-10VA	0,70
1500	0,5	20	TR8V-1K5A5-0.5-10VA	TR8V-1K5A1-0.5-10VA	0,70
1600	0,5	20	TR8V-1K6A5-0.5-12VA	TR8V-1K6A1-0.5-12VA	0,70
2000	0,5	20	TR8V-2K0A5-0.5-20VA	TR8V-2K0A1-0.5-20VA	0,70
2500	0,5	20	TR8V-2K5A5-0.5-20VA	TR8V-2K5A1-0.5-20VA	0,80



TR12V

Transformer suitable for primary current by one, two, three cables with a maximum diameter of 35mm or by vertical bar 30x120mm.



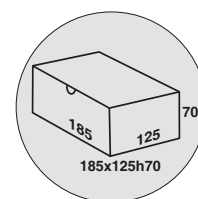
Central window dimension (mm)	
Cable	Electric busbar



Measuring transformers

Primary current	Class	Power	Secondary current		Weight
			5A	1A	
A		VA	5A	1A	Kg
800	0.5	10	TR12V-800A5-0.5-10VA	TR12V-800A1-0.5-10VA	0,70
1000	0.5	10	TR12V-1K0A5-0.5-10VA	TR12V-1K0A1-0.5-10VA	0,70
1200	0.5	10	TR12V-1K2A5-0.5-10VA	TR12V-1K2A1-0.5-10VA	0,70
1250	0.5	10	TR12V-1K25A5-0.5-10VA	TR12V-1K25A1-0.5-10VA	0,70
1500	0.5	12	TR12V-1K5A5-0.5-12VA	TR12V-1K5A1-0.5-12VA	0,70
1600	0.5	12	TR12V-1K6A5-0.5-12VA	TR12V-1K6A1-0.5-12VA	1,00
2000	0.5	15	TR12V-2K0A5-0.5-15VA	TR12V-2K0A1-0.5-15VA	1,00
2500	0.5	20	TR12V-2K5A5-0.5-20VA	TR12V-2K5A1-0.5-20VA	1,00
3000	0.5	20	TR12V-3K0A5-0.5-20VA	TR12V-3K0A1-0.5-20VA	1,00
3200	0.5	20	TR12V-3K2A5-0.5-20VA	TR12V-3K2A1-0.5-20VA	1,00
3500	0.5	20	TR12V-3K5A5-0.5-20VA	TR12V-3K5A1-0.5-20VA	1,00
4000	0.5	20	TR12V-4K0A5-0.5-20VA	TR12V-4K0A1-0.5-20VA	1,00

Insulation class B



CURRENT TRANSFORMERS - TM SERIES

TRANSFORMERS FOR ELECTRONIC USE - TM EL ... SERIES

Range of transformer characterized by a small size, indicated in all those installations where space has considerable importance; the presence of Fast-On (6.3mm) terminals, also allows a significant reduction of wiring time.

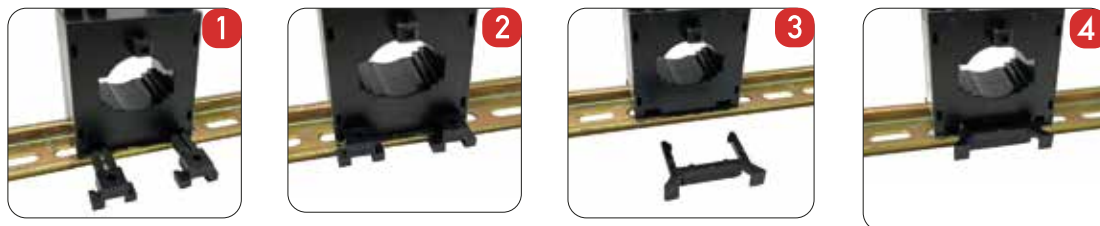
ASSEMBLY INSTRUCTIONS

With the transformer it is provided a sacket containing a series of accessories that depending on the model, allow various types of fixations;

- The mounting on DIN rail EN 50022 is performed using the base
- The wall mounting using the two brackets or the basis mentioned above
- The direct mounting on the cable or on the bar, using screws

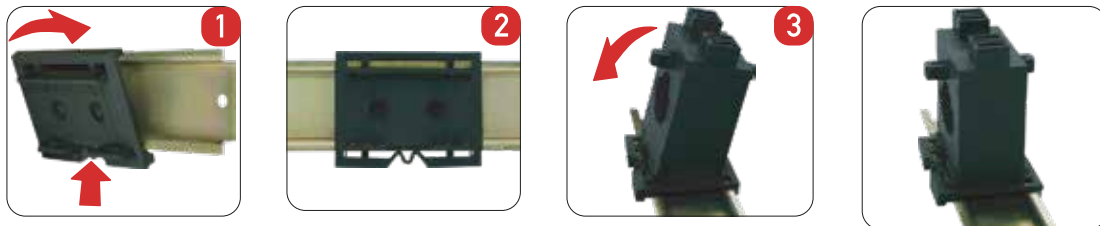
These fixations must be made in the manner indicated in the figure; no special tools are required even for the release of the transformer having to remove it.

For codes TM1-TM3-TM4



Place the transformer on a DIN rail, insert the brackets into the proper places as show in the figure (1-2) insert the fork in their sats and push it as show in the figure (3-4)

For codes TM5



Place the choice base on the bar and press as shown in figures (1-2) Position the transformer on the base previously assembled and press as shown in figure (3)

Wall fixing



For codes TM5
Secure the base to the wall with two screws (not supplied), then attach the transformer as shown in the previous figures.



For the code TM1-TM3-TM4-TM6.
Insert the brackets into the proper places as shown in the figure and fasten them to the wall with two screws (not supplied).

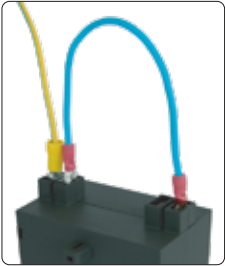


Possible for all codes using the two screws provided together with the transformers as shown in figure. When you have to fix a cable, it is recommended to protect the tip of the screws properly, in order to not pinch the cable.

WIRING INSTRUCTIONS



Connect the cable S1 in one of the two terminals of the corresponding side, and the cable S2 in one of the two cables of the opposite side. The selected terminal is irrelevant since the two adjacent Fast-On terminals are internally connected. The cable / bar of the primary current must be inserted into the transformer paying attention to the flow direction of the current, which must always be in the direction P1 -> P2.



The double terminal lets you make a short-circuit when it is necessary to disconnect the load from the transformer, so as not to damage the transformer or the operator. It is also possible to make the grounding if you do not want to use the same Fast-On terminal used for the connection to the load.

TRANSFORMERS FOR ELECTRONIC USE

they are used for current measurements from 25A to 600A (nominal primary current). The main feature is the high number of turns of the secondary winding, which allows to have a very low secondary current, suitable for an electronic measurement circuit which can be detected as voltage on a resistor. This resistor of low power and low cost is directly mounted on the printed circuit.

Have isolation voltage of 3 kV between primary and secondary, and operating frequency of 50/60Hz.

Applications:

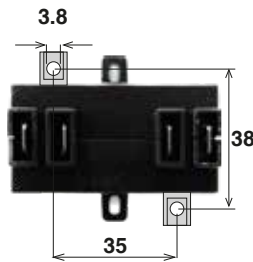
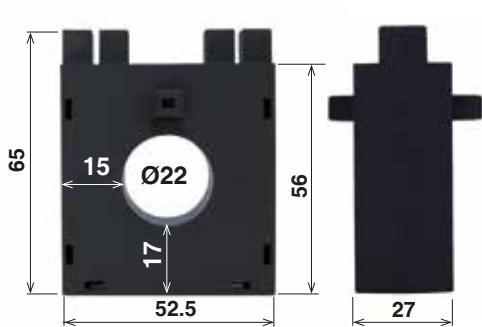
- Current sensor for protection circuits and control of devices such as rectifiers bridges, motors, UPS and similar.
- Current sensor for measuring instruments (current probe).

Reports or technical data different than the proposed, can be made on request .

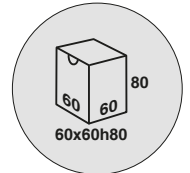
BUSBAR CURRENT TRANSFORMERS – TM E SERIES TRANSFORMERS FOR ELECTRONIC USE – TM EL SERIES

TM1E / TM1EL

Transformer suitable for primary current by cable with maximum diameter of 22mm.



Central window dimension (mm)	
Cable	



Measuring transformers

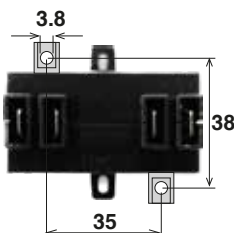
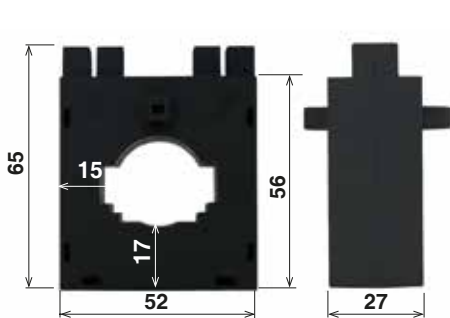
Primary current	Class	Power	Secondary current	Weight
A		VA	5A	Kg
40	1	1	TM1E-040A5-1VA	0,20
50	1	1	TM1E-050A5-1-1VA	0,20
60	1	1	TM1E-060A5-1-1VA	0,20
80	1	3	TM1E-080A5-1-3VA	0,20
100	1	3	TM1E-100A5-1-3VA	0,20
150	1	3	TM1E-150A5-1-3VA	0,20
200	1	6	TM1E-200A5-1-6VA	0,20

Transformers for electronic use

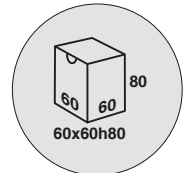
Primary current	Class	Code	Secondary current	Power	Turns number	Resistance (Ohms)	Secondary voltage (VAC)	Weight
A			A	VA	S1-S2	Ru	Vu	Kg
25	2	TM1EL-025A0.05-2-0.2VA	0,05	0,2	500	40	2	0,2
25	2,5	TM1EL-025A0.20-2-5-0.6VA	0,20	0,6	125	10	2	0,2
50	1	TM1EL-050A0.05-1-0.2VA	0,05	0,2	1000	80	4	0,2
50	1,5	TM1EL-050A0.20-1-5-0.6VA	0,20	0,6	250	10	4	0,2
100	0,4	TM1EL-100A0.10-0-4-1.25VA	0,10	1,25	1000	20	2	0,2
100	0,8	TM1EL-100A0.20-0-8-1.6VA	0,20	1,6	500	20	4	0,2
200	0,5	TM1EL-200A0.20-0-5-4VA	0,20	4	1000	20	4	0,2
200	1	TM1EL-200A0.40-1-4VA	0,40	4	500	20	8	0,2
300	0,3	TM1EL-300A0.20-0-3-4VA	0,20	4	1500	20	4	0,2
400	0,2	TM1EL-400A0.20-0-2-4VA	0,20	4	2000	20	4	0,2
400	0,4	TM1EL-400A0.40-0-4-4VA	0,40	4	1000	20	8	0,2
600	0,5	TM1EL-600A0.20-0-5-4VA	0,20	4	3000	20	4	0,2
600	0,2	TM1EL-600A0.40-0-2-4VA	0,40	4	1500	20	8	0,2

TM3E / TM3EL

Transformer suitable for primary current by cable with maximum diameter 23mm or horizontal bar 20x15,5 - 25x12,5x10mm



Central window dimension (mm)	
Cable	
Electric busbar	



Measuring transformers

Primary current	Class	Power	Secondary current	Weight
A		VA	5A	Kg
60	1	1	TM3E-060A5-1-1VA	0,20
80	1	1	TM3E-080A5-1-1VA	0,20
100	1	1	TM3E-100A5-1-1VA	0,20
150	1	1	TM3E-150A5-1-1VA	0,20
200	1	2	TM3E-200A5-1-2VA	0,20
250	1	2	TM3E-250A5-1-2VA	0,20
300	1	2,5	TM3E-300A5-1-2.5VA	0,20
400	1	4	TM3E-400A5-1-4VA	0,20

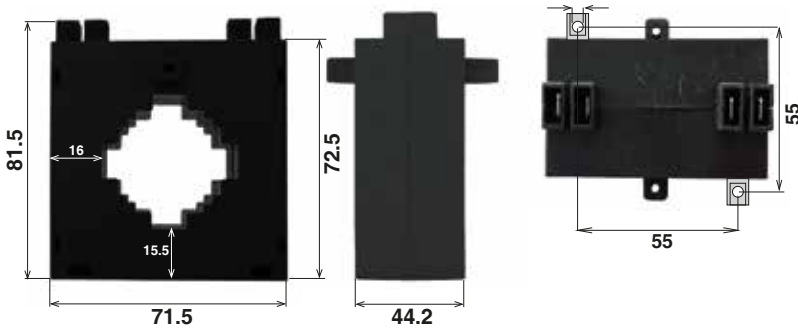
Transformers for electronic use

Primary current	Class	Code	Secondary current	Power	Turns number	Resistance (Ohms)	Secondary voltage (VAC)	Weight
A			A	VA	S1-S2	Ru	Vu	Kg
50	3	TM3EL-050A0.05-3-0.5VA	0,05	0,5	1000			0,2
200	1	TM3EL-200A0.20-1-4VA	0,20	4	1000			0,2
400	3	TM3EL-400A0.05-3-0.2VA	0,05	0,2	8000			0,2
400	1	TM3EL-400A0.20-1-4VA	0,20	4	2000			0,2
600	1	TM3EL-600A0.20-1-4VA	0,20	4	3000			0,2

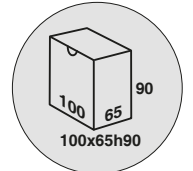
BUSBAR CURRENT TRANSFORMERS – TM E SERIES TRANSFORMERS FOR ELECTRONIC USE – TM EL SERIES

TM4E / TM4EL

Transformer suitable for primary current by cable with maximum diameter 30mm or horizontal/vertical bar 25x25,30x20, 40x10mm.



Central window dimension (mm)	
Cable	Electric busbar
 $\varnothing 30$	 40,4x10,3
	 30,5x20,4
	 25,5x25,5



Measuring transformers

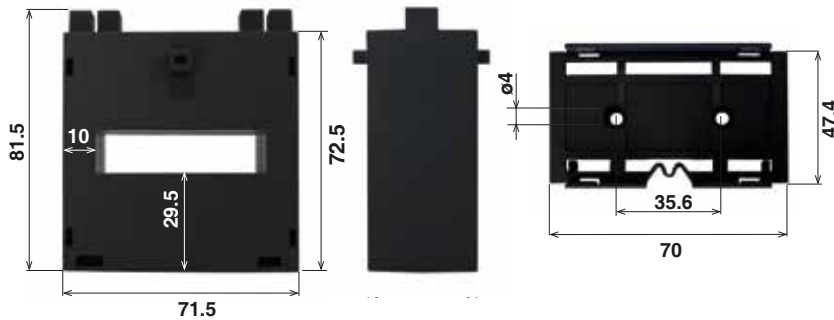
Primary current	Class	Power	Secondary current	Weight
A		VA	5A	Kg
200	1	3	TM4E-200A5-1-3VA	0,40
250	1	3	TM4E-250A5-1-3VA	0,40
300	1	4	TM4E-300A5-1-4VA	0,40
400	1	5	TM4E-400A5-1-4VA	0,40
500	1	6	TM4E-500A5-1-6VA	0,30
600	0.5	6	TM4E-600A5-0.5-6VA	0,30
800	0.5	8	TM4E-800A5-0.5-8VA	0,30
1000	0.5	10	TM4E-1K0A5-0.5-10VA	0,30

Transformers for electronic use

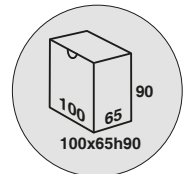
Primary current	Class	Code	Secondary current	Power	Turns number	Resistance (Ohms)	Secondary voltage (VAC)	Weight
A			A	VA	S1-S2	Ru	Vu	Kg
100	3	TM4EL-100A0.05-3-1VA	0,05	1	2000			0,40
150	2	TM4EL-150A0.05-2-1VA	0,05	1	3000			0,40
200	2	TM4EL-200A0.05-2-1VA	0,05	1	4000			0,40
400	2	TM4EL-300A0.20-2-4VA	0,20	4	2000			0,40
600	0.5	TM4EL-600A0.20-0.5-4VA	0,20	4	3000			0,40

TM5

Transformer suitable for primary current by horizontal bar 50x10mm.



Central window dimension (mm)	
Electric busbar	
 50.5x12.5	



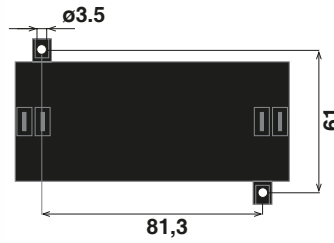
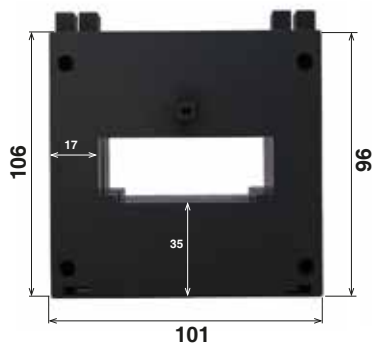
Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
150	1	2	TM5-150A5-1-2VA	TM5-150A1-1-2VA	0,40
200	1	2	TM5-200A5-1-2VA	TM5-200A1-1-2VA	0,40
250	1	3	TM5-250A5-1-3VA	TM5-250A1-1-3VA	0,40
300	0.5	3	TM5-300A5-0.5-3VA	TM5-300A1-0.5-3VA	0,40
400	0.5	4	TM5-400A5-0.5-4VA	TM5-400A1-0.5-4VA	0,40
500	0.5	6	TM5-500A5-0.5-6VA	TM5-500A1-0.5-6VA	0,30
600	0.5	6	TM5-600A5-0.5-6VA	TM5-600A1-0.5-6VA	0,30
750	0.5	6	TM5-750A5-0.5-6VA	TM5-750A1-0.5-6VA	0,30
800	0.5	10	TM5-800A5-0.5-10VA	TM5-800A1-0.5-10VA	0,30
1000	0.5	10	TM5-1K0A5-0.5-10VA	TM5-1K0A1-0.5-10VA	0,30
1200	0.5	10	TM5-1K2A5-0.5-10VA	TM5-1K2A1-0.5-10VA	0,30

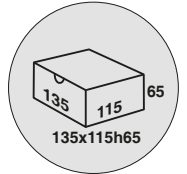
BUSBAR CURRENT TRANSFORMERS – TM E SERIES TRANSFORMERS FOR ELECTRONIC USE – TM EL SERIES

TM6 / TM6EL

Transformer suitable for primary current by one or two cables with maximum diameter 22mm or horizontal bar 50x20, 60x20mm.



Central window dimension (mm)	
Cable	Electric busbar
 $\varnothing 22$ $\varnothing 22$	 63,8x20,5
	 51,3x23,3



Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
300	0.5	4	TM6-300A5-0.5-4VA	TM6-300A1-0.5-4VA	0,50
400	0.5	6	TM6-400A5-0.5-6VA	TM6-400A1-0.5-6VA	0,50
500	0.5	6	TM6-500A5-0.5-6VA	TM6-500A1-0.5-6VA	0,50
600	0.5	6	TM6-600A5-0.5-6VA	TM6-600A1-0.5-6VA	0,60
750	0.5	6	TM6-750A5-0.5-6VA	TM6-750A1-0.5-6VA	0,60
800	0.5	10	TM6-800A5-0.5-10VA	TM6-800A1-0.5-10VA	0,60
1000	0.5	10	TM6-1K0A5-0.5-10VA	TM6-1K0A1-0.5-10VA	0,60
1200	0.5	15	TM6-1K2A5-0.5-15VA	TM6-1K2A1-0.5-15VA	0,60
1250	0.5	15	TM6-1K25A5-0.5-15VA	TM6-1K25A1-0.5-15VA	0,60
1500	0.5	20	TM6-1K5A5-0.5-20VA	TM6-1K5A1-0.5-20VA	0,80
1600	0.5	20	TM6-1K6A5-0.5-20VA	TM6-1K6A1-0.5-20VA	0,80
2000	0.5	20	TM6-2K0A5-0.5-20VA	TM6-2K0A1-0.5-20VA	0,80

Transformers for electronic use

Primary current	Class	Code	Secondary current	Power	Turns number	Resistance (Ohms)	Secondary voltage (VAC)	Weight
A			A	VA	S1-S2	Ru	Vu	Kg
250	1	TM6EL-250A0.05-1-1VA	0,05	1	5000			0,40
600	0.5	TM6EL-600A0.20-0.5-3VA	0,20	3	3000			0,40
1000	0.5	TM6EL-1K0A0.20-0.5-5VA	0,20	5	5000			0,40
1500	0.5	TM6EL-1K5A0.20-0.5-5VA	0,20	5	7500			0,40

CURRENT TRANSFORMERS - TN SERIES PROTECTION TRANSFORMERS - TN P ... SERIES

Range of transformers characterized by small size indicated in all those installations where space has considerable importance and double terminals in opposition.

ASSEMBLY INSTRUCTIONS

Together with the transformer it is provided a sachet containing a series of accessories, which depending on the model allow various types of fixing:

- The mounting on DIN EN 50022 requires no accessories, but simply by pressing upon the transformer thanks to the presence on the same, on the bottom side, the adequate fastening system.
- The wall mounting using the two brackets, or, in the case of code TN60, the special dedicated accessory.
- The direct mounting on the cable or on the busbar, using screws.

These fasteners must be made in the manner indicated in the figure; no special tools are required even for the release of the transformer, having to remove it.

Mounting on DIN rail

Place the transformer on the DIN rail and press it as shown in figures.



Wall fixing



Through the appropriate base for the code TN60, secure the base to the wall with 4 screws (not supplied), then insert the transformer in the slaid as shown.



Using the two brackets for the code TN22. Insert the brackets into the proper place as shown in the figure and fasten them to the wall with two screws (not supplied).

Mounting on cable or primary busbar

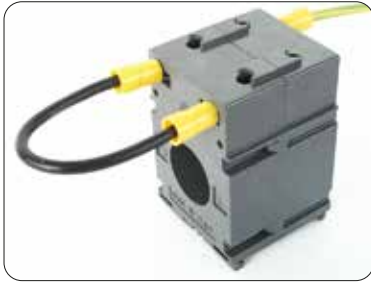


Fixing possible for all codes, using the two screws supplied with the transformer, as shown in figure.

WIRING INSTRUCTIONS



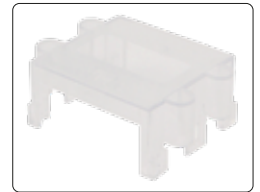
Connect the cable S1 in one of the two terminals of the corresponding side; and the cable S2 in one of the two terminals of the opposite side. The selected terminal is irrelevant since the two terminals in opposition are internally connected.
The cable / busbar of the primary current must be inserted into the transformer paying attention to the flow direction of the current, which must always be in the direction P1 -> P2.



The double terminal lets you make a short-circuit when it is necessary to disconnect the load from the transformer, so as not to damage the transformer or the operator. It is also possible to ground it if you do not want to use the same terminal used for connection to the load.



The terminals of this range have been designed with a sufficient protection degree against accidental contact. Is available on request, however, the 55PSATCS3C sealable terminal cover.



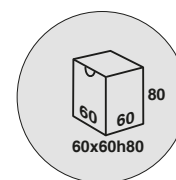
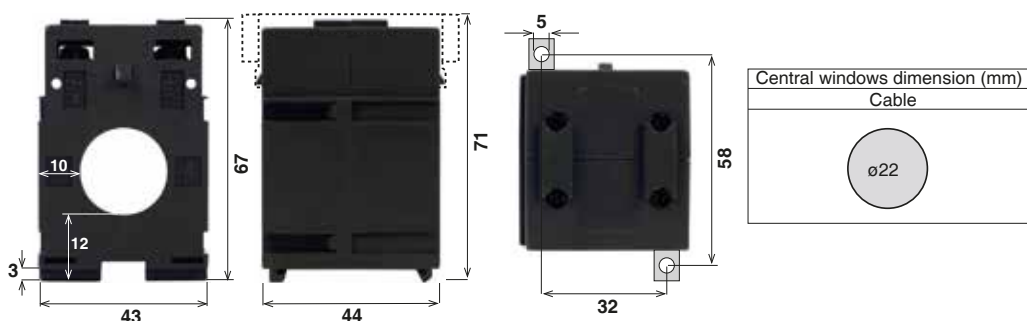
PROTECTION TRANSFORMERS

The current transformer used as a current generator for protection relays, has characteristics different from those of the measurement transformer. In fact to this range it is required a saturation of the magnetic circuit with primary currents $5 \times I_n$, whereas for the protection transformer is necessary that the value of the secondary current follows the increasing of the primary current up to 10, 15 or 20 times the I_n , guaranteeing thus the intervention of the relay to the provided fault current. It is important to do not load the transformer with a performance P, higher than the stated, in order to do not change the saturation of transformer, and keep unchanged the following formula:

$P = R \times I^2$ where P = load on CT; R = resistance of the relay + resistance of the cables; I = rated secondary current of the C.
Ratio or technical data different from those proposed, can be made on request.

TN22E

Transformer suitable for primary current by cable with maximum diameter 22mm.
Sealable terminal cover NOT included on request: code 55PSATCS3C.

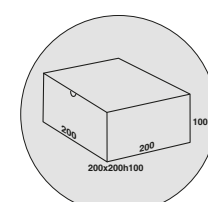
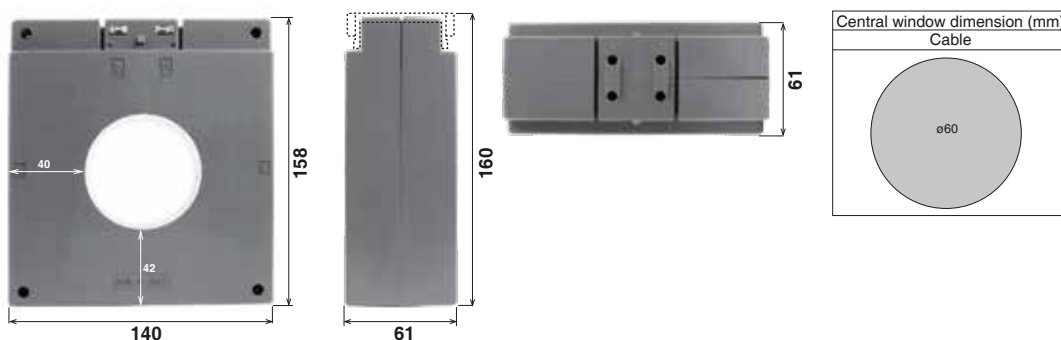


Measuring transformers

Primary current	Class	Power	Secondary current	Weight
A	VA		5A	Kg
40	3	1	TN22E-040A5-3-1VA	
60	3	1.2	TN22E-060A5-3-1.2VA	
80	1	1	TN22E-080A5-1-1VA	
100	1	1	TN22E-100A5-1-1VA	
150	1	1,5	TN22E-150A5-1-1.5VA	
200	0.5	2	TN22E-200A5-0.5-2VA	
250	0.5	2.5	TN22E-250A5-0.5-2.5VA	
300	0.5	3	TN22E-300A5-0.5-3VA	

TN16

Transformer suitable for primary current by cable with maximum diameter 60mm.
Sealable terminal cover NOT included on request: code 55PSATCS3C.



Measuring transformers

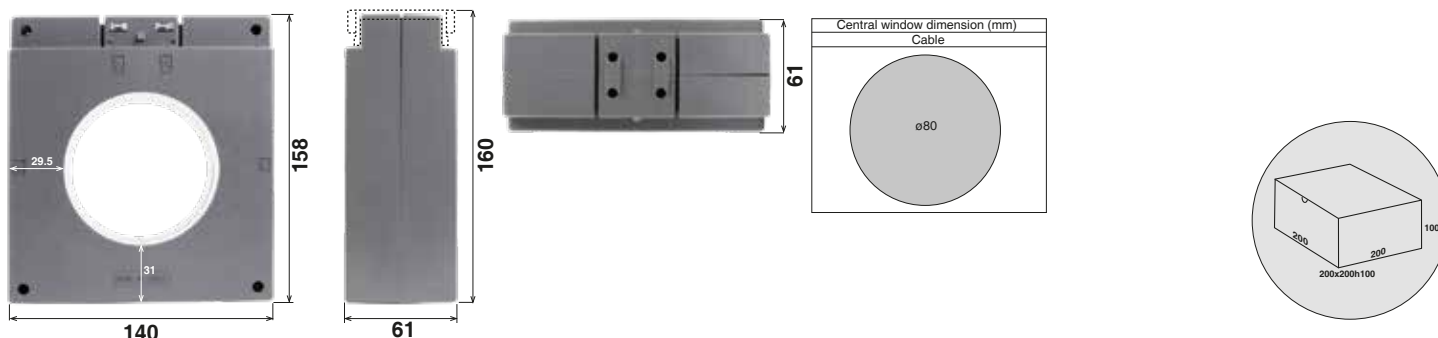
Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
500	0.5	10	TN16-500A5-0.5-10VA	TN16-500A1-0.5-10VA	1,50
600	0.5	10	TN16-600A5-0.5-10VA	TN16-600A1-0.5-10VA	1,50
750	0.5	12	TN16-750A5-0.5-12VA	TN16-750A1-0.5-12VA	1,50
800	0.5	15	TN16-800A5-0.5-15VA	TN16-800A1-0.5-15VA	1,50
1000	0.5	15	TN16-1K0A5-0.5-15VA	TN16-1K0A1-0.5-15VA	1,50
1200	0.5	20	TN16-1K2A5-0.5-20VA	TN16-1K2A1-0.5-20VA	1,50
1250	0.5	20	TN16-1K25A5-0.5-20VA	TN16-1K25A1-0.5-20VA	1,50
1500	0.5	30	TN16-1K5A5-0.5-30VA	TN16-1K5A1-0.5-30VA	1,50
1600	0.5	30	TN16-1K6A5-0.5-30VA	TN16-1K6A1-0.5-30VA	1,50
2000	0.5	30	TN16-2K0A5-0.5-30VA	TN16-2K0A1-0.5-30VA	1,50
2500	0.5	30	TN16-2K5A5-0.5-30VA	TN16-2K5A1-0.5-30VA	1,50
3000	0.5	30	TN16-3K0A5-0.5-30VA	TN16-3K0A1-0.5-30VA	1,50

Protection transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
500	5P5	10	TN16P-500A5-5P5-10VA	TN16P-500A1-5P5-10VA	1,50
500	5P10	2.5	TN16P-500A5-5P10-2.5VA	TN16P-500A1-5P10-2.5VA	1,50
600	5P5	12	TN16P-600A5-5P5-12VA	TN16P-600A1-5P5-12VA	1,50
600	5P10	3	TN16P-600A5-5P10-3VA	TN16P-600A1-5P10-3VA	1,50
750	5P5	15	TN16P-750A5-5P5-15VA	TN16P-750A1-5P5-15VA	1,50
750	5P10	3.5	TN16P-750A5-5P10-3.5VA	TN16P-750A1-5P10-3.5VA	1,50
800	5P5	16	TN16P-800A5-5P5-16VA	TN16P-800A1-5P5-16VA	1,50
800	5P10	4	TN16P-800A5-5P10-4VA	TN16P-800A1-5P10-4VA	1,50
1000	5P5	20	TN16P-1K0A5-5P5-20VA	TN16P-1K0A1-5P5-20VA	1,50
1000	5P10	5	TN16P-1K0A5-5P10-5VA	TN16P-1K0A1-5P10-5VA	1,50
1200	5P5	20	TN16P-1K2A5-5P5-20VA	TN16P-1K2A1-5P5-20VA	1,50
1200	5P10	5	TN16P-1K2A5-5P10-5VA	TN16P-1K2A1-5P10-5VA	1,50
1250	5P5	20	TN16P-1K25A5-5P5-20VA	TN16P-1K25A1-5P5-20VA	1,50
1250	5P10	5	TN16P-1K25A5-5P10-5VA	TN16P-1K25A1-5P10-5VA	1,50
1500	5P5	25	TN16P-1K5A5-5P5-25VA	TN16P-1K5A1-5P5-25VA	1,50
1500	5P10	6	TN16P-1K5A5-5P10-6VA	TN16P-1K5A1-5P10-6VA	1,50
1600	5P5	25	TN16P-1K6A5-5P5-25VA	TN16P-1K6A1-5P5-25VA	1,50
1600	5P10	6	TN16P-1K6A5-5P10-6VA	TN16P-1K6A1-5P10-6VA	1,50
2000	5P5	32	TN16P-2K0A5-5P5-32VA	TN16P-2K0A1-5P5-32VA	1,50
2000	5P10	7	TN16P-2K0A5-5P10-7VA	TN16P-2K0A1-5P10-7VA	1,50
2500	5P5	35	TN16P-2K5A5-5P5-35VA	TN16P-2K5A1-5P5-35VA	1,50
2500	5P10	9	TN16P-2K5A5-5P10-9VA	TN16P-2K5A1-5P10-9VA	1,50
3000	5P5	45	TN16P-3K0A5-5P5-45VA	TN16P-3K0A1-5P5-45VA	1,50
3000	5P10	10	TN16P-3K0A5-5P10-10 VA	TN16P-3K0A1-5P10-10 VA	1,50

TN18

Transformer suitable for primary current by cable with maximum diameter 80mm.
 Sealable terminal cover NOT included on request: code 55PSATCS3C.



Measuring transformers

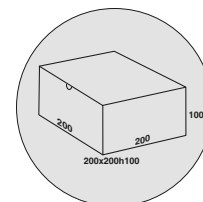
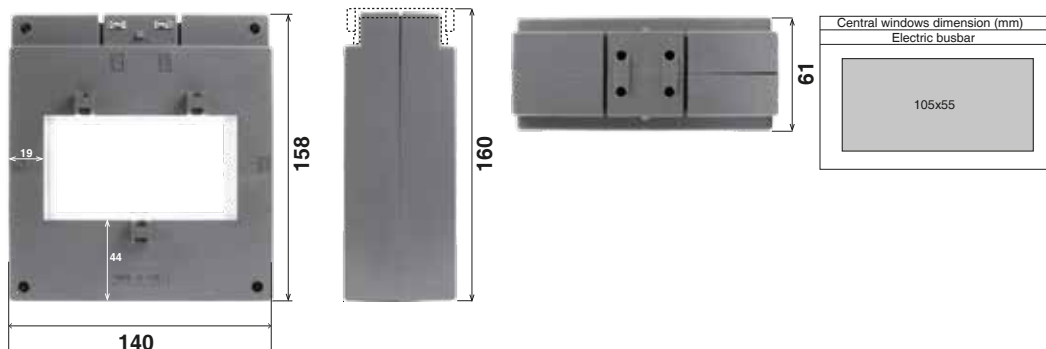
Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
500	0.5	7	TN18-500A5-0.5-7VA	TN18-500A1-0.5-7VA	1,50
600	0.5	10	TN18-600A5-0.5-10VA	TN18-600A1-0.5-10VA	1,50
750	0.5	12	TN18-750A5-0.5-12VA	TN18-750A1-0.5-12VA	1,50
800	0.5	15	TN18-800A5-0.5-15VA	TN18-800A1-0.5-15VA	1,50
1000	0.5	15	TN18-1K0A5-0.5-15VA	TN18-1K0A1-0.5-15VA	1,50
1200	0.5	20	TN18-1K2A5-0.5-20VA	TN18-1K2A1-0.5-20VA	1,50
1250	0.5	20	TN18-1K25A5-0.5-20VA	TN18-1K25A1-0.5-20VA	1,50
1500	0.5	30	TN18-1K5A5-0.5-30VA	TN18-1K5A1-0.5-30VA	1,50
1600	0.5	30	TN18-1K6A5-0.5-30VA	TN18-1K6A1-0.5-30VA	1,50
2000	0.5	30	TN18-2K0A5-0.5-30VA	TN18-2K0A1-0.5-30VA	1,50
2500	0.5	30	TN18-2K5A5-0.5-30VA	TN18-2K5A1-0.5-30VA	1,50
3000	0.5	30	TN18-3K0A5-0.5-30VA	TN18-3K0A1-0.5-30VA	1,50

Protection transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
500	5P5	7	TN18P-500A5-5P5-7VA	TN18P-500A1-5P5-7VA	1,50
500	5P10	1	TN18P-500A5-5P10-1VA	TN18P-500A1-5P10-1VA	1,50
600	5P5	8	TN18P-600A5-5P5-8VA	TN18P-600A1-5P5-8VA	1,50
600	5P10	1	TN18P-600A5-5P10-1VA	TN18P-600A1-5P10-1VA	1,50
750	5P5	10	TN18P-750A5-5P5-10VA	TN18P-750A1-5P5-10VA	1,50
750	5P10	1.5	TN18P-750A5-5P10-1.5VA	TN18P-750A1-5P10-1.5VA	1,50
800	5P5	12	TN18P-800A5-5P5-12VA	TN18P-800A1-5P5-12VA	1,50
800	5P10	1.5	TN18P-800A5-5P10-1.5VA	TN18P-800A1-5P10-1.5VA	1,50
1000	5P5	14	TN18P-1K0A5-5P5-14VA	TN18P-1K0A1-5P5-14VA	1,50
1000	5P10	2	TN18P-1K0A5-5P10-2VA	TN18P-1K0A1-5P10-2VA	1,50
1200	5P5	16	TN18P-1K2A5-5P5-16VA	TN18P-1K2A1-5P5-16VA	1,50
1200	5P10	2	TN18P-1K2A5-5P10-2VA	TN18P-1K2A1-5P10-2VA	1,50
1250	5P5	16	TN18P-1K25A5-5P5-16VA	TN18P-1K25A1-5P5-16VA	1,50
1250	5P10	2	TN18P-1K25A5-5P10-2VA	TN18P-1K25A1-5P10-2VA	1,50
1500	5P5	20	TN18P-1K5A5-5P5-20VA	TN18P-1K5A1-5P5-20VA	1,50
1500	5P10	2.5	TN18P-1K5A5-5P10-2.5VA	TN18P-1K5A1-5P10-2.5VA	1,50
1600	5P5	20	TN18P-1K6A5-5P5-20VA	TN18P-1K6A1-5P5-20VA	1,50
1600	5P10	2.5	TN18P-1K6A5-5P10-2.5VA	TN18P-1K6A1-5P10-2.5VA	1,50
2000	5P5	30	TN18P-2K0A5-5P5-30VA	TN18P-2K0A1-5P5-30VA	1,50
2000	5P10	4	TN18P-2K0A5-5P10-4VA	TN18P-2K0A1-5P10-4VA	1,50

TN10

Transformer suitable for primary current by one / two cables with maximum diameter 40mm or horizontal bar 50X80, 40x100mm. Sealable terminal cover NOT included on request: code 55PSATCS3C.



Measuring transformers

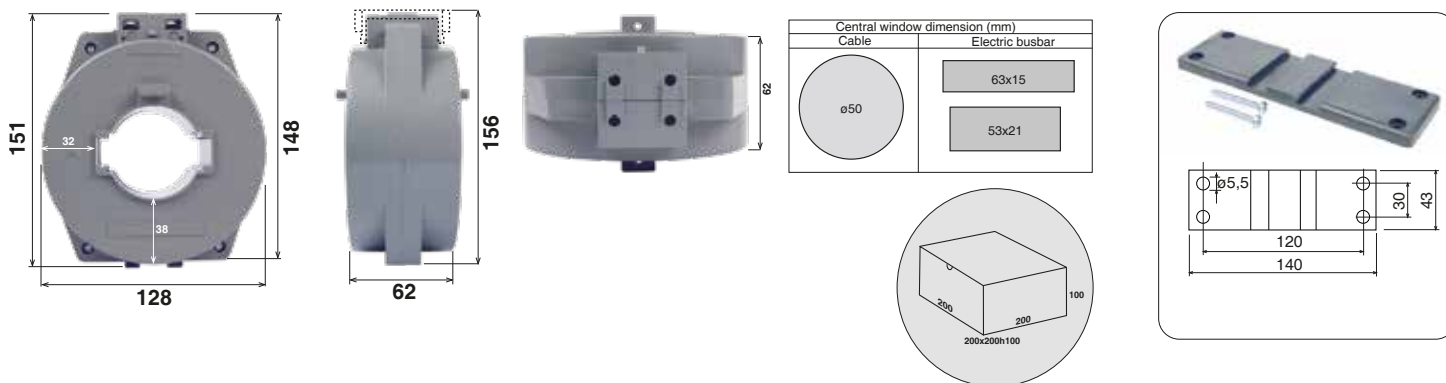
Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
500	0.5	7	TN10-500A5-0.5-7VA	TN10-500A1-0.5-7VA	1,50
600	0.5	10	TN10-600A5-0.5-10VA	TN10-600A1-0.5-10VA	1,50
750	0.5	10	TN10-750A5-0.5-10VA	TN10-750A1-0.5-10VA	1,50
800	0.5	10	TN10-800A5-0.5-10VA	TN10-800A1-0.5-10VA	1,50
1000	0.5	10	TN10-1K0A5-0.5-10VA	TN10-1K0A1-0.5-10VA	1,50
1200	0.5	15	TN10-1K2A5-0.5-15VA	TN10-1K2A1-0.5-15VA	1,50
1250	0.5	20	TN10-1K25A5-0.5-20VA	TN10-1K25A1-0.5-20VA	1,50
1500	0.5	20	TN10-1K5A5-0.5-20VA	TN10-1K5A1-0.5-20VA	1,50
1600	0.5	30	TN10-1K6A5-0.5-30VA	TN10-1K6A1-0.5-30VA	1,50
2000	0.5	40	TN10-2K0A5-0.5-40VA	TN10-2K0A1-0.5-40VA	1,50
2500	0.5	40	TN10-2K5A5-0.5-40VA	TN10-2K5A1-0.5-40VA	1,50
3000	0.5	40	TN10-3K0A5-0.5-40VA	TN10-3K0A1-0.5-40VA	1,50
3200	0.5	40	TN10-3K2A5-0.5-40VA	TN10-3K2A1-0.5-40VA	1,50
4000	0.5	40	TN10-4K0A5-0.5-40VA	TN10-4K0A1-0.5-40VA	1,50

Protection transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
500	5P5	10	TN10P-500A5-5P5-10VA	TN10P-500A1-5P5-10VA	1,50
500	5P10	3	TN10P-500A5-5P10-3VA	TN10P-500A1-5P10-3VA	1,50
500	5P15	1	TN10P-500A5-5P15-1VA	TN10P-500A1-5P15-1VA	1,50
500	5P20	1	TN10P-500A5-5P20-1VA	TN10P-500A1-5P20-1VA	1,50
600	5P5	13	TN10P-600A5-5P5-13VA	TN10P-600A1-5P5-13VA	1,50
600	5P10	4	TN10P-600A5-5P10-4VA	TN10P-600A1-5P10-4VA	1,50
600	5P15	1.5	TN10P-600A5-5P15-1.5VA	TN10P-600A1-5P15-1.5VA	1,50
600	5P20	1	TN10P-600A5-5P20-1VA	TN10P-600A1-5P20-1VA	1,50
750	5P5	15	TN10P-750A5-5P5-15VA	TN10P-750A1-5P5-15VA	1,50
750	5P10	4.5	TN10P-750A5-5P10-4.5VA	TN10P-750A1-5P10-4.5VA	1,50
750	5P15	1.5	TN10P-750A5-5P15-1.5VA	TN10P-750A1-5P15-1.5VA	1,50
750	5P20	1	TN10P-750A5-5P20-1VA	TN10P-750A1-5P20-1VA	1,50
800	5P5	16	TN10P-800A5-5P5-16VA	TN10P-800A1-5P5-16VA	1,50
800	5P10	5	TN10P-800A5-5P10-5VA	TN10P-800A1-5P10-5VA	1,50
800	5P15	1.5	TN10P-800A5-5P15-1.5VA	TN10P-800A1-5P15-1.5VA	1,50
800	5P20	1	TN10P-800A5-5P20-1VA	TN10P-800A1-5P20-1VA	1,50
1000	5P5	20	TN10P-1K0A5-5P5-20VA	TN10P-1K0A1-5P5-20VA	1,50
1000	5P10	6	TN10P-1K0A5-5P10-6VA	TN10P-1K0A1-5P10-6VA	1,50
1000	5P15	2	TN10P-1K0A5-5P15-2VA	TN10P-1K0A1-5P15-2VA	1,50
1000	5P20	1	TN10P-1K0A5-5P20-1VA	TN10P-1K0A1-5P20-1VA	1,50
1200	5P5	25	TN10P-1K2A5-5P5-25VA	TN10P-1K2A1-5P5-25VA	1,50
1200	5P10	8	TN10P-1K2A5-5P10-8VA	TN10P-1K2A1-5P10-8VA	1,50
1200	5P15	2	TN10P-1K2A5-5P15-2VA	TN10P-1K2A1-5P15-2VA	1,50
1200	5P20	1	TN10P-1K2A5-5P20-1VA	TN10P-1K2A1-5P20-1VA	1,50
1250	5P5	25	TN10P-1K25A5-5P5-25VA	TN10P-1K25A1-5P5-25VA	1,50
1250	5P10	8	TN10P-1K25A5-5P10-8VA	TN10P-1K25A1-5P10-8VA	1,50
1250	5P15	2	TN10P-1K25A5-5P15-2VA	TN10P-1K25A1-5P15-2VA	1,50
1250	5P20	1	TN10P-1K25A5-5P20-1VA	TN10P-1K25A1-5P20-1VA	1,50
1500	5P5	30	TN10P-1K5A5-5P5-30VA	TN10P-1K5A1-5P5-30VA	1,50
1500	5P10	10	TN10P-1K5A5-5P10-10VA	TN10P-1K5A1-5P10-10VA	1,50
1500	5P15	2.5	TN10P-1K5A5-5P15-2.5VA	TN10P-1K5A1-5P15-2.5VA	1,50
1500	5P20	1	TN10P-1K5A5-5P20-1VA	TN10P-1K5A1-5P20-1VA	1,50
1600	5P5	30	TN10P-1K6A5-5P5-30VA	TN10P-1K6A1-5P5-30VA	1,50
1600	5P10	10	TN10P-1K6A5-5P10-10VA	TN10P-1K6A1-5P10-10VA	1,50
1600	5P15	2.5	TN10P-1K6A5-5P15-2.5VA	TN10P-1K6A1-5P15-2.5VA	1,50
1600	5P20	1	TN10P-1K6A5-5P20-1VA	TN10P-1K6A1-5P20-1VA	1,50
2000	5P5	40	TN10P-2K0A5-5P5-40VA	TN10P-2K0A1-5P5-40VA	1,50
2000	5P10	12	TN10P-2K0A5-5P10-12VA	TN10P-2K0A1-5P10-12VA	1,50
2000	5P15	3	TN10P-2K0A5-5P15-3VA	TN10P-2K0A1-5P15-3VA	1,50
2000	5P20	1	TN10P-2K0A5-5P20-1VA	TN10P-2K0A1-5P20-1VA	1,50
2500	5P5	50	TN10P-2K5A5-5P5-50VA	TN10P-2K5A1-5P5-50VA	1,50
2500	5P10	12	TN10P-2K5A5-5P10-12VA	TN10P-2K5A1-5P10-12VA	1,50
2500	5P15	3	TN10P-2K5A5-5P15-3VA	TN10P-2K5A1-5P15-3VA	1,50
3000	5P5	60	TN10P-3K0A5-5P5-60VA	TN10P-3K0A1-5P5-60VA	1,50
3000	5P10	15	TN10P-3K0A5-5P10-15VA	TN10P-3K0A1-5P10-15VA	1,50
3000	5P15	3	TN10P-3K0A5-5P15-3VA	TN10P-3K0A1-5P15-3VA	1,50

TN60

Transformer suitable for primary current by cable with maximum diameter 50mm or horizontal bar 50x20, 60x10mm. Sealable terminal cover NOT included on request: code 55PSATCS2C.



Protection transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA	5A	1A	Kg	
100	5P5	6	TN60P-100A5-5P5-6VA	TN60P-100A1-5P5-6VA	1,00
100	5P10	3	TN60P-100A5-5P10-3VA	TN60P-100A1-5P10-3VA	1,00
100	5P15	2	TN60P-100A5-5P15-2VA	TN60P-100A1-5P15-2VA	1,00
100	5P20	1.5	TN60P-100A5-5P20-1.5VA	TN60P-100A1-5P20-1.5VA	1,00
120	5P5	6	TN60P-120A5-5P5-6VA	TN60P-120A1-5P5-6VA	1,00
120	5P10	3	TN60P-120A5-5P10-3VA	TN60P-120A1-5P10-3VA	1,00
120	5P15	2	TN60P-120A5-5P15-2VA	TN60P-120A1-5P15-2VA	1,00
120	5P20	1.5	TN60P-120A5-5P20-1.5VA	TN60P-120A1-5P20-1.5VA	1,00
125	5P5	6	TN60P-125A5-5P5-6VA	TN60P-125A1-5P5-6VA	1,00
125	5P10	3	TN60P-125A5-5P10-3VA	TN60P-125A1-5P10-3VA	1,00
125	5P15	2	TN60P-125A5-5P15-2VA	TN60P-125A1-5P15-2VA	1,00
125	5P20	1.5	TN60P-125A5-5P20-1.5VA	TN60P-125A1-5P20-1.5VA	1,00
150	5P5	8	TN60P-150A5-5P5-8VA	TN60P-150A1-5P5-8VA	1,00
150	5P10	3.5	TN60P-150A5-5P10-3.5VA	TN60P-150A1-5P10-3.5VA	1,00
150	5P15	2	TN60P-150A5-5P15-2VA	TN60P-150A1-5P15-2VA	1,00
150	5P20	1.5	TN60P-150A5-5P20-1.5VA	TN60P-150A1-5P20-1.5VA	1,00
200	5P5	11	TN60P-200A5-5P5-11VA	TN60P-200A1-5P5-11VA	1,00
200	5P10	5	TN60P-200A5-5P10-5VA	TN60P-200A1-5P10-5VA	1,00
200	5P15	3	TN60P-200A5-5P15-3VA	TN60P-200A1-5P15-3VA	1,00
200	5P20	2	TN60P-200A5-5P20-2VA	TN60P-200A1-5P20-2VA	1,00
250	5P5	14	TN60P-250A5-5P5-14VA	TN60P-250A1-5P5-14VA	1,00
250	5P10	6	TN60P-250A5-5P10-6VA	TN60P-250A1-5P10-6VA	1,00
250	5P15	3.5	TN60P-250A5-5P15-3.5VA	TN60P-250A1-5P15-3.5VA	1,00
250	5P20	2	TN60P-250A5-5P15-2VA	TN60P-250A1-5P15-2VA	1,00
300	5P5	16	TN60P-300A5-5P5-16VA	TN60P-300A1-5P5-16VA	1,00
300	5P10	7	TN60P-300A5-5P10-7VA	TN60P-300A1-5P10-7VA	1,00
300	5P15	3.5	TN60P-300A5-5P15-3.5VA	TN60P-300A1-5P15-3.5VA	1,00
300	5P20	2	TN60P-300A5-5P15-2VA	TN60P-300A1-5P15-2VA	1,00
400	5P5	22	TN60P-400A5-5P5-22VA	TN60P-400A1-5P5-22VA	1,00
400	5P10	9	TN60P-400A5-5P10-9VA	TN60P-400A1-5P10-9VA	1,00
400	5P15	5	TN60P-400A5-5P15-5VA	TN60P-400A1-5P15-5VA	1,00
400	5P20	2.5	TN60P-400A5-5P20-2.5VA	TN60P-400A1-5P20-2.5VA	1,00

Protection transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA	5A	1A	Kg	
500	5P5	27	TN60P-500A5-5P5-27VA	TN60P-500A1-5P5-27VA	1,00
500	5P10	12	TN60P-500A5-5P10-12VA	TN60P-500A1-5P10-12VA	1,00
500	5P15	6	TN60P-500A5-5P15-6VA	TN60P-500A1-5P15-6VA	1,00
500	5P20	3	TN60P-500A5-5P20-3VA	TN60P-500A1-5P20-3VA	1,00
600	5P5	32	TN60P-600A5-5P5-32VA	TN60P-600A1-5P5-32VA	1,00
600	5P10	13	TN60P-600A5-5P10-13VA	TN60P-600A1-5P10-13VA	1,00
600	5P15	6	TN60P-600A5-5P15-6VA	TN60P-600A1-5P15-6VA	1,00
600	5P20	3	TN60P-600A5-5P20-3VA	TN60P-600A1-5P20-3VA	1,00
750	5P5	40	TN60P-750A5-5P5-40VA	TN60P-750A1-5P5-40VA	1,00
750	5P10	16	TN60P-750A5-5P10-16VA	TN60P-750A1-5P10-16VA	1,00
750	5P15	8	TN60P-750A5-5P15-8VA	TN60P-750A1-5P15-8VA	1,00
750	5P20	3	TN60P-750A5-5P20-3VA	TN60P-750A1-5P20-3VA	1,00
800	5P5	40	TN60P-800A5-5P5-40VA	TN60P-800A1-5P5-40VA	1,00
800	5P10	16	TN60P-800A5-5P10-16VA	TN60P-800A1-5P10-16VA	1,00
800	5P15	8	TN60P-800A5-5P15-8VA	TN60P-800A1-5P15-8VA	1,00
800	5P20	3	TN60P-800A5-5P20-3VA	TN60P-800A1-5P20-3VA	1,00
1000	5P5	50	TN60P-1K0A5-5P5-50VA	TN60P-1K0A1-5P5-50VA	1,00
1000	5P10	20	TN60P-1K0A5-5P10-20VA	TN60P-1K0A1-5P10-20VA	1,00
1000	5P15	10	TN60P-1K0A5-5P15-10VA	TN60P-1K0A1-5P15-10VA	1,00
1000	5P20	3	TN60P-1K0A5-5P20-3VA	TN60P-1K0A1-5P20-3VA	1,00
1200	5P5	50	TN60P-1K2A5-5P5-50VA	TN60P-1K2A1-5P5-50VA	1,00
1200	5P10	20	TN60P-1K2A5-5P10-20VA	TN60P-1K2A1-5P10-20VA	1,00
1200	5P15	10	TN60P-1K2A5-5P15-10VA	TN60P-1K2A1-5P15-10VA	1,00
1200	5P20	3	TN60P-1K2A5-5P15-3VA	TN60P-1K2A1-5P15-3VA	1,00
1250	5P5	50	TN60P-1K25A5-5P5-50VA	TN60P-1K25A1-5P5-50VA	1,00
1250	5P10	20	TN60P-1K25A5-5P10-20VA	TN60P-1K25A1-5P10-20VA	1,00
1250	5P15	10	TN60P-1K25A5-5P15-10VA	TN60P-1K25A1-5P15-10VA	1,00
1250	5P20	3	TN60P-1K25A5-5P15-3VA	TN60P-1K25A1-5P15-3VA	1,00
1500	5P5	50	TN60P-1K5A5-5P5-50VA	TN60P-1K5A1-5P5-50VA	1,00
1500	5P10	25	TN60P-1K5A5-5P10-25VA	TN60P-1K5A1-5P10-25VA	1,00
1500	5P15	15	TN60P-1K5A5-5P15-15VA	TN60P-1K5A1-5P15-15VA	1,00
1500	5P20	5	TN60P-1K5A5-5P20-5VA	TN60P-1K5A1-5P20-5VA	1,00

CURRENT TRANSFORMERS – TS SERIES

PROTECTION CURRENT TRANSFORMERS – TS...P SERIES

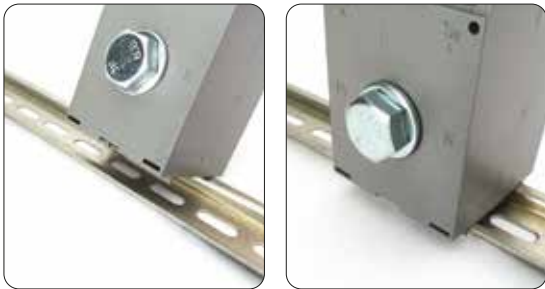
Range of transformers characterized by a very small dimensions, indicated in all those installations where space has considerable importance, and by a double terminals in opposition.

ASSEMBLY INSTRUCTIONS

With the transformer it is provided a sacket containing a series of accessories that depending on the model, allow various types of fixations:

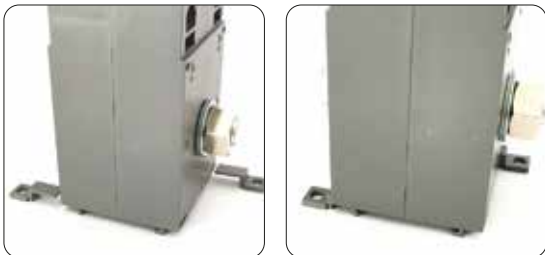
- The mounting on DIN rail EN 50022 requires no accessories, but simply by pressing upon the transformer, thanks to the presence on the bottom side a suitable fixing system.
- The wall mounting using the two brackets
- The direct mounting on the cable or on the bar, using screws

These fixations must be made in the manner indicated in the figure; no special tools are required even for the release of the transformer having to remove it.



Position the transformer on the DIN rail and press as shown in Figures 1 and 2.

Wall fixing



Insert the brackets into the proper places as shown in the figure, then secure them to the wall with two screws (not supplied).

Mounting on cable or primary busbar



Fixing possible for all codes, using the two screws supplied with the transformers, as shown in the figure. In this case, be sure to protect the tips to avoid the piercing of the primary cable.

WIRING INSTRUCTION



Connect the cable S1 in one of the two terminals of the corresponding side; and the cable S2 in one of the two terminals of the opposite side. The selected terminal is irrelevant since the two terminals in opposition are internally connected. The cable /busbar of the primary current must be inserted into the transformer paying attention to the flow direction of the current, which must always be in the direction P1 ----> P2.



The double terminal lets you make a short-circuit when it is necessary to disconnect the load from the transformer, so as not to damage the transformer or the operator. It is also possible to ground it if you do not want to use the same terminal used for connection to the load.



55PSATCS1C



55PSATCS2C

The terminals of this range have been designed with a suitable protection degree against accidental contact. Is available on request, however, the sealable terminal cover 55PSATCS1C and 55PSATCS2C.

PROTECTION TRANSFORMERS

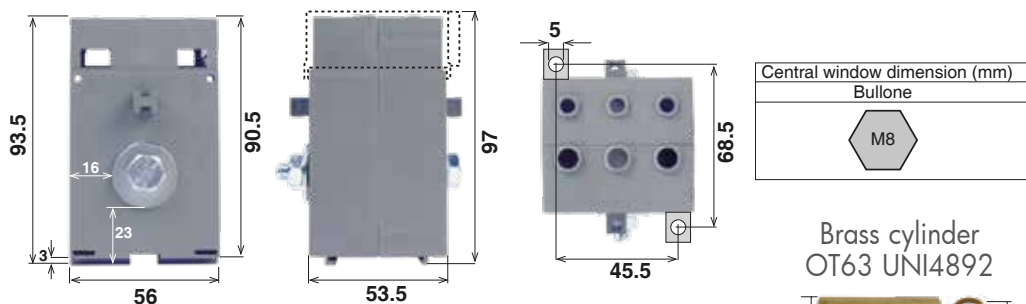
The current transformer used as a current generator for protection relays, has characteristics different from those of the measurement transformer. In fact to this range it is required a saturation of the magnetic circuit with primary currents $5 \times I_n$, whereas for the protection transformer is necessary that the value of the secondary current follows the increasing of the primary current up to 10, 15 or 20 times the I_n , guaranteeing thus the intervention of the relay to the provided fault current. It is important to do not load the transformer with a performance P, higher than the stated, in order to do not change the saturation of transformer, and keep unchanged the following formula:

$P = R \times I^2$ where P = load on CT; R = resistance of the relay + resistance of the cables; I= rated secondary current of the C.

Ratio or technical data different from those proposed can be made on request.

TS08

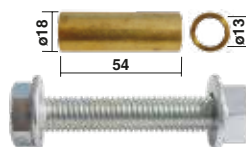
Transformer suitable for primary current by central cylinder with bolt M8.
Sealable terminal cover NOT included on request: code 55PSATCS2C.



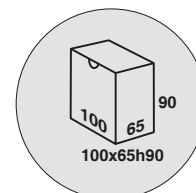
Central window dimension (mm)	
Bullone	
M8	



Brass cylinder
OT63 UNI4892



Bolt M8 + Nut steel UNI5727
Class 4,6

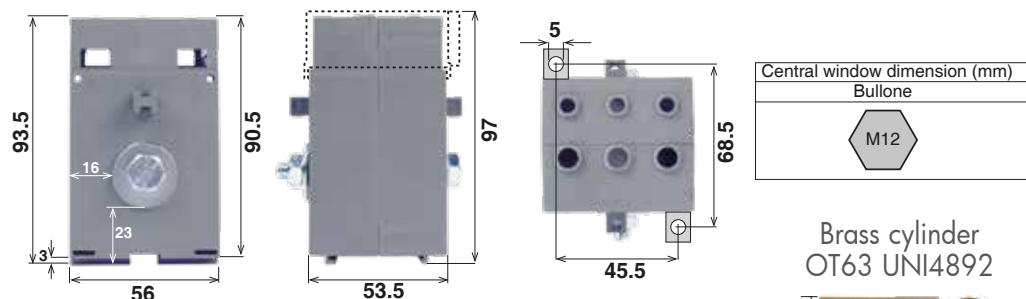


Measuring transformers

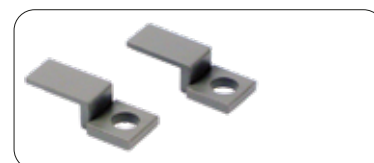
Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
40	3	3	TS08-040A5-3-3VA	TS08-040A1-3-3VA	0,60
50	3	4	TS08-050A5-3-4VA	TS08-050A1-3-4VA	0,60
60	3	5	TS08-060A5-3-5VA	TS08-060A1-3-5VA	0,60
75	1	5	TS08-075A5-1-5VA	TS08-075A1-1-5VA	0,60
80	1	5	TS08-080A5-1-5VA	TS08-080A1-1-5VA	0,60
100	1	5	TS08-100A5-1-5VA	TS08-100A1-1-5VA	0,60
120	1	5	TS08-120A5-1-5VA	TS08-120A1-1-5VA	0,60
125	1	5	TS08-125A5-1-5VA	TS08-125A1-1-5VA	0,60
150	1	5	TS08-150A5-1-5VA	TS08-150A1-1-5VA	0,60

TS12

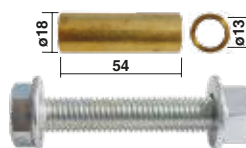
Transformer suitable for primary current by central cylinder with bolt M12.
Sealable terminal cover NOT included on request: code 55PSATCS2C.



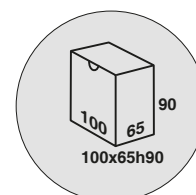
Central window dimension (mm)	
Bullone	
M12	



Brass cylinder
OT63 UNI4892



Bolt M12 + Nut steel UNI5727
Class 4,6

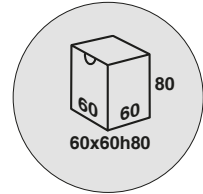
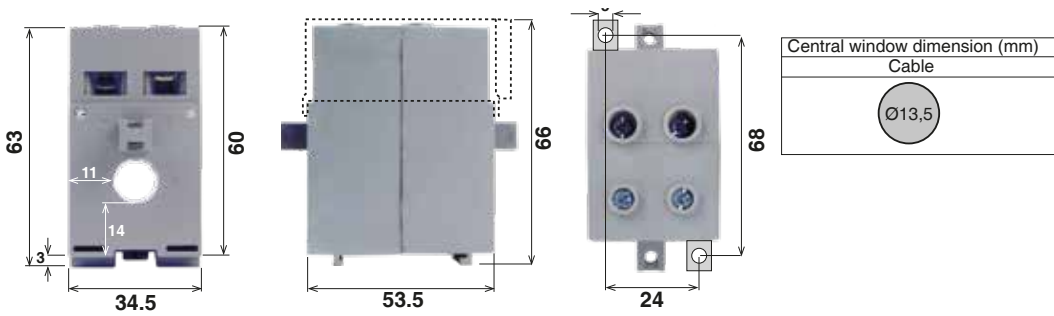


Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
200	0,5	5	TS12-200A5-0.5-5VA	TS12-200A1-0.5-5VA	0,70
250	0,5	10	TS12-250A5-0.5-10VA	TS12-250A1-0.5-10VA	0,70
300	0,5	10	TS12-300A5-0.5-10VA	TS12-300A1-0.5-10VA	0,70
400	0,5	10	TS12-400A5-0.5-10VA	TS12-400A1-0.5-10VA	0,70
500	0,5	10	TS12-500A5-0.5-10VA	TS12-500A1-0.5-10VA	0,70
600	0,5	10	TS12-600A5-0.5-10VA	TS12-600A1-0.5-10VA	0,70

TS13

Transformer suitable for primary current by cable with a maximum diameter 13mm.
Sealable terminal cover NOT included on request: code 55PSATCS1C.

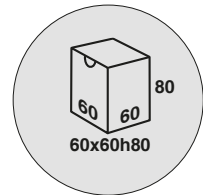
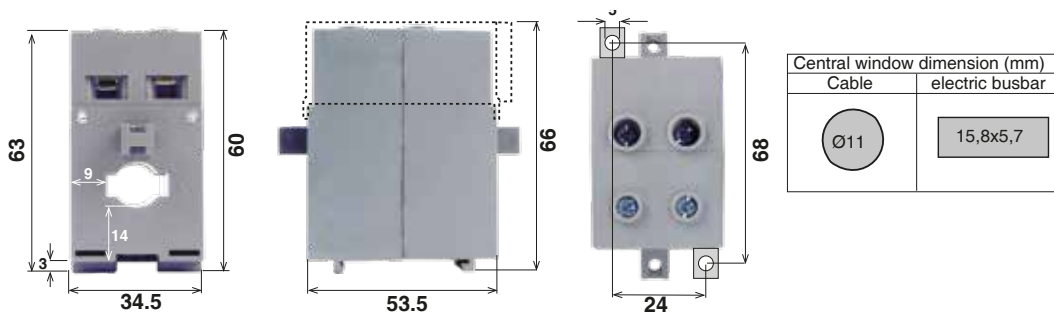


Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
40	3	2	TS13-040A5-3-2VA	TS13-040A1-3-2VA	0,22
50	3	2	TS13-050A5-3-2VA	TS13-050A1-3-2VA	0,22
60	3	3	TS13-060A5-3-3VA	TS13-060A1-3-3VA	0,22
75	3	3	TS13-075A5-3-3VA	TS13-075A1-3-3VA	0,22
80	3	3	TS13-080A5-3-3VA	TS13-080A1-3-3VA	0,22
100	1	3	TS13-100A5-1-3VA	TS13-100A1-1-3VA	0,22
120	1	5	TS13-120A5-1-5VA	TS13-120A1-1-5VA	0,22
125	1	5	TS13-125A5-1-5VA	TS13-125A1-1-5VA	0,22
150	1	5	TS13-150A5-1-5VA	TS13-150A1-1-5VA	0,22

TS16

Transformer suitable for primary current by cable with a maximum diameter 11mm or by horizontal bar 15x5m.
Sealable terminal cover NOT included on request: code 55PSATCS1C.

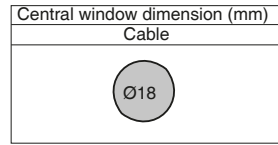
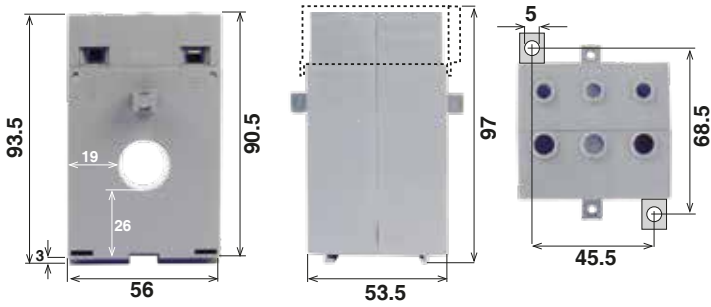


Measuring transformers

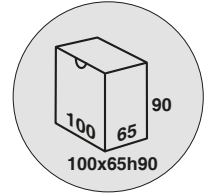
Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
60	3	3	TS16-060A5-3-3VA	TS16-060A1-3-3VA	0,22
75	3	3	TS16-075A5-3-3VA	TS16-075A1-3-3VA	0,22
80	3	3	TS16-080A5-3-3VA	TS16-080A1-3-3VA	0,22
100	1	3	TS16-100A5-1-3VA	TS16-100A1-1-3VA	0,22
120	1	5	TS16-120A5-1-5VA	TS16-120A1-1-5VA	0,22
125	1	5	TS16-125A5-1-5VA	TS16-125A1-1-5VA	0,22
150	1	5	TS16-150A5-1-5VA	TS16-150A1-1-5VA	0,22

TS18

Transformer suitable for primary current by cable with a maximum diameter 18mm.
Sealable terminal cover NOT included on request: code 55PSATCS2C.



Plastic screws M4x40

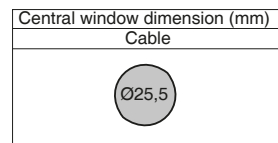
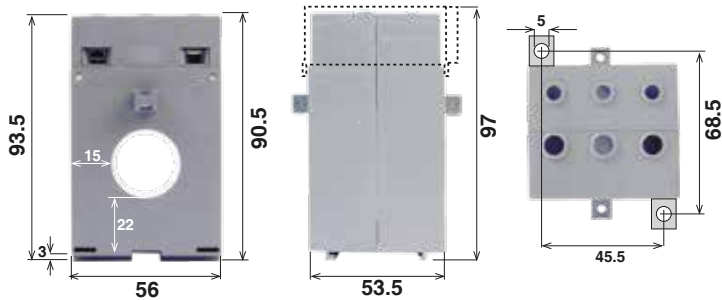


Measuring transformers

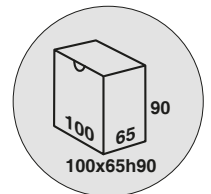
Primary current	Class	Power	Secondary current		Weight
			5A	1A	
A		VA	5A	1A	Kg
40	3	1,5	TS18-040A5-3-1.5VA	TS18-040A1-3-1.5VA	0,50
50	3	3	TS18-050A5-3-3VA	TS18-050A1-3-3VA	0,50
60	3	3	TS18-060A5-3-3VA	TS18-060A1-3-3VA	0,50
75	3	3	TS18-075A5-3-3VA	TS18-075A1-3-3VA	0,50
80	3	5	TS18-080A5-3-5VA	TS18-080A1-3-5VA	0,50
100	1	2,5	TS18-100A5-1-2.5VA	TS18-100A1-1-2.5VA	0,50
120	1	3	TS18-120A5-1-3VA	TS18-120A1-1-3VA	0,50
125	1	3	TS18-125A5-1-3VA	TS18-125A1-1-3VA	0,50
150	0,5	3,5	TS18-150A5-0.5-3.5VA	TS18-150A1-0.5-3.5VA	0,50
200	0,5	5	TS18-200A5-0.5-5VA	TS18-200A1-0.5-5VA	0,50
250	0,5	5	TS18-250A5-0.5-5VA	TS18-250A1-0.5-5VA	0,50
300	0,5	5	TS18-300A5-0.5-5VA	TS18-300A1-0.5-5VA	0,50

TS25

Transformer suitable for primary current by cable with a maximum diameter 25mm.
Sealable terminal cover NOT included on request: code 55PSATCS2C.



Plastic screws M4x40

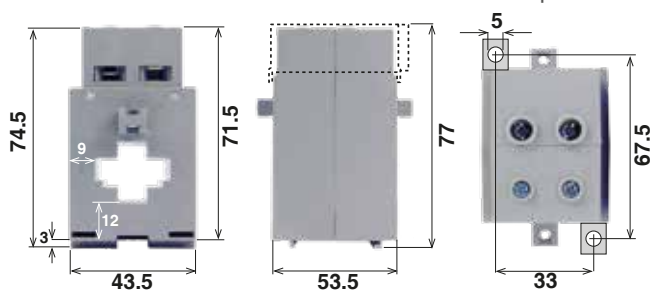


Measuring transformers

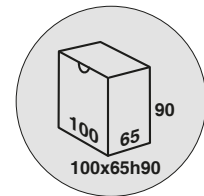
Primary current	Class	Power	Secondary current		Weight
			5A	1A	
A		VA	5A	1A	Kg
40	3	1,5	TS25-040A5-3-1.5VA	TS25-040A1-3-1.5VA	0,40
50	3	3	TS25-050A5-3-3VA	TS25-050A1-3-3VA	0,40
60	3	3	TS25-060A5-3-3VA	TS25-060A1-3-3VA	0,40
75	3	3	TS25-075A5-3-3VA	TS25-075A1-3-3VA	0,40
80	3	5	TS25-080A5-3-5VA	TS25-080A1-3-5VA	0,40
100	1	2,5	TS25-100A5-1-2.5VA	TS25-100A1-1-2.5VA	0,40
120	1	3	TS25-120A5-1-3VA	TS25-120A1-1-3VA	0,40
125	1	3	TS25-125A5-1-3VA	TS25-125A1-1-3VA	0,40
150	0,5	3,5	TS25-150A5-0.5-3.5VA	TS25-150A1-0.5-3.5VA	0,40
200	0,5	5	TS25-200A5-0.5-5VA	TS25-200A1-0.5-5VA	0,40
250	0,5	6	TS25-250A5-0.5-6VA	TS25-250A1-0.5-6VA	0,40
300	0,5	6	TS25-300A5-0.5-6VA	TS25-300A1-0.5-6VA	0,40
400	0,5	10	TS25-400A5-0.5-10VA	TS25-400A1-0.5-10VA	0,40

TS26

Transformer suitable for primary current by horizontal bar 26x8mm, 20x10mm or vertical bar 10x20mm.
 Sealable terminal cover NOT included on request: code 55PSATCS1C.



Central window dimension (mm)	
Electric busbar	
26x8	10x20
20x10	

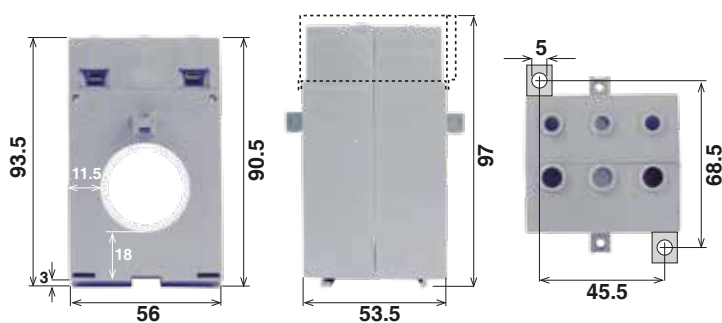


Measuring transformers

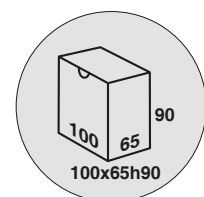
Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
100	1	3	TS26-100A5-1-3VA	TS26-100A1-1-3VA	0,25
120	1	5	TS26-120A5-1-5VA	TS26-120A1-1-5VA	0,25
125	1	5	TS26-125A5-1-5VA	TS26-125A1-1-5VA	0,25
150	1	5	TS26-150A5-1-5VA	TS26-150A1-1-5VA	0,25
200	1	5	TS26-200A5-1-5VA	TS26-200A1-1-5VA	0,25
250	1	5	TS26-250A5-1-5VA	TS26-250A1-1-5VA	0,25
300	0,5	5	TS26-300A5-0.5-5VA	TS26-300A1-0.5-5VA	0,25

TS32

Transformer suitable for primary current by cable with a maximum diameter 32mm.
 Sealable terminal cover NOT included on request: code 55PSATCS2C.



Central window dimension (mm)	
Cable	
Ø32,5	

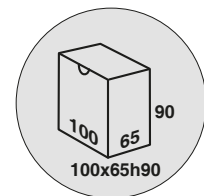
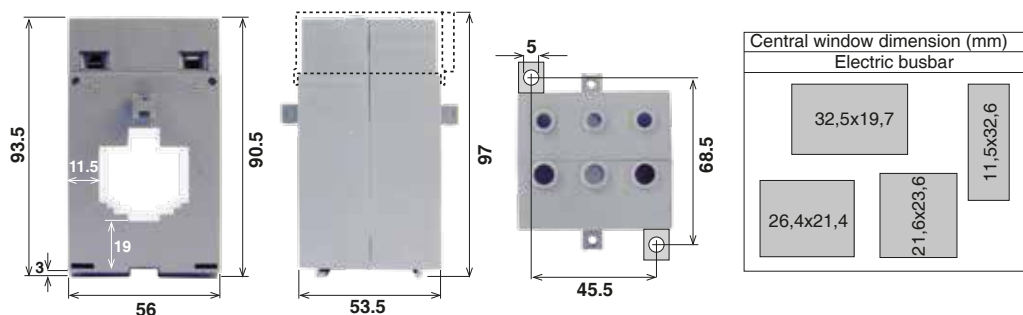


Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
100	1	3	TS32-100A5-1-3VA	TS32-100A1-1-3VA	0,30
120	1	3	TS32-120A5-1-3VA	TS32-120A1-1-3VA	0,30
125	1	3	TS32-125A5-1-3VA	TS32-125A1-1-3VA	0,30
150	1	3	TS32-150A5-1-3VA	TS32-150A1-1-3VA	0,30
200	0,5	5	TS32-200A5-0.5-5VA	TS32-200A1-0.5-5VA	0,30
250	0,5	5	TS32-250A5-0.5-5VA	TS32-250A1-0.5-5VA	0,30
300	0,5	5	TS32-300A5-0.5-5VA	TS32-300A1-0.5-5VA	0,30
400	0,5	6	TS32-400A5-0.5-6VA	TS32-400A1-0.5-6VA	0,30
500	0,5	10	TS32-500A5-0.5-10VA	TS32-500A1-0.5-10VA	0,30
600	0,5	10	TS32-600A5-0.5-10VA	TS32-600A1-0.5-10VA	0,30

TS33

Transformer suitable for primary current by horizontal bar 32.5x19.7mm, 26.4x21.4mm, 21.6x23.6mm or vertical bar 11.5x32.6mm. Sealable terminal cover NOT included on request: code 55PSATCS2C.

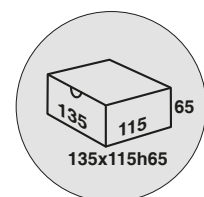
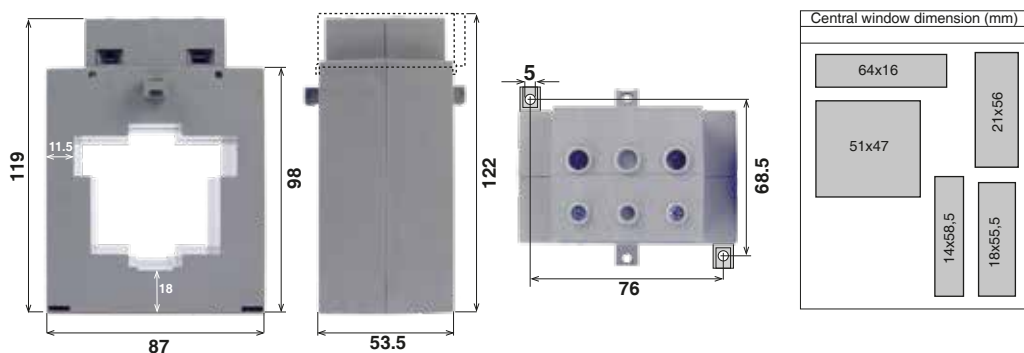


Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
100	1	1,5	TS33-100A5-1-1.5VA	TS33-100A1-1-1.5VA	0,30
120	1	1,5	TS33-120A5-1-1.5VA	TS33-120A1-1-1.5VA	0,30
125	1	1,5	TS33-125A5-1-1.5VA	TS33-125A1-1-1.5VA	0,30
150	1	2	TS33-150A5-1-2VA	TS33-150A1-1-2VA	0,30
200	1	3	TS33-200A5-1-3VA	TS33-200A1-1-3VA	0,30
250	1	3,75	TS33-250A5-1-3.75VA	TS33-250A1-1-3.75VA	0,30
300	0,5	3,5	TS33-300A5-0.5-3.5VA	TS33-300A1-0.5-3.5VA	0,30
400	0,5	3,5	TS33-400A5-0.5-3.5VA	TS33-400A1-0.5-3.5VA	0,30
500	0,5	5	TS33-500A5-0.5-5VA	TS33-500A1-0.5-5VA	0,30
600	0,5	5	TS33-600A5-0.5-5VA	TS33-600A1-0.5-5VA	0,30

TS64

Transformer suitable for primary current by horizontal bar 64x16mm, 51x47mm, 51x31mm or vertical bar 21x50mm, 15x55mm, 14x58.5mm. Sealable terminal cover NOT included on request: code 55PSATCS2C.

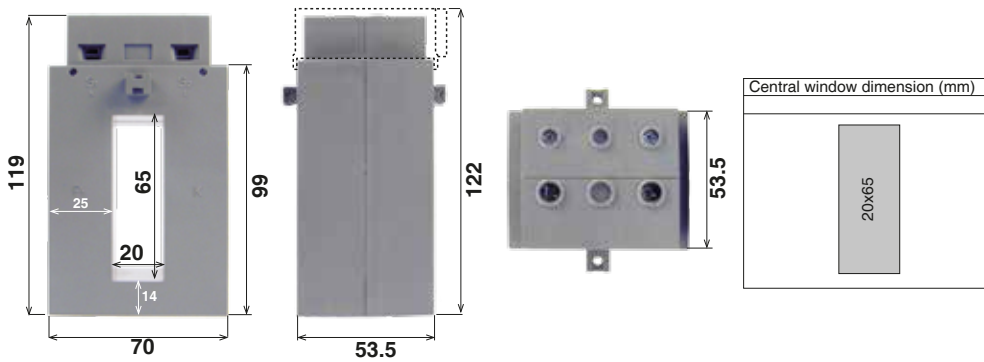


Measuring transformers

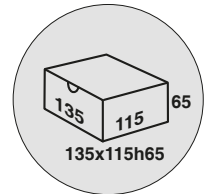
Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
200	1	2	TS64-200A5-1-2VA	TS64-200A1-1-2VA	0,50
250	1	5	TS64-250A5-1-5VA	TS64-250A1-1-5VA	0,50
300	1	5	TS64-300A5-1-5VA	TS64-300A1-1-5VA	0,50
400	0,5	5	TS64-400A5-0.5-5VA	TS64-400A1-0.5-5VA	0,50
500	0,5	10	TS64-500A5-0.5-10VA	TS64-500A1-0.5-10VA	0,50
600	0,5	10	TS64-600A5-0.5-10VA	TS64-600A1-0.5-10VA	0,50
750	0,5	10	TS64-750A5-0.5-10VA	TS64-750A1-0.5-10VA	0,50
800	0,5	10	TS64-800A5-0.5-10VA	TS64-800A1-0.5-10VA	0,50
1000	0,5	15	TS64-1K0A5-0.5-15VA	TS64-1K0A1-0.5-15VA	0,50
1200	0,5	15	TS64-1K2A5-0.5-15VA	TS64-1K2A1-0.5-15VA	0,50
1250	0,5	15	TS64-1K25A5-0.5-15VA	TS64-1K25A1-0.5-15VA	0,50

TS65V

Transformer suitable for primary current by vertical bar 20x65mm.
Sealable terminal cover NOT included on request: code 55PSATCS2C.



Plastic screws M4x40

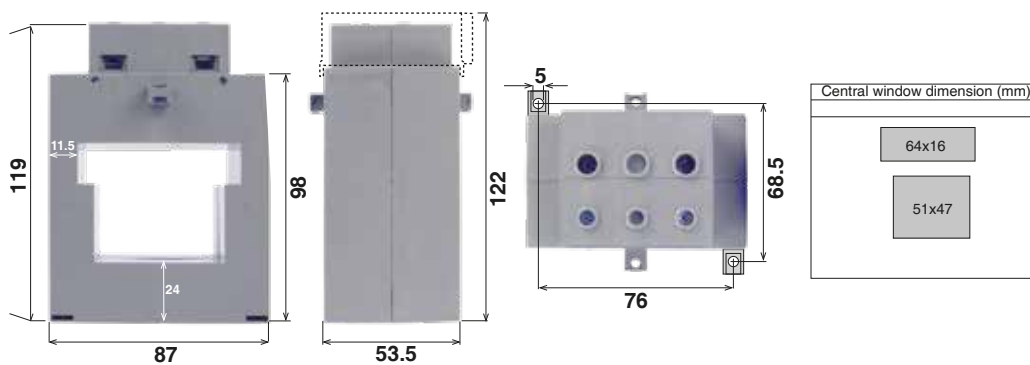


Measuring transformers

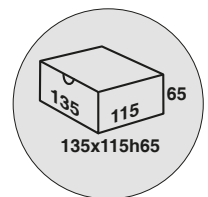
Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
200	0,5	1	TS65V-200A5-0.5-1VA	TS65V-200A1-0.5-1VA	0,50
250	0,5	1	TS65V-250A5-0.5-1VA	TS65V-250A1-0.5-1VA	0,50
300	0,5	3	TS65V-300A5-0.5-3VA	TS65V-300A1-0.5-3VA	0,50
400	0,5	5	TS65V-400A5-0.5-5VA	TS65V-400A1-0.5-5VA	0,50
500	0,5	10	TS65V-500A5-0.5-10VA	TS65V-500A1-0.5-10VA	0,50
600	0,5	10	TS65V-600A5-0.5-10VA	TS65V-600A1-0.5-10VA	0,50
750	0,5	10	TS65V-750A5-0.5-10VA	TS65V-750A1-0.5-10VA	0,50
800	0,5	15	TS65V-800A5-0.5-15VA	TS65V-800A1-0.5-15VA	0,50
1000	0,5	15	TS65V-1K0A5-0.5-15VA	TS65V-1K0A1-0.5-15VA	0,50
1200	0,5	15	TS65V-1K2A5-0.5-15VA	TS65V-1K2A1-0.5-15VA	0,50
1250	0,5	15	TS65V-1K25A5-0.5-15VA	TS65V-1K25A1-0.5-15VA	0,50

TS67

Transformer suitable for primary current by horizontal bar 64x16mm, 51x47mm, and 51x31mm or vertical bar 51x47mm.
Sealable terminal cover NOT included on request: code 55PSATCS2C.



Plastic screws M4x40

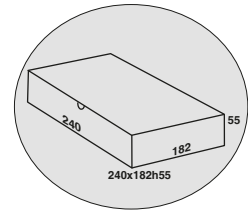
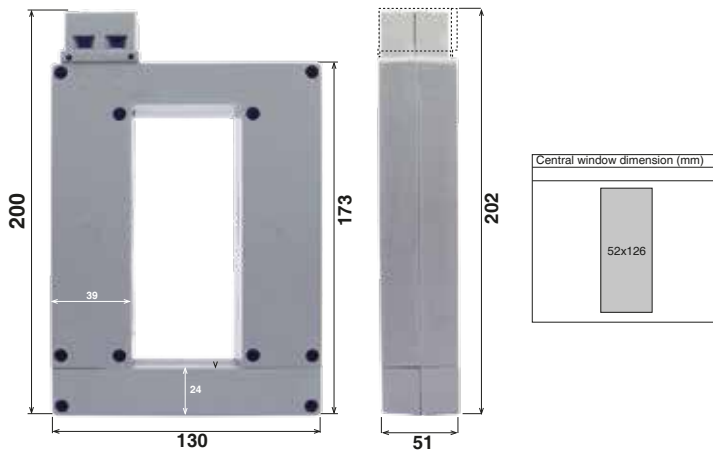


Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
200	1	5	TS67-200A5-1-5VA	TS67-200A1-1-5VA	0,60
250	1	5	TS67-250A5-1-5VA	TS67-250A1-1-5VA	0,60
300	1	5	TS67-300A5-1-5VA	TS67-300A1-1-5VA	0,60
400	0,5	5	TS67-400A5-0.5-5VA	TS67-400A1-0.5-5VA	0,60
500	0,5	7,5	TS67-500A5-0.5-7.5VA	TS67-500A1-0.5-7.5VA	0,60
600	0,5	7,5	TS67-600A5-0.5-7.5VA	TS67-600A1-0.5-7.5VA	0,60
750	0,5	7,5	TS67-750A5-0.5-7.5VA	TS67-750A1-0.5-7.5VA	0,60
800	0,5	10	TS67-800A5-0.5-10VA	TS67-800A1-0.5-10VA	0,60
1000	0,5	15	TS67-1K0A5-0.5-15VA	TS67-1K0A1-0.5-15VA	0,60
1200	0,5	15	TS67-1K2A5-0.5-15VA	TS67-1K2A1-0.5-15VA	0,60
1250	0,5	15	TS67-1K25A5-0.5-15VA	TS67-1K25A1-0.5-15VA	0,60
1500	0,5	15	TS67-1K5A5-0.5-15VA	TS67-1K5A1-0.5-15VA	0,60

TS26V

Transformer suitable for primary current by vertical bar 52x126mm.
Sealable terminal cover NOT included on request: code 55PSATCS1C.

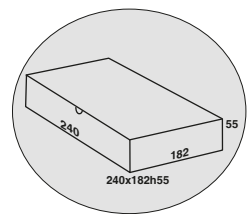
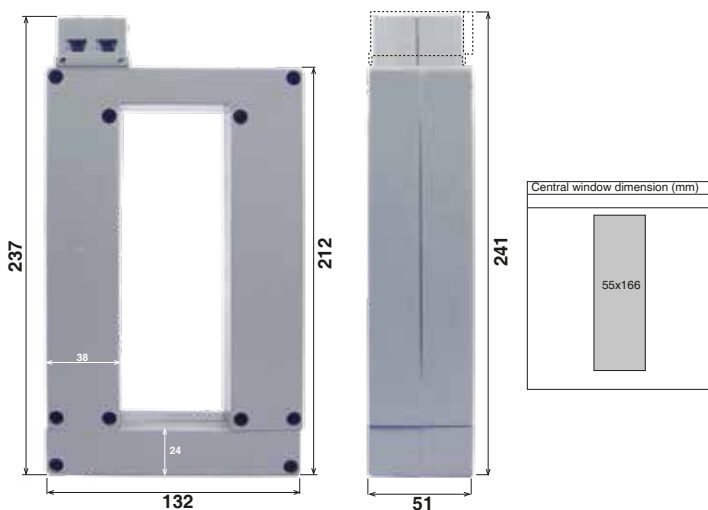


Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
400	0,5	5	TS26V-400A5-0.5-5VA	TS26V-400A1-0.5-5VA	0,50
500	0,5	10	TS26V-500A5-0.5-10VA	TS26V-500A1-0.5-10VA	0,50
600	0,5	10	TS26V-600A5-0.5-10VA	TS26V-600A1-0.5-10VA	0,50
750	0,5	10	TS26V-750A5-0.5-10VA	TS26V-750A1-0.5-10VA	0,50
800	0,5	10	TS26V-800A5-0.5-10VA	TS26V-800A1-0.5-10VA	0,50
1000	0,5	15	TS26V-1K0A5-0.5-15VA	TS26V-1K0A1-0.5-15VA	0,50
1200	0,5	15	TS26V-1K2A5-0.5-15VA	TS26V-1K2A1-0.5-15VA	0,50
1250	0,5	15	TS26V-1K25A5-0.5-15VA	TS26V-1K25A1-0.5-15VA	0,50
1500	0,5	20	TS26V-1K5A5-0.5-20VA	TS26V-1K5A1-0.5-20VA	0,50
1600	0,5	20	TS26V-1K6A5-0.5-20VA	TS26V-1K6A1-0.5-20VA	0,50
2000	0,5	20	TS26V-2K0A5-0.5-20VA	TS26V-2K0A1-0.5-20VA	0,50
2500	0,5	20	TS26V-2K5A5-0.5-20VA	TS26V-2K5A1-0.5-20VA	0,50

TS66V

Transformer suitable for primary current by vertical bar 55x166mm.
Sealable terminal cover NOT included on request: code 55PSATCS1C.

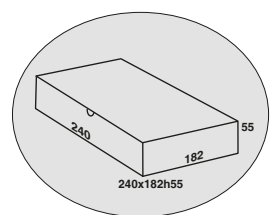
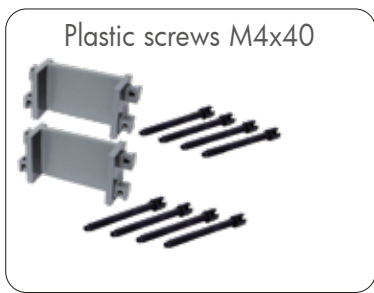
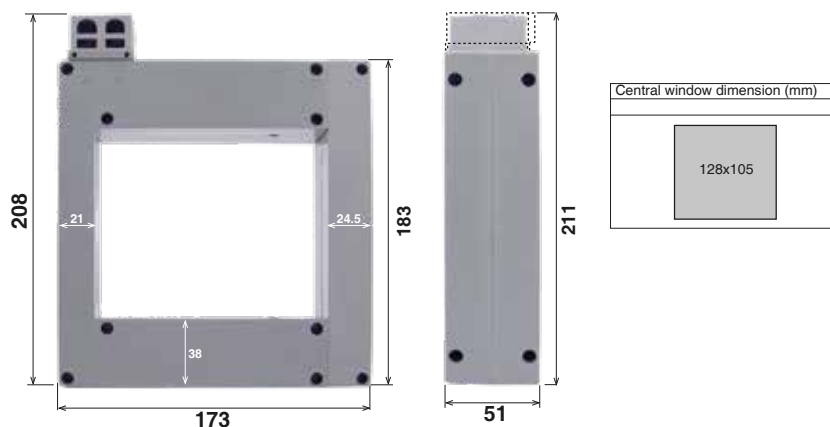


Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA		5A	1A	Kg
1200	0,5	20	TS66V-1K2A5-0.5-20VA	TS66V-1K2A1-0.5-20VA	1,30
1250	0,5	20	TS66V-1K25A5-0.5-20VA	TS66V-1K25A1-0.5-20VA	1,30
1500	0,5	20	TS66V-1K5A5-0.5-20VA	TS66V-1K5A1-0.5-20VA	1,30
1600	0,5	20	TS66V-1K6A5-0.5-20VA	TS66V-1K6A1-0.5-20VA	1,30
2000	0,5	20	TS66V-2K0A5-0.5-20VA	TS66V-2K0A1-0.5-20VA	1,30
2500	0,5	20	TS66V-2K5A5-0.5-20VA	TS66V-2K5A1-0.5-20VA	1,30
3000	0,5	20	TS66V-3K0A5-0.5-20VA	TS66V-3K0A1-0.5-20VA	1,30
3200	0,5	20	TS66V-3K2A5-0.5-20VA	TS66V-3K2A1-0.5-20VA	1,30
4000	0,5	30	TS66V-4K0A5-0.5-30VA	TS66V-4K0A1-0.5-30VA	1,30
5000	0,5	30	TS66V-5K0A5-0.5-30VA	TS66V-5K0A1-0.5-30VA	1,30

TS28

Transformer suitable for primary current by horizontal bar 120x10mm, 2x120x10mm, 3x120x10mm or vertical bar 10x100mm, 2x0x100mm, 3x10x100mm. Sealable terminal cover NOT included on request: code 55PSATCS1C.

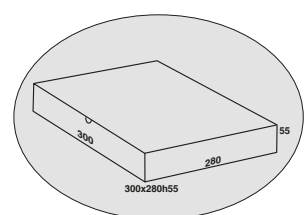
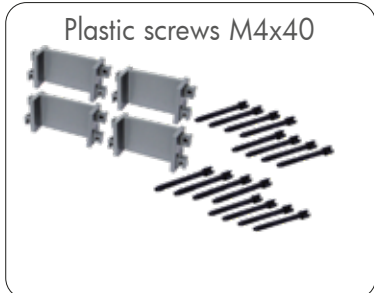
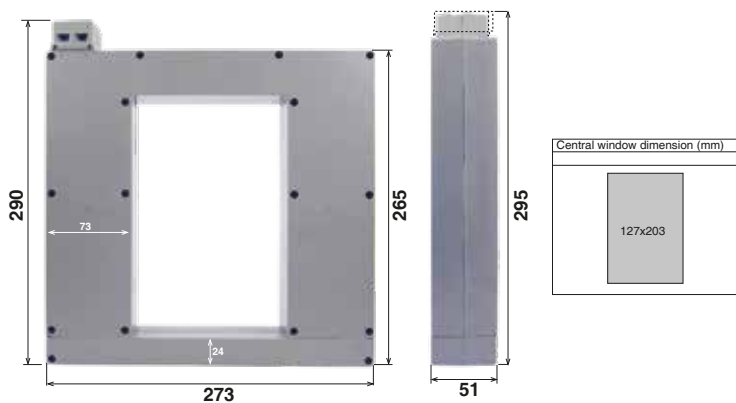


Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA	5A	1A	Kg	
1000	0.5	10	TS28-1K0A5-0.5-10VA	TS28-1K0A1-0.5-10VA	1,00
1200	0.5	10	TS28-1K2A5-0.5-10VA	TS28-1K2A1-0.5-10VA	1,00
1250	0.5	10	TS28-1K25A5-0.5-10VA	TS28-1K25A1-0.5-10VA	1,00
1500	0.5	15	TS28-1K5A5-0.5-15VA	TS28-1K5A1-0.5-15VA	1,00
1600	0.5	15	TS28-1K6A5-0.5-15VA	TS28-1K6A1-0.5-15VA	1,00
2000	0.5	15	TS28-2K0A5-0.5-15VA	TS28-2K0A1-0.5-15VA	1,00
2500	0.5	15	TS28-2K5A5-0.5-15VA	TS28-2K5A1-0.5-15VA	1,00

TS20

Transformer suitable for primary current by horizontal bar 120x10mm, 2x120x10mm, 3x120x10mm or vertical bar 10x100mm, 2x0x100mm, 3x10x100mm. Sealable terminal cover NOT included on request: code 55PSATCS1C.



Measuring transformers

Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA	5A	1A	Kg	
1000	0,5	10	TS20-1K0A5-0.5-10VA	TS20-1K0A1-0.5-10VA	1,60
1200	0,5	15	TS20-1K2A5-0.5-15VA	TS20-1K2A1-0.5-15VA	1,60
1250	0,5	15	TS20-1K25A5-0.5-15VA	TS20-1K25A1-0.5-15VA	1,60
1500	0,5	15	TS20-1K5A5-0.5-15VA	TS20-1K5A1-0.5-15VA	1,60
1600	0,5	15	TS20-1K6A5-0.5-15VA	TS20-1K6A1-0.5-15VA	1,60
2000	0,5	20	TS20-2K0A5-0.5-20VA	TS20-2K0A1-0.5-20VA	1,60
2500	0,5	30	TS20-2K5A5-0.5-30VA	TS20-2K5A1-0.5-30VA	1,60
3000	0,5	30	TS20-3K0A5-0.5-30VA	TS20-3K0A1-0.5-30VA	1,60
3200	0,5	30	TS20-3K2A5-0.5-30VA	TS20-3K2A1-0.5-30VA	1,60
4000	0,5	30	TS20-4K0A5-0.5-30VA	TS20-4K0A1-0.5-30VA	1,60
5000	0,5	30	TS20-5K0A5-0.5-30VA	TS20-5K0A1-0.5-30VA	1,60
6000	0,5	30	TS20-6K0A5-0.5-30VA	TS20-6K0A1-0.5-30VA	1,60

CURRENT TRANSFORMERS – TB SERIES

Range of transformers characterized by small size indicated in all those installations where space has considerable importance and double terminals in opposition.

ASSEMBLY INSTRUCTIONS

With the transformer it is provided a sacket containing a series of accessories that depending on the model, allow various types of fixations;

- The mounting on DIN rail EN 50022 is performed using the base
- The wall mounting using the two brackets
- The direct mounting on the cable or on the bar, using screws

These fixations must be made in the manner indicated in the figure; no special tools are required even for the release of the transformer having to remove it.

For codes TB1-TB2-TB3-TB4-TB5



Place the transformer on a DIN rail, insert the brackets into the proper places as show in the figure (1-2) insert the fork in their sats and push it as show in the figure (3-4)

For codes TB1-TB2-TB3-TB4-TB5



Place the transformer on a DIN rail, insert the brackets into the proper places as show in the figure (1-2) insert the fork in their sats and push it as show in the figure (3-4)

Wall fixing



Insert the brackets into the proper places as shown in the figure and fasten them to the wall with two screws (not supplied).



Possible for all codes using the two screws provided together with the transformers as shown in figure. When you have to fix a cable, it is recommended to protect the tip of the screws properly, in order to not pinch the cable.

WIRING INSTRUCTIONS



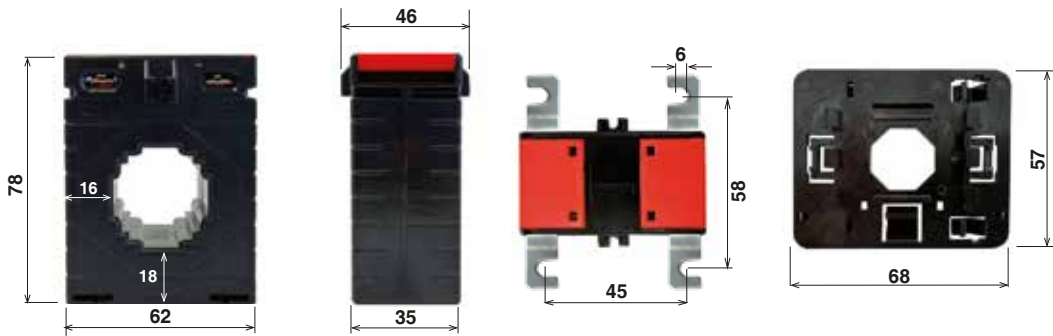
Connect the cable S1 in one of the two terminals of the corresponding side, and the cable S2 in one of the two cables of the opposite side. The selected terminal is irrelevant since the two adjacent Fast-On terminals are internally connected. The cable / bar of the primary current must be inserted into the transformer paying attention to the flow direction of the current, which must always be in the direction P1 -> P2.



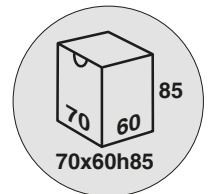
The double terminal lets you make a short-circuit when it is necessary to disconnect the load from the transformer, so as not to damage the transformer or the operator. It is also possible to make the grounding if you do not want to use the same Fast-On terminal used for the connection to the load.

TB1

Transformer suitable for primary current by cable with a maximum diameter of 30mm, by horizontal bar 30x10mm, 25x20mm.



Central window dimension (mm)	
cable	Electric busbar
 $\phi 30$	 31x11 26x21

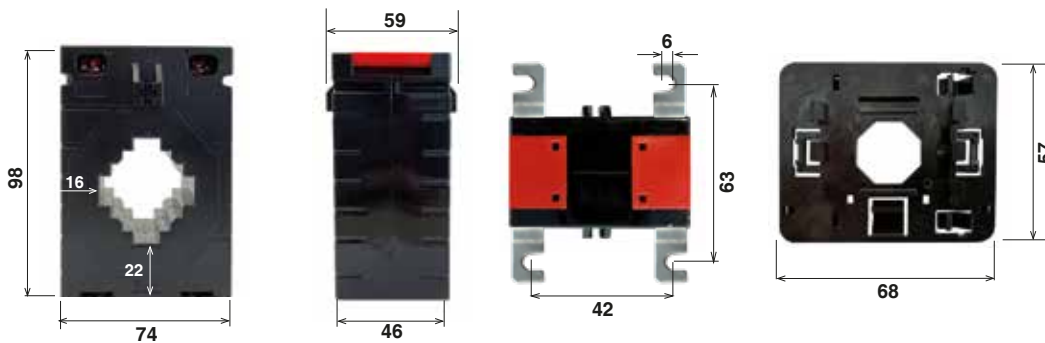


Measuring transformers

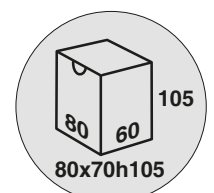
Primary current	Class	Power	Secondary current	Weight
A		VA	5A	Kg
40	1	1.5	TB1-040A5-1-1.5VA	0,30
50	1	1.5	TB1-050A5-1-1.5VA	0,30
60	1	1.5	TB1-060A5-1-1.5VA	0,30
80	1	1.5	TB1-080A5-1-1.5VA	0,30
100	1	2.5	TB1-100A5-1-2.5VA	0,30
150	1	3.75	TB1-150A5-1-3.75VA	0,30
200	1	5	TB1-200A5-1-5VA	0,30
250	1	5	TB1-250A5-1-5VA	0,30
300	0.5	2.5	TB1-300A5-0.5-2.5VA	0,30
400	0.5	2.5	TB1-400A5-0.5-2.5VA	0,30

TB2

Transformer suitable for primary current by cable with a maximum diameter of 30mm, by horizontal bar 40x10mm, 30x20mm or vertical bar 10x40mm, 20x30mm.



Central window dimension (mm)	
Cable	Electric busbar
 $\phi 32$	 41x11 30.5x20.5 11x41 20.5x30.5

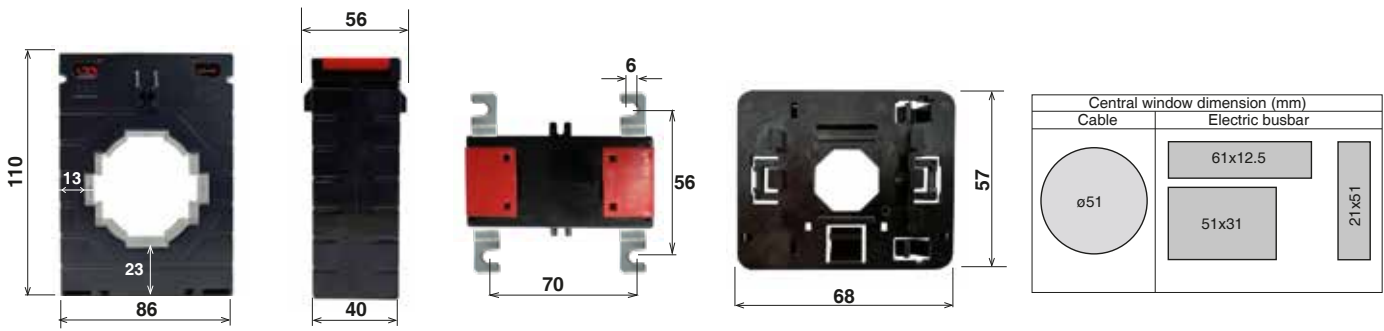


Measuring transformers

Primary current	Class	Power	Secondary current	Weight
A		VA	5A	Kg
200	1	5	TB2-200A5-1-5VA	0,45
300	0.5	5	TB2-300A5-0.5-5VA	0,45
400	0.5	5	TB2-400A5-0.5-5VA	0,45
500	0.5	10	TB2-500A5-0.5-10VA	0,45
600	0.5	10	TB2-600A5-0.5-10VA	0,45
800	0.5	10	TB2-800A5-0.5-10VA	0,45

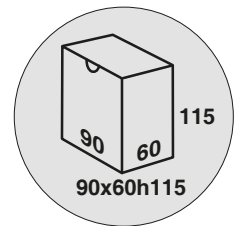
TB3

Transformer suitable for primary current by cable with a maximum diameter of 50mm, by horizontal bar 60x10mm, 50x30mm or vertical bar 20x50mm.



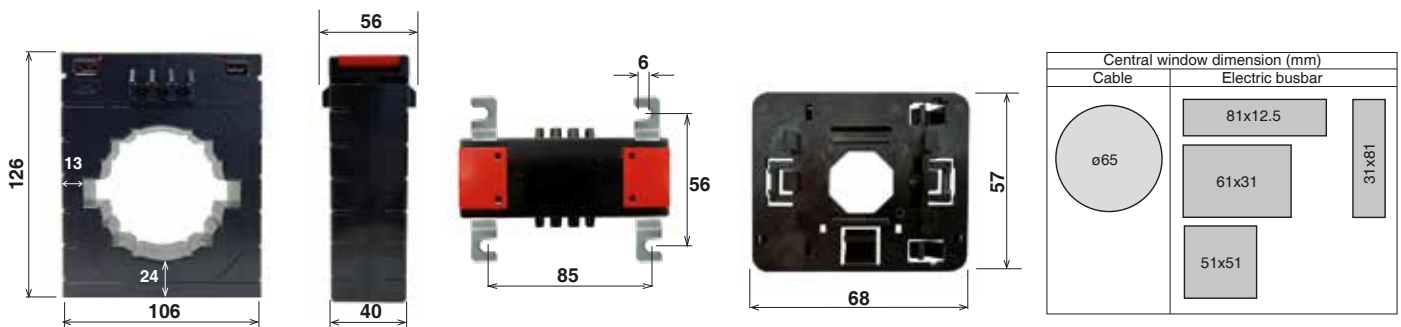
Measuring transformers

Primary current	Class	Power	Secondary current	Weight
A		VA	5A	Kg
500	0.5	5	TB3-500A5-0.5-5VA	0,40
600	0.5	5	TB3-600A5-0.5-5VA	0,40
800	0.5	10	TB3-800A5-0.5-10VA	0,40
1000	0.5	10	TB3-1K0A5-0.5-10VA	0,40
1200	0.5	10	TB3-1K2A5-0.5-10VA	0,40



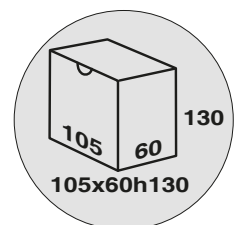
TB4

Transformer suitable for primary current by cable with a maximum diameter of 65mm, by horizontal bar 80x10mm, 60x30mm, 50x50mm or vertical bar 30x80mm.



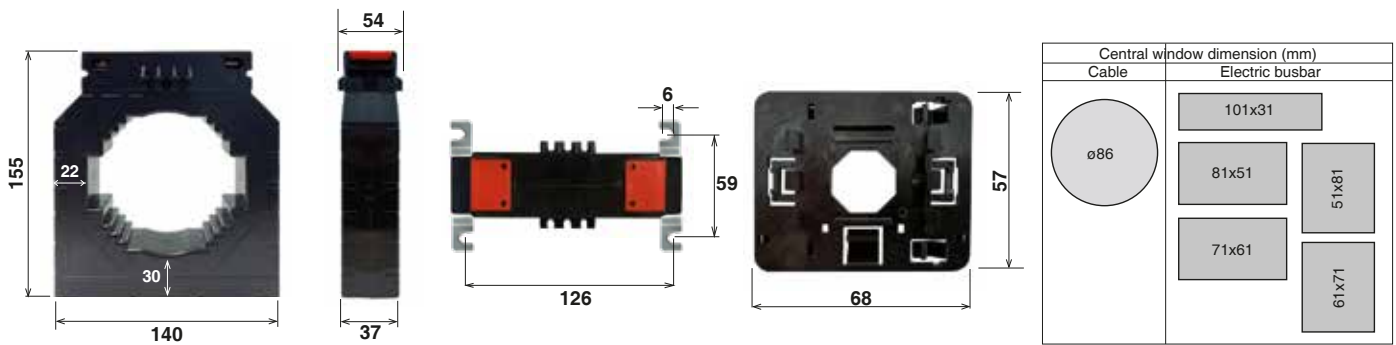
Measuring transformers

Primary current	Class	Power	Secondary current	Weight
A		VA	5A	Kg
800	0.5	10	TB4-800A5-0.5-10VA	0,55
1000	0.5	10	TB4-1K0A5-0.5-10VA	0,55
1200	0.5	10	TB4-1K2A5-0.5-10VA	0,55
1500	0.5	10	TB4-1K5A5-0.5-10VA	0,55
1600	0.5	10	TB4-1K6A5-0.5-10VA	0,55
2000	0.5	10	TB4-2K0A5-0.5-10VA	0,55



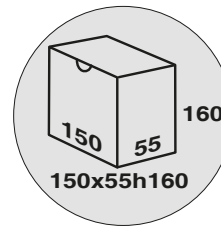
TB5

Transformer suitable for primary current by cable with a maximum diameter of 86mm, by horizontal bar 100x30mm, 80x50mm, 70x60mm or vertical bar 50x80mm, 60x70mm.



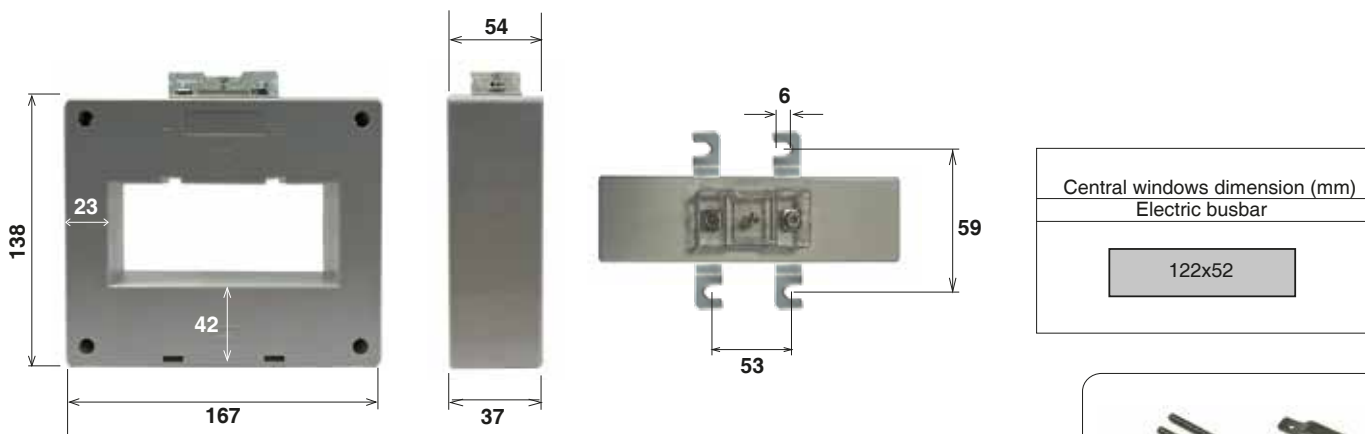
Measuring transformers

Primary current	Class	Power	Secondary current	Weight
A	VA		5A	Kg
800	0.5	10	TB5-800A5-0.5-10VA	0,75
1000	0.5	10	TB5-1K0A5-0.5-10VA	0,75
1200	0.5	15	TB5-1K2A5-0.5-15VA	0,75
1500	0.5	15	TB5-1K5A5-0.5-15VA	0,75
1600	0.5	15	TB5-1K6A5-0.5-15VA	0,75
2000	0.5	15	TB5-2K0A5-0.5-15VA	0,75
2500	0.5	15	TB5-2K5A5-0.5-15VA	0,75
3000	0.5	15	TB5-3K0A5-0.5-15VA	0,75
3200	0.5	15	TB5-3K2A5-0.5-15VA	0,75
4000	0.5	15	TB5-4K0A5-0.5-15VA	0,75



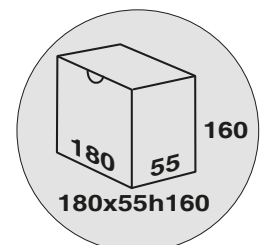
TB50

Transformer suitable for primary current by horizontal bar 120x50mm.



Measuring transformers

Primary current	Class	Power	Secondary current	Weight
A	VA		5A	Kg
1000	0.5	20	TB50-1K0A5-0.5-20VA	1,25
1200	0.5	20	TB50-1K2A5-0.5-20VA	1,25
1500	0.5	40	TB50-1K5A5-0.5-40VA	1,25
2000	0.5	50	TB50-2K0A5-0.5-50VA	1,25
2500	0.5	60	TB50-2K5A5-0.5-60VA	1,25
3000	0.5	60	TB50-3K0A5-0.5-60VA	1,25
3200	0.5	60	TB50-3K2A5-0.5-60VA	1,25
4000	0.5	80	TB50-4K0A5-0.5-80VA	1,25
5000	0.5	80	TB50-5K0A5-0.5-80VA	1,25
6000	0.5	80	TB50-6K0A5-0.5-80 VA	1,25



MODULAR CURRENT TRANSFORMERS - TD SERIES

Range of transformers characterized by a 2 DIN modules EN 50022 housing, that allows quick mounting on DIN rails.

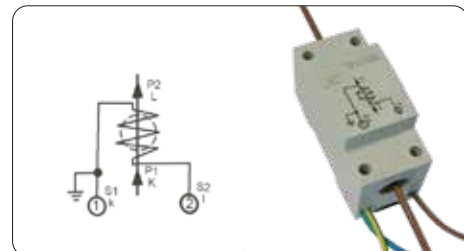
ASSEMBLY INSTRUCTIONS

Mounting on DIN rail EN 50022 must be carried out in the manner indicated in the figure; first insert the inelastic hook, then rotate the housing of the transformer until it locks. Proceed in reverse order of disassembly. No additional tools are required except for the release of the transformer having to remove it.



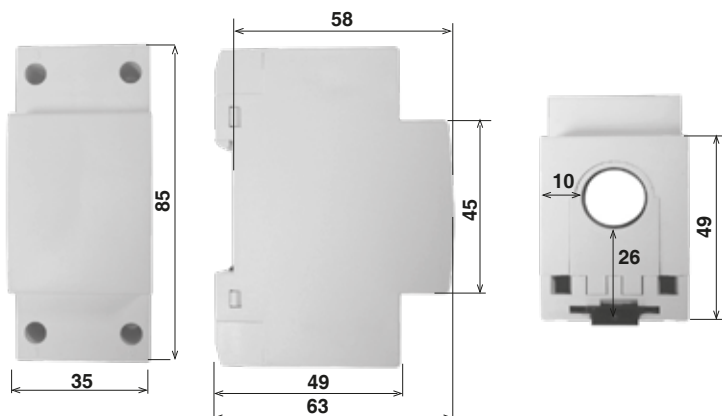
WIRING INSTRUCTIONS

Connect the two wires to terminals 1 and 2; the ground can be made using the terminal 1 (S1). The cable of the primary current should be inserted in the central hole paying attention to the direction of flow of the same current as shown in FIG.



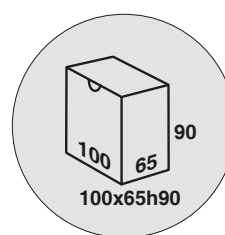
TD15

Transformer suitable for primary current by cable with a maximum diameter of 15mm.



Central windows dimension (mm)	
Cable	Electric busbar
 $\varnothing 15$	14,5x2
	14x3
	13x5

Primary current	Class	power	Secondary current	Secondary current	weight
A		VA	5A	1A	Kg
40	3	2	TD15-040A5-3-2VA	TD15-040A1-3-2VA	0,25
50	3	2	TD15-050A5-3-2VA	TD15-050A1-3-2VA	0,25
60	3	3	TD15-060A5-3-3VA	TD15-060A1-3-3VA	0,25
75	3	3	TD15-075A5-3-3VA	TD15-075A1-3-3VA	0,25
80	3	3	TD15-080A5-3-3VA	TD15-080A1-3-3VA	0,25
100	1	3	TD15-100A5-1-3VA	TD15-100A1-1-3VA	0,25
120	1	5	TD15-120A5-1-5VA	TD15-120A1-1-5VA	0,25
125	1	5	TD15-125A5-1-5VA	TD15-125A1-1-5VA	0,25
150	1	5	TD15-150A5-1-5VA	TD15-150A1-1-5VA	0,25



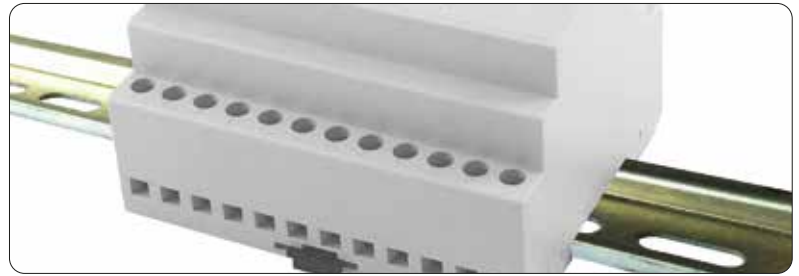
SUMMATION CURRENT TRANSFORMERS - TSO / TDSO SERIES

Range of transformers suitable to obtain the vector sum of the currents on multiple lines of a single voltage system.
 Highest voltage for insulation: 0.72kV / 3 kV.
 If the primary currents are different each other, specify the relative ratio when ordering.

ASSEMBLY INSTRUCTIONS

Together with the transformer it is provided a sacket containing a series of accessories, which depending on the model allow various types of fixation:

- The mounting on DIN rail EN 50022 do not requires accessories, but simply by pressing it upon the transformer, thanks to the presence on the bottom of the transformer a suitable fixing system.
 - Wall mounting using the two brackets (feet).
- These fixations must be made in the manner indicated in the figure; no special tools are required even for the release of the transformer, having to remove it.



Position the transformer on the bar and press as shown in Figures 1 and 2.

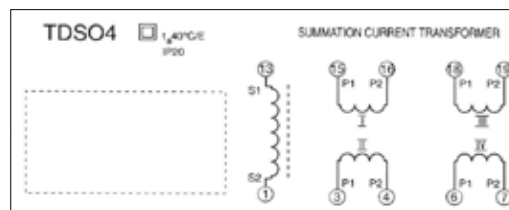
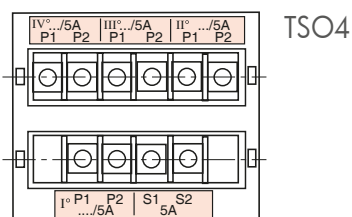
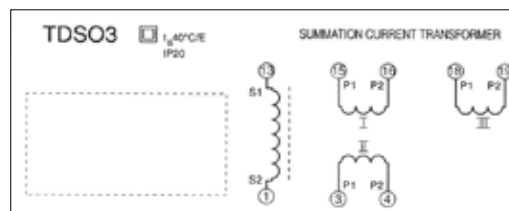
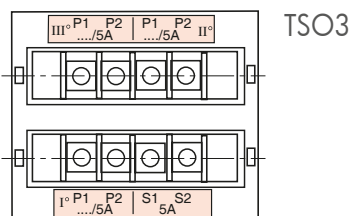
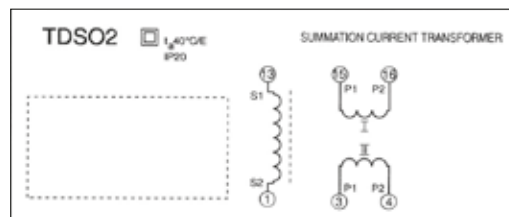
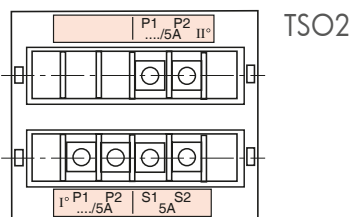
Wall fixing



Using the two brackets supplied. Insert the brackets into the proper places as shown in figure; then secure them to the wall with two screws (not supplied).

WIRING INSTRUCTION

Connect the wires in the respective terminals as shown on figures.



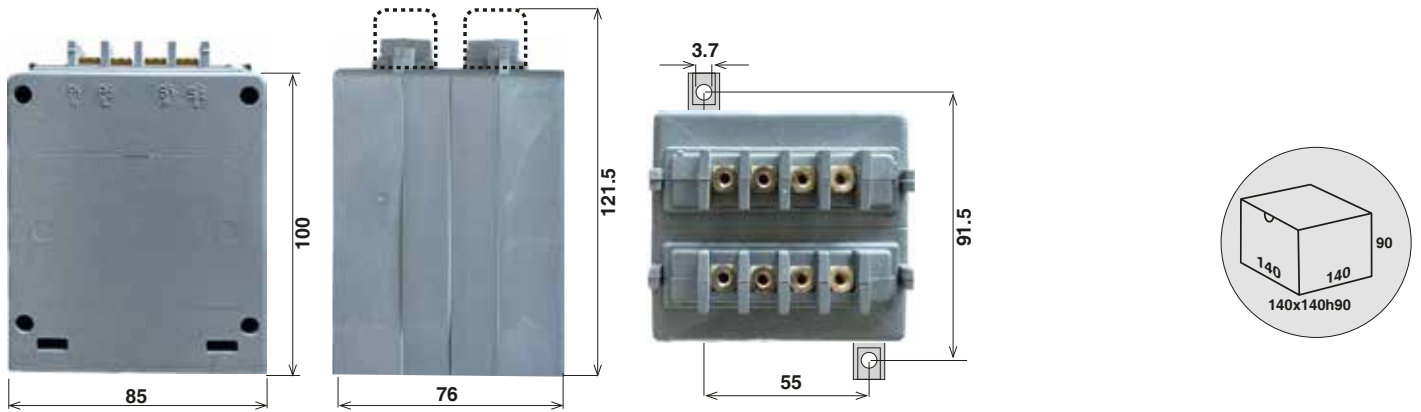
These schemes refer to the connection to one ammeter phase.

In case of a connection with two systems (ARON) scheme, use two current summation transformers and two current transformer for each phase (one for phase L1 and one for the L3 phase).

In case of a connection with three systems scheme, use three current summation transformers and three current transformers for each phase (one for phase L1, one for the L2 phase and one for the L3 phase)

TSO

Fixing to wall by brackets supplied with the transformer. Power 10VA.



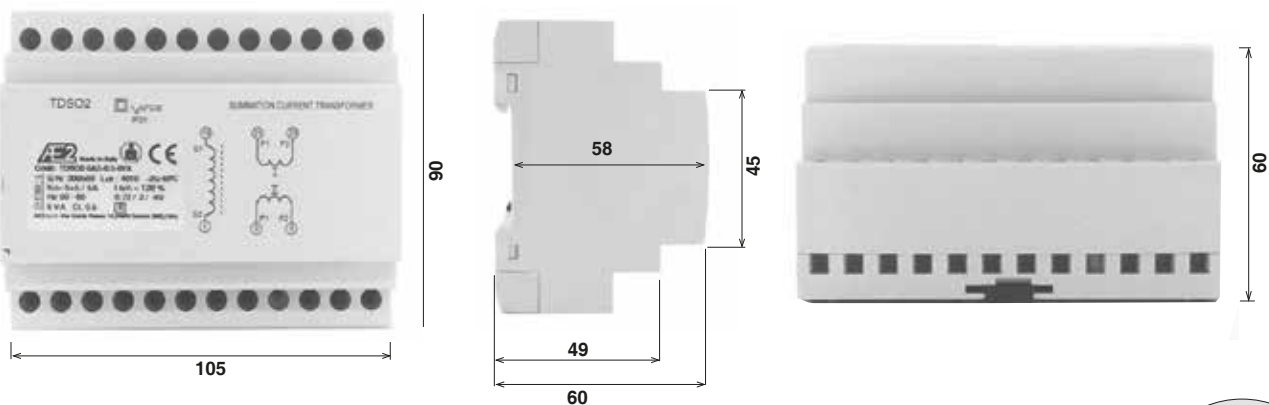
Measuring transformers

Power VA	Secondary current 5A - Class 0,5	Secondary current 1A - Class 0,5	Weight Kg
10	TSO2-5A5-0.5-10VA (Primary 5+5A- Secondary 5A)	TSO2-1A1-0.5-10VA (Primary 1+1A - Secondary 1A)	1,00
10	TSO3-5A5-0.5-10VA (Primary 5+5+5A - Secondary 5A)	TSO3-1A1-0.5-10VA (Primary 1+1+1A - Secondary 1A)	1,00
10	TSO4-5A5-0.5-10VA (Primary 5+5+5+5A - Secondary 5A)	TSO4-1A1-0.5-10VA (Primary 1+1+1+1A - Secondary 1A)	1,00

50

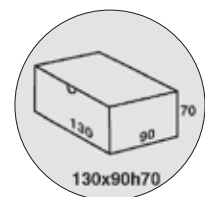
TDSO

DIN rail fixing, dimensions 6 modules. Power 6VA.



Measuring transformers

Power VA	Secondary current 5A - Class 0,5	Secondary current 1A - Class 0,5	Weight Kg
6	TDSO2-5A5-0.5-6VA (Primary 5+5A- Secondary 5A)	TDSO2-1A1-0.5-6VA (Primary 1+1A - Secondary 1A)	1,00
6	TDSO3-5A5-0.5-6VA (Primary 5+5+5A - Secondary 5A)	TDSO3-1A1-0.5-6VA (Primary 1+1+1A - Secondary 1A)	1,00
6	TDSO4-5A5-0.5-6VA (Primary 5+5+5+5A - Secondary 5A)	TDSO4-1A1-0.5-6VA (Primary 1+1+1+1A - Secondary 1A)	1,00



RATIO CORRECTION TRANSFORMERS -TCRP SERIES

Range of transformers used when it is necessary to correct the transformation ratio of the main CT, to adapt it to specific needs of the measurement circuit or to recover the phase shift caused by the connection star / delta, filtering out any homopolar currents. Different characteristics can be made on request.

When ordering, specify the exact value of the primary and secondary current.

ASSEMBLY INSTRUCTIONS



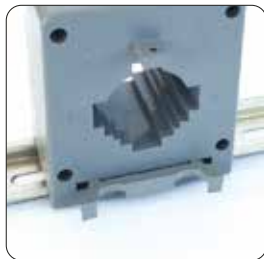
With the transformer it is provided a sachet containing a series of accessories that depending on the model, allow various types of fixations;

- The mounting on DIN rail EN 50022 is performed using the fork accessory
- The wall mounting using the two brackets
- The direct mounting on the cable or on the bar, using screws

These fixations must be made in the manner indicated in the figure; no special tools are required even for the release of the transformer having to remove it.



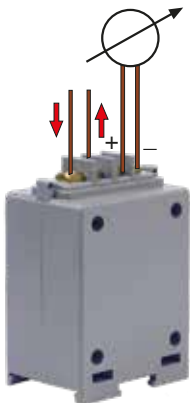
DIN rail mounting



Wall mounting



Mounting on cable or primary busbar



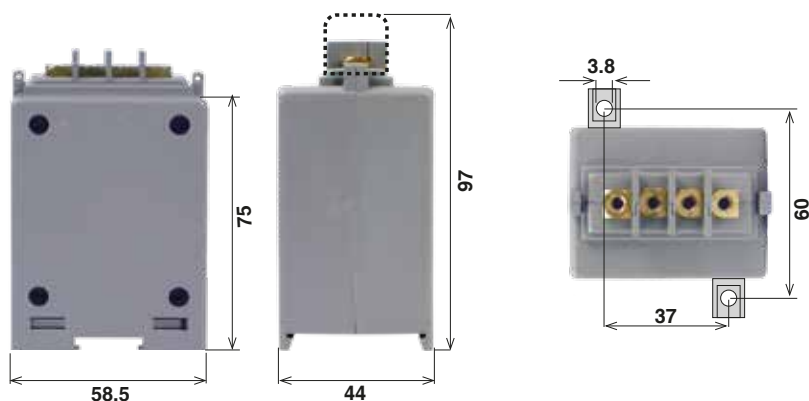
WIRING INSTRUCTIONS

Connect the cables as shown.

The cable of the primary current must be connected to the terminals, paying attention to the direction of flow as shown in figure.

TCRP1E

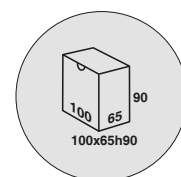
Wounded primary current transformer with primary and secondary on terminals



Measuring transformers

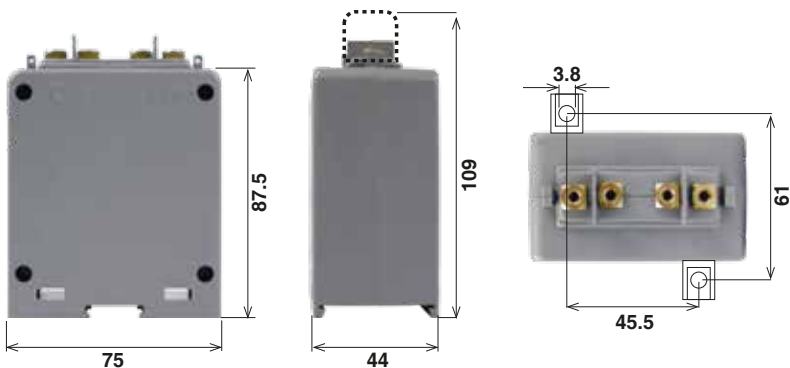
Primary current	Secondary current	Class	Power	Weight
A	A		VA	Kg
da 0,1 a 40	da 0,2 a 10	0.5	2	0,30

Example: TCRP1E-0.25A1-0.5-2VA



TCRP1

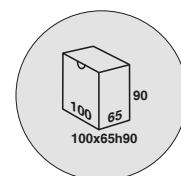
Wounded primary current transformer with primary and secondary on terminals



Measuring transformers

Primary current	Secondary current	Class	Power	Weight
A	A		VA	Kg
da 0,5 a 40	da 0,5 a 10	0.5	10	0,40

Examples: TCRP1-37.5A2-0.5-10VA
TCRP1-0.30A0.75-0.5-10VA



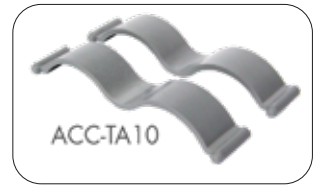
SPLIT-CORE CURRENT TRANSFORMERS - TA SERIES

Ideal range of transformers to be installed in plants already in operation, where there is the need to be connected without interrupting the primary circuit or change the existing application.

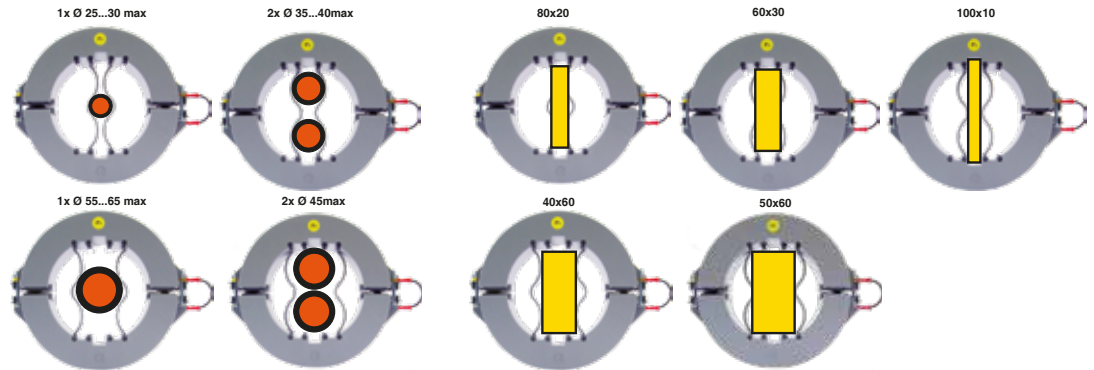
ASSEMBLY INSTRUCTIONS TA10



The fixing of the bar or of the cable is carried out using the two accessories ACC-TA10 supplied with the transformer, that can be placed in the various seats provided.



As appropriate to the needs of the moment, the two accessories can be inserted in their grooves as the following examples (non-binding):

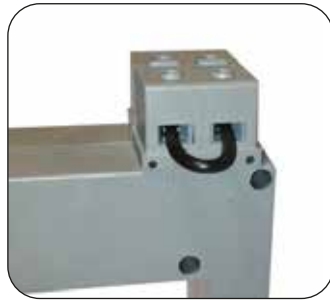


ASSEMBLY INSTRUCTIONS TA28-TA26V-TA66V-TA20

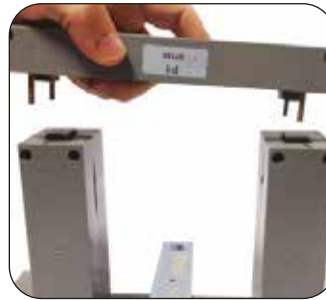
The fixing of the bar is made using the accessories ACC-TA supplied with the transformer, to be positioned as shown in the picture.



1) Unscrew the four screws M4



2) Make a short circuit on the secondary winding (S1-S2) of the transformer.



3) Place the transformer on the bar or cable.
4) Pay attention to the position: the P1 side of the transformer must match the P1 side of the opening section of the core



5) For a better contact, put a conductor grease between the surfaces of the core. Be sure to match the two faces of the core, tightening uniformly the four M4 screws.



6) Check that there is no light among the two sides of the core.



7) Tighten the screws with a torque of 2.0 Nm. The two plastic cases do not have to join.



WIRING INSTRUCTIONS TA10

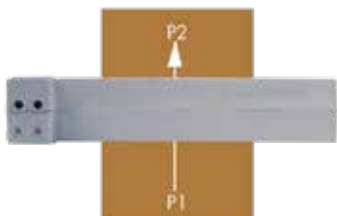


After you have properly installed the transformer around the cable / busbar (paying attention to the direction of current flow), be sure to restore the bridge with the cable supplied as shown in figure, in order to allow the circulation of the current between the two hemispheres of the CT. The connection to the load is then made using the two central fast-on terminals; the ground can be made using the terminal S1. **It is recommended to not over tighten the clamping screws located near the core cut, to avoid the breaking of blocks in ABS. The two ends of the core that will be in contact, must be previously coated with grease conductor in order to allow a good contact.** Tightening torque of M4 screws: 2.0 Nm.

The sealable terminal cover 55PSCM-TOR is not supplied with the transformer, but only on request, being the terminals sufficiently protected against accidental contacts.



WIRING INSTRUCTIONS TA28-TA26V-TA66V-TA20



After you have properly installed the transformer around the cable / busbar (paying attention to the flow direction of the current), connect to the load using the clamps on top of the CT. The electrical connection may be made using various types of head-string as evidenced by the following pictures:



Tip head-string from
P2 side of case



Without head-string
from P2 side of case



Fork head-string
from P1 side of case



Fast-on head-string
(6.3 mm) P1 side of
case

The grounding can be made using the terminal S1. The presence of the double clamp allows you to make short circuits when it is necessary to disconnect the load from the transformer.

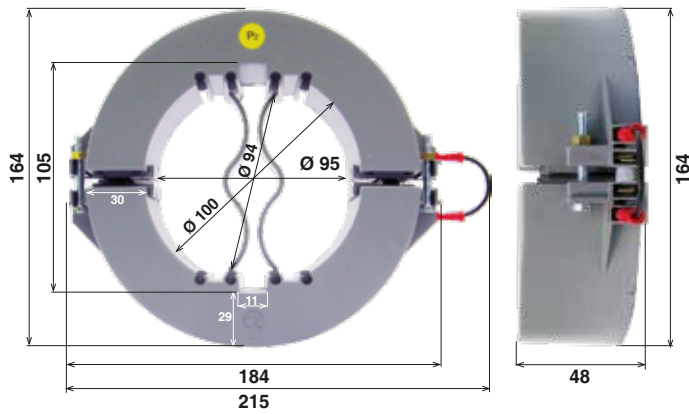
It is recommended to not over tighten the clamping screws located near the cutted core. The two ends of the core that will be in contact must be previously coated with grease conductor in order to allow a good contact.

The sealable terminal cover 55PSATCS1C is not supplied with the transformer, but only on request, being the terminals sufficiently protected against accidental contacts.

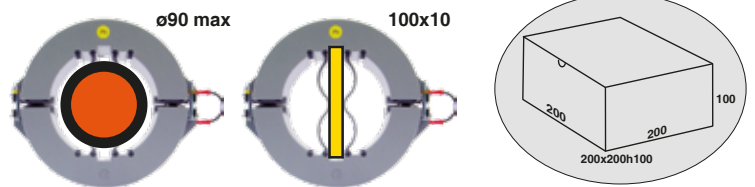


TA10

Transformer suitable for primary current by cable with a maximum diameter of 90 mm, or busbar 100x10mm. Sealable terminal cover NOT included on request: code 55PSATCS2C.

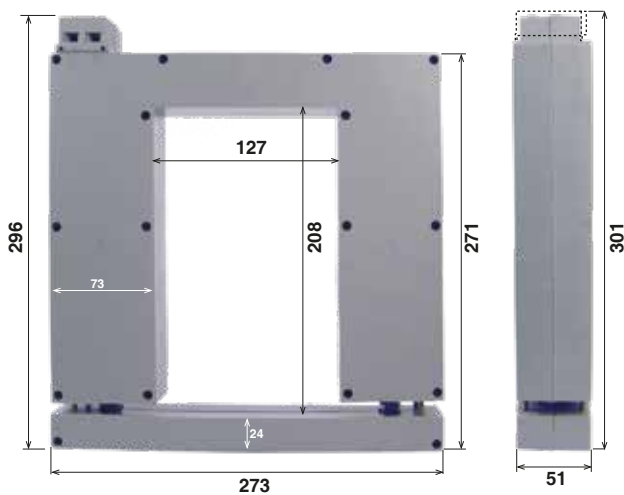


Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA	5A	1A	Kg	
500	0.5	3	TA10-500A5-0.5-3VA	TA10-500A1-0.5-3VA	1,10
600	0.5	4	TA10-600A5-0.5-4VA	TA10-600A1-0.5-4 VA	1,10
750	0.5	5	TA10-750A5-0.5-8VA	TA10-750A1-0.5-8VA	1,10
800	0.5	8	TA10-800A5-0.5-8VA	TA10-800A1-0.5-8VA	1,10
1000	0.5	10	TA10-1k0A5-0.5-10VA	TA10-1k0A1-0.5-10VA	1,10
1200	0.5	20	TA10-1k20A5-0.5-20VA	TA10-1k2K0A1-0.5-20VA	1,10
1250	0.5	20	TA10-1k25A5-0.5-20VA	TA10-1k2K5A1-0.5-20VA	1,10
1500	0.5	30	TA10-1k5A5-0.5-30VA	TA10-1k5A1-0.5-30VA	1,20
1600	0.5	40	TA10-1k6A5-0.5-40VA	TA10-1k6A1-0.5-40VA	1,20
2000	0.5	40	TA10-2k0A5-0.5-40VA	TA10-2k0A1-0.5-40VA	1,20

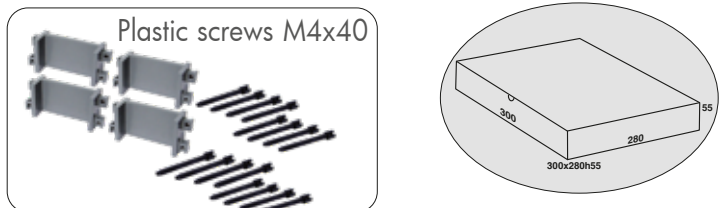


TA20

Transformer suitable for primary current by horizontal bar 120x10 - 2x120x10 - 3x120x10 - 4x120x10mm; by vertical bar 200x10 - 2x200x10 - 3x200x10 - 4x200x10mm; or by cable with suitable diameter to calculate. Sealable terminal cover NOT included on request: code 55PSATCS2C.

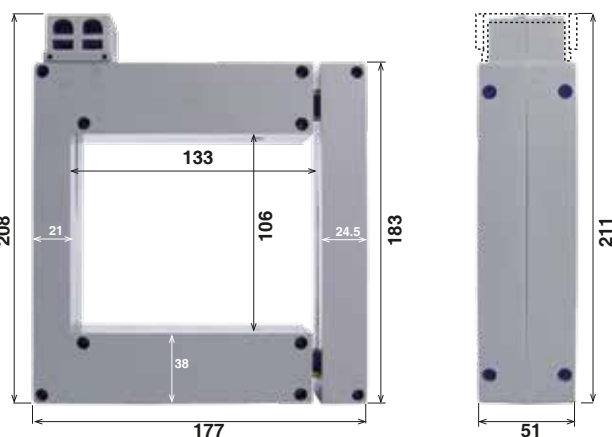


Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA	5A	1A	Kg	
1200	0.5	10	TA20-1K2A5-0.5-10VA	TA20-1K2A1-0.5-10VA	2,00
1250	0.5	10	TA20-1K25A5-0.5-10VA	TA20-1K25A1-0.5-10VA	2,00
1500	0.5	10	TA20-1K5A5-0.5-10VA	TA20-1K5A1-0.5-10VA	2,50
1600	0.5	10	TA20-1K6A5-0.5-10VA	TA20-1K6A1-0.5-10VA	2,50
2000	0.5	15	TA20-2K0A5-0.5-15VA	TA20-2K0A1-0.5-15VA	2,50
2500	0.5	20	TA20-2K5A5-0.5-20VA	TA20-2K5A1-0.5-20VA	3,00
3000	0.5	20	TA20-3K0A5-0.5-20VA	TA20-3k0A1-0.5-20VA	3,00
3200	0.5	20	TA20-3K2A5-0.5-20VA	TA20-3k2A1-0.5-20VA	3,00
4000	0.5	30	TA20-4K0A5-0.5-30VA	TA20-4K0A1-0.5-30VA	3,50
5000	0.5	30	TA20-5K0A5-0.5-30VA	TA20-5K0A1-0.5-30VA	4,00
6000	0.5	30	TA20-6K0A5-0.5-30VA	TA20-6K0A1-0.5-30VA	4,50

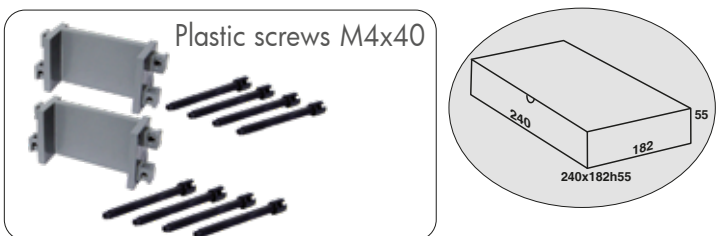


TA28

Transformer suitable for primary current by horizontal bar 120x10 - 2x120x10 - 3x120x10 - 4x120x10mm; by vertical bars 200x10 - 2x200x10 - 3x200x10 - 4x200x10mm; or by cable with suitable diameter to calculate. Sealable terminal cover NOT included on request: code 55PSATCS2C.

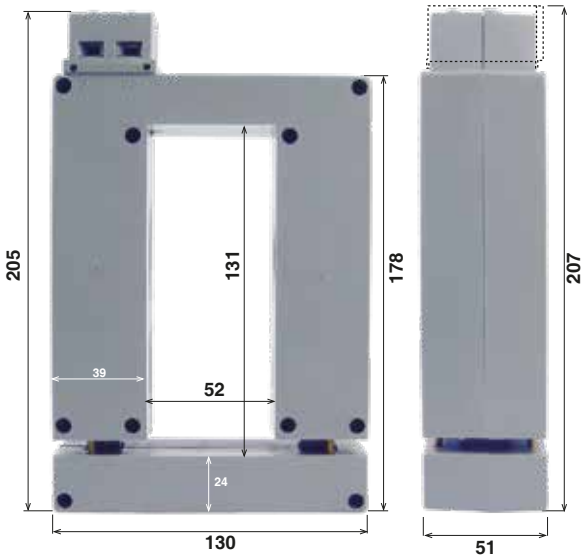


Primary current	Class	Power	Secondary current	Secondary current	Weight
A	VA	5A	1A	Kg	
1200	0.5	10	TA28-1K2A5-0.5-10VA	TA28-1K2A1-0.5-10VA	1,50
1250	0.5	10	TA28-1K25A5-0.5-10VA	TA28-1K25A1-0.5-10VA	1,50
1500	0.5	10	TA28-1K5A5-0.5-10VA	TA28-1K5A1-0.5-10VA	1,50
1600	0.5	10	TA28-1K6A5-0.5-10VA	TA28-1K6A1-0.5-10VA	1,50
2000	0.5	15	TA28-2K0A5-0.5-15VA	TA28-2K0A1-0.5-15VA	1,50
2500	0.5	20	TA28-2K5A5-0.5-20VA	TA28-2K5A1-0.5-20VA	1,50

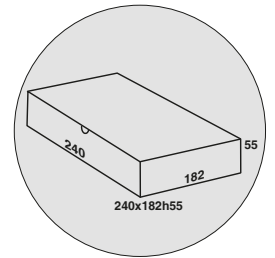
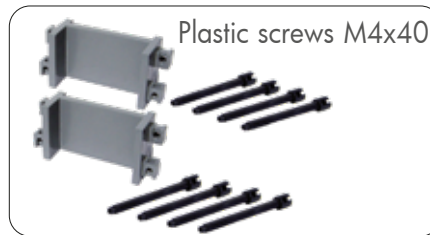


TA26V

Transformer suitable for primary current by vertical bar 2x80x5; 3x80x5; 5x80x5; 2x100x5; 3x100x5; 4x100x5; 100x10; 2x100x10; 5x100x5; 3x120x10; 2x125x5mm or by cable with suitable diameter to calculate.
 Sealable terminal cover NOT included on request: code 55PSATCS1C.

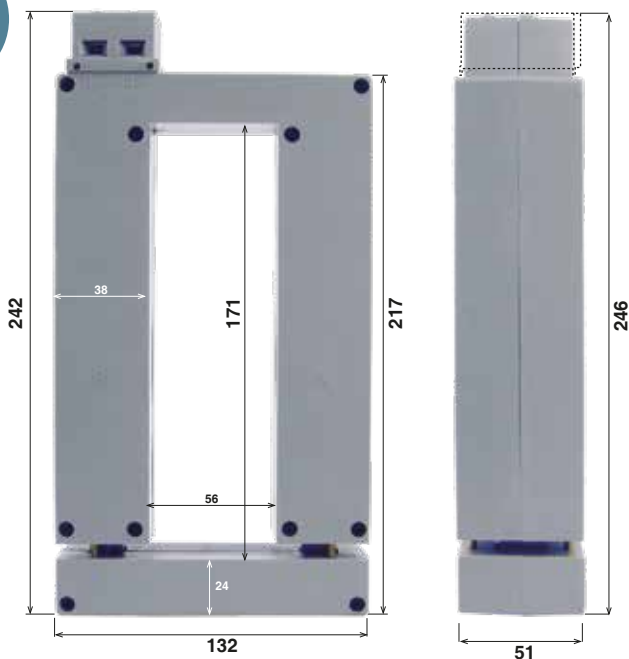


Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
1200	0.5	6	TA26V-1K2A5-0.5-6VA	TA26V-1K2A1-0.5-6VA	1,50
1250	0.5	8	TA26V-1K25A5-0.5-8VA	TA26V-1K25A1-0.5-8VA	1,50
1500	0.5	10	TA26V-1K5A5-0.5-10VA	TA26V-1K5A1-0.5-10VA	1,50
1600	0.5	10	TA26V-1K6A5-0.5-10VA	TA26V-1K6A1-0.5-10VA	1,50
2000	0.5	15	TA26V-2K0A5-0.5-15VA	TA26V-2K0A1-0.5-15VA	1,50
2500	0.5	20	TA26V-2K5A5-0.5-20VA	TA26V-2K5A1-0.5-20VA	1,50

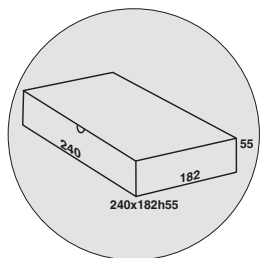


TA66V

Transformer suitable for primary current by vertical bar 2x80x5; 3x80x10; 3x80x5; 5x80x5, 2x100x5; 3x100x5; 4x100x5; 100x10; 2x100x10; 5x100x5; 3x120x10; 2x125x5; 2x160x10 mm or by cable with suitable diameter to calculate.
 Sealable terminal cover NOT included on request: code 55PSATCS1C.



Primary current	Class	Power	Secondary current	Secondary current	Weight
A		VA	5A	1A	Kg
1200	0.5	6	TA66V-1K2A5-0.5-6VA	TA66V-1K2A1-0.5-6VA	1,50
1250	0.5	8	TA66V-1K25A5-0.5-8VA	TA66V-1K25A1-0.5-8VA	1,50
1500	0.5	10	TA66V-1K5A5-0.5-10VA	TA66V-1K5A1-0.5-10VA	1,50
1600	0.5	10	TA66V-1K6A5-0.5-10VA	TA66V-1K6A1-0.5-10VA	1,50
2000	0.5	15	TA66V-2K0A5-0.5-15VA	TA66V-2K0A1-0.5-15VA	1,50
2500	0.5	20	TA66V-2K5A5-0.5-20VA	TA66V-2K5A1-0.5-20VA	2,00
3000	0.5	20	TA66V-3K0A5-0.5-20VA	TA66V-3K0A1-0.5-20VA	2,50
3200	0.5	20	TA66V-3K2A5-0.5-20VA	TA66V-3K2A1-0.5-20VA	2,50
4000	0.5	30	TA66V-4K0A5-0.5-30VA	TA66V-4K0A1-0.5-30VA	2,50
5000	0.5	30	TA66V-5K0A5-0.5-30VA	TA66V-5K0A1-0.5-30VA	3,00



TAPED TOROIDAL CURRENT TRANSFORMERS - TAK SERIES

Range of transformers employed when it is necessary to detect the homopolar currents (imbalance current existing on a three-phase cable), or in all those cases in which it is necessary high performance.



The toroidal transformers, all with passing primaries, can be made under the specifications provided by the customer or based on the actual technical characteristics calculated by our engineering department; In fact, the dimensions are not fixed but detected time by time according to the required technical characteristics.

Construction methods involve the use of the toroid in AIR, GAS or OIL; the finish is made by taping cotton protected with epoxy paint.

Thanks to sophisticated testing equipment, we reach very high accuracy Classs (also 0.1%) and on request, we can issue certificates and test reports for quality assurance.



The cables of the secondary current can be in PVC, Teflon or Silicon-glass material according to the needs, with application of the grounding of the core.

The temperature of use is of -25°C $+40^{\circ}\text{C}$; if the transformers are immersed in oil, the maximum temperature of use rises to 130°C .

When ordering, it is essential to indicate:

- The value of the primary current which must be minimum 50A
- The value of the secondary current which must be minimum 1A
- The accuracy class- Power (VA)
- **The internal diameter (the outer diameter and the depth are therefore dependent variables from the above mentioned data)**

ASSEMBLY INSTRUCTIONS

Being transformers provided with no extra accessory, the cable, busbar or panel mounting must be made in the most appropriate manner by the customer.

The customer must make the insulation between the primary and the secondary, during assembly

WIRING INSTRUCTIONS

After the transformer is properly installed around the cable / busbar (paying attention to the direction of current flow), the connection to the load is carried out using the two free cables coming out of the toroid.

CURRENT TRANSFORMERS WITH BUILT-IN TRANSDUCER - TC SERIES

Range of transformers in which the electronic circuits for conversion of the measurement and the generation of the output signal, are incorporated in the same transformer.; thus enabling to obtain the ammetric and voltmetric measurement, directly on the PLC or other acquisition system.

The use of this range allows a considerable economic savings by avoiding the interposition of external transducers and double connections. If you wish to use also a reading instrument, connect in series to the PLC.

Response time 500ms - resistive load, 300 maximum at 24 VDC - Operating frequency, 50 / 60Hz. Different characteristics can be made on request.

ASSEMBLY INSTRUCTIONS



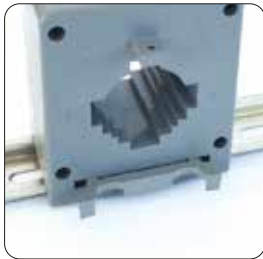
With the transformer it is provided a sachet containing a series of accessories that depending on the model, allow various types of fixations;

- The mounting on DIN rail EN 50022 is performed using the fork accessory
- The wall mounting using the two brackets
- The direct mounting on the cable or on the bar, using screws

These fixations must be made in the manner indicated in the figure; no special tools are required even for the release of the transformer having to remove it.



DIN rail mounting



Wall mounting



Mounting on cable or primary busbar

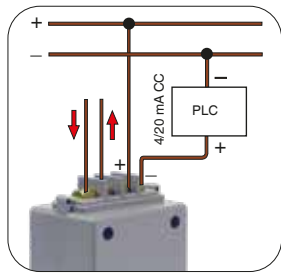
WIRING INSTRUCTIONS TC OUTPUT 4 / 20mA self-supplied

Transformers supplied directly by PLC with voltage 20VDC ... 30VDC.

If you wish to use also a reading instrument, connect in series to the PLC.

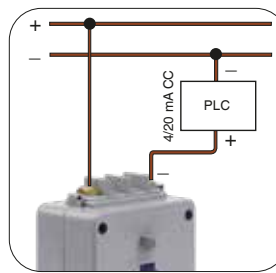
Response time 500ms - Resistive load 300 maximum at 24 VDC - Operating frequency 50 / 60Hz Different characteristics can be made on request.

Connect the cables as shown on figure



TC1A

The cable of the primary current must be connected to the terminals paying attention to the flow direction of the current as shown in figure.



OTHER TC CODES

The primary current is given by the, incorporated busbar/cable fitted into the central window of CT.

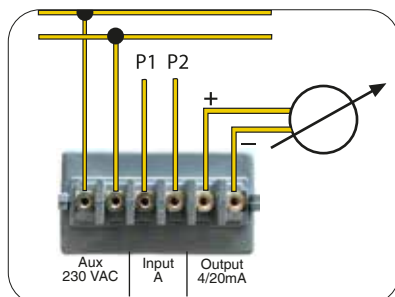
Pay attention to the flow direction of the current which must be always in direction P1->P2

WIRING INSTRUCTIONS TC...A OUTPUT 4 / 20mA with separate auxiliary power supply

Transformers with auxiliary power supply 230VAC (optional 12VDC, 24VDC, 48VDC)

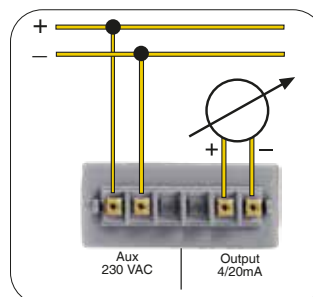
Response time 500ms - Resistive load 300 max 24 VDC - Operating frequency 50 / 60Hz Power Different characteristics can be made on request.

Connect the cables as shown on figure



TC1A

The cable of the primary current must be connected to the terminals paying attention to the flow direction of the current as shown in figure.



OTHER TC...A CODES

The primary current is given by the, incorporated busbar/cable fitted into the central window of CT.

Pay attention to the flow direction of the current which must be always in direction P1->P2

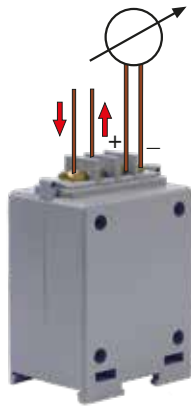
WIRING INSTRUCTIONS TC OUTPUT 20mA and 10V DC

Transformers supplied directly by PLC with voltage 20VDC ... 30VDC.

Response time 500ms - Operating frequency 50/60Hz.

Resistive load: 300 max for models with 20mA output; > 10k maximum for models with output 10V. Different features can be made on request.

Connect the cables as shown on figure



TCP1

The cable of the primary current must be connected to the terminals paying attention to the flow direction of the current as shown in figure.

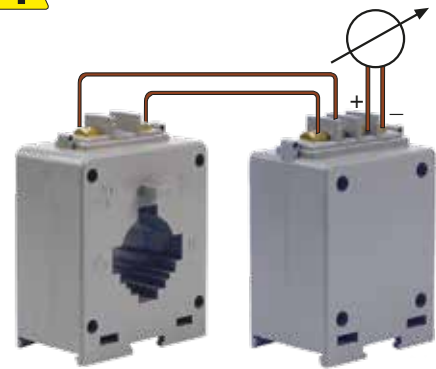


OTHER TC CODES

The primary current is given by the, incorporated busbar/cable fitted into the central window of CT.
Pay attention to the flow direction of the current which must be always in direction P1-->P2



Necessary wiring, where specified



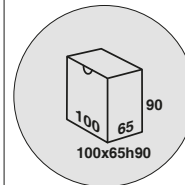
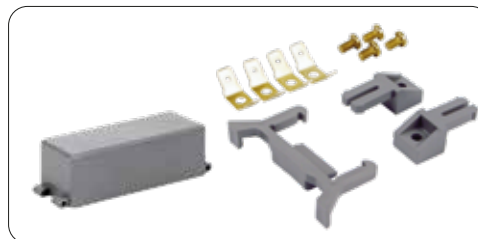
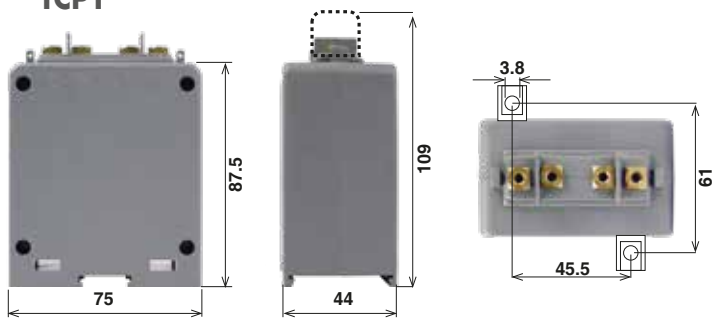
TR....

TCP1A-005A-20MA-1

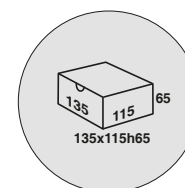
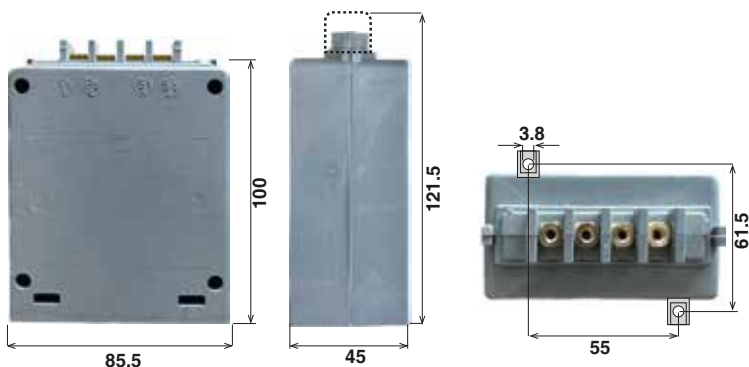
TCP1...

Wounded primary current transformer with primary and secondary current on terminals

TCP1



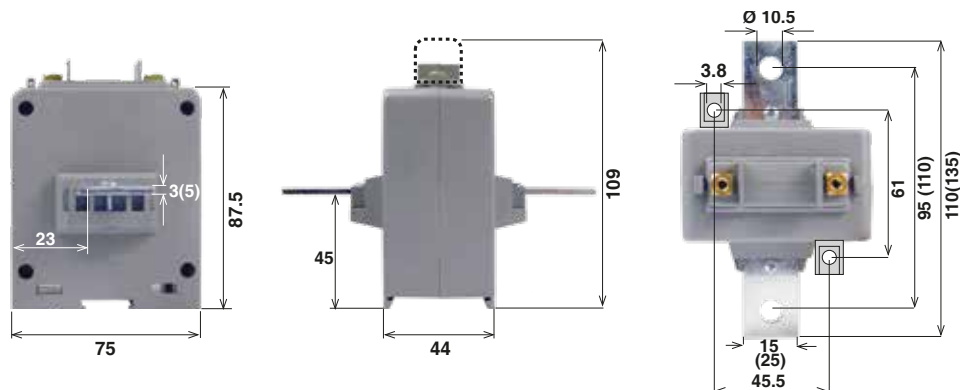
TCP1...with separate auxiliary power supply



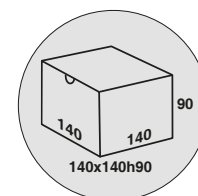
Primary current	Class	Secondary current (self-powered)	Secondary current (powered 230V)	Secondary current (self-powered)	Secondary voltage (self-powered)	Weight
A		4/20mA	4/20mA	20mA	10V	Kg
1	1	TCP1A-001A-420MA-1	TCP1A-001A-420MA-1-230	TCP1-001A-20MA-1	TCP1-001A-10V-1	0,5
5	1	TCP1A-005A-420MA-1	TCP1A-005A-420MA-1-230	TCP1-005A-20MA-1	TCP1-005A-10V-1	0,5
10	1	TCP1A-010A-420MA-1	TCP1A-010A-420MA-1-230	TCP1-010A-20MA-1	TCP1-010A-10V-1	0,5
15	1	TCP1A-015A-420MA-1	TCP1A-015A-420MA-1-230	TCP1-015A-20MA-1	TCP1-015A-10V-1	0,5
20	1	TCP1A-020A-420MA-1	TCP1A-020A-420MA-1-230	TCP1-020A-20MA-1	TCP1-020A-10V-1	0,5
25	1	TCP1A-025A-420MA-1	TCP1A-025A-420MA-1-230	TCP1-025A-20MA-1	TCP1-025A-10V-1	0,5
30	1	TCP1A-030A-420MA-1	TCP1A-030A-420MA-1-230	TCP1-030A-20MA-1	TCP1-030A-10V-1	0,5
40	1	TCP1A-040A-420MA-1	TCP1A-040A-420MA-1-230	TCP1-040A-20MA-1	TCP1-040A-10V-1	0,5

TCP2...

Wounded primary current transformer with secondary current on terminals.

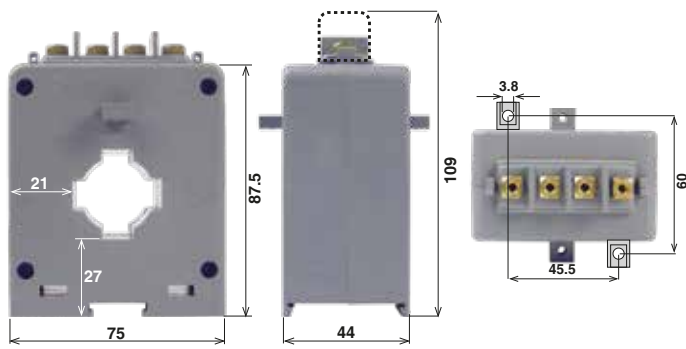


Primary current	Class	Secondary current (self-powered)	Secondary current (powered 230V)	Secondary current (self-powered)	Secondary voltage (self-powered)	Weight
A		4/20mA	4/20mA	20mA	10V	Kg
50	1	TCP2A-050A-420MA-1	TCP2A-050A-420MA-1-230	TCP2-050A-20MA-1	TCP2-050A-10V-1	0,5
60	1	TCP2A-060A-420MA-1	TCP2A-060A-420MA-1-230	TCP2-060A-20MA-1	TCP2-060A-10V-1	0,5
75	1	TCP2A-075A-420MA-1	TCP2A-075A-420MA-1-230	TCP2-075A-20MA-1	TCP2-075A-10V-1	0,5
80	1	TCP2A-080A-420MA-1	TCP2A-080A-420MA-1-230	TCP2-080A-20MA-1	TCP2-080A-10V-1	0,5



TC43...

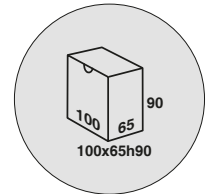
Transformer suitable for primary current by cable with a maximum diameter of 25mm; by vertical or horizontal bar with a maximum size of 30x10mm. and secondary current on terminals.



Dimensioni finestra centrale (mm)	
Cavo	Sbarra
$\varnothing 25$	30,5x10,6
	30,5x10,6



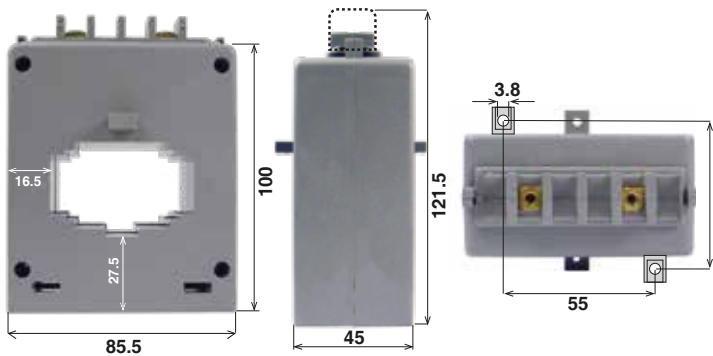
Primary current	Class	Secondary current (self-powered)	Secondary current (powered 230V)	Secondary current (self-powered)	Secondary voltage (self-powered)	Weight
A		4/20mA	4/20mA	20mA	10V	Kg
50	1	TC43A-050A-420MA-1	TC43A-050A-420MA-1-230	TC43-050A-20MA-1	TC43-050A-10V-1	0,7
60	1	TC43A-060A-420MA-1	TC43A-060A-420MA-1-230	TC43-060A-20MA-1	TC43-060A-10V-1	0,7
75	1	TC43A-075A-420MA-1	TC43A-075A-420MA-1-230	TC43-075A-20MA-1	TC43-075A-10V-1	0,7
80	1	TC43A-080A-420MA-1	TC43A-080A-420MA-1-230	TC43-080A-20MA-1	TC43-080A-10V-1	0,7
100	1	TC43A-100A-420MA-1	TC43A-100A-420MA-1-230	TC43-100A-20MA-1	TC43-100A-10V-1	0,7
120	1	TC43A-120A-420MA-1	TC43A-120A-420MA-1-230	TC43-120A-20MA-1	TC43-120A-10V-1	0,7
125	1	TC43A-125A-420MA-1	TC43A-125A-420MA-1-230	TC43-125A-20MA-1	TC43-125A-10V-1	0,7
150	1	TC43A-150A-420MA-1	TC43A-150A-420MA-1-230	TC43-150A-20MA-1	TC43-150A-10V-1	0,7
200	1	TC43A-200A-420MA-1	TC43A-200A-420MA-1-230	TC43-200A-20MA-1	TC43-200A-10V-1	0,7
250	1	TC43A-250A-420MA-1	TC43A-250A-420MA-1-230	TC43-250A-20MA-1	TC43-250A-10V-1	0,7
300	1	TC43A-300A-420MA-1	TC43A-300A-420MA-1-230	TC43-300A-20MA-1	TC43-300A-10V-1	0,7
400	1	TC43A-400A-420MA-1	TC43A-400A-420MA-1-230	TC43-400A-20MA-1	TC43-400A-10V-1	0,7
500	1	TC43A-500A-420MA-1	TC43A-500A-420MA-1-230	TC43-500A-20MA-1	TC43-500A-10V-1	0,7



The codes present in the yellow area are made using the external electronic accessory TCP1-005A-20MA-1 connected with the model TR43 (5A secondary) with corresponding primary current (eg. TR43-200A). See wiring diagram on page 60.

TC5...

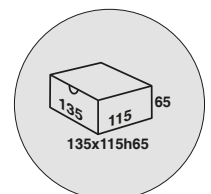
Transformer suitable for primary current by cable with a maximum diameter of 30mm; by horizontal bar with a maximum size of 30x30mm, 40x25mm, 50x20mm; by vertical bar with maximum dimensions of 30x10mm. and secondary current on terminals.



Dimensioni finestra centrale (mm)	
Cavo	Sbarra
$\varnothing 30$	52,1x21,4
	42,2x25,3
	34,3x34,2
	34,2x12



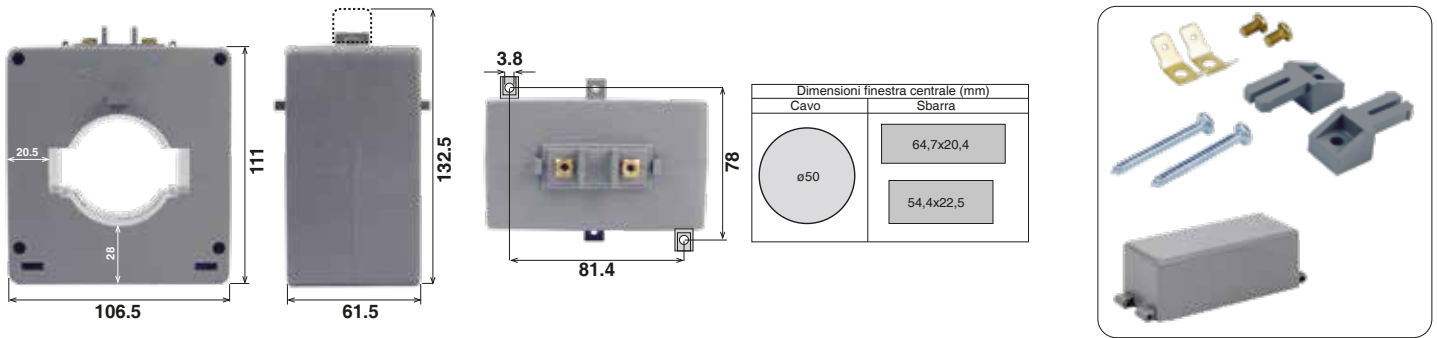
Primary current	Class	Secondary current (self-powered)	Secondary current (powered 230V)	Secondary current (self-powered)	Secondary voltage (self-powered)	Weight
A		4/20mA	4/20mA	20mA	10V	Kg
100	1	TC5A-100A-420MA-1	TC5A-100A-420MA-1-230	TC5-100A-20MA-1	TC5-100A-10V-1	0,7
150	1	TC5A-150A-420MA-1	TC5A-150A-420MA-1-230	TC5-150A-20MA-1	TC5-150A-10V-1	0,7
200	1	TC5A-200A-420MA-1	TC5A-200A-420MA-1-230	TC5-200A-20MA-1	TC5-200A-10V-1	0,7
250	1	TC5A-250A-420MA-1	TC5A-250A-420MA-1-230	TC5-250A-20MA-1	TC5-250A-10V-1	0,7
300	1	TC5A-300A-420MA-1	TC5A-300A-420MA-1-230	TC5-300A-20MA-1	TC5-300A-10V-1	0,7
400	1	TC5A-400A-420MA-1	TC5A-400A-420MA-1-230	TC5-400A-20MA-1	TC5-400A-10V-1	0,7
500	1	TC5A-500A-420MA-1	TC5A-500A-420MA-1-230	TC5-500A-20MA-1	TC5-500A-10V-1	0,7
600	1	TC5A-600A-420MA-1	TC5A-600A-420MA-1-230	TC5-600A-20MA-1	TC5-600A-10V-1	0,7
750	1	TC5A-750A-420MA-1	TC5A-750A-420MA-1-230	TC5-750A-20MA-1	TC5-750A-10V-1	0,7
800	1	TC5A-800A-420MA-1	TC5A-800A-420MA-1-230	TC5-800A-20MA-1	TC5-800A-10V-1	0,7
1000	1	TC5A-1K0A-420MA-1	TC5A-1K0A-420MA-1-230	TC5-1K0A-20MA-1	TC5-1K0A-10V-1	0,7
1200	1	TC5A-1K2A-420MA-1	TC5A-1K2A-420MA-1-230	TC5-1K2A-20MA-1	TC5-1K2A-10V-1	0,7
1250	1	TC5A-1K25A-420MA-1	TC5A-1K25A-420MA-1-230	TC5-1K25A-20MA-1	TC5-1K25A-10V-1	0,7
1500	1	TC5A-1K5A-420MA-1	TC5A-1K5A-420MA-1-230	TC5-1K5A-20MA-1	TC5-1K5A-10V-1	0,7



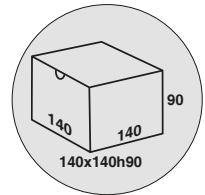
The codes present in the yellow area are made using the external electronic accessory TCP1-005A-20MA-1 connected with the model TR5 (5A secondary) with corresponding primary current (eg. TR5-600A). See wiring diagram on page 60.

TC6...

Transformer suitable for primary current by cable with a maximum diameter of 50mm; by horizontal bar with a maximum size of 50x20mm, 60x20mm and secondary current on terminals. With separate power supply, an auxiliary 2-pole terminal is mounted.



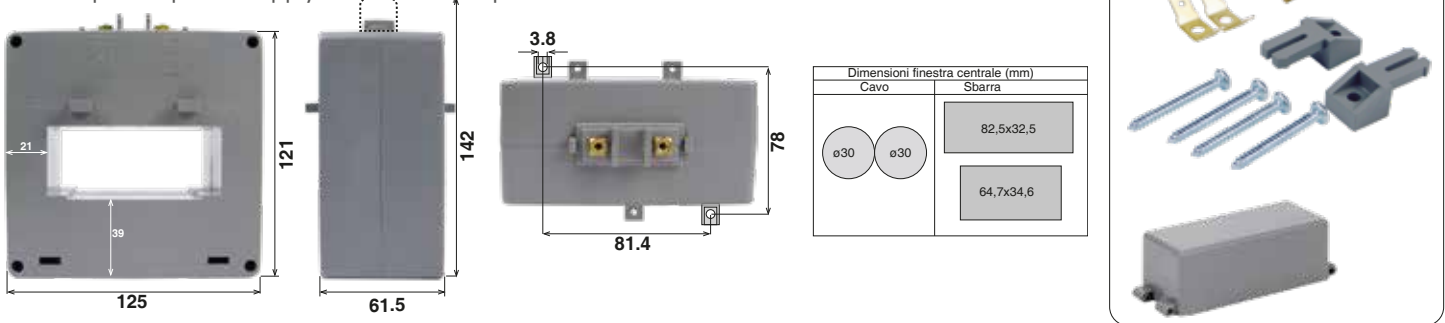
Primary current	Class	Secondary current (self-powered)	Secondary current (powered 230V)	Secondary current (self-powered)	Secondary voltage (self-powered)	Weight
A		4/20mA	4/20mA	20mA	10V	Kg
250	1	TC6A-250A-420MA-1	TC6A-250A-420MA-1-230	TC6-250A-20MA-1	TC6-250A-10V-1	1
300	1	TC6A-300A-420MA-1	TC6A-300A-420MA-1-230	TC6-300A-20MA-1	TC6-300A-10V-1	1
400	1	TC6A-400A-420MA-1	TC6A-400A-420MA-1-230	TC6-400A-20MA-1	TC6-400A-10V-1	1
500	1	TC6A-500A-420MA-1	TC6A-500A-420MA-1-230	TC6-500A-20MA-1	TC6-500A-10V-1	1
600	1	TC6A-600A-420MA-1	TC6A-600A-420MA-1-230	TC6-600A-20MA-1	TC6-600A-10V-1	0,7
750	1	TC6A-750A-420MA-1	TC6A-750A-420MA-1-230	TC6-750A-20MA-1	TC6-750A-10V-1	0,7
800	1	TC6A-800A-420MA-1	TC6A-800A-420MA-1-230	TC6-800A-20MA-1	TC6-800A-10V-1	0,7
1000	1	TC6A-1K0A-420MA-1	TC6A-1K0A-420MA-1-230	TC6-1K0A-20MA-1	TC6-1K0A-10V-1	0,7
1200	1	TC6A-1K2A-420MA-1	TC6A-1K2A-420MA-1-230	TC6-1K2A-20MA-1	TC6-1K2A-10V-1	0,7
1250	1	TC6A-1K25A-420MA-1	TC6A-1K25A-420MA-1-230	TC6-1K25A-20MA-1	TC6-1K25A-10V-1	0,8
1500	1	TC6A-1K5A-420MA-1	TC6A-1K5A-420MA-1-230	TC6-1K5A-20MA-1	TC6-1K5A-10V-1	0,8
1600	1	TC6A-1K6A-420MA-1	TC6A-1K6A-420MA-1-230	TC6-1K6A-20MA-1	TC6-1K6A-10V-1	0,8
2000	1	TC6A-2K0A-420MA-1	TC6A-2K0A-420MA-1-230	TC6-2K0A-20MA-1	TC6-2K0A-10V-1	0,8
2500	1	TC6A-2K5A-420MA-1	TC6A-2K5A-420MA-1-230	TC6-2K5A-20MA-1	TC6-2K5A-10V-1	1



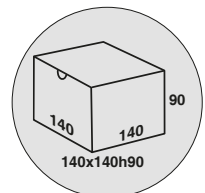
The codes present in the yellow area are made using the external electronic accessory TCP1-005A-20MA-1 connected with the model TR6 (5A secondary) with corresponding primary current (eg. TR6-800A -....). See wiring diagram on page 60.

TC8...

Transformer suitable for primary current by one or two cables with a maximum diameter of 30mm; by horizontal bar with a maximum size of 60x30mm, 80x30mm and secondary current on terminals. With separate power supply, an auxiliary 2-pole terminal is mounted.



Primary current	Class	Secondary current (self-powered)	Secondary current (powered 230V)	Secondary current (self-powered)	Secondary voltage (self-powered)	Weight
A		4/20mA	4/20mA	20mA	10V	Kg
400	1	TC8A-400A-420MA-1	TC8A-400A-420MA-1-230	TC8-400A-20MA-1	TC8-400A-10V-1	0,8
500	1	TC8A-500A-420MA-1	TC8A-500A-420MA-1-230	TC8-500A-20MA-1	TC8-500A-10V-1	1
600	1	TC8A-600A-420MA-1	TC8A-600A-420MA-1-230	TC8-600A-20MA-1	TC8-600A-10V-1	1
750	1	TC8A-750A-420MA-1	TC8A-750A-420MA-1-230	TC8-750A-20MA-1	TC8-750A-10V-1	0,7
800	1	TC8A-800A-420MA-1	TC8A-800A-420MA-1-230	TC8-800A-20MA-1	TC8-800A-10V-1	0,7
1000	1	TC8A-1K0A-420MA-1	TC8A-1K0A-420MA-1-230	TC8-1K0A-20MA-1	TC8-1K0A-10V-1	0,7
1200	1	TC8A-1K2A-420MA-1	TC8A-1K2A-420MA-1-230	TC8-1K2A-20MA-1	TC8-1K2A-10V-1	0,7
1250	1	TC8A-1K25A-420MA-1	TC8A-1K25A-420MA-1-230	TC8-1K25A-20MA-1	TC8-1K25A-10V-1	1
1500	1	TC8A-1K5A-420MA-1	TC8A-1K5A-420MA-1-230	TC8-1K5A-20MA-1	TC8-1K5A-10V-1	1
1600	1	TC8A-1K6A-420MA-1	TC8A-1K6A-420MA-1-230	TC8-1K6A-20MA-1	TC8-1K6A-10V-1	1
2000	1	TC8A-2K0A-420MA-1	TC8A-2K0A-420MA-1-230	TC8-2K0A-20MA-1	TC8-2K0A-10V-1	1
2500	1	TC8A-2K5A-420MA-1	TC8A-2K5A-420MA-1-230	TC8-2K5A-20MA-1	TC8-2K5A-10V-1	1
3000	1	TC8A-3K0A-420MA-1	TC8A-3K0A-420MA-1-230	TC8-3K0A-20MA-1	TC8-3K0A-10V-1	1,5

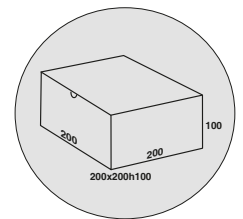
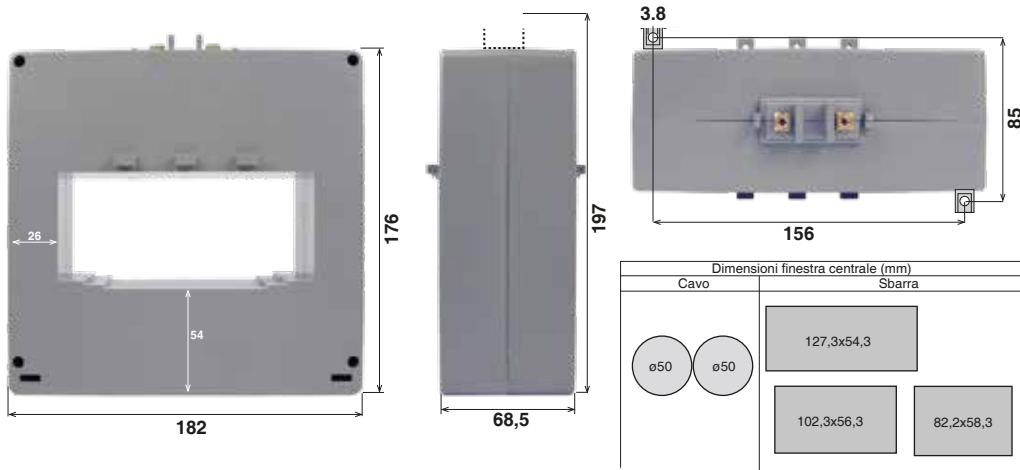


The codes present in the yellow area are made using the external electronic accessory TCP1-005A-20MA-1 connected with the model TR8 (5A secondary) with corresponding primary current (eg. TR8-800A -....). See wiring diagram on page 60.

TC12...

Transformer suitable for primary current by one or two cables with a maximum diameter of 50mm; by horizontal bar with a maximum size 80x50mm, 100x50mm, 125x50mm and secondary current on terminals.

With separate power supply, an auxiliary 2-pole terminal is mounted.



Primary current	Class	Secondary current (self-powered)	Secondary current (powered 230V)	Secondary current (self-powered)	Secondary voltage (self-powered)	Weight
A		4/20mA	4/20mA	20mA	10V	Kg
400	1	TC12A-400A-420MA-1	TC12A-400A-420MA-1-230	TC12-400A-20MA-1	TC12-400A-10V-1	1
500	1	TC12A-500A-420MA-1	TC12A-500A-420MA-1-230	TC12-500A-20MA-1	TC12-500A-10V-1	1
600	1	TC12A-600A-420MA-1	TC12A-600A-420MA-1-230	TC12-600A-20MA-1	TC12-600A-10V-1	1
750	1	TC12A-750A-420MA-1	TC12A-750A-420MA-1-230	TC12-750A-20MA-1	TC12-750A-10V-1	1
800	1	TC12A-800A-420MA-1	TC12A-800A-420MA-1-230	TC12-800A-20MA-1	TC12-800A-10V-1	1
1000	1	TC12A-1K0A-420MA-1	TC12A-1K0A-420MA-1-230	TC12-1K0A-20MA-1	TC12-1K0A-10V-1	1
1200	1	TC12A-1K2A-420MA-1	TC12A-1K2A-420MA-1-230	TC12-1K2A-20MA-1	TC12-1K2A-10V-1	1
1250	1	TC12A-1K25A-420MA-1	TC12A-1K25A-420MA-1-230	TC12-1K25A-20MA-1	TC12-1K25A-10V-1	1
1500	1	TC12A-1K5A-420MA-1	TC12A-1K5A-420MA-1-230	TC12-1K5A-20MA-1	TC12-1K5A-10V-1	1
1600	1	TC12A-1K6A-420MA-1	TC12A-1K6A-420MA-1-230	TC12-1K6A-20MA-1	TC12-1K6A-10V-1	1
2000	1	TC12A-2K0A-420MA-1	TC12A-2K0A-420MA-1-230	TC12-2K0A-20MA-1	TC12-2K0A-10V-1	1
2500	1	TC12A-2K5A-420MA-1	TC12A-2K5A-420MA-1-230	TC12-2K5A-20MA-1	TC12-2K5A-10V-1	1,5
3000	1	TC12A-3K0A-420MA-1	TC12A-3K0A-420MA-1-230	TC12-3K0A-20MA-1	TC12-3K0A-10V-1	1,5
4000	1	TC12A-4K0A-420MA-1	TC12A-4K0A-420MA-1-230	TC12-4K0A-20MA-1	TC12-4K0A-10V-1	2

The codes present in the yellow area are made using the external electronic accessory TCP1-005A-20MA-1 connected with the model TR12 (5A secondary) with corresponding primary current (eg. TR12-750A -....). See wiring diagram on page 60.

VOLTAGE TRANSFORMERS – TV SERIES

Construction according to CEI EN 61869-1; CEI EN 61869-3.

Case in PLASTIC-V0 and air insulation for the types TV6 and TV2; resin insulation ISEPOX for types TV10, TV12 and TV15.

Highest voltage for insulation: 0.72 kV; 1.2kV under request where possible.

Test voltage: 3 kV. Optional 6 kV where possible.

Standard secondary voltages: 100V - 100V: $\sqrt{3}$ - 110V - 110V: $\sqrt{3}$ (different voltages can be made on request) primary voltages different than those in the table can be made on request.

When ordering, specify exactly the primary and secondary voltage, power, class, frequency of use and the overvoltage required when specific use is necessary and if different from that proposed.

Regarding the overvoltage (voltage factor FT) remember that:

is 1.2Vn continuous use for all VTs with connection phase-to-phase

is 1.2Vn continuous use and 1.9x8h for all VTs with connection phase-to-neutral

ASSEMBLY INSTRUCTIONS

Together with the transformer, it is provided a sacket containing a series of accessories, which depending on the model allow various types of fixing:

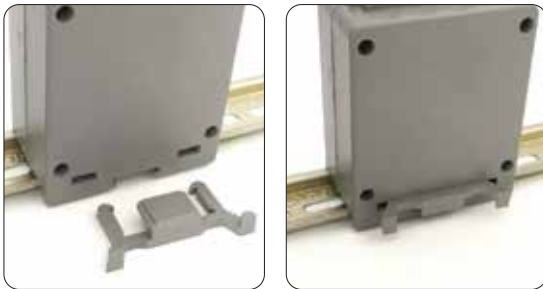
DIN rail EN 50022 fixing is performed using the appropriate accessory for type TV2.

Wall mounting, using the two brackets for type TV6.

Wall mounting for types TV10, TV12 and TV15 is carried out using three screws (not supplied) which must be placed on the brackets obtained directly on the mold.

These fixings must be made in the manner indicated in the figure; no special tools are required even for the release of the transformer, having to remove it.

DIN rail mounting for type TV2



Position the transformer on the DIN rail and press as shown in Figures 1 and 2.

Wall mounting for types TV2 and TV6

Using the two brackets supplied. Insert the brackets into proper places as shown in figure; then secure them to the wall with two screws (not supplied).



Wall mounting for types TV10, TV12 and TV15

Using three screws (not supplied) to be placed into the brackets obtained directly from the mold.

WIRING INSTRUCTION

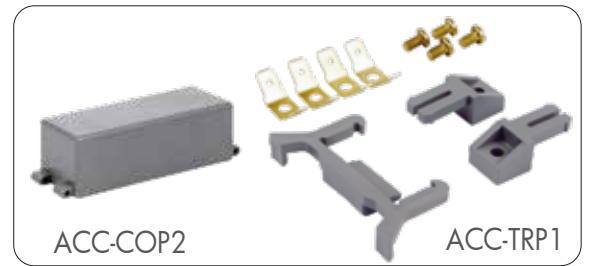
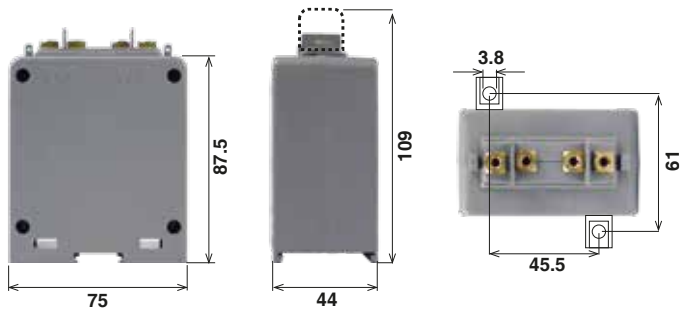
Connect the wires in the respective terminals as shown on figures. The cables of the primary voltage must be inserted in the transformer paying attention to the direction of the flow voltage, which must always be in the direction A --> B. In the cables of the secondary voltage, the direction of flow must always be in direction a --> b.

The terminal covers are supplied together with the transformers.



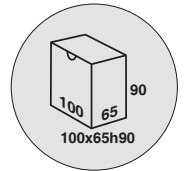
TV2

Transformer with small dimensions, 2 VA. Voltage factor FT = 1,2Vn continuous use.



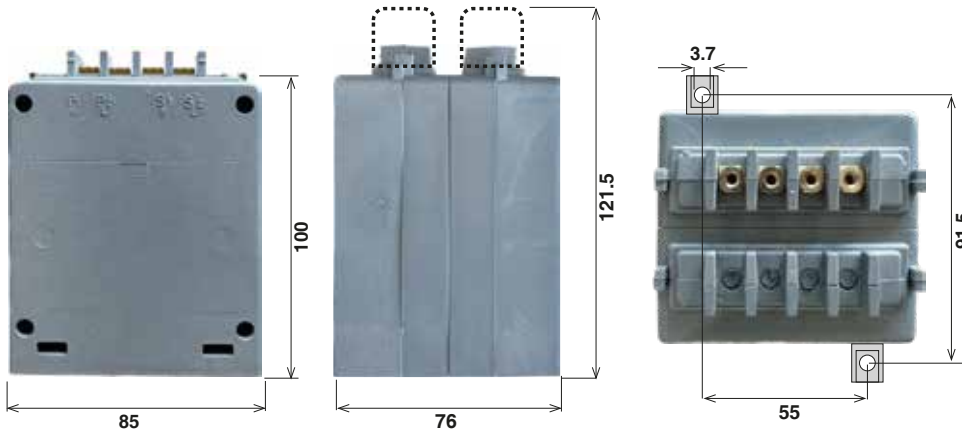
Measuring transformers

Primary voltage	Class	Power	Secondary voltage	Secondary voltage	Weight
V		VA	100V	110V	Kg
100	1	2	TV2-100V100V-1-2VA	TV2-100V110V-1-2VA	1,50
120	1	2	TV2-120V100V-1-2VA	TV2-120V110V-1-2VA	1,50
230	1	2	TV2-230V100V-1-2VA	TV2-230V110V-1-2VA	1,50
380	1	2	TV2-380V100V-1-2VA	TV2-380V110V-1-2VA	1,50
400	1	2	TV2-400V100V-1-2VA	TV2-400V110V-1-2VA	1,50
500	1	2	TV2-500V100V-1-2VA	TV2-500V110V-1-2VA	1,50
600	1	2	TV2-600V100V-1-2VA	TV2-600V110V-1-2VA	1,50



TV6

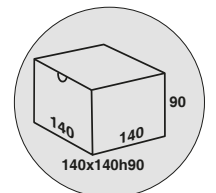
Transformer with small dimensions, 2 VA. Voltage factor FT = 1,2Vn continuous use.



65

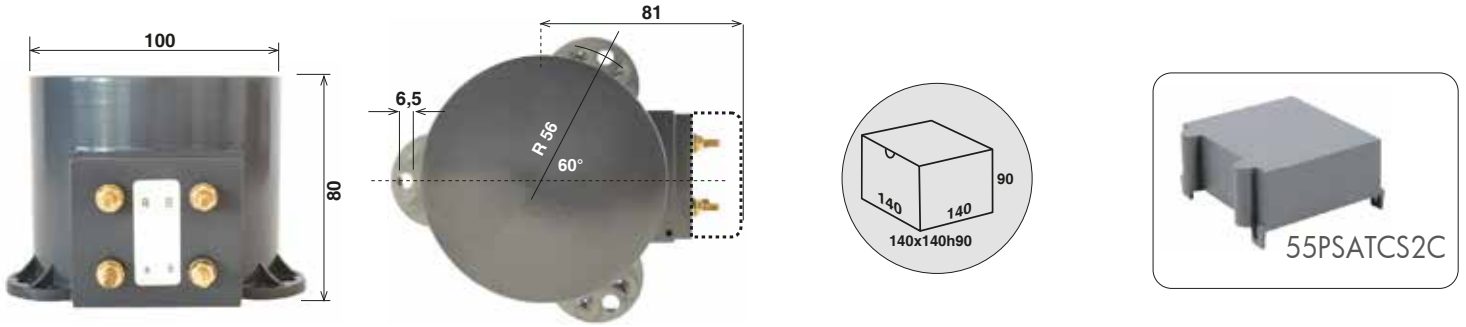
Measuring transformers

Primary voltage	Class	Power	Secondary voltage	Secondary voltage	Weight
V		VA	100V	110V	Kg
100	0,5	6	TV6-100V100V-0.5-6VA	TV6-100V110V-0.5-6VA	2,00
120	0,5	6	TV6-120V100V-0.5-6VA	TV6-120V110V-0.5-6VA	2,00
230	0,5	6	TV6-230V100V-0.5-6VA	TV6-230V110V-0.5-6VA	2,00
380	0,5	6	TV6-380V100V-0.5-6VA	TV6-380V110V-0.5-6VA	2,00
400	0,5	6	TV6-400V100V-0.5-6VA	TV6-400V110V-0.5-6VA	2,00
500	0,5	6	TV6-500V100V-0.5-6VA	TV6-500V110V-0.5-6VA	2,00
600	0,5	6	TV6-600V100V-0.5-6VA	TV6-600V110V-0.5-6VA	2,00
690	0,5	6	TV6-690V100V-0.5-6VA	TV6-690V110V-0.5-6VA	2,00
800	0,5	6	TV6-800V100V-0.5-6VA	TV6-800V110V-0.5-6VA	2,00



TV10

Transformer with external diameter 100mm. Regarding the overvoltage (voltage factor FT) remember that:
 is 1.2Vn continuous use for all VTs with connection phase-to-phase (... /100V - .../110V)
 is 1.2Vn continuous use and 1.9x8h for all VTs with connection phase-to-neutral (... :√3/100V:√3 - ... :√3/110V:√3)

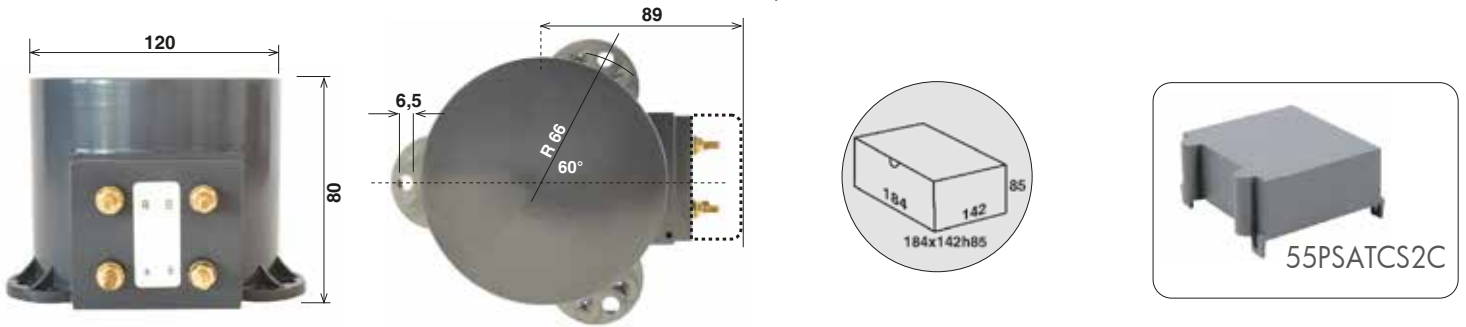


Primary voltage	Class	Power	Secondary voltage	Secondary voltage	Weight
V		VA	100V	110V	Kg
100	0,5	6	TV10-100V100V-0.5-6VA	TV10-100V110V-0.5-6VA	2,50
100	0,5	10	TV10-100V100V-0.5-10VA	TV10-100V110V-0.5-10VA	2,50
120	0,5	6	TV10-120V100V-0.5-6VA	TV10-120V110V-0.5-6VA	2,50
120	0,5	10	TV10-120V100V-0.5-10VA	TV10-120V110V-0.5-10VA	2,50
230	0,5	6	TV10-230V100V-0.5-6VA	TV10-230V110V-0.5-6VA	2,50
230	0,5	10	TV10-230V100V-0.5-10VA	TV10-230V110V-0.5-10VA	2,50
380	0,5	6	TV10-380V100V-0.5-6VA	TV10-380V110V-0.5-6VA	2,50
380	0,5	10	TV10-380V100V-0.5-10VA	TV10-380V110V-0.5-10VA	2,50
400	0,5	6	TV10-400V100V-0.5-6VA	TV10-400V110V-0.5-6VA	2,50
400	0,5	10	TV10-400V100V-0.5-10VA	TV10-400V110V-0.5-10VA	2,50
500	0,5	6	TV10-500V100V-0.5-6VA	TV10-500V110V-0.5-6VA	2,50
500	0,5	10	TV10-500V100V-0.5-10VA	TV10-500V110V-0.5-10VA	2,50
600	0,5	6	TV10-600V100V-0.5-6VA	TV10-600V110V-0.5-6VA	2,50
600	0,5	10	TV10-600V100V-0.5-10VA	TV10-600V110V-0.5-10VA	2,50
690	0,5	6	TV10-690V100V-0.5-6VA	TV10-690V110V-0.5-6VA	2,50
690	0,5	10	TV10-690V100V-0.5-10VA	TV10-690V110V-0.5-10VA	2,50
800	0,5	6	TV10-800V100V-0.5-6VA	TV10-800V110V-0.5-6VA	2,50
800	0,5	10	TV10-800V100V-0.5-10VA	TV10-800V110V-0.5-10VA	2,50

Primary voltage	Class	Power	Secondary voltage	Secondary voltage	Weight
V		VA	100V:√3	110V:√3	Kg
100:√3	0,5	6	TV10-100R3V100R3-0.5-6VA	TV10-100R3V110R3-0.5-6VA	2,50
100:√3	0,5	10	TV10-100R3V100R3-0.5-10VA	TV10-100R3V110R3-0.5-10VA	2,50
120:√3	0,5	6	TV10-120R3V100R3-0.5-6VA	TV10-120R3V110R3-0.5-6VA	2,50
120:√3	0,5	10	TV10-120R3V100R3-0.5-10VA	TV10-120R3V110R3-0.5-10VA	2,50
230:√3	0,5	6	TV10-230R3V100R3-0.5-6VA	TV10-230R3V110R3-0.5-6VA	2,50
230:√3	0,5	10	TV10-230R3V100R3-0.5-10VA	TV10-230R3V110R3-0.5-10VA	2,50
380:√3	0,5	6	TV10-380R3V100R3-0.5-6VA	TV10-380R3V110R3-0.5-6VA	2,50
380:√3	0,5	10	TV10-380R3V100R3-0.5-10VA	TV10-380R3V110R3-0.5-10VA	2,50
400:√3	0,5	6	TV10-400R3V100R3-0.5-6VA	TV10-400R3V110R3-0.5-6VA	2,50
400:√3	0,5	10	TV10-400R3V100R3-0.5-10VA	TV10-400R3V110R3-0.5-10VA	2,50
500:√3	0,5	6	TV10-500R3V100R3-0.5-6VA	TV10-500R3V110R3-0.5-6VA	2,50
500:√3	0,5	10	TV10-500R3V100R3-0.5-10VA	TV10-500R3V110R3-0.5-10VA	2,50
600:√3	0,5	6	TV10-600R3V100R3-0.5-6VA	TV10-600R3V110R3-0.5-6VA	2,50
600:√3	0,5	10	TV10-600R3V100R3-0.5-10VA	TV10-600R3V110R3-0.5-10VA	2,50
690:√3	0,5	6	TV10-690R3V100R3-0.5-6VA	TV10-690R3V110R3-0.5-6VA	2,50
690:√3	0,5	10	TV10-690R3V100R3-0.5-10VA	TV10-690R3V110R3-0.5-10VA	2,50

TV12

Transformer with external diameter 120mm. Regarding the overvoltage (voltage factor FT) remember that:
 is 1.2Vn continuous use for all VTs with connection phase-to-phase (... /100V - .../110V)
 is 1.2Vn continuous use and 1.9x8h for all VTs with connection phase-to-neutral (... :√3/100V:√3 - ... :√3/110V:√3)

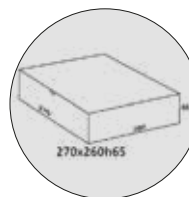
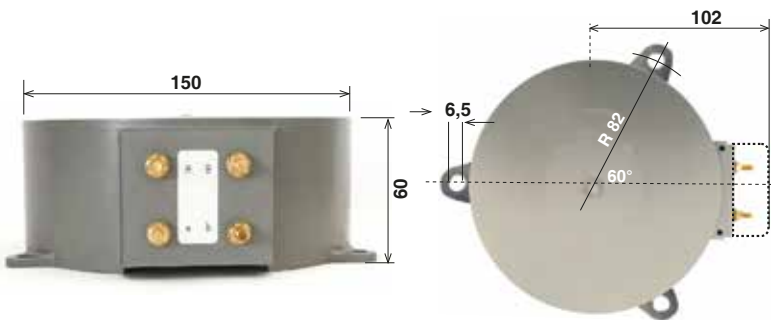


Primary voltage	Class	Power	Secondary voltage	Secondary voltage	Weight
V		VA	100V	110V	Kg
100	0,5	15	TV12-100V100V-0.5-15VA	TV12-100V110V-0.5-15VA	2,50
100	0,5	20	TV12-100V100V-0.5-20VA	TV12-100V110V-0.5-20VA	2,50
120	0,5	15	TV12-120V100V-0.5-15VA	TV12-120V110V-0.5-15VA	2,50
120	0,5	20	TV12-120V100V-0.5-20VA	TV12-120V110V-0.5-20VA	2,50
230	0,5	15	TV12-230V100V-0.5-15VA	TV12-230V110V-0.5-15VA	2,50
230	0,5	20	TV12-230V100V-0.5-20VA	TV12-230V110V-0.5-20VA	2,50
380	0,5	15	TV12-380V100V-0.5-15VA	TV12-380V110V-0.5-15VA	2,50
380	0,5	20	TV12-380V100V-0.5-20VA	TV12-380V110V-0.5-20VA	2,50
400	0,5	15	TV12-400V100V-0.5-15VA	TV12-400V110V-0.5-15VA	2,50
400	0,5	20	TV12-400V100V-0.5-20VA	TV12-400V110V-0.5-20VA	2,50
500	0,5	15	TV12-500V100V-0.5-15VA	TV12-500V110V-0.5-15VA	2,50
500	0,5	20	TV12-500V100V-0.5-20VA	TV12-500V110V-0.5-20VA	2,50
600	0,5	15	TV12-600V100V-0.5-15VA	TV12-600V110V-0.5-15VA	2,50
600	0,5	20	TV12-600V100V-0.5-20VA	TV12-600V110V-0.5-20VA	2,50
690	0,5	15	TV12-690V100V-0.5-15VA	TV12-690V110V-0.5-15VA	2,50
690	0,5	20	TV12-690V100V-0.5-20VA	TV12-690V110V-0.5-20VA	2,50
800	0,5	15	TV12-800V100V-0.5-15VA	TV12-800V110V-0.5-15VA	2,50
800	0,5	20	TV12-800V100V-0.5-20VA	TV12-800V110V-0.5-20VA	2,50

Primary voltage	Class	Power	Secondary voltage	Secondary voltage	Weight
V		VA	100V:√3	110V:√3	Kg
100:√3	0,5	15	TV12-100R3V100R3-0.5-15VA	TV12-100R3V110R3-0.5-15VA	2,50
100:√3	0,5	20	TV12-100R3V100R3-0.5-20VA	TV12-100R3V110R3-0.5-20VA	2,50
120:√3	0,5	15	TV12-120R3V100R3-0.5-15VA	TV12-120R3V110R3-0.5-15VA	2,50
120:√3	0,5	20	TV12-120R3V100R3-0.5-20VA	TV12-120R3V110R3-0.5-20VA	2,50
230:√3	0,5	15	TV12-230R3V100R3-0.5-15VA	TV12-230R3V110R3-0.5-15VA	2,50
230:√3	0,5	20	TV12-230R3V100R3-0.5-20VA	TV12-230R3V110R3-0.5-20VA	2,50
380:√3	0,5	15	TV12-380R3V100R3-0.5-15VA	TV12-380R3V110R3-0.5-15VA	2,50
380:√3	0,5	20	TV12-380R3V100R3-0.5-20VA	TV12-380R3V110R3-0.5-20VA	2,50
400:√3	0,5	15	TV12-400R3V100R3-0.5-15VA	TV12-400R3V110R3-0.5-15VA	2,50
400:√3	0,5	20	TV12-400R3V100R3-0.5-20VA	TV12-400R3V110R3-0.5-20VA	2,50
500:√3	0,5	15	TV12-500R3V100R3-0.5-15VA	TV12-500R3V110R3-0.5-15VA	2,50
500:√3	0,5	20	TV12-500R3V100R3-0.5-20VA	TV12-500R3V110R3-0.5-20VA	2,50
600:√3	0,5	15	TV12-600R3V100R3-0.5-15VA	TV12-600R3V110R3-0.5-15VA	2,50
600:√3	0,5	20	TV12-600R3V100R3-0.5-20VA	TV12-600R3V110R3-0.5-20VA	2,50
690:√3	0,5	15	TV12-690R3V100R3-0.5-15VA	TV12-690R3V110R3-0.5-15VA	2,50
690:√3	0,5	20	TV12-690R3V100R3-0.5-20VA	TV12-690R3V110R3-0.5-20VA	2,50

TV15

Transformer with external diameter 150mm. Regarding the overvoltage (voltage factor FT) remember that:
 is 1.2Vn continuous use for all VTs with connection phase-to-phase (... /100V - .../110V)
 is 1.2Vn continuous use and 1.9x8h for all VTs with connection phase-to-neutral (... :√3/100V:√3 - ... :√3/110V:√3)



Measuring transformers

Primary voltage	Class	Power	Secondary voltage	Secondary voltage	Weight
V		VA	100V	110V	Kg
100	0,5	20	TV15-100V100V-0.5-20VA	TV15-100V110V-0.5-20VA	4,30
100	0,5	30	TV15-100V100V-0.5-30VA	TV15-100V110V-0.5-30VA	4,30
100	0,5	40	TV15-100V100V-0.5-40VA	TV15-100V110V-0.5-40VA	4,30
100	0,5	50	TV15-100V100V-0.5-50VA	TV15-100V110V-0.5-50VA	4,30
120	0,5	20	TV15-120V100V-0.5-20VA	TV15-120V110V-0.5-20VA	4,30
120	0,5	30	TV15-120V100V-0.5-30VA	TV15-120V110V-0.5-30VA	4,30
120	0,5	40	TV15-120V100V-0.5-40VA	TV15-120V110V-0.5-40VA	4,30
120	0,5	50	TV15-120V100V-0.5-50VA	TV15-120V110V-0.5-50VA	4,30
230	0,5	20	TV15-230V100V-0.5-20VA	TV15-230V110V-0.5-20VA	4,30
230	0,5	30	TV15-230V100V-0.5-30VA	TV15-230V110V-0.5-30VA	4,30
230	0,5	40	TV15-230V100V-0.5-40VA	TV15-230V110V-0.5-40VA	4,30
230	0,5	50	TV15-230V100V-0.5-50VA	TV15-230V110V-0.5-50VA	4,30
380	0,5	20	TV15-380V100V-0.5-20VA	TV15-380V110V-0.5-20VA	4,30
380	0,5	30	TV15-380V100V-0.5-30VA	TV15-380V110V-0.5-30VA	4,30
380	0,5	40	TV15-380V100V-0.5-40VA	TV15-380V110V-0.5-40VA	4,30
380	0,5	50	TV15-380V100V-0.5-50VA	TV15-380V110V-0.5-50VA	4,30
400	0,5	20	TV15-400V100V-0.5-20VA	TV15-400V110V-0.5-20VA	4,30
400	0,5	30	TV15-400V100V-0.5-30VA	TV15-400V110V-0.5-30VA	4,30
400	0,5	40	TV15-400V100V-0.5-40VA	TV15-400V110V-0.5-40VA	4,30
400	0,5	50	TV15-400V100V-0.5-50VA	TV15-400V110V-0.5-50VA	4,30
500	0,5	20	TV15-500V100V-0.5-20VA	TV15-500V110V-0.5-20VA	4,30
500	0,5	30	TV15-500V100V-0.5-30VA	TV15-500V110V-0.5-30VA	4,30
500	0,5	40	TV15-500V100V-0.5-40VA	TV15-500V110V-0.5-40VA	4,30
500	0,5	50	TV15-500V100V-0.5-50VA	TV15-500V110V-0.5-50VA	4,30
600	0,5	20	TV15-600V100V-0.5-20VA	TV15-600V110V-0.5-20VA	4,30
600	0,5	30	TV15-600V100V-0.5-30VA	TV15-600V110V-0.5-30VA	4,30
600	0,5	40	TV15-600V100V-0.5-40VA	TV15-600V110V-0.5-40VA	4,30
600	0,5	50	TV15-600V100V-0.5-50VA	TV15-600V110V-0.5-50VA	4,30
690	0,5	20	TV15-690V100V-0.5-20VA	TV15-690V110V-0.5-20VA	4,30
690	0,5	30	TV15-690V100V-0.5-30VA	TV15-690V110V-0.5-30VA	4,30
690	0,5	40	TV15-690V100V-0.5-40VA	TV15-690V110V-0.5-40VA	4,30
690	0,5	50	TV15-690V100V-0.5-50VA	TV15-690V110V-0.5-50VA	4,30
800	0,5	20	TV15-800V100V-0.5-20VA	TV15-800V110V-0.5-20VA	4,30
800	0,5	30	TV15-800V100V-0.5-30VA	TV15-800V110V-0.5-30VA	4,30
800	0,5	40	TV15-800V100V-0.5-40VA	TV15-800V110V-0.5-40VA	4,30
800	0,5	50	TV15-800V100V-0.5-50VA	TV15-800V110V-0.5-50VA	4,30

Measuring transformers

Primary voltage	Class	Power	Secondary voltage	Secondary voltage	Weight
V		VA	100V:√3	110V:√3	Kg
100:√3	0,5	20	TV15-100R3V100R3-0.5-20VA	TV15-100R3V110R3-0.5-20VA	4,30
100:√3	0,5	30	TV15-100R3V100R3-0.5-30VA	TV15-100R3V110R3-0.5-30VA	4,30
120:√3	0,5	20	TV15-120R3V100R3-0.5-20VA	TV15-120R3V110R3-0.5-20VA	4,30
120:√3	0,5	30	TV15-120R3V100R3-0.5-30VA	TV15-120R3V110R3-0.5-30VA	4,30
230:√3	0,5	20	TV15-230R3V100R3-0.5-20VA	TV15-230R3V110R3-0.5-20VA	4,30
230:√3	0,5	30	TV15-230R3V100R3-0.5-30VA	TV15-230R3V110R3-0.5-30VA	4,30
380:√3	0,5	20	TV15-380R3V100R3-0.5-20VA	TV15-380R3V110R3-0.5-20VA	4,30
380:√3	0,5	30	TV15-380R3V100R3-0.5-30VA	TV15-380R3V110R3-0.5-30VA	4,30
400:√3	0,5	20	TV15-400R3V100R3-0.5-20VA	TV15-400R3V110R3-0.5-20VA	4,30
400:√3	0,5	30	TV15-400R3V100R3-0.5-30VA	TV15-400R3V110R3-0.5-30VA	4,30
500:√3	0,5	20	TV15-500R3V100R3-0.5-20VA	TV15-500R3V110R3-0.5-20VA	4,30
500:√3	0,5	30	TV15-500R3V100R3-0.5-30VA	TV15-500R3V110R3-0.5-30VA	4,30
600:√3	0,5	20	TV15-600R3V100R3-0.5-20VA	TV15-600R3V110R3-0.5-20VA	4,30
600:√3	0,5	30	TV15-600R3V100R3-0.5-30VA	TV15-600R3V110R3-0.5-30VA	4,30
690:√3	0,5	20	TV15-690R3V100R3-0.5-20VA	TV15-690R3V110R3-0.5-20VA	4,30
690:√3	0,5	30	TV15-690R3V100R3-0.5-30VA	TV15-690R3V110R3-0.5-30VA	4,30

TV17

Trasformatore con diameter esterno 170mm.
 Fattore di tensione FT è di 1,2 Vn continua e 1.9 Vn x 8h
 VA superiori a 50 possono essere realizzati su richiesta



Measuring transformers

Primary voltage	Class	Power	Secondary voltage	Secondary voltage	Weight
V		VA	100V:√3	110V:√3	Kg
100:√3	0,5	40	TV17-100R3V100R3-0.5-40VA	TV17-100R3V110R3-0.5-40VA	5,00
100:√3	0,5	50	TV17-100R3V100R3-0.5-50VA	TV17-100R3V110R3-0.5-50VA	5,00
120:√3	0,5	40	TV17-120R3V100R3-0.5-40VA	TV17-120R3V110R3-0.5-40VA	5,00
120:√3	0,5	50	TV17-120R3V100R3-0.5-50VA	TV17-120R3V110R3-0.5-50VA	5,00
230:√3	0,5	40	TV17-230R3V100R3-0.5-40VA	TV17-230R3V110R3-0.5-40VA	5,00
230:√3	0,5	50	TV17-230R3V100R3-0.5-50VA	TV17-230R3V110R3-0.5-50VA	5,00
380:√3	0,5	40	TV17-380R3V100R3-0.5-40VA	TV17-380R3V110R3-0.5-40VA	5,00
380:√3	0,5	50	TV17-380R3V100R3-0.5-50VA	TV17-380R3V110R3-0.5-50VA	5,00
400:√3	0,5	40	TV17-400R3V100R3-0.5-40VA	TV17-400R3V110R3-0.5-40VA	5,00
400:√3	0,5	50	TV17-400R3V100R3-0.5-50VA	TV17-400R3V110R3-0.5-50VA	5,00
500:√3	0,5	40	TV17-500R3V100R3-0.5-40VA	TV17-500R3V110R3-0.5-40VA	5,00
500:√3	0,5	50	TV17-500R3V100R3-0.5-50VA	TV17-500R3V110R3-0.5-50VA	5,00
600:√3	0,5	40	TV17-600R3V100R3-0.5-40VA	TV17-600R3V110R3-0.5-40VA	5,00
600:√3	0,5	50	TV17-600R3V100R3-0.5-50VA	TV17-600R3V110R3-0.5-50VA	5,00
690:√3	0,5	40	TV17-690R3V100R3-0.5-40VA	TV17-690R3V110R3-0.5-40VA	5,00
690:√3	0,5	50	TV17-690R3V100R3-0.5-50VA	TV17-690R3V110R3-0.5-50VA	5,00

Declaration of Conformity



DECLARATION CE OF CONFORMITY

WE, the undersigned
NAME BLUELEKTRA S.R.L.
ADDRESS Via Guido Rossa, 12 - 20845 SOVICO (MB)
FISCAL CODE 10926970962
VAT NUMBER 10926970962
PHONE +39 039 9745425
E-MAIL info@bluelektra.com
HOME PAGE www.bluelektra.com

DECLARE UNDER OUR RESPONSIBILITY THAT THE SUBSCRIBED CURRENT TRANSFORMER

AS DESCRIBED IN THE ATTACHED DOCUMENTATION, PRESENT IN OUR ARCHIVES ARE MANUFACTURED IN CONFORMITY WITH THE COMMUNITY DIRECTIVES 2014/35 26 february 2014 2014/30 26 february 2014 2011/65/EU (RoHS II) 8 june 2011 2015/863 (RoHS III) 31 march 2015 AND THE FOLLOWING STANDARDS CEI EN 61869-1 2009-09 CEI EN 61869-2 2012-11

NAME AND SURNAME Gloria Janis Corbetta
DATE 31/01/2023

SIGNATURE



DECLARATION CE OF CONFORMITY

WE, the undersigned
NAME BLUELEKTRA S.R.L.
ADDRESS Via Guido Rossa, 12 - 20845 SOVICO (MB)
FISCAL CODE 10926970962
VAT NUMBER 10926970962
PHONE +39 039 9745425
E-MAIL info@bluelektra.com
HOME PAGE www.bluelektra.com

DECLARE UNDER OUR RESPONSIBILITY THAT THE SUBSCRIBED VOLTAGE TRANSFORMER

AS DESCRIBED IN THE ATTACHED DOCUMENTATION, PRESENT IN OUR ARCHIVES ARE MANUFACTURED IN CONFORMITY WITH THE COMMUNITY DIRECTIVES 2014/35 26 february 2014 2014/30 26 february 2014 2011/65/EU (RoHS II) 8 june 2011 2015/863 (RoHS III) 31 march 2015 AND THE FOLLOWING STANDARDS CEI EN 61869-1 2009-09 CEI EN 61869-2 2012-11

NAME AND SURNAME Gloria Janis Corbetta
DATE 31/01/2023

SIGNATURE rev.00

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Examples of Test Report

	CERTIFICATION TEST REPORT		
	Model TR5-1K0A5-0.5-10VA-Y-RE1L		
CURRENT TRANSFORMER			
S/N 0423-080770	Operator Molteni Gabriele		
Date 23/01/2023	Customer	Order N.	
			Page 1 of 2

Summary:

Ref. standard:	Freq.: 50 Hz	Test Voltage: 0.72/3 kV
Coil S1-S2	Core 1	Ratio 1000/5
	Burden 10 VA	Class 0.5

Test equipments:

Description	Type	Serial N.	Manufacturer	Certificate N.
Burden	CFTA400	241620	AE2	n° RT-STR023-5
Digital multimeter	8846A	9721006	Fluke	LAT 046 n° 369843
Digital multimeter	34401A	MY41028165	Agilent Tech.	LAT 046 n° 370114
Burden	CFTA400	36512	AE2	n° RT-STR024-4
Dielectric test	M.R.E.	241727	AE2	n° RT-STR017-7
Sample CT	TAKT	241717	AE2	N° RT-STR022-1
Transformer test	CP2-1	CP2-2018-002	Bernabè Giorgio	RTR n° 320010

Notes:

The symmetrical measurement uncertainties, related to the measurement values are:

ratio errors: +/- 0,02%
 phase errors: +/- 0,05%
 secondary current: 1%
 frequency: 0,5%
 burden: 3%

The measurement uncertainties related to the digital multimeters are:

resistance: 0,2%
 voltage: 0,2%
 current: 0,2%

ROUTINE TESTS:
 Verification of terminal markings (see 7.3.6)
 Power-frequency tests on secondary windings (see 7.3.4)
 Over - voltage inter - turn tests (see 7.3.204 procedure A)
 Tests of accuracy (see 7.3.5)
 In conformity with IEC 61869-1 / 61869-2

Signatures:

Operator	Laboratory responsible
----------	------------------------

	CERTIFICATION TEST REPORT		
	Model TR5-1K0A5-0.5-10VA-Y-RE1L		
CURRENT TRANSFORMER			
S/N 0423-080770	Operator Molteni Gabriele		
Date 23/01/2023	Customer	Order N.	
			Page 2 of 2

Accuracy test:

Coil: S1-S2	Ratio: 1000/5	Burden: 10 VA	Class: 0,5				
Core: 1							
Measured at 100% of Nom Burden, CosPhi: 0.8.							
Nom %	Real %	Ratio Err %	Limit	Ph.Err.crad	Limit	Ph.Err. min	VA Burden
120	119,78	0,277	0,500	-0,001	0,900	-0,04	9,9
100	101,26	0,268	0,500	0,007	0,900	0,24	9,9
20	20,12	0,177	0,750	0,087	1,350	3,00	9,9
5	4,71	0,087	1,500	0,123	2,700	4,23	9,9
Measured at 25% of Nom Burden, CosPhi: 1.0.							
Nom %	Real %	Ratio Err %	Limit	Ph.Err.crad	Limit	Ph.Err. min	VA Burden
120	120,11	0,391	0,500	0,074	0,900	2,53	2,5
100	100,63	0,386	0,500	0,078	0,900	2,69	2,5
20	20,31	0,360	0,750	0,108	1,350	3,72	2,5
5	5,28	0,319	1,500	0,116	2,700	3,98	2,5

Signatures:

Operator	Laboratory responsible
----------	------------------------

Certificates of calibration/Test reports/Type tests

The complete documents are presents in the AE2 srl archives, which can be provided on request



Centro di Taratura LAT N° 057
Calibration Centre
Laboratorio Accreditato di
Taratura



LAT N° 057
Nazione degli Strumenti di Misura:
Raccomandato
Ch. 107 e 108
Spostato di 10, 107 and 108
Mutual Recognition Agreements

Pagina 1 di 8
Page 1 of 8

CERTIFICATO DI TARATURA LAT 057 14000607
Certificate of Calibration

data di emissione	2015/02/02	Il presente certificato di taratura è emesso in base all'accordo LAT N° 057 (elencato in accordo ai decreti attuativi della legge n. 273/1961 che ha istituito il Sistema Nazionale di Taratura (SNT), ACCREDITA attesta la capacità di misura e di taratura, la competenza metrologica del Centro e la affidabilità delle tarature eseguite ai campioni nazionali e internazionali delle unità di misura del Sistema Internazionale delle Unità (SI).
cliente	ARO S.r.l.	Questo certificato non può essere riprodotto in modo parziale, salvo esplicita autorizzazione scritta da parte del Centro.
destinatario	AE2 S.r.l.	
numero	14000607	
numero	000695	
applicato	2014/09/30	
data	2014/09/30	
Descrizione		
Referenza	Trasformatore di corrente	This certificate of calibration is issued in compliance with the accreditation LAT N° 057 granted according to decree n. 273/1961 which has established the National Calibration System. ACCREDITA attests the calibration and measurement capability, the metrological competence of the Centre and the traceability of calibration results to the national and international standards of the International System of Units (SI).
Descrizione	AE2	
Costruttore	TAKT	
Modello	sh 240705	
Numero di serie	20141029	
data di ricevimento oggetto	2014/11/11	This certificate may not be partly reproduced, except with the prior written permission of the issuing Centre.
data della misura	14000607 pagg. 900 + 938	
data di taratura		
registro di laboratorio		
laboratory reference		

I risultati di misura riportati nel presente Certificato sono stati ottenuti applicando le procedure di taratura descritte alla pagina seguente dove sono specificati anche i campioni e gli strumenti che garantiscono la catena di affidabilità del Centro e i requisiti certificati di taratura in corso di validità. Essi si riferiscono esclusivamente all'oggetto in taratura e sono validi nel momento e nelle condizioni di taratura, salvo diversamente specificato.

The measurement results reported in this Certificate were obtained following the calibration procedure given in the following page, where the reference standards or instruments are indicated which guarantee the traceability chain of the laboratory, and the stated calibration certificate in the course of validity are indicated as well. They refer only to the calibrated item and they are valid in the time and conditions of calibration unless otherwise specified.

La incertezza di misura dichiarata in questo documento sono state determinate conformemente alla Guida ISO/IEC 98-4 al documento EA-402. Solamente sono espresse come incertezza estesa ottenuta moltiplicando l'incertezza tipo per il fattore di copertura k corrispondente ad un livello di fiducia di circa il 95 %. Non vengono riportati i dati ISO/IEC Guide 98-4 o il 2A-402. Usually, they have been estimated as expanded uncertainty obtained multiplying the standard uncertainty by the coverage factor k corresponding to a confidence level of about 95%. Normally, the factor k is 2.

RSE S.p.A.
Dipartimento Tecnologie T&O
Il Direttore



Il Responsabile del Centro
Head of the Centre
Claudio Cherubacchi





SECONDA
Pag. 1/5


Rapporto di prova

Cliente	AE2 S.r.l. - Sovico (MB)	
Inirizzo del cliente	Via Guido Rossa, 14 - Sovico (MB)	
Ordine	000695 del 2014/09/30 ARO S.r.l. - Biassono (MB)	
Campioni/Oggetti in prova	Trasformatore di corrente Costruttore AE2 Tipo TAKT s/n 240705	
Prove eseguite	Verifica di taratura	
Documenti normativi	EMSD1 e su specifica richiesta del Cliente	
Data prova	dal 2014/11/10	al 2014/11/10

I risultati di prova ed prove documentate a riferimento di tutti i campioni/oggetti sottoposti a prova. La parziale riproduzione di questo documento è permessa solo con l'autorizzazione scritta di RSE.

N. pagine	3	N. pagine fuori testo
Data di emissione	2015/02/02	
Elaborato	Gentili Mario (TTD)	
Verificato	Cherubacchi Claudio (FSP)	
Approvato	De Nigris Michele (TTD)	

Ricerca sul Sistema Energetico - RSE S.p.A.
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Ch. 107 e 108



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TEST REPORT

No. 16-0429-01 issued on 2016-06-27

Description	Current transformer
Model/Type	TRP2, TR4, TR43, TR5, TM4, TR12, TS20
Identification	See par. 1 (pages 2-4)
Manufacturer	AE2 S.r.l.
Date of the tests	from 2016-06-13 to 2016-06-15
Applied procedure	Standards: IEC 61869-2 (2013-07) Sub clauses: 7.2 Type tests, 7.2.201 Short-time current tests, 7.3 Routine tests 7.3.1 Power-frequency voltage withstand tests on primary terminals 7.3.4 Power-frequency voltage withstand tests on secondary terminals
Laboratory reference	LATFC02
Customer	AE2 S.r.l.
Address	Via G. Rossa, 14 20045 Sovico (MB) ITALY

Measured by



Luca Ciavarella

Authorized signatory
Responsible of the Service



Micaela Fenucci

This report states that the measurements have been carried out using devices traceable to the Italian National Standards (Metrological Code no. 001/1963) and to the measurement units realized or maintained by INRIM, according to the Italian law no. 273/1961.
The results reported in this document refer exclusively to the device described and to the specified measurement conditions. The authenticity of this report is proved by the original signatures and the embossing stamp.
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REPORT

No. 16-0429-02 issued on 2016-06-27

Description	Witness tests on MEASURING CURRENT TRANSFORMERS according to § 7.2.6.201 of IEC 61869-2 (Test for ratio error and phase displacement of measuring current transformers)
Customer	AE2 S.r.l.
Address	Via G. Rossa, 14 20045 Sovico (MB) ITALY

Drafter



Luca Ciavarella

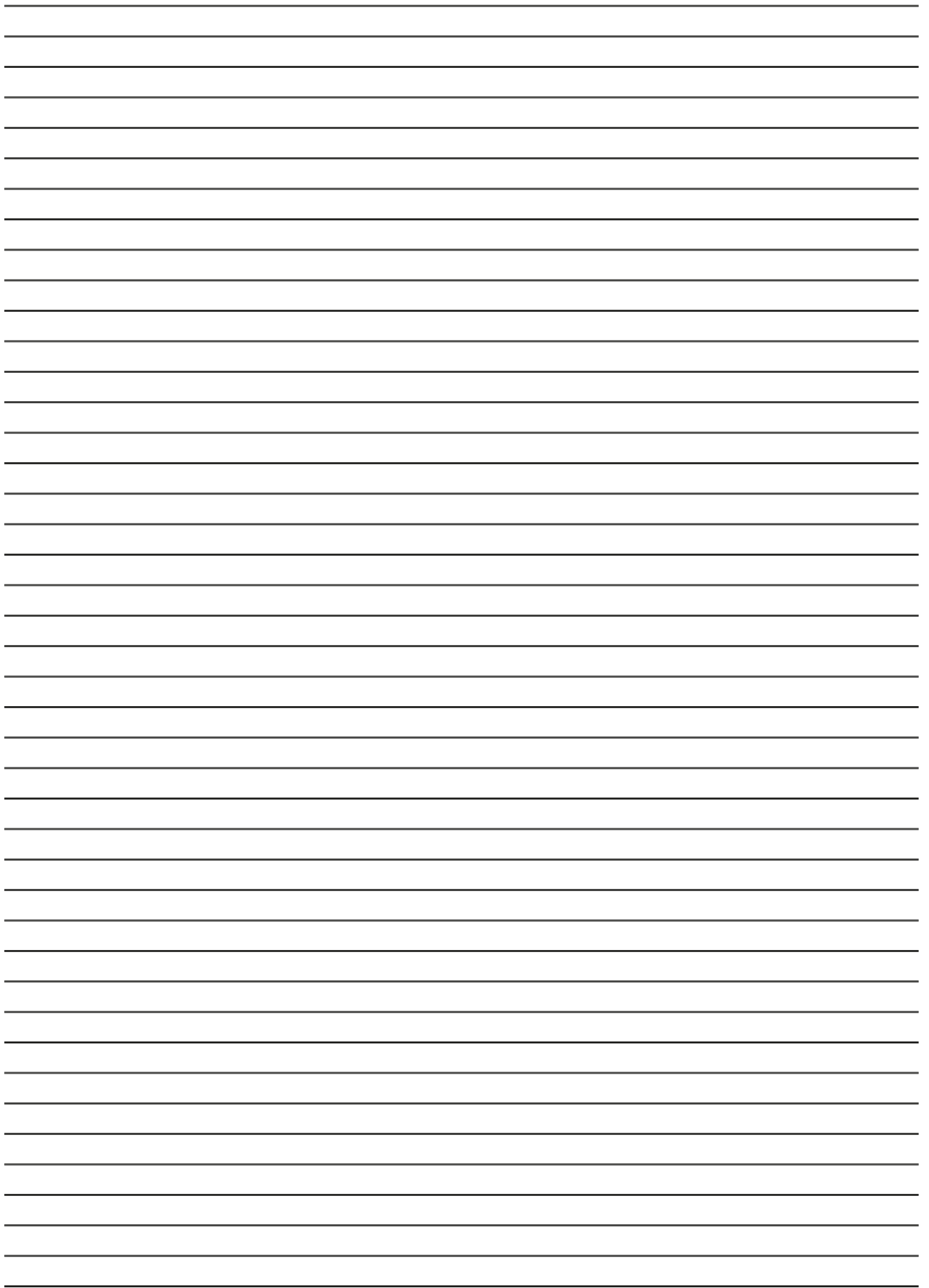
Authorized signatory
Responsible of the Service

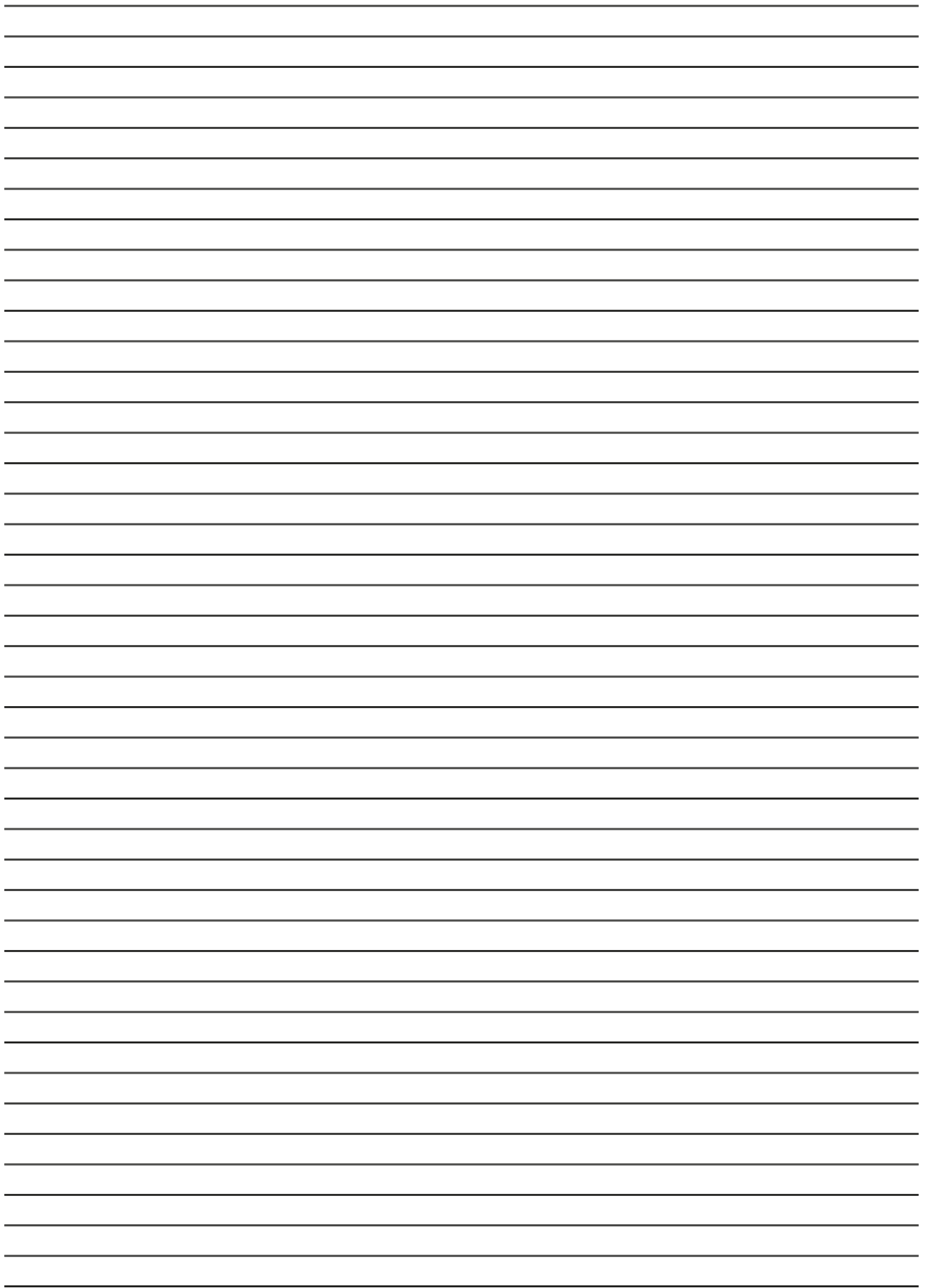


Micaela Fenucci

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