



The 519 series residual current transformer is mainly used in low-voltage distribution cabinets such as 380V and 660V, or in drawer cabinets with relatively high density, to continuously detect and monitor the residual current at the installation node of the corresponding circuit.

The shell of this series of products is made of environmentally friendly flame-retardant ABS engineering plastics and high-magnetic nanocrystalline soft magnetic materials. It has the characteristics of high precision, good balance characteristics, small size, high insulation strength, strong impact resistance, and easy installation. It can work reliably and stably in indoor environments.

The 519 series includes 5 circular window products suitable for cable loops and 7 rectangular window products suitable for copper bus loops, a total of 12 specifications of products, which can basically meet the detection of all residual currents in distribution circuits below 3200A.

The entire series of products can be equipped with a unified housing at the terminal position on the product according to customer needs, upgrading the product to a signal acquisition terminal with signal processing and communication functions.

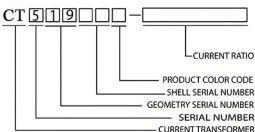
All products are designed with four terminals, and the secondary output of the transformer occupies two terminals. If needed, an experimental winding can be added to simulate leakage by inputting a small current, and the working status of the transformer can be monitored in real time.

For larger-sized products installed on the copper busbar loop, due to the heavy weight of the product, a special mounting bracket is attached, which can fix the heavier product well in the distribution cabinet, but the strength of the distribution cabinet mounting plate is required. It is recommended to use a flat mounting bracket to increase its installation stability.

FEATURES

- Signal processing units can be added to expand product functions.
- Strong overload capacity, 20 times the rated current can be overloaded for a long time as needed.
- Excellent balance characteristics, small-size products meet the detector alarm threshold requirement of 30mA.
- High precision: 0.5/1.0/3 levels of precision are optional.
- Compact design, small size, beautiful appearance
- Strong versatility and good interchangeability

NAMING



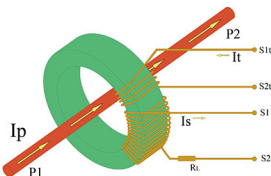
Color code:
0 black 2 red 8 grey 9 white
The shell color specified by the customer is coded and classified according to the main color of the color system;

Normal use and installation conditions

- Installation location: Indoor/outdoor.
- Ambient temperature: -10°C~+40°C.
- Ambient humidity: It is recommended that the relative humidity should not exceed 80%.
- The altitude shall not exceed 3000m.
- Atmospheric conditions: There is no serious pollution, corrosive and explosive media in the atmosphere.
- Environment without significant frequent vibration and shock.
- Storage temperature: -20°C~+75°C.

General technical indicators

Technical indicators	Electrical parameters				
Rated primary current	1000mA	5A	5A	10A	10A
Rated secondary current	0.5mA	2.5mA	5mA	5mA	10mA
Rated continuous thermal current	2000mA	10A	10A	50A	50A
Operating frequency	50~60Hz				
Rated accuracy grade	Equal to or better than 0.5				
Operating voltage	≤660V				
Product flame retardant grade	UL94-V0				
Insulation resistance	≥1M ohms@500Vdc				
Power frequency withstand voltage	3KV@2mA\1min\50Hz				
Insulation heat resistance grade	E-Class				



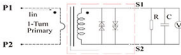
code	code description
IP	Measured current/input current
IS/It	Secondary output current/test input current
P1/P2	Measured current input/output terminal
S1/S2	Secondary current output/input terminal
S1t/S2t	Test winding current input/output
RL	Secondary internal resistance of transformer

In actual use, if you need to add a secondary open circuit protection part inside the transformer, you need to explain it specially. The standard product does not contain the secondary open circuit protection part. The open circuit protection can be added with a docking diode or a transient suppression diode.

Balance characteristic parameters

Specifications	Main circuit rated working current	Test current	Conductor diameter	Conductor insulation thickness	Residual current characteristics
CT519103A	0≤In≤100A	100A	6mm	1.0mm	≤2mA@100A
CT519103	0≤In≤100A	100A	6mm	1.0mm	≤5mA@100A
CT519203A	0≤In≤160A	315A	10mm	1.5mm	≤2mA@315A
CT519203	0≤In≤160A	315A	10mm	1.5mm	≤5mA@315A
CT519303	0≤In≤250A	315A	10mm	1.5mm	≤10mA@315A
CT519403	0≤In≤400A	630A	14mm	2.0mm	≤10mA@315A
CT519503	0≤In≤800A	1000A	20mm	2.0mm	≤10mA@630A

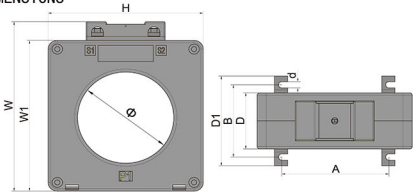
When the residual current transformer passes the corresponding sinusoidal AC current, its output sampling value voltage should meet the requirements in the following table.



R=1000Ω C=0.022μF Current source frequency: 50-60Hz; accuracy better than 0.1%; voltmeter AC mV sampling accuracy better than 0.1%.

"Current Sense" value (mA)	Corresponding current range (mA)	Connecting load	Measuring end	Sampling voltage range (mV)
50	49.75-50.25	1000Ω //0.022μF	S1、S2	24.64-25.64
200	199-201			97.18~101.14
500	498-502			243.01~253.01
800	796-804			388.7~404.7
1000	995-1005			486.25~506.26

PRODUCTS DIMENSIONS



MODEL	Main circuit current	Aperture	DIMENSIONS (mm)				MOUNTING (mm)			
		Ø	H	D	W	W1	A	B	D1	d
CT519103A	≤100A	31	75	45	97	82	45.5	58	72	5
CT519103	≤100A	31	75	45	97	82	45.5	58	72	5
CT519203A	≤160A	51	102	45	125	109	66	58	72	5
CT519203	≤160A	51	102	45	125	109	66	58	72	5
CT519303	≤250A	73	118	45	136	121	81.5	58	72	5
CT519403	≤400A	93	145	45	163	148	109	58	72	5
CT519503	≤800A	114	164	57	182	167	129	74	90	5