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KIM ELECTRIC

CURRENT TRANSFORMER

INTRODUCTION

Established in 1988 at Incheon City, Kim Electrics are a family Company. I am the 2nd generation of my family. We provide accessory solutions for industry such as Panel meter, Indicator and Push button, indicator lights, volt meters, switches, relays, timer and counter Relay, Correct transformer , other.

We have modern Factory at Incheon Korea and Zhejiang China, our quality control system meet ISO9001 / KS A9001 Standard & "UL", "DVE", "TUV", "KS", "CE" standard. We are confident about our technology and products through quality certification and equipment qualification.

With more than 30 years experience, we've been doing continuous efforts at investment of product research, timely delivery of high quality products and price competitiveness for customer's satisfaction. Our slogan "We don't have the best products, only better products" , based on Quality Assurance System and Quality management.

Please Contact us "to Grow up Together" and to make "Safty Life" in the world.

Thanks & best regards.
CEO's Kim Soo-Hyun

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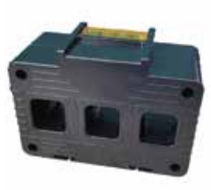
KCT5 (SERIES) > TRANSFORMER



MODEL	FORMAT	INTRODUCTION
KCT5-100	＜700V 50~60Hz -20℃~+85℃ Class0.5,1,3	Current measurement, monitoring and protection of electrical circuits and equipment
KCT5-250	＜700V 50~60Hz -20℃~+85℃ Class0.5,1,3	
KCT5-400	＜700V 50~60Hz -20℃~+85℃ Class0.5,1,3	

KCT251 (SERIES) > TRANSFORMER

MODEL	FORMAT	INTRODUCTION
KCTBHI-30	≤660V 50~60Hz -20℃~+55℃ Class0.5,1	Current measurement, monitoring and protection of electrical circuits and equipment
KCTBHI-40	≤660V 50~60Hz -20℃~+55℃ Class0.5,1	
KCTBHI-50	≤660V 50~60Hz -20℃~+55℃ Class0.5,1	
KCTBHI-60	≤660V 50~60Hz -20℃~+55℃ Class0.5,1	
KCTBHI-80	≤660V 50~60Hz -20℃~+55℃ Class0.5,1	
KCTBHI-100	≤660V 50~60Hz -20℃~+55℃ Class0.5,1	

KCTBHI (SERIES) > TRANSFORMER

MODEL	FORMAT	INTRODUCTION
KCT517(A)103-30	≤660V 50~60Hz -20℃~+55℃ Class0.5	Current measurement, monitoring and protection of electrical circuits and equipment
KCT517(A)203-46	≤660V 50~60Hz -20℃~+55℃ Class0.5	
KCT517(A)303-65	≤660V 50~60Hz -20℃~+55℃ Class0.5	
KCT517(A)403-80	≤660V 50~60Hz -20℃~+55℃ Class0.5	
KCT517(A)503-100	≤660V 50~60Hz -20℃~+55℃ Class0.5	
KCT517(A)603-120	≤660V 50~60Hz -20℃~+55℃ Class0.5	
KCT517(A)703-150	≤660V 50~60Hz -20℃~+55℃ Class0.5	
KCT517(A)803-200	≤660V 50~60Hz -20℃~+55℃ Class0.5	

KCT256 (SERIES) > TRANSFORMER

MODEL	FORMAT	INTRODUCTION
KCT251103	＜720V 50~60Hz -20℃~+50℃ Class0.5,1,3	Current measurement, monitoring and protection of electrical circuits and equipment
KCT251203	＜720V 50~60Hz -20℃~+50℃ Class0.5,1,3	
KCT251303	＜720V 50~60Hz -20℃~+50℃ Class0.5,1,3	
KCT251403	＜720V 50~60Hz -20℃~+50℃ Class0.5,1,3	
KCT251503	＜720V 50~60Hz -20℃~+50℃ Class0.5,1,3	
KCT251603	＜720V 50~60Hz -20℃~+50℃ Class0.5,1,3	

KCT517/A (SERIES) > TRANSFORMER

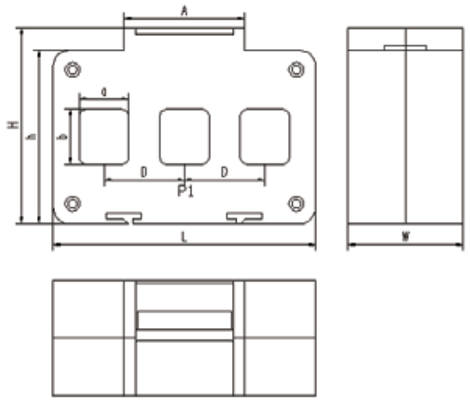
MODEL	FORMAT	INTRODUCTION
KCT256192	＜720V 50~60Hz -20℃~+50℃ Class0.5,1,3	Current measurement, monitoring and protection of electrical circuits and equipment
KCT256292	＜720V 50~60Hz -20℃~+50℃ Class0.5,1,3	
KCT256392	＜720V 50~60Hz -20℃~+50℃ Class0.5,1,3	
KCT256402	＜720V 50~60Hz -20℃~+50℃ Class0.5,1,3	
KCT256502	＜720V 50~60Hz -20℃~+50℃ Class0.5,1,3	
KCT256602	＜720V 50~60Hz -20℃~+50℃ Class0.5,1,3	

KCT513 (SERIES) > TRANSFORMER

MODEL	FORMAT	INTRODUCTION
KCT513603	≤660V 50~60Hz -10℃~+40℃ Class0.5	Current measurement, monitoring and protection of electrical circuits and equipment
KCT513703	≤660V 50~60Hz -10℃~+40℃ Class0.5	
KCT513803	≤660V 50~60Hz -10℃~+40℃ Class0.5	
KCT513903	≤660V 50~60Hz -10℃~+40℃ Class0.5	
KCT513003	≤660V 50~60Hz -10℃~+40℃ Class0.5	

KCT5

This series of three-phase current transformers is mainly used in the copper row circuits but also in the cable circuit to transform the current of the circuit under test. The perforation size, perforation spacing and circuit breaker size can be installed in the loop at the lower end of the circuit breaker. The secondary signal output of the transformer may be a level 5A,1A, mA current signal or a voltage signal. It can be flexible for transformation according to the design. The output mode is the compression line terminal. With weak current or voltage signal output, overload can reach 10 times and 20 times maximum.



Product size correspondence table

MODEL	A	D	
KCT5-100	45	35	9
KCT5-250	45	35	1
KCT5-400	45	48	1

型号规格	A	D	L	h	H	W	a	b
CT5-100	45	30	98	64.5	73	43	18.5	20.5
CT5-250	45	35	111	72	80.5	43	20.5	25.5
CT5-400	45	48	150	94.5	103	43	30.5	35.5

General technical indicators

Technical index	Electrical parameters
Operating Voltage	＜700V
Test voltage	3kV/1min
Working frequency	50~60Hz
Rated instantaneous thermal current	60 times rated primary current (Ith): 1s
Overload tolerance	Continuous 1.2 times of rated current
Rated continuous thermal current	=2.55×Ith
Terminals	M4 screw terminal
Aperture Center Distance	25,35,45mm
Operating temperature	-20℃~+85℃
Accuracy class	Class0.5,1,3
A fixed way	Plug-in metal feet
Executive standard	IEC/EN60044-1

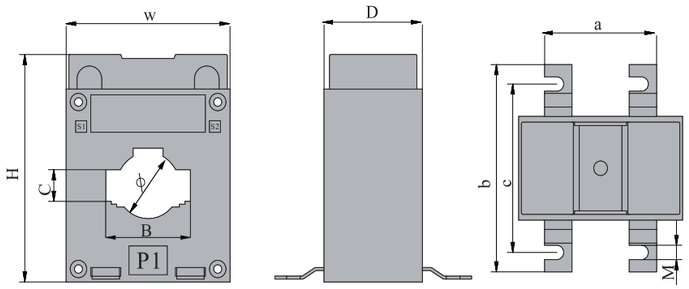
Basic characteristic parameters

MODEL	Specified load (VA)			
	Ratio rule	Class0.5	Class1	Class3
KCT5-100	60/5	-	1	2
	100/5	-	1.5	2.5
	125/5	-	1.5	2.5
	150/5	1.5	1.5	2.5
	160/5	1.5	1.5	2.5
KCT5-250	100/5	-	1.5	2
	125/5	-	1.5	2.5
	150/5	-	1.5	2.5
	160/5	1.5	1.5	2.5
	200/5	1.5	1.5	2.5
	250/5	1.5	1.5	2.5
KCT5-400	250/5	1.5	1.5	2.5
	300/5	2.5	2.5	3.75
	400/5	2.5	2.5	3.75
	500/5	2.5	2.5	3.75
	600/5	2.5	2.5	3.75
	630/5	2.5	2.5	3.75

KCTBHI

CTBHI series low voltage current transformer is mainly used in low voltage distribution cabinet to transform the current of cable or copper row. The general BHI series products are both cable and copper row, round holes can be suitable on the cable, and rectangular casement windows can also be installed on the copper row. This series of products is basically based on the cable diameter and the width of the copper row, made into a standard heart perforation diameter, in the substitutability of the product to do very well. Many manufacturers on the market produce models are similar, users choose more flexible. In product selection: one is the product can meet the national standard requirements, the relative price will be relatively high but the product quality is reliable; one is unable to meet the national standard requirements, such a product price is relatively low, but the winding load flow can not meet the product requirements, when the rated current, the secondary winding fever is more severe, even due to fever caused to the transformer damage, some also accompanied by combustion accidents, causing very bad impact. When choosing a product, you still need to choose a product that meets the standard. With the progress of magnetic materials, the accuracy of this series has also improved, reaching 0.2 or 0.2S with higher magnetic conductive materials.

Product size correspondence table



MODEL	DIMENSIONS						INSTALLATION SIZE			
	W	H	D	Ø	B	C	a	b	c	M
KCTBHI-30	60	79	36	23	31	11	41	72	58.5	5
KCTBHI-40	75	98	44	31.5	42.5	12	54	72	58.5	5
KCTBHI-50	84	98	44	37	37	17	53	72	58.5	5
KCTBHI-60	101	126	45	45	62	21	60	72	58.5	5
KCTBHI-80	117	148	45	52	81	11	70	72	58.5	5
KCTBHI-100	143	153	44	62	100	32	87	72	58.5	5

Technical parameter comparison table

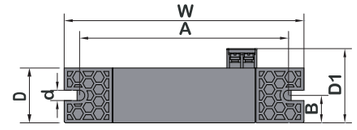
MODEL	KCTBH30I		KCTBH40I		KCTBH50I		KCTBH60I		KCTBH80I		KCTBH100I	
Cable diameter busbar specification and number	23mm 30*10mm-1		31.5mm 40*10mm-1		37mm 50*10mm-1		45mm 60*10mm-1 60*6mm-2		52mm 80*10mm-1 60*6mm-2		62mm 100*10mm-2	
Accuracy	0.5	1.0	0.5	1.0	0.5	1.0	0.2	0.5	0.2	0.5	0.2	0.5
15/5												
20/5												
25/5												
30/5				2.5				2.5				
40/5				2.5				2.5				
50/5				2.5				2.5				
75/5				2.5				2.5				
100/5		2.5		2.5				2.5				
150/5	2.5	2.5	2.5	5	2.5	5	2.5	2.5				
200/5	5	5	5	5	5	5	5	5	2.5			
250/5	5	5	5	5	5	5	5	5	5	2.5		2.5
300/5	5	5	5	5	5	5	5	5	5	5	2.5	5
400/5	5	5	5	5	5	5	5	5	5	5	2.5	5
500/5			10	10	10	10	10	10	10	10	5	10
600/5			10	10	10	10	10	10	10	10	5	10
750/5					10	10	10	10	10	10	5	10
800/5					10	10	10	10	10	10	5	10
1000/5							15	40	15	40	10	20
1250/5							20	40	20	40	20	40
1500/5							20	40	20	40	20	40
2000/5									40		40	
2500/5									40		40	
3000/5											40	
3200/5											40	
15/1												
20/1												
25/1												
30/1		0.1	0.1	0.2	0.1		0.1	0.2	0.1	0.2	0.1	0.2
40/1		0.1	0.1	0.2	0.1		0.1	0.2	0.1	0.2	0.1	0.2
50/1	0.2	0.4	0.2	0.4	0.2		0.2	0.4	0.2	0.4	0.2	0.4
75/1	0.2	0.4	0.2	0.4	0.2		0.2	0.4	0.2	0.4	0.2	0.4
100/1	0.2	0.4	0.2	0.4	0.2		0.2	0.4	0.2	0.4	0.2	0.4
150/1	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5
200/1	5	10	5	10	5	10	5	10	5	10	5	10
250/1	5	10	5	10	5	10	5	10	5	10	5	10
300/1	5	10	5	10	5	10	5	10	5	10	5	10
400/1			10	20	10	20	5	10	5	10	5	10
500/1			10	20	10	20	10	20	10	20	10	20
600/1			10	20	10	20	10	20	10	20	10	20
750/1					10	20	10	20	10	20	10	20
800/1					10	20	10	20	10	20	10	20
1000/1							10	20	10	20	10	20
1250/1							10	20	10	20	10	20
1500/1							20	40	20	40	20	40
2000/1									20	40	20	40
2500/1									20	40	20	40
3000/1											20	40
3200/1											20	40

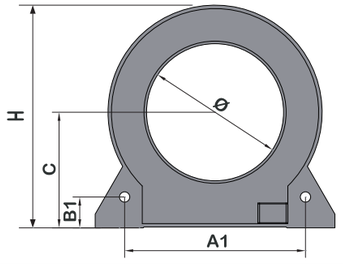
KCT517/517A

The 517 / 517A circular heart piercing current transformer is mainly used in cable circuit environment, with simple structure and flexible application. According to the cable specifications of 8 core perforation diameter corresponding for the main circuit, with a diameter of 30mm–200mm, for 100A––1500A main circuit. The detection leakage current value can reach less than 5mA, the accuracy reaches and is better than the GB14287.2 national standard requirements. Balance characteristics can be designed according to the usage requirements. The shell of this series is made of environmental protection flame retardant ABS plastic or flame retardant PC/ABS alloy material, using high conductive magnetic nanocrystal soft magnetic material, combined with reasonable structural design and rigorous production process, with high precision, good balance characteristics, small volume, high insulation strength, strong impact resistance, convenient installation, can be reliable and stable work in harsh environment. The product is produced by epoxy resin full pouring process, and completely seals the secondary winding and shielding structure, with excellent water–proof and moisture–proof resistance. Using the direct wire output or waterproof plug connection method, it can work reliably in a wet environment. Special materials can also be used to work outdoors. The products of 517 and 517A are basically the same in shape, and the electrical parameters can be fully consistent. The 517A series improves the output mode based on the 517, adopts the top terminal output mode, during installation, more convenient wiring, its beautiful appearance and generous. According to the needs, different products can be selected respectively to achieve the purpose of convenient application. Product color can be produced according to customer specified, which can meet different color needs.

General technical indicators

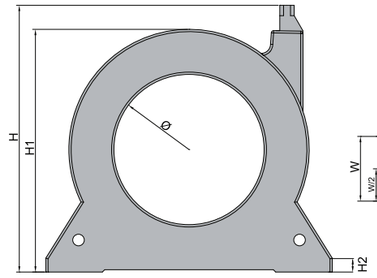
Technical index	Electrical parameters				
Rated primary current	1000mA	5A	5A	10A	10A
Rated secondary current	0.5mA	2.5mA	5mA	5mA	10mA
Rated continuous thermal current	2000mA	10A	10A	50A	50A
Working frequency	50~60Hz				
Rated accuracy class	Equal to or better than 0.5 grade				
Operating Voltage	⩽660V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

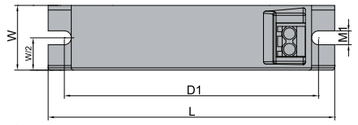




K517 series size correspondence chart

MODEL	Main loop current (A)	Aperture (mm)	Dimensions(mm)			Size(mm)						
			H	D	W	A	A1	B	B1	C	D1	d
KCT517103–30	⩽100A	30	67	25	76	69	58	12.5	11.5	35	36	5
KCT517203–46	⩽315A	46	86	28	98	87	72	14	13	45	39	5
KCT517303–65	⩽315A	65	105	28	124	110	97.5	14	14	53	39	6
KCT517403–80	⩽630A	80	130	32	140	122	106	16	18	67.5	43	6
KCT517503–100	⩽630A	100	148	32	167	153	129	16	21	74.5	43	6
KCT517603–120	⩽1000A	120	172	32	188	170	142	16	20	88	43	6
KCT517703–150	⩽1000A	150	206	32	225	205	178	16	34	103.5	43	6
KCT517803–200	⩽2000A	200	274	40	296	278	226	20	44	138	51	6





K517A series size correspondence chart

MODEL	Main loop current (A)	Aperture (mm)	Dimensions(mm)			Size(mm)						
			H	D	W	A	A1	B	B1	C	D1	d
KCT517A103–30	⩽100A	30	67	25	76	69	58	12.5	11.5	35	36	5
KCT517A203–46	⩽315A	46	86	28	98	87	72	14	13	45	39	5
KCT517A303–65	⩽315A	65	105	28	124	110	97.5	14	14	53	39	6
KCT517A403–80	⩽630A	80	130	32	140	122	106	16	18	67.5	43	6
KCT517A503–100	⩽630A	100	148	32	167	153	129	16	21	74.5	43	6
KCT517A603–120	⩽1000A	120	172	32	188	170	142	16	20	88	43	6
KCT517A703–150	⩽1000A	150	206	32	225	205	178	16	34	103.5	43	6
KCT517A803–200	⩽2000A	200	274	40	296	278	226	20	44	138	51	6

KCT251

CT series open current transformer, mainly used on the parent row, to transform the circuit current and isolate the strong current. The product structure design is reasonable, the magnetic road is rectangular design, the secondary winding is neat, and open at one end way, installation, the transformer winding part is covered on the main row, and then the auxiliary part is installed in place, so that the product can be installed in a relatively narrow environment. The product adopts high-magnetic silicon steel core, and after precision processing, the winding adopts high quality coating wire, the product performance is perfectly reflected. This range has 5 sizes to measure cables in the 100A-2000A current range. According to the demand accuracy can be 0.5,1.0, and a secondary output signal of 5A/1A. When installing the product, the secondary circuit needs to be well connected before the installation work. During the installation process and after the installation, the transformer secondary output does not allow to open the circuit. The open circuit protection can be added within the product as required. Product housing color can be produced according to customer specified and can meet different color needs.

Product size correspondence table

MODEL	A	B	C	D	E	F	G	H	I	J
KCT251103	20	30	50	89	110	34	48	40	32	32
KCT251203	50	80	79	115	146	32	33	33	32	33
KCT251303	80	80	108	145	145	32	33	33	32	33
KCT251403	80	120	108	144	185	32	32	32	33	32
KCT251503	42	132	70	146	215	48	42	55	37	35
KCT251603	80	160	120	184	244	52	47	54	38	33

Product parameter selection table

MODEL	Typical transformation ratio	Accuracy class and load			Window size
		0.5 level	1.0 level	3 level	
KCT251143	100A/5A	0	1.5VA	3.5VA	20*30
	200A/5A	0	1.75VA	3.75VA	
	400A/5A	2.5VA	3.75VA	5VA	
	200A/1A	0	1.5VA	2.5VA	
	400A/1A	1.75VA	2.5VA	3.75VA	
KCT251243	400A/5A	2.5VA	3.75VA	3.75VA	50*80
	600A/5A	3.75VA	5VA	7.5VA	
	1000A/5A	10VA	15VA	20VA	
	1600A/5A	10VA	15VA	20VA	
	600A/1A	2.5VA	3.75VA	5VA	
	1000A/1A	3.75VA	5VA	7.5VA	
	1600A/1A	5VA	7.5VA	10VA	
KCT251343	400A/5A	2.5VA	3.75VA	5VA	80*80
	800A/5A	3.75VA	7.5VA	10VA	
	1000A/5A	10VA	10VA	15VA	
	1600A/5A	10VA	15VA	20VA	
	800A/1A	2.5VA	3.75VA	5VA	
	1200A/1A	3.75VA	5VA	7.5VA	
	1600A/1A	5VA	7.5VA	10VA	
KCT251443	800A/5A	7.5VA	7.5VA	10VA	80*120
	1600A/5A	10VA	10VA	15VA	
	2000A/5A	15VA	20VA	30VA	
	2500A/5A	25VA	30VA	40VA	
	800A/1A	3.75VA	5VA	7.5VA	
	1600A/1A	7.5VA	10VA	15VA	
	2000A/1A	10VA	10VA	15VA	
KCT251543	1600A/5A	10VA	15VA	20VA	42*132
	2000A/5A	15VA	20VA	30VA	
	2500A/5A	25VA	30VA	40VA	
	3200A/5A	25VA	30VA	40VA	
	4000A/5A	30VA	35VA	40VA	
	2000A/1A	5VA	7.5VA	10VA	
	3200A/1A	7.5VA	10VA	15VA	
	4000A/1A	10VA	15VA	20VA	
KCT251643	2000A/5A	10VA	15VA	20VA	80*160
	2500A/5A	15VA	20VA	30VA	
	3000A/5A	25VA	30VA	40VA	
	5000A/5A	30VA	30VA	40VA	
	6000A/5A	35VA	35VA	40VA	
	2000A/1A	7.5VA	10VA	15VA	
	5000A/1A	10VA	15VA	20VA	
	6000A/1A	10VA	15VA	20VA	

KCT256

CT256 series open current transformer, is a series of miniature open type products designed according to the improvement of the current instrument and equipment software processing capacity. At present, due to the increase of current monitoring equipment, a convenient to install and small open current transformer is needed. CT256 series products are born and become more and more widely used. Many instruments also adopt such products. Combined with the correction of transformer output curve of instrument software, more accurate results are obtained, which is a low-cost solution. The general use of small current signal output or voltage signal output, to improve the product accuracy as far as possible, and reduce the hardware cost. Standard products with 5A or 1A current output with poor load capacity, conductors with cross section area of not less than 2.5mm' is recommended. When output the current signal, the secondary circuit of the transformer should be connected before installation to avoid electric shock due to high pressure of open secondary circuit during installation. After installation, the transformer shall be well fixed to the tested wire with nylon tape. This series of product design has 6 specifications, can use silicon steel core, nanocrystalline alloy core and ferrcore, etc., to reduce the cost as far as possible under the premise of ensuring the application.

Product size correspondence table

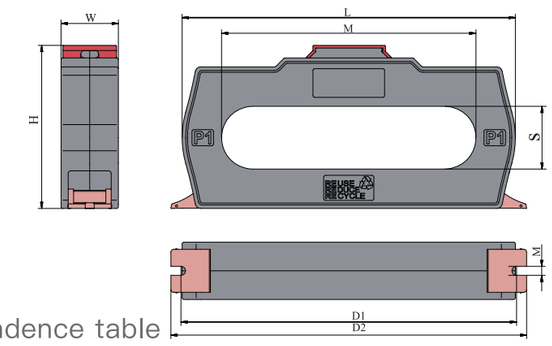
MODEL	Current (A)	Aperture (mm)	Dimensions (mm)								
			H	W	D	A	B	C	D1	R	W1
KCT256192	5A–32A	5	31.5	/	/	/	/	/	21	2.5	19.5
KCT256292	5A–75A	10	40.5	29.3	26	23	14	26.8	/	5	23
KCT256392	50A–150A	16	53	36.6	39	32	18	37	31	8	30
KCT256402	100A–250A	24	70.5	50.8	47	41.5	20	47.5	38	12	43
KCT256502	200A–500A	35	83.5	66	51	48	23	53.5	41	17.5	56.5
KCT256602	200A–500A	45	97.2	/	/	55	21.5	77.5	47	22.8	67

Product parameter selection table

MODEL	Weak signal output parameters				Standard current output load parameters			
	Typical transformation	Specified load	Accuracy class	Overload current	Typical transformation	0.5 level	1.0 level	3 level
KCT256192	5A/2.5mA	50Ω	0.5/1.0	1.2times				
	5A/5mA	50Ω	0.5/1.0	1.2times				
	10A/5mA	100Ω	0.5/1.0	1.2times				
	5A/0.333V	/	0.5/1.0	2times				
	10A/0.333V	/	0.5/1.0	2times				
	15A/0.333V	/	0.5/1.0	2times				
KCT256292	5A/2.5mA	100Ω	0.5/1.0	1.2times				
	10A/5mA	100Ω	0.5/1.0	1.2times				
	20A/10mA	100Ω	0.2/0.5	2times				
	30A/0.333A	/	0.2/0.5	2times				
	50A/0.333A	/	0.2/0.5	2times				
	75A/0.333A	/	0.2/0.5	1.2times				
KCT256392	50A/25mA	50Ω	0.2/0.5	1.2times				
	75A/25mA	50Ω	0.2/0.5	1.2times				
	100A/50mA	100Ω	0.2/0.5	1.2times				
	150A/50mA	100Ω	0.2/0.5	2times				
	100A/0.333V	/	0.2/0.5	2times				
	150A/0.333V	/	0.2/0.5	2times				
KCT256402	50A/25mA	50Ω	0.2/0.5	2times	100A/5A		0.25VA	0.5VA
	100A/50mA	50Ω	0.2/0.5	2times	200A/5A	0.5VA	0.5VA	1VA
	150A/50mA	100Ω	0.2/0.5	2times	320A/5A	1VA	1VA	1VA
	200A/0.333V	/	0.2/0.5	2times	400A/5A	1VA	1VA	1VA
	250A/0.333V	/	0.2/0.5	2times	250A/1A	0.5VA	1VA	1VA
	250A/100mA	100Ω	0.2/0.5	2times	400A/1A	2VA	2VA	2VA
KCT256502	5A/2.5mA	50Ω	0.2/0.5	2times	200A/5A	1.5VA	1.5VA	2VA
	5A/5mA	50Ω	0.2/0.5	2times	300A/5A	1.5VA	1.5VA	2VA
	10A/5mA	100Ω	0.2/0.5	2times	400A/5A	2.5VA	2.5VA	3VA
	5A/0.333V	/	0.2/0.5	2times	500A/5A	3VA	3VA	5VA
	10A/0.333V	/	0.2/0.5	2times	600A/5A	3.75VA	3.75VA	5VA
	15A/0.333V	/	0.2/0.5	2times	600A/1A	2VA	2VA	3VA
KCT256602	200A/100mA	50Ω	0.2/0.5	2times	300A/5A	1.5VA	2VA	3VA
	300A/100mA	50Ω	0.2/0.5	2times	400A/5A	2VA	3VA	3.75VA
	400A/200mA	100Ω	0.2/0.5	2times	500A/5A	2VA	2.5VA	3.75VA
	500A/200mA	100Ω	0.2/0.5	2times	600A/5A	3VA	3.75VA	5VA
	600A/200mA	100Ω	0.2/0.5	2times	750A/5A	3.75VA	5VA	7.5VA
	600A/0.333V	/	0.2/0.5	2times	800A/5A	3.75VA	5VA	7.5VA

KCT513

The residual current transformer of rectangular series is mainly used in low voltage distribution cabinet such as 380V,660V or drawer cabinet with large density, for continuous detection and monitoring of the residual current at the installation node of the corresponding circuit. The shell of this series adopts environmentally friendly flame retardant ABS plastic, high conductive magnetic nano crystalline soft magnetic materials, high precision, good balance characteristics, small volume, high insulation strength, strong impact resistance, convenient installation, and can have reliable and stable work in the indoor environment. The 513 rectangular series contains 5 specifications for circuits with total width within 300mm and basically meet all detection of remaining current in distribution circuits below 1000A. This series adopts the optimized magnetic circuit design, sets the coil winding process according to the magnetic circuit characteristics, and combines the compact shielding structure, so the product meets the requirements of precision, sensitivity and balance characteristics. And the product fixed foot adopts rotating structure design, in the packaging and transportation process can not only reduce the cost possible, but also plays a good role in protecting the fixed structure.



Product size correspondence table

MODEL	Main loop current (A)	Aperture (mm)	Dimensions (mm)			Fixed size (mm)	
			L	W	H	D1–D2	M
KCT513603	⩽100A	112–25	152	32	77	153.5–163.5	6
KCT513703	⩽250A	142–35	186	32	91	181–98.5	6
KCT513803	⩽400A	192–40	240	32	100	245.5–257	6
KCT513903	⩽630A	232–45	282	32	107	284.5–298	6
KCT513003	⩽1000A	300–60	368	45	140	388–368	6

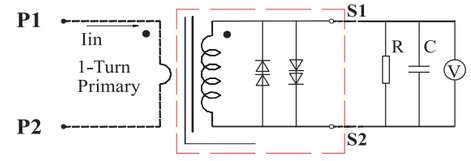
General technical indicators

Technical index	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
Working frequency	50~60Hz				
Rated accuracy class	Equal to or better than 0.5 grade				
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 class	Class E				

Balance characteristic parameter

MODEL	Rated working current of main circuit	Test current	Conductor diameter	Conductor insula-tion thickness	Residual current characteristics
KCT513603	0⩽In⩽100A	100A	6mm	0.5mm	⩽5mA@100A
KCT513703	0⩽In⩽250A	250A	10mm	1.5mm	⩽10mA@315A
KCT513803	0⩽In⩽400A	400A	14mm	2.0mm	⩽20mA@630A
KCT513903	0⩽In⩽630A	630A	14mm	2.0mm	⩽20mA@630A
KCT513003	0⩽In⩽1000A	1000A	20mm	2.0mm	⩽30mA@1000A

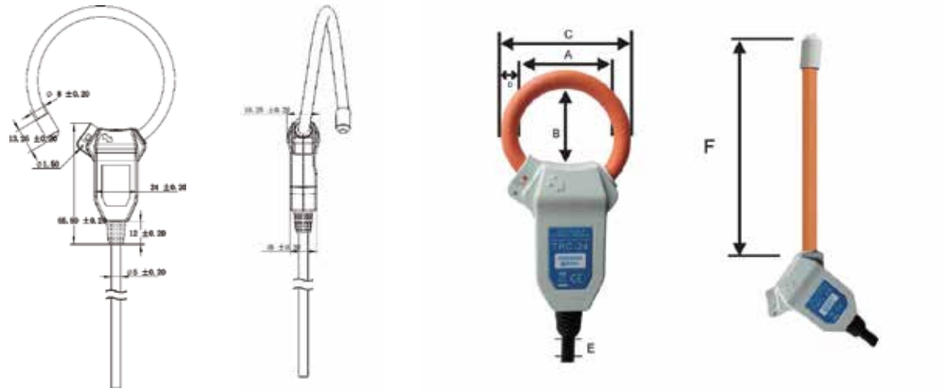
When the residual current transformer passes the corresponding sinusoidal AC current, its output sampling value voltage should meet the requirements in the table below.



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

Rogowski coil

Roche coils (Rogowski coil), also called a current measurement coil, a differential current transformer, is a circular coil uniformly wrapped around a non-ferromagnetic material. The output signal is a differential fraction of the current to the time. The output current can be truly restored by a circuit integrating the output voltage signal. Compared to the conventional transformer with iron core, Roche coil has the characteristics of real-time current measurement, fast response speed, no saturation, and little phase error. Usually, Roche coil output signal is very weak and easy to interfer-ence. After more than ten years of unremitting technological innovation, major achievements have been made, allowing the Roche coil to be used in a large scale.



Tolerance size:

A,B,C,F:±5mm,D±0.2mm,E:±10mm

Size(mm)	TRC-24-2M	TRC- 36-2M	TRC- 50 -2M
A.Window size	27.5	36	50
B.Window size	24	36	50
C.Coil outer diameter	39.5	48	62
D.Coil section	6		
E.Signal line length	Default 2M		
F:Coil length	97	130	180

Specification table (length can be customized)

MODEL	TRC-24	TRC-36	TRC-50	TRC-36D
Perimeter	97mm	130mm	180mm	300mm
Inside diameter	24mm	36mm	50mm	36mm
Reference current	⩽500kA			
Weight	80-100g			
Coil resistance	50 -300 Ω			
Maximum current	500kA			
Section	6mm			
Signal line length	Default 2M			
Transformation ratio	Calibration	50±02%mV/kA@50Hz …		
	Not calibrated	60±5%mV/kA@50Hz		
Internal resistance temperature drift coefficient	Not calibrated 200ppm/C			
	Calibration 50ppm/C			
Position error	±1%			
OA Output (zero drift)	⩽1mV			
Angle difference	⩽0.5°			
Linearity	±0.2%			
Bandwidth	1Hz -20kHz(-3dB)			
Operating temperature	-40℃ -80℃			
Storage temperature	-50℃ -90℃			
For other requirements, please contact us to customize				