



CT SENSOR GENERAL CATALOG

Ver.6



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MULTI
Let's Create
New Concepts of
Instruments

one step beyond tomorrow
MULTI MEASURING INSTRUMENTS CO.,LTD.

PRODUCT SELECTION GUIDE

This catalog is showing the general features and specifications of our standard models. If more detailed and technical data are required, please contact our sales representatives or our sales department directly.

■ WARRANTY POLICY

All the products are warranted for performance under normal use for 1 year after the delivery date. In case the products need repair service in warranty period, we will repair or replace the products at free of charge. This warranty, however, does not cover the products which have been damaged by calamity, accident, negligence, alteration and misapplication. Also, this warranty covers our products themselves only and does not cover the related instruments and equipment.

■ OUTER DIMENTION

Indications of outer dimension & weight in this catalog are showing the outlines and are basically excluding the projections such as knobs, handles, rubber-feet, etc.




As to the alteration of cables, etc., please consult with us beforehand.




■ OPERATION MANUAL · TEST REPORT

The operation manuals and test reports will not be attached to all the products on this catalog. Please consult with us if necessary.





Specifications on this catalog subject to change without notice.





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CLASSIFICATIONS	SPLIT TYPE PULSE CURRENT SENSOR		
MODEL	CTF-03	CTF-05	CTF-05K
SHAPE			
APPLICATION	FOR LOW CURRENT MEASUREMENT&PULSE DETECTION	FOR LOW CURRENT MEASUREMENT&PULSE DETECTION	FOR LOW CURRENT MEASUREMENT&PULSE DETECTION
APPLICABLE CURRENT	AC 0.1mA~8A	AC 1mA~100A	AC 8mA~25mA
OUTPUT/NOMINAL RATIO	800:1	800:1	800:1
CT SIZE (INSIDE DIAMETER)	3mm	φ 5mm	φ 5mm
POWER SUPPLY VOLTAGE/ MAX. APPLICABLE CURRENT	AC 10A	100A	DC12V±10%
DIMENSION/WEIGHT	24×28×12mm/8g	50×50×20mm/95g	33×79×22mm/55g
REMARK	High Sensitive Type noiseproof ability PP Resin	High Sensitive Type noiseproof ability for Electric Power Demand	High Sensitive Type noiseproof ability for Electric Power Demand
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CLASSIFICATIONS	SPLIT TYPE PULSE CURRENT SENSOR		
MODEL	OKM-03	PCT-06	CTF-05M
SHAPE			
APPLICATION	FOR LOW CURRENT MEASUREMENT&PULSE DETECTION	FOR LOW CURRENT MEASUREMENT&PULSE DETECTION	FOR LOW CURRENT MEASUREMENT&PULSE DETECTION
APPLICABLE CURRENT	AC 0.3mA~1A	AC 0.1mA~1A	AC 8mA~24mA
OUTPUT/NOMINAL RATIO	800:1	800:1	800:1
CT SIZE (INSIDE DIAMETER)	φ 3mm	φ 6mm	φ 5mm
POWER SUPPLY VOLTAGE/ MAX. APPLICABLE CURRENT	DC5V±5%	10A Continuous	DC12V±10%
DIMENSION/WEIGHT	30×28×18mm/16g	21×25×10mm/5g	33×77×22mm/35g
REMARK	High Sensitive Type noseproof ability PP Resin	For Electric Power Demand	High Sensitive Type noseproof ability for Electric Power Demand
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PRODUCT SELECTION GUIDE

CLASSIFICATIONS	PCB MOUNT TYPE FOR DC & DC/AC LEAKAGE/SMALL CURRENT MEASUREMENTS			
MODEL	DCZCT-20CDHL	FDAZCT-20L-0.3/0.6	FDAZCT-11L SERIES	FDACT-1 SERIES
SHAPE				
APPLICATION	DETECTION FOR LOW RAGE DC CURRENT	DETECTION FOR LOW RAGE DC/AC CURRENT	DETECTION FOR LOW RAGE DC/AC CURRENT	DC/AC & PHASE CURRENT MEASUREMENT
MEASURING RANGE	DC±1mA~±200mA	AC/DC±1mA~±500mA/±850mA	AC/DC±1mA~±200/400/800mA	AC/DC±0A~±150A
OUTPUT VOLTAGE	DC10mV/1mA	DC4mV/1mA, DC2mV/1mA	DC±5V at Rated Current	DC625mV at Rated Current
CT SIZE (INSIDE DIAMETER)	φ20mm	φ20mm	φ11mm	—
POWER SUPPLY VOLTAGE/MAX. APPLICABLE CURRENT	DC+5V ±5%	DC+5V±5%	DC±15V±5%	DC+5V±5%
DIMENSION/WEIGHT	42.7×42.4×21.9mm/27g	45.0×44.7×20.7mm/30g	30.0×30.0×19.2mm/25g	16.2×21.7×23.0mm/10g
REMARK	For DC Leakage Current Detection in PV System, Power Conditioner, Battery, etc.	For Detection of Low Range Leakage AC/DC Pulsed Current, Low Cost & High Performance	DC/AC Earth Leakage Current Measurement, Applicable Frequency DC ~ 18KHz	Hi Speed & Sensitive Type. Standard Voltage Function Built-in.
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CLASSIFICATIONS	THROUGH HOLE TYPE CURRENT SENSOR FOR DC/AC CURRENT MEASUREMENT (MOHT/MCHT SERIES)				
MODEL	MOHT-B SERIES	MCHT-200B	MCHT-300B	MCHT-500B	MCHT-1000B
SHAPE					
APPLICATION	DETECTION FOR AC/DC PULSE CURRENT	DETECTION FOR AC/DC PULSE CURRENT	DETECTION FOR AC/DC PULSE CURRENT	DETECTION FOR AC/DC PULSE CURRENT	DETECTION FOR AC/DC PULSE CURRENT
APPLICABLE CURRENT	AC/DC±1A~±2500A	AC/DC 0~±420A	AC/DC 0~±500A	AC/DC 0~±800A	AC/DC 0~±1500A
OUTPUT VOLTAGE	DC±4V(RATED CURRENT)	DC100mA/200A	DC150mA/300A	DC100mA/500A	DC200mA/1000A
CT SIZE (INSIDE DIAMETER)	40.5×30.5mm	φ15.5mm	φ20.0mm	φ30.2mm	40.5×38.5mm
POWER SUPPLY VOLTAGE	DC±15V	DC±12~±15V	DC±12~±20V	DC±15~±24V	DC±15~±24V
DIMENSION/WEIGHT	70×65×24mm/300g	48.8×51.6×26.0mm/80g	54.0×56.5×26.0mm/95g	70×70×31mm/230g	90×95×31mm/520g
REMARK	Open Loop, Wide Ranges for the use of UPS, Battery, Power Supply, etc.	Closed Loop. For the use of UPS, Power Conditioner, Battery, etc.	Closed Loop. For the use of UPS, Power Conditioner, Battery, etc.	Closed Loop. For the use of UPS, Power Conditioner, Battery, etc.	Closed Loop. For the use of UPS, Power Conditioner, Battery, etc.
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CLASSIFICATIONS	THROUGH HOLE TYPE DC CURRENT SENSOR FOR DC LEAKAGE CURRENT MEASUREMENTS				
MODEL	DCZCT-20M	DCZCT-20CDH	DCZCT-20MH	DCZCT-45NK	DCZCT-60NK
SHAPE					
APPLICATION	DETECTION FOR LOW RAGE DC CURRENT	DETECTION FOR LOW RAGE DC CURRENT	DETECTION FOR LOW RAGE DC CURRENT	DETECTION FOR LOW RAGE DC CURRENT	DETECTION FOR LOW RAGE DC CURRENT
MEASURING RANGE	DC±1mA~±1000mA	DC±1mA~±200mA	DC1mA~±200mA	DC±1mA~±100mA	DC±1mA~±100mA
OUTPUT VOLTAGE/SECONDARY NOMIINAL CURRENT	DC1mV/1mA	DC5mV/1mA	DC5mV/1mA	DC25mV/1mA	DC25mV/1mA
CT SIZE (INSIDE DIAMETER)	φ20mm	φ20mm	φ20mm	φ45mm (Through hole type)	φ60mm (Through hole type)
POWER SUPPLY VOLTAGE/MAX. APPLICABLE CURRENT	DC+5V	DC±12V	DC+5V	DC+24V	DC+24V
DIMENSION/WEIGHT	43×56×17mm/60g	42×56×17mm/60g	43×56×17mm/60g	106×143×47mm	120×157×51mm
REMARK	Wide Range for Low Range DC Current of Small Motor, etc.	Hi Speed & Sensitive Type. For Leakage Current Detection in DC Circuit.	Hi Speed & Sensitive Type. For Leakage Current Detection in DC Circuit.	High Accurate for DC Leakage Current Detection with big window	High Accurate for DC Leakage Current Detection with big window
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CLASSIFICATIONS	SPLIT TYPE CURRENT SENSOR FOR DC/AC LOAD CURRENT (CTF-DC SERIES)				
MODEL	CTF-5DC	CTF-50DC	CTF-100DC	CTF-200DC	CTF-500DC
SHAPE					
APPLICATION	DETECTION FOR PWM, INVERTER CURRENT	DETECTION FOR PWM, INVERTER CURRENT	DETECTION FOR PWM, INVERTER CURRENT	DETECTION FOR PWM, INVERTER CURRENT	DETECTION FOR PWM, INVERTER CURRENT
APPLICABLE CURRENT	AC/DC 0~±5A	AC/DC 0~±50A	AC/DC 0~±100A	AC/DC 0~±200A	AC/DC 0~±500A
OUTPUT VOLTAGE	DC±4V(RATED CURRENT)	DC±4V(RATED CURRENT)	DC±4V(RATED CURRENT)	DC±4V(RATED CURRENT)	DC±4V(RATED CURRENT)
CT SIZE (INSIDE DIAMETER)	φ10mm	φ10mm	φ16mm	φ24mm	φ35mm
POWER SUPPLY VOLTAGE	DC±12V	DC±12V	DC±12V	DC±12V	DC±12V
DIMENSION/WEIGHT	25×33×41mm/60g	25×33×41mm/60g	26×23×48mm/80g	36×45×76mm/190g	60×40×80mm/360g
REMARK	Small Size With Stopper Function DC~10KHz	Small Size With Stopper Function DC~10KHz	Medium Size With Stopper Function DC ~ 10KHz	Medium Size With Stopper Function DC ~ 10KHz	Large Size With Stopper Function DC ~ 10KHz
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CLASSIFICATIONS	CLAMP TYPE DC CURRENT SENSOR FOR LEAKAGE CURRENT MEASUREMENTS			
MODEL	CTF-6DC CTF-30/60-10DC	DCZCT-18S	DCZCT-110S	DCZCT-140S
SHAPE				
APPLICATION	DETECTION FOR DC LINE CURRENT	DETECTION FOR LOW RANGE DC CURRENT	DETECTION FOR LOW RANGE DC CURRENT	DETECTION FOR LOW RANGE DC CURRENT
MEASURING RANGE	DC 0~±30A/60A	DC±0.1mA~±100mA	DC±0.1mA~±100mA	DC±0.1mA~±100mA
OUTPUT VOLTAGE	DC3.5V F.S.	25mV/1mA	DC2.5V F.S. (±25mV/mA)	25mV/1mA
CT SIZE (INSIDE DIAMETER)	φ 6mm/ φ 10mm	φ 18mm	φ 30mm	φ 40mm
POWER SUPPLY VOLTAGE/ MAX. APPLICABLE CURRENT	DC+5V	DC±5V	DC±5V	DC±5V
DIMENSION/WEIGHT	19.3×59.0×39.5mm/25.9×65.2×31.1mm	45×98×20mm/65g	59×117×20mm/120g	64×122×23mm/125g
REMARK	Compact Split-Core Type Suitable for monitoring solar panel strings	Ultra Compact Size for DC Leakage of Grounding Line	Compact Size Common Use for DC Leakage Cuena	Medium Size Common Use for DC Leakage Current
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CLASSIFICATIONS	SPLIT TYPE AC CURRENT SENSOR (CTF SERIES)			
MODEL	CTF-6	CTF-10	CTF-16	CTF-24
SHAPE				
FEATURE · APPLICATION	COMPACT SIZE FOR CURRENT MEASUREMENT & POWER MONITORING	COMPACT SIZE FOR CURRENT MEASUREMENT & POWER MONITORING	COMPACT SIZE FOR CURRENT MEASUREMENT & POWER MONITORING	COMPACT SIZE FOR CURRENT MEASUREMENT & POWER MONITORING
MEASURING RANGE	AC 0.1~30A	AC 0.1~60A	AC 0.1~100A	AC 0.1~200A
NOMINAL TRANS. RATIO	3000 : 1	3000 : 1	3000 : 1	3000 : 1
CT SIZE (INSIDE DIAMETER)	φ 6mm	φ 10mm	φ 16mm	φ 24mm
MAX. INPUT CURRENT	AC 40A	AC 100A	AC 200A	AC 300A
DIMENSION/WEIGHT	19.3×26.4×31mm/20g	26.4×25.5×43.3mm/40g	29.4×30.5×46.2mm/75g	48.4×35×70mm/170g
REMARK	Wide Ranges and Superior Linearity. Comply with Slim Panel Board.	Wide Ranges and Superior Linearity. Comply with Slim Panel Board.	Wide Ranges and Superior Linearity. Comply with Slim Panel Board.	Wide Ranges and Superior Linearity. Comply with Slim Panel Board.
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CLASSIFICATIONS	CLAMP TYPE DC/AC CURRENT SENSOR WITH VOLTAGE OUTPUT			
MODEL	LAD-240	LAD-250	LAD-20	DCT-10/DCT-100/DCT-1000
SHAPE				
APPLICATION	FOR MEASUREMENT OF DC CURRENT DC VOLTAGE OUTPUT	FOR MEASUREMENT OF AC/DC CURRENT DC VOLTAGE OUTPUT	HI FREQUENCY AC/DC CURRENT PROBE	FOR MEASUREMENT OF AC/DC CURRENT DC VOLTAGE OUTPUT
MEASURING RANGE	DC 1A~200A	AC/DC 1A~1000A	AC 0~20A(RMS)/DC 0~±30A	AC/DC 0.1~10A/100A/1000A
OUTPUT VOLTAGE	DC 200A	200A/1000A	AC20A/DC+30A	10A/100A/1000A
CT SIZE (INSIDE DIAMETER)	DC 200mV F.S 1~150A ±2%+0.5%F.S 150A~200A±2.5%+0.5%F.S	200A/DC 200mV F.S±3% 1000A/DC100mV F.S±3%	100mV/A	DC 10V±3%F.S
POWER SUPPLY VOLTAGE/ MAX. APPLICABLE CURRENT	φ 30mm	φ 40mm	φ 17mm	φ 23mm/ φ 40mm
DIMENSION/WEIGHT	44×146×21mm/100g	69×175×23mm/140g	70×192×25mm	48×146×20mm/69×175×23mm
REMARK	Power Supply LR-44x2 with 1.2m cable & banana plug	Power Supply LR-44x2 with 1.2m cable & banana plug	with BNC Connector for Oscilloscope, up to 100KHz	Power Supply DC24V with single shield wire (5m each for output & power supply)
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CLASSIFICATIONS	SPLIT TYPE AC CURRENT SENSOR (CTF-NF/-T SERIES)				
MODEL	CTF-7NF	CTF-13NF	CTF-100T	CTF-200T	CTF-400T
SHAPE					
FEATURE · APPLICATION	COMPACT AND SMALL ROUND TYPE	COMPACT AND SMALL ROUND TYPE	FOR GENERAL METER, 1A OUTPUT CLAMP METHOD	FOR GENERAL METER, 1A OUTPUT CLAMP METHOD	FOR GENERAL METER, 5A OUTPUT CLAMP METHOD
RATED PRIMARY CURRENT	APPLICABLE CURRENT AC0.1 ~ 40A	MAX.INPUT CURRENT AC 150Arms continuous	AC 100A	AC 200A	AC 400A
NOMINAL CT RATIO	3000:1	3000:1	—	—	—
RATED BURDEN (VA)	—	—	0.2VA	0.2VA	0.2VA
CT SIZE (INSIDE DIAMETER)	φ 7mm	φ 13mm	24mm	35mm	35mm
MAX. INPUT CURRENT	AC 80A	AC 150A	AC 120A	AC 240A	AC 480A
DIMENSION/WEIGHT	φ 25×20mm/20g	φ 38mm×30mm/60g	36×45×76mm/190g	60×40×80mm/310g	60×40×80mm/310g
REMARK	Can be installed into slim panel board	Can be installed into slim panel board	M3 Output Terminal With Stopper against Slipping off from wire Flame-resistant PP Resin	M3 Output Terminal With Stopper against Slipping off from wire Flame-resistant PP Resin	M3 Output Terminal With Stopper against Slipping off from wire Flame-resistant PP Resin
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CLASSIFICATIONS	SPLIT TYPE AC CURRENT SENSOR (CTF-A SERIES)		
MODEL	CTF-5A	CTF-50A	CTF-100A
SHAPE			
FEATURE · APPLIATION	SMALL SIZE · FOR CURRENT MEASUREMENT & POWER MONITORING OF 5A CIRCUIT	SMALL SIZE · FOR CURRENT MEASUREMENT & POWER MONITORING OF FEEDER LINES	MIDDLE SIZE · FOR CURRENT MEASUREMENT & POWER MONITORING OF FEEDER LINES
MEASURING RANGE	AC 0.01~5A	AC 0.1~50A	AC 0.1~100A
NOMINAL TRANS. RATIO	3000:1	3000:1	3000:1
CT SIZE (INSIDE DIAMETER)	10mm	10mm	16mm
MAX. APPLICABLE CURRENT	AC 10A	AC100A	AC 200A
DIMENSION/WEIGHT	25×33×41mm/60g	26×23×48mm/45g	31×30×54mm/85g
REMARK	M3 Output Terminal With Stopper against slipping off from wire Flame-resistant PP Resin	M3 Output Terminal With Stopper against slipping off from wire Flame-resistant PP Resin	M3 Output Terminal With Stopper against slipping off from wire Flame-resistant PP Resin
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CLASSIFICATIONS	SPLIT TYPE AC CURRENT TRANSFORMER (CTS SERIES)				
MODEL	CTS-100	CTS-200	CTS-300	CTS-400	CTS-600
SHAPE					
FEATURE · APPLIATION	FOR GENERAL METER, 1A OUTPUT FIXING METHOD	FOR GENERAL METER, 1A OUTPUT FIXING METHOD	FOR GENERAL METER, 5A OUTPUT FIXING METHOD	FOR GENERAL METER, 5A OUTPUT FIXING METHOD	FOR GENERAL METER, 5A OUTPUT FIXING METHOD
RATED PRIMARY CURRENT	AC 100A	AC 200A	AC 300A	AC 400A	AC 600A
RATED SECONDARY CURRENT	1A	1A	5A	5A	5A
RATED BURDEN (VA)	0.2VA	0.2VA	5VA	5VA	5VA
CT SIZE (INSIDE DIAMETER)	35mm	35mm	35mm	35mm	35mm
MAX. APPLICABLE CURRENT	AC 120A	AC 240A	AC 360A	AC 480A	AC 720A
DIMENSION/WEIGHT	127×95×40mm/550g	127×95×40mm/550g	127×95×40mm/550g	127×95×40mm/550g	127×95×40mm/550g
REMARK	With Switch for Output Short-Circuit With Metal Fixing Parts	With Switch for Output Short-Circuit With Metal Fixing Parts	With Switch for Output Short-Circuit With Metal Fixing Parts	With Switch for Output Short-Circuit With Metal Fixing Parts	With Switch for Output Short-Circuit With Metal Fixing Parts
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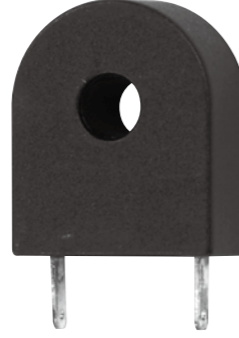

CLASSIFICATIONS	SPLIT TYPE AC CURRENT SENSOR (CTF-A SERIES)		
MODEL	CTF-200A	CTF-400A	CTF-600A
SHAPE			
FEATURE · APPLIATION	MIDDLE SIZE · FOR CURRENT MEASUREMENT & POWER MONITORING	MIDDLE SIZE · FOR CURRENT MEASUREMENT & POWER MONITORING	BIG SIZE · FOR CURRENT MEASUREMENT & POWER MONITORING
MEASURING RANGE	AC 0.1~200A	AC 0.1~400A	AC 0.1~600A
NOMINAL TRANS. RATIO	3000:1	6000:1	9000:1
CT SIZE (INSIDE DIAMETER)	24mm	35mm	35mm
MAX. APPLICABLE CURRENT	AC300A	AC 600A	AC 800A
DIMENSION/WEIGHT	36×45×76mm/190g	60×40×80mm/310g	60×40×80mm/350g
REMARK	M3 Output Terminal With Stopper against slipping off from wire Flame-resistant PP Resin	M3 Output Terminal With Stopper against slipping off from wire Flame-resistant PP Resin	M3 Output Terminal With Stopper against slipping off from wire Flame-resistant PP Resin
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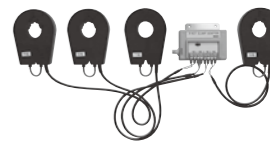
CLASSIFICATIONS	THROUGH HOLE TYPE AC CURRENT SENSOR		
MODEL	CT-13K	CTA-30A	CTA-120A
SHAPE			
APPLICATION	HI PRECISION FOR COMMON USE OF LOW VOLTAGE CIRCUIT	HI PRECISION FOR COMMON USE OF LOW VOLTAGE CIRCUIT	HI PRECISION FOR COMMON USE OF LOW VOLTAGE CIRCUIT
RATED CURRENT	AC 1A~50A	AC 0.1~30A	AC 1~120A
NOMINAL CT RATIO	6000:1	1500:1	3000:1
CT SIZE (INSIDE DIAMETER)	φ 12.5mm	φ 6mm	φ 19.4mm
MAX. INPUT CURRENT	AC 150A	AC 50A	AC150A
DIMENSION/WEIGHT	37×42×14mm/45g	21×25×10mm/7g	19.4×40.4×13mm/36g
REMARK	For Electric Power Measurement and Meter	For Electric Power Measurement and Meter	For Electric Power Measurement and Meter
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CLASSIFICATIONS	THROUGH HOLE TYPE AC CURRENT SENSOR (CTS-B SERIES)				
MODEL	CTF-50B	CTF-100B	CTF-200B	CTF-400B	CTF-600B
SHAPE					
APPLICATION	FOR THE USE AT FIEDER END	FOR THE USE AT FIEDER END	FOR THE USE AT FIEDER END	FOR THE USE AT FIEDER END	FOR THE USE AT FIEDER END
APPLICABLE CURRENT	AC 0.1~50A	AC 1~100A	AC 1~200A	AC 1~400A	AC 1~600A
NOMINAL CT RATIO	3000 : 1	3000 : 1	3000 : 1	6000 : 1	9000 : 1
CT SIZE (INSIDE DIAMETER)	8.4×9mm	14.1×14.1mm	23.5×24.1mm	32.9×34.5mm	32.9×34.5mm
MAX. INPUT CURRENT	100Arms continuous	200Arms continuous	300Arms continuous	600Arms continuous	800Arms continuous
DIMENSION/WEIGHT	23×27.6×52.8mm/50g	29.4×32.6×60.2mm/90g	45×38.6×82.2mm/210g	62.5×38.6×101cm/320g	62.5×38.6×101mm/370g
REMARK	For Electric Power Measurement	For Electric Power Measurement	For Electric Power Measurement	For Electric Power Measurement	For Electric Power Measurement
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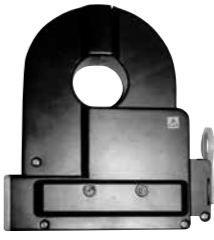


CLASSIFICATIONS	CLAMP TYPE AC CURRENT SENSOR /FOR LOAD CURRENT MEASUREMENTS (CT SERIES)			
MODEL	CT-23	CT-23S	CT-33	CT-33S
SHAPE				
FEATURE · APPLICATION	SMALL SIZE · FOR CURRENT MEASUREMENT OF TERMINAL FEEDER	SMALL SIZE · FOR CURRENT MEASUREMENT OF TERMINAL FEEDER	SMALL SIZE · FOR CURRENT MEASUREMENT OF FEEDER	SMALL SIZE · FOR CURRENT MEASUREMENT OF FEEDER
MEASURING RANGE	AC 1A~200A	AC 1A~200A	AC 1A~200A	AC 1A~200A
NOMINAL TRANS. RATIO	2000:1	2000:1	2000:1	2000:1
CT SIZE (INSIDE DIAMETER)	φ23mm	φ23mm	φ33mm	φ33mm
MAX. APPLICABLE CURRENT	AC 240A	AC 240A	AC 240A	AC 240A
DIMENSION/WEIGHT	48×146×20mm/70g	48×105×20mm/65g	54×155×20mm/80g	54×114×20mm/75g
REMARK	General Purpose with 0.3s Red/Black wire (20cm)	General Purpose with 0.3s Red/Black wire (20cm) Short Grip Type	General Purpose with 0.3s Red/Black wire (20cm)	General Purpose with 0.3s Red/Black wire (20cm) Short Grip Type
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CLASSIFICATIONS	THROUGH HOLE TYPE AC CURRENT SENSOR		
MODEL	CT-6K	CT-6S	CT-30AR
SHAPE			
APPLICATION	FOR CURRENT DETECTION ON PANEL BOARD	COMPACT & LIGHT WEIGHT CURRENT SENSOR	COMPACT & LIGHT WEIGHT CURRENT SENSOR
APPLICABLE CURRENT	AC 0.1~80A	AC 0.1~80A	AC 0.1~30A
NOMINAL CT RATIO	800:1	800:1	1000:1
CT SIZE (INSIDE DIAMETER)	φ6mm	φ5.8mm	φ9.3mm
MAX. APPLICABLE CURRENT	AC 100A	AC 80A	AC 90A
DIMENSION/WEIGHT	21×25×10mm/12g	21×25×10mm/14g	φ24.8×8.8mm/9.3g
REMARK	with FASTON Terminal	with FASTON Terminal	with 80mm Lead Wire
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CLASSIFICATIONS	CLAMP TYPE AC CURRENT SENSOR /FOR LOAD CURRENT MEASUREMENTS (CT SERIES)			
MODEL	CT-40	CT-80	CT-3000	ZCT-3300
SHAPE				
FEATURE · APPLICATION	MIDDLE SIZE · FOR CURRENT MEASUREMENT FOR MAIN CABLE	BIG SIZE · FOR CURRENT MEASUREMENT FOR MAIN CABLE	ULTRA BIG SIZE · FOR CURRENT MEASUREMENT FOR MAIN CABLE	3CT/4CT METHOD CLAMP ADAPTER
MEASURING RANGE	AC 1A~600A	AC 1A~1800A	AC 1A~3000A	AC 0~2000mA
NOMINAL TRANS. RATIO	3600:1	2000:1	2000:1	2000:1
CT SIZE (INSIDE DIAMETER)	φ40mm	80mm×74mm	128mm×108mm	φ36mm
MAX. APPLICABLE CURRENT	AC 720A	AC 2200A	AC 3600A	AC 400A
DIMENSION/WEIGHT	64×175×23mm/90g	138×225×37mm/500g	194×342×52mm/1800g	CT:100×130×25mm/420g
REMARK	Current Clamp Type with φ3 2wick shield wire (20cm)	Large Current Clamp Type with φ3 2wick shield wire (20cm)	Large Current Clamp Type with φ3 2wick shield wire (20cm)	For Leakage Current Detection at 3P/3W & 3P/4W System
PAGE	P37	P37	P38	P38

PRODUCT SELECTION GUIDE





CLASSIFICATIONS	CLAMP TYPE AC CURRENT SENSOR /FOR POWER MONITOR			
MODEL	ZCT-23	ZCT-23S	ZCT-33	ZCT-33S
SHAPE				
FEATURE · APPLIATION	SMALL SIZE · FOR CURRENT MEASUREMENT & POWER MONITOR FOR TERMINAL FEEDER	SMALL SIZE · FOR CURRENT MEASUREMENT & POWER MONITOR FOR TERMINAL FEEDER	SMALL SIZE · FOR CURRENT MEASUREMENT & POWER MONITOR FOR TERMINAL FEEDER	SMALL SIZE · FOR CURRENT MEASUREMENT & POWER MONITOR FOR TERMINAL FEEDER
MEASURING RANGE	AC 0.1A~120A	AC 0.1A~120A	AC 0.1A~150A	AC 0.1A~150A
NOMINAL TRANS. RATIO	2000:1	2000:1	2000:1	2000:1
CT SIZE (INSIDE DIAMETER)	φ 23mm	φ 23mm	φ 33mm	φ 33mm
MAX. APPLICABLE CURRENT	AC 150A	AC 150A	AC180A	AC 180A
DIMENSION/WEIGHT	48×146×20mm/70g	48×105×20mm/65g	54×155×20mm/180g	54×114×20mm/75g
REMARK	General Purpose with φ 3 single shield wire (20cm)	General Purpose with φ 3 single shield wire (20cm) Short Grip Type	General Purpose with φ 3 single shield wire (20cm)	General Purpose with φ 3 single shield wire (20cm) Short Grip Type
PAGE	P39	P39	P39	P39




CLASSIFICATIONS	CLAMP TYPE AC CURRENT SENSOR /FOR LOW LEAKAGE CURRENT MEASUREMENTS (ZCT SERIES)				
MODEL	ZCT-22	ZCT-22F	ALCL-40D	ZCT-80H	ZCT-110
SHAPE					
FEATURE · APPLIATION	SMALL SIZE FOR CURRENT & POWER MONITOR	FOR LOW CURRENT MEASUREMENT & PULSE DETECTION	SUPER NOISEPROOF FOR MEASUREMENT OF μA	FOR mA MEASUREMENT CLAMP TYPE BIG WINDOW	NOISEPROOF FOR MEASUREMENT OF LESS THAN 1mA
MEASURING RANGE	AC 1A~100A	AC 1mA~100A	AC1 μA~50A	AC 0 ~ 10A	AC 0.01mA~20A
NOMINAL TRANS. RATIO	2000:1	4000:1	2400:1	1960:1	1600:1
CT SIZE (INSIDE DIAMETER)	φ 22mm	22mm	φ 37mm	φ 80mm	φ 30mm
MAX. APPLICABLE CURRENT	AC 120A	AC 120A	AC 60A	20A	AC 30A
DIMENSION/WEIGHT	54×58×30mm/200g	26×23×48mm/200g	135×166×61mm/1000g	123×240×28mm	59×158×23mm /105g
REMARK	Split Core Type Fixed Method with φ 4 single shield wire (4m)	High Sensitive Type noiseproof ability With 4mShield Wire	For Grounding Line of Arrester and Lower Leakage Current	AC Leakage Current of Main Conductors	For Terminal Feeder with φ 3 2wick single shield wire (20cm)
PAGE	P41	P41	P42	P42	P43




CLASSIFICATIONS	CLAMP TYPE AC CURRENT SENSOR /FOR POWER MONITOR		
MODEL	ZCT-40P	ZCT-40PS	CT-80PB
SHAPE			
FEATURE · MEASUREMENT APPLIATION	MIDIUM SIZE · FOR CURRENT MEASUREMENT & POWER MONITOR	MIDIUM SIZE · FOR CURRENT MEASUREMENT & POWER MONITOR	MEASUREMENT OF LINE CURRENT OF MAIN CABLE
MEASURING RANGE	AC 0.1A~500A	AC 0.1A~500A	AC 1A~500A
NOMINAL TRANS. RATIO	2000:1	2000:1	2000:1
CT SIZE (INSIDE DIAMETER)	φ 40mm	φ 40mm	80×74mm
MAX. APPLICABLE CURRENT	AC 600A	AC 600A	AC 1000A
DIMENSION/WEIGHT	64×168×23mm/120g	64×128×23mm/115g	138×225×37mm/500g
REMARK	Current Clamp Type with φ 3 2 wick shield wire (20cm)	Current Clamp Type with φ 3 2 wick shield wire (20cm) Short Grip Type	with Big Window for Electric Power Measurement
PAGE	P40	P40	P40

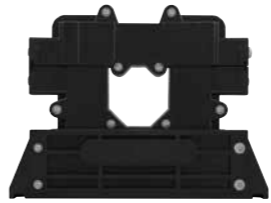
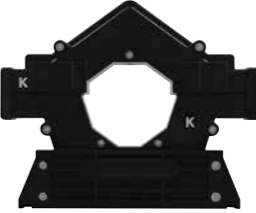

CLASSIFICATIONS	CLAMP TYPE AC CURRENT SENSOR /FOR LOW LEAKAGE CURRENT MEASUREMENTS (ZCT SERIES)				
MODEL	ZCT-110S	ZCT-340	ZCT-340S	ZCT-18	ZCT-18S
SHAPE					
FEATURE · APPLIATION	NOISEPROOF FOR MEASUREMENT OF LESS THAN 1mA	NOISEPROOF FOR MEASUREMENT OF LESS THAN 1mA	NOISEPROOF FOR MEASUREMENT OF LESS THAN 1mA	NOISEPROOF FOR MEASUREMENT OF LESS THAN 1mA	DETECTION FOR LOW RANGE DC CURRENT
MEASURING RANGE	AC 0.01mA~20A	AC 0.01mA~20A	AC 0.01mA~20A	AC 0.01mA~20A	DC±0.1mA~±100mA
NOMINAL TRANS. RATIO	1600:1	2000:1	2000:1	2200:1	25mV/1mA
CT SIZE (INSIDE DIAMETER)	φ 30mm	φ 40mm	φ 40mm	φ 18mm	φ 18mm
MAX. APPLICABLE CURRENT	AC 30A	AC 30A	AC 30A	AC 30A	DC±5V
DIMENSION/WEIGHT	59×117×23mm/95g	69×175×23mm/120g	69×136×23mm/115g	45×140×20mm/70g	45×98×20mm/65g
REMARK	For Terminal Feeder with φ 3 2wick single shield wire (20cm) Short Grip Type	For Terminal Feeder with φ 3 2wick single shield wire (20cm)	For Terminal Feeder with φ 3 2wick single shield wire (20cm) Short Grip Type	For Terminal Feeder with φ 3 2wick single shield wire (20cm)	Ultra Compact Size for DC Leakage of Grounding Line
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PRODUCT SELECTION GUIDE




CLASSIFICATIONS	CLAMP TYPE AC CURRENT SENSOR /FOR LEAKAGE CURRENT MEASUREMENTS (ZCT SERIES)			
MODEL	ZCT-30	ZCT-30S	ZCT-140	ZCT-140S
SHAPE				
FEATURE - APPLIACTION	FOR FEEDER FOR MEASUREMENT OF 1mA	FOR FEEDER FOR MEASUREMENT OF 1mA	FOR FEEDER FOR MEASUREMENT OF 1mA	FOR FEEDER FOR MEASUREMENT OF 1mA
MEASURING RANGE	AC 1mA~100A	AC 1mA~100A	AC 1mA~300A	AC 1mA~300A
NOMINAL TRANS. RATIO	2000:1	2000:1	2400:1	2400:1
CT SIZE (INSIDE DIAMETER)	φ 30mm	φ 30mm	φ 40mm	φ 40mm
MAX. APPLICABLE CURRENT	AC 120A	AC 120A	AC 360A	AC 360A
DIMENSION/WEIGHT	59×158×20mm/100g	59×117×20mm/95g	64×162×23mm/130g	64×122×23mm/125g
REMARK	General Purpose for Leakage with φ3 2 wick single shield wire (20cm)	General Purpose for Leakage with φ3 2 wick single shield wire (20cm) Short Grip Type	General Purpose for Leakage with φ3 2 wick single shield wire (20cm)	General Purpose for Leakage with φ3 2 wick single shield wire (20cm) Short Grip Type
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CLASSIFICATIONS	CLAMP TYPE AC CURRENT SENSOR / WITH DC VOLTAGE OUTPUT		
MODEL	RCT-18	ACT-5H	ACT-50H
SHAPE			
FEATURE - APPLIACTION	FOR MEASUREMENT OF LEAKAGE CURRENT DC VOLTAGE OUTPUT	FOR MEASUREMENT OF 5A CIRCUIT DC 5V OUTPUT	FOR MEASUREMENT OF FEEDER DC 5V OUTPUT
MEASURING RANGE	AC 10mA/100mA	AC 0.1A~ 5A	AC 1A~50A
RANGE	DC 100mV±2%F.S	AC 5A	AC 50A
SECONDARY OUTPUT	DC 100mV±2%F.S	DC 5V±2%F.S	DC 5V±2%F.S
CT SIZE (INSIDE DIAMETER)	φ 18mm	φ 23mm	φ 23mm
DIMENSION/WEIGHT	45×140×20mm/100g	48×146×20mm/85g	48×146×20mm/85g
REMARK	Power Supply LR-44x2 with wire & banana plug (1.2m)	Power Supply DC 24V with 3 wick wire (2m)	Power Supply DC 24V with 3 wick wire (2m)
PAGE	P47	P47	P47

CLASSIFICATIONS	CLAMP TYPE AC CURRENT SENSOR /For LEAKAGE CURRENT MEASUREMENTS (ZCT SERIES)		
MODEL	ZCT-40SQ	ZCT-80	ZCT-1100
SHAPE			
FEATURE - APPLIACTION	FOR FEEDER FOR MEASUREMENT OF 1mA	FOR MAIN CABLE BIG SIZE OF 1mA LOW COST	FOR MAIN CABLE ULTRA BIG SIZE
MEASURING RANGE	AC 1mA~50A	AC 1mA~1000A	AC 1mA~3000A
NOMINAL TRANS.RATIO	4000:1	2000:1	2000:1
CT SIZE (INSIDE DIAMETER)	φ 40mm	80mm×74mm	128mm×108mm
MAX. APPLICABLE CURRENT	AC 60A	AC 1200A	AC 3600A
DIMENSION/WEIGHT	98×155×23mm/155g	138×225×37mm/500g	194×342×52mm/1800g
REMARK	For Measurement of Leakage Current with φ3 2wick single shield wire (20cm)	For Leakage & Line Current with φ3 2wick single shield wire (1m)	For Leakage & Line Current with φ3 2wick single shield wire (1m)
PAGE	P45	P46	P45

CLASSIFICATIONS	SPLIT TYPE AC ZERO PHASE CURRENT TRANSFORMER (MZL SERIES)		
MODEL	MZL-30	MZL-45	MZL-60
SHAPE			
FEATURE - APPLIACTION	FOR DETECTION OF ZERO PHASE CURRENT OF 1P & 3P CIRCUIT	FOR DETECTION OF ZERO PHASE CURRENT OF 1P & 3P CIRCUIT	FOR DETECTION OF ZERO PHASE CURRENT OF 1P & 3P CIRCUIT
MEASURING RANGE	AC 100mA ~ 800mA	AC 100mA ~ 800mA	AC 100mA ~ 800mA
RANGE	50mV/100mA(RL=530Ω)	50mV/100mA(RL=530Ω)	50mV/100mA(RL=530Ω)
SECONDARY OUTPUT	5V (100A/530Ω) example	5V (100A/530Ω) example	5V (100A/530Ω) example
CT SIZE (INSIDE DIAMETER)	φ 30mm	φ 45mm	φ 60mm
DIMENSION/WEIGHT	142×110×40mm/560g	170×140×40mm/660g	182×160×40mm/1850g
REMARK	Stable Output and Superior Equilibrium Characteristic	Stable Output and Superior Equilibrium Characteristic	Stable Output and Superior Equilibrium Characteristic
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PRODUCT SELECTION GUIDE

CLASSIFICATIONS	TRACK (OVAL) TYPE ZCT SENSOR, THROUGH HOLE TYPE ZCT/CT SENSOR		
MODEL	ZCT-20M	TRACK TYPE ZCT SENSOR	NON-SPLIT CT
SHAPE			
APPLIATION	NOISEPROOF FOR MEASUREMENT OF mA	HIGH ACCURATE FOR POWER SWITCH GEAR	COMMON USE FOR LINE CURRENT
APPLICABLE CURRENT	AC 1mA~20A	AC 400A	AC 30~600A
OUTPUT	2000:1	AC 19.4mV(RL=100Ω)	AC 300mV(RL=1Ω)
CT SIZE (INSIDE DIAMETER)	φ 20mm	—	—
MAX. APPLICABLE CURRENT	AC 30A		
DIMENSION/WEIGHT	39×41×17mm/160g	350×120×10mm/350g	φ 68× φ 126×30mm
REMARK	Non-split Type With φ 4m Shield Wire	Customized Product Available	Customized Product Available
PAGE	P49	P49	P49

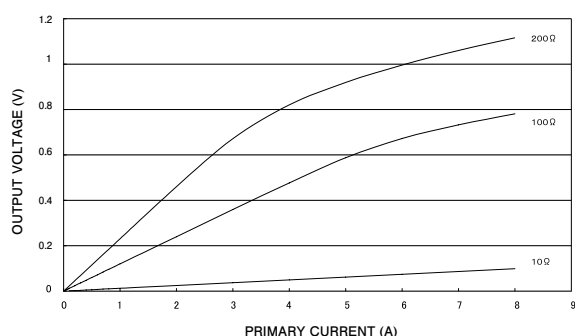
CLASSIFICATIONS	THROUGH HOLE CT & INJECTION CT		CLASSIFICATIONS	INJECTION & HI-FREQUENCY CURRENT	
MODEL	NON-SPLIT W/FIX STAND	INJ-80	MODEL	INJ-34	HFCT-34
SHAPE			SHAPE		
APPLICATION	COMMON USE FOR LOW VOLTAGE CIRCUIT	FOR INJECTION OF HI FREQUENCY CURRENT	FEATURE · APPLICATION	FOR INJECTION OF HI FREQUENCY CURRENT	FOR INJECTION OF HI FREQUENCY CURRENT
APPLICABLE CURRENT	AC 100A	Approx. 4300Hz	MEASURING RANGE	—	AC 1mA~20A
OUTPUT	AC 0.97~1.03V(RL=30Ω)	203 turns	APPLICABLE FREQUENCY	4KHz~200KHz	4KHz~200KHz
CT SIZE (INSIDE DIAMETER)	φ 13mm	φ 80mm	SECONDARY WINDINGS	50Turns	108Turns
DIMENSION/WEIGHT	39×41×17mm/160g	123×240×28mm	CT SIZE (INSIDE DIAMETER)	φ 34mm	φ 34mm
DIMENSION/WEIGHT	39×41×17mm/160g	123×240×28mm	DIMENSION/WEIGHT	91×165×38mm/440g	91×165×38mm/460g
REMARK	Customized Product Available	Big Window	REMARK	with shield wire & safety plug (2.5m)	with shield wire & safety plug (2.5m)
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SPLIT TYPE PULSE CURRENT SENSOR

MODEL CTF-03



■ CHARACTERISTIC OF OUTPUT VOLTAGE



FEATURES

Suitable for operation check by detecting pulse current and for the detection of wire connection or disconnection of the internal circuit of equipment.

Wide Range of 0.1mA - 8A.

Ultra super compact & lightweight.

High sensitive and strong for outer magnetic field influence.

SPECIFICATIONS

Applicable Current :	AC 0.1mA~8Arms
Output Characteristic :	refer to the drawing of output voltage characteristic
Output Example :	AC12.3mV±5% (1A/10Ω)
Nominal CT Ratio :	800:1
Inside Diameter :	φ3mm
Max. Capable Current :	10Arms continuous
Applicable Frequency :	10Hz~5KHz
Rated Voltage :	Less than AC600V for low voltage circuit of coated wires
Withstanding Voltage :	AC2200V/1 minute (between output terminal and outer case)
Insulation Resistance :	more than 100MΩ by 500V insulation tester (between output terminal and outer case)
Operation Temperature :	-10~50°C, less than 80%RH w/o condensation
Material of Outer Case :	P.P. (Flame Rating: based on UL94V-0)
Material of Core :	Ferrite
Capable CT Open/Close :	Approx. 100 times
Dimension/Weight :	24(W)×12(D)×28(H)mm /Approx. 8g

MODEL CTF-05

FEATURE

High Accurate AC Pulse Detection Sensor for Power Demand Meter



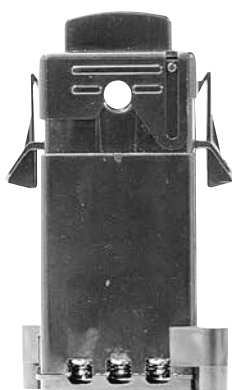
SPECIFICATIONS

Applicable Current :	AC1mA~100A
Output Example :	AC 12.4mV±5% (AC 1A/10Ω)
Nominal Trans. Ratio :	800:1
CT Inside Diameter :	5mm
Max. Applicable Current :	100A continuous
Applicable Frequency :	1Hz~5KHz
Applicable Circuit Voltage :	Less than AC 100V
Insulation Resistance :	more than 100MΩ by DC 100V (between CT hole and output)
Operating Temperature :	-10~75°C, Less than 80%RH
Materials :	Ferrite Core & PP Outer Case
Dimension/Weight :	50×50×20mm/95g

MODEL CTF-05k

FEATURE

Pulse current detection for power demand meter. Clamp type CT.Open collector output.



SPECIFICATIONS

Applicable Current:	8mA~25mA
Output Example:	Open collector output (L (OFF) level at detection)
CT Inside Diameter:	φ5mm
Operating current:	8mA
Detectable pulse width:	More than 10msec
Power supply:	DC 12V±10%(External)
Power consumption:	Approx. 5mA
Withstanding Voltage:	AC2200V/1 minute (between output terminal and outer case)
Insulation Resistance:	More than 100MΩ by 500V insulation tester (between output terminal and outer case)
Operating Temperature:	-10~70°C, Less than 80%RH Without condensation
Dimension/Weight:	33×79×22mm/55g
Terminal:	M3 x 3 (Power supply,Output,COM)

MODEL OKM-03 **FEATURE** For pulse current detection



SPECIFICATIONS

Applicable Current : 0.3mA~1A
 Output Example : Open collector output (L(OFF)level at detection)
 CT Inside Diameter : ϕ 3mm
 Operating current : 0.3mA
 Detectable pulse width : More than 10msec
 Power supply : DC 5V \pm 5% (External)
 Withstanding Voltage : AC1500V/1 minute
 (between output terminal and outer case)
 Insulation Resistance : More than 100M Ω by 500V insulation tester
 (between output terminal and outer case)
 Operating Temperature : -10~70°C, Less than 80%RH
 Without condensation
 Dimension/Weight : 30 \times 28 \times 18mm/16g
 Lead cable : 15cm (Power supply(red),Output(White),COM(black))

MODEL PCT-06



FEATURES

**Through hole type pulse current sensor.
 Pulse current sensor for power demand meter.**

SPECIFICATIONS

Applicable Current : AC 0.1mA~1A
 Output Example : AC 12.4mV \pm 5% (AC 1A/10 Ω)
 CT Inside Diameter : ϕ 6mm
 Nominal CT Ratio : 800 : 1
 Applicable Frequency : 10Hz~5kHz
 Max. Input Current : 10A continuous
 Max Circuit Voltage : Less than AC/DC 100V
 Withstanding Voltage : AC2200V/1 minute
 (between output terminal and CT)
 Insulation Resistance : More than 100M Ω by DC100V insulation tester
 (between output terminal and CT)
 Operating Temperature : -10~75°C, Less than 80%RH
 Without condensation
 Dimension/Weight : 21 \times 25 \times 10mm/5g
 Lead cable : 15cm

MODEL CTF-05M



FEATURES

**Pulse current detection for power demand meter.
 Through hole type CT.
 Open collector output.**

SPECIFICATIONS

Applicable Current : 8mA~25mA
 Output Example : Open collector output (L(OFF)level at detection)
 CT Inside Diameter : ϕ 5mm
 Operating current : 8mA
 Detectable pulse width : More than 10msec
 Power supply : DC 12V \pm 10% (External)
 Withstanding Voltage : AC2200V/1 minute
 (between output terminal and CT)
 Insulation Resistance : More than 100M Ω by 500V insulation tester
 (between output terminal and CT)
 Operating Temperature : -10~70°C, Less than 80%RH
 Without condensation
 Dimension/Weight : 33 \times 77 \times 22mm/35g
 Terminal : M3 x 3 (Power supply,Output,COM)

MODEL DCZCT-20CDHL



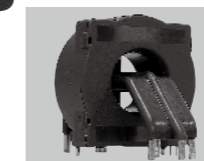
FEATURES

**Low DC current measurements.
 DC1mA~200mA
 High accuracy.
 \pm 1%F.S \pm 20mV
 Least influence of magnetization.
 Less than DC1mA in current level
 Convenient +5V single polarity power supply.
 Reference voltage (Vref) terminal is equipped.**

SPECIFICATIONS

Applicable Frequency : DC only
 Standard : Compliant with RoHS directive
 CT Inside Size : ϕ 20mm (Through hole type)
 Max Circuit Voltage : AC/DC500V
 Withstanding Voltage : AC3700V (50/60Hz) / 1 minute
 Insulation Resistance : More than 100M Ω by DC500V insulation tester
 Operation Temperature : -20°C~80°C, Less than 85%RH Without
 condensation Dimension : 42.7(W) \times 42.4(H) \times 21.9(D)mm
 Weight : Approx.27g
 Storage Temperature : -30°C~80°C, Less than 80%RH Without
 condensation
 Measuring Range : DC \pm 1mA~ \pm 200mA
 Output Voltage : DC10mV/1mA DC2000mV/200mA
 Power Supply Voltage : DC5V \pm 5% (Max DC6V)
 Maximum input current : DC10A
 Accuracy (23°C \pm 5°C, less than 85%RH): \pm 1% F.S. \pm 20mV (DC5V)
 Influence of Residual Current : Less than DC \pm 2mA (at \pm DC30A)
 Influence of Terrestrial Magnetism : Less than DC \pm 1mA (output 5mV)
 Influence of Magnetization : Less than DC \pm 1mA (output \pm 10mV)
 Output Response : Less than 100ms
 Current Consumption : Less than 30mA (DC5V)
 Structure : PCB mount through hole type
 Option : Exclusive use bus bar

MODEL FDAZCT-20L-0.3/0.6



Option : with bus bar

FEATURES

**For Detecting Low Range and Leakage AC/DC/Pulsed
 Current. Lowest Influence from Magnetization,
 Temperature Change, Residual Current and
 Terrestrial Magnetism.
 Low Cost and High Performance
 (Output Linearity \pm 1% F.S.)**

SPECIFICATIONS

Accuracy : \pm 1.5% F.S. (including DC current offset)
 Output Linearity : Less than \pm 1%
 Residual Voltage at no loading : Less than \pm 40mV
 Influence of Terrestrial Magnetism : Less than \pm 30mV
 Power Supply Voltage : DC +5V \pm 5% (unipolar)
 Current Consumption : Approx. 15mA
 Output Response : 50 μ sec. (90% of Rated Primary Current)
 Temperature Coefficient : \pm 400ppm/K
 Applicable Circuit Voltage : Less than AC/DC 600V (insulated coating wire)
 Withstanding Voltage : AC5400V/1 minute (between through hole and output)
 Ambient Operating Temperature : -40°C~105°C (<85%RH, w/o condensation)
 Ambient Storage Temperature : -50°C~105°C (<85%RH, w/o condensation)
 Material of Outer Case : PA (based on UL94V-0), Black color
 Dimension : 45.0(W) \times 44.7(H) \times 20.7(D) mm, Inside Diameter ϕ 20mm
 Weight : Approx. 30g
 Environmental Standard : Conforming RoHS Directive
 Terminal Pin Layout : +/Power Supply +5V, 0V/ Power Supply 0V,
 Ref./Output GND, Out/Signal Output

Model	FDAZCT-20L-0.3	FDAZCT-20L-0.6
Rated Primary Current	300mA	600mA
Measuring Range	\pm 1mA~ \pm 500mA	\pm 1mA~ \pm 850mA
Output Characteristic (between Ref. and Out.)	1200mV/300mA	1200mV/600mA

MODEL FDAZCT-11L Series



Model	FDAZCT-11-0.1	FDAZCT-11-0.2	FDAZCT-11-0.4
Rated Primary Current (I _{pn})	±100mA	±200mA	±400mA
Measuring Range	±200mA	±400mA	±800mA

FEATURES

DC/AC Earth Leakage Current Measurement.
Bipolar ±15V Power Supply.
Output ±5V at primary nominal current.
Isolated Housing Case based on UL94V-0.
Applicable Frequency DC – 18KHz.
Inside Diameter: φ 11mm

SPECIFICATIONS

Power Supply Voltage:	DC ±15V (±5%)
Output Voltage:	±5V at Rated Primary Current
Output Accuracy:	±1% of I _{pn} (excluding offset)
Output Linearity:	Less than 0.5%
Consumption Current:	±45mA
Response Time:	Less than 60ms (90% of I _{pn})
Ambient Operating/Storage Temp.:	-20°C ~ 85°C (less than 85%RH, w/o condensation)
Material of Outer Case:	PA (based on UL94V-0)
Color of Outer Case:	Black
Dimension:	30.0(W) × 30.0(H) × 19.2(D) mm
Weight:	Approx. 25g
Inside Diameter:	φ 11mm
Environmental Standard:	Conforming RoHS Directive
Pin Layout:	+ / Power Supply +15V, - / Power Supply -15V, OUT / Signal Output, M / Ground

MODEL FDACT-1 Series



Model	FDACT-1-6	FDACT-1-15	FDACT-1-25	FDACT-1-50
Rated Primary Current	±6A	±15A	±25A	±50A
Max. Applicable Current	±20A	±51A	±85A	±150A

FEATURES

DC/AC & Phase Current Measurement in complete isolated structure.
Unipolar +5V Power Supply
High-Speed Response (approx. 0.3μsec.)
Standard Voltage Function built-in.
Applicable Frequency DC – 300KHz.

APPLICATIONS

*UPS & SMPS Power Supplies *Servo Motor Drive *Solar Inverters
 *Power Supplies for Welding Machines *DC Motor Drives

SPECIFICATIONS

Power Supply Voltage:	DC5V ±5%
Output Voltage:	625mV at Rated Primary Current (between Ref. & Out)
Output Accuracy:	±1.5% (including DC current offset)
Output Linearity:	Less than ±0.2%
Influence of Terrestrial Magnetism:	Less than ±5mV
Influence of Magnetization:	Less than ±2mV
Consumption Current:	25mA/30mA/35mA/55mA
Response Time:	Approx. 0.3μ sec. (90% of Rated Primary Current)
Temperature Coefficient:	Less than ±60ppm/°C
Withstanding Voltage:	AC4KV/1 minute (between through hole and output)
Ambient Operating Temp.:	-40°C ~ 105°C (less than 85%RH, w/o condensation)
Ambient Storage Temp.:	-50°C ~ 105°C (less than 85%RH, w/o condensation)
Material of Outer Case:	PA (based on UL94V-0)
Color of Outer Case:	Black
Dimension:	16.2(W) × 21.7(H) × 23.0(D)mm
Weight:	Approx. 10g
Environmental Standard:	Conforming RoHS Directive
Terminal Pin Layout:	+ / Power Supply +5V, 0V / Power Supply 0V, Out / Signal Output, Ref / Output GND

MODEL DCZCT-20CDH/DCZCT-20MH/DCZCT-20M



FEATURES

DC earth fault measurement for solar power system
Least affection from the magnetization of core and temperature fluctuation
DC leakage current measurements
Current measurements for small DC motors.

SPECIFICATIONS

Model	DCZCT-20CDH	DCZCT-20MH	DCZCT-20M
Applicable Current	DC ±1mA ~ ±200mA	DC1mA ~ 200mA	DC10mA ~ 1000mA
Output Characteristic	±DC1000mV / ±200mA	DC1000mV / DC 200mA	DC1000mV / 1000mA
Inside Diameter	20mm		
Structure	Non-Split Core Type ZCT		
Accuracy	±1% F.S. (23°C ±5°C, <80%RH)		
Power Supply Voltage	±8V ~ ±13.2V DC	+5V DC	
Insulation Resistance	more than 50MΩ	more than 100MΩ by 500V insulation tester	
Withstanding Voltage	AC2000V/1 minute	AC2200V/1 minute	
Applicable Circuit Voltage	less than DC500V		
Operation Temperature	-20°C ~ 80°C (<80%RH, w/o condensation)		
Dimension & Weight	42(W) × 56(H) × 17(D)mm, approx.. 60g		

MODEL DCZCT-45NK



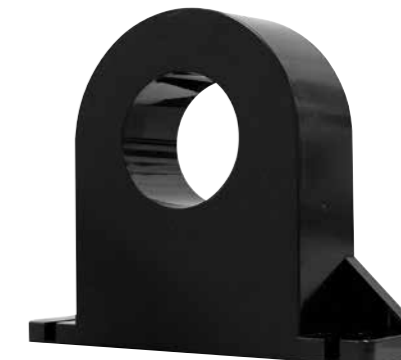
FEATURES

DC earth fault measurement and DC leakage current measurement.
Least affection from the magnetization of core and temperature fluctuation.
Convenient +24V single polarity power supply.

SPECIFICATIONS

Model	DCZCT-45NK	DCZCT-60NK
Applicable Current	DC1mA ~ 100mA	DC1mA ~ 100mA
Output Characteristic	DC2.5V / DC 100mA	DC2.5V / DC 100mA
Inside Diameter	45mm	60mm
Dimension (w/o fixing stand)	106(W) × 143(H) × 47(D)mm	120(W) × 157(H) × 51(D)mm
Structure	Non-Split Core Type ZCT	
Accuracy	±1% F.S. (23°C ±5°C, <80%RH)	
Power Supply Voltage	+24V DC	
Insulation Resistance	more than 100MΩ by 500V insulation tester	
Withstanding Voltage	AC2200V/1 minute	
Applicable Circuit Voltage	less than DC500V	
Operation Temperature	-20°C ~ 80°C (<80%RH, w/o condensation)	

MODEL DCZCT-60NK



MODEL MOHT- B Series Open Loop Method



FEATURES

Hall effect measurement for DC/AC/Pulsed current.
For the use of UPS, batteries, switching power supply, DC motor drivers, etc.
Wide Measuring Ranges (9 models) up to $\pm 2500A$.

SPECIFICATIONS

Output Voltage :	$\pm 4V$
Power Supply Voltage :	$\pm 15V (\pm 5\%)$
Accuracy :	less than $\pm 1\%$ of Primary Current
Operating Temperature :	$-10 \sim +80^{\circ}C$
Storage Temperature :	$-25 \sim +80^{\circ}C$
Current Consumption:	approx.. 30mA
Response Time:	@90%IPN step $< 5\mu s$.
Output Connector:	Molex 5045-04A
Dimension/Weight:	70(W) \times 65(H) \times 24(D)mm, approx.. 300g
Safety Standard:	EN50178 and IEC61010-1 (RoHS compliant)

Model	Nominal Primary Current	Measuring Range
MOHT-200B	200A	$\pm 600A$
MOHT-400B	400A	$\pm 1200A$
MOHT-500B	500A	$\pm 1500A$
MOHT-600B	600A	$\pm 1800A$
MOHT-750B	750A	$\pm 2250A$
MOHT-800B	800A	$\pm 2400A$
MOHT-1000B	1000A	$\pm 2500A$
MOHT-1200B	1200A	$\pm 2500A$
MOHT-1500B	1500A	$\pm 2500A$

MODEL MCHT-B Series Closed Loop Method



FEATURES

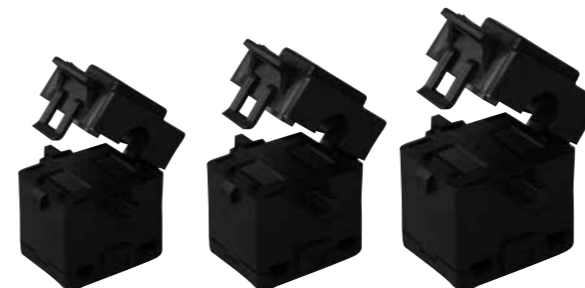
Hall effect accurate measurement for DC/AC/Pulsed current.
For the use of UPS, SMPS, servo motor drivers, static DC motor drivers, etc.
High Accuracy and High Current Measurement for the industrial use.

SPECIFICATIONS

Model No.	MCHT-200B	MCHT-300B	MCHT-500B	MCHT-1000B
Nominal Primary Current (I _{pn})	200A	300A	500A	1000A
Measuring Range	0 \sim $\pm 420A$	0 \sim $\pm 500A$	0 \sim $\pm 800A$	0 \sim $\pm 1500A$
Power Supply Voltage	$\pm 12V \sim \pm 15V$	$\pm 12V \sim \pm 20V$	$\pm 15V \sim \pm 24V$	$\pm 15V \sim \pm 24V$
Secondary Output	100mA at I _{pn}	150mA at I _{pn}	100mA at I _{pn}	200mA at I _{pn}
Conversion Ratio	1:2000	1:2000	1:5000	1:5000
Inside Diameter	$\phi 15.5mm$	$\phi 20.0mm$	$\phi 30.2mm$	40.5 \times 38.5mm
Consumption Current	approx. 17mA + output	approx. 26mA + output	approx. 21mA + output	approx. 100mA + output
Accuracy (at 25°C)	$\pm 0.5\%$ at I _{pn}	$\pm 0.5\%$ at I _{pn}	$\pm 0.6\%$ at I _{pn}	$\pm 0.4\%$ at I _{pn}
Response Time	$< 1\mu s$, at 90% I _{pn}	$< 1\mu s$, at 90% I _{pn}	$< 1\mu s$, at 90% I _{pn}	$< 1\mu s$, at 90% I _{pn}
Operation Temperature	$-40 \sim +85^{\circ}C$	$-40 \sim +85^{\circ}C$	$-40 \sim +70^{\circ}C$	$-40 \sim +85^{\circ}C$
Storage Temperature	$-40 \sim +90^{\circ}C$	$-40 \sim +85^{\circ}C$	$-40 \sim +85^{\circ}C$	$-40 \sim +100^{\circ}C$
Dimension	48.8(W) \times 51.6 (H) \times 26.0 (D)	54.0(W) \times 56.5 (H) \times 26.0 (D)	70.0(W) \times 70.0 (H) \times 31.0 (D)	90.0(W) \times 95.0 (H) \times 31.0 (D)
Weight	approx. 80 g	approx. 95 g	approx. 230 g	approx. 520 g
Output Connector	Molex 6410 or (Minifit Jr. 5566)	Molex 6410 or (Minifit Jr.5566)	Molex 6410 or (Minifit Jr.5566)	Molex 6410 or (Minifit Jr. 5566)

*Different Measuring Ranges & Output Ratio are available on request

MODEL CTF-5DC/CTF-50DC/CTF-100DC/CTF-200DC/CTF-500DC



FEATURES

With Stopper Function to prevent slipping off from conductor
Easy operation with one hand
Safety Design – Hardly Flammable Material for Outer Case
Available for Low to High Range AC/DC Current Detection
Suitable for AC/DC Measurement of PWM or Inverter

SPECIFICATIONS

Model No.	CTF-5DC	CTF-50DC	CTF-100DC	CTF-200DC	CTF-500DC
Measuring Range	DC0 \sim $\pm 5A$ AC0 \sim 5A	DC0 \sim $\pm 50A$ AC0 \sim 50A	DC0 \sim $\pm 100A$ AC0 \sim 100A	DC0 \sim $\pm 200A$ AC0 \sim 200A	DC0 \sim $\pm 500A$ AC0 \sim 500A
Max. Input Current	7.5Arms continuous	75Arms continuous	150Arms continuous	300Arms continuous	750Arms continuous
Power Supply Voltage	DC $\pm 12V$	DC $\pm 12V$	DC $\pm 12V$	DC $\pm 12V$	DC $\pm 12V$
Secondary Output	$\pm 4V$ at rated current	$\pm 4V$ at rated current	$\pm 4V$ at rated current	$\pm 4V$ at rated current	$\pm 4V$ at rated current
Accuracy	$\pm 1\%$ F.S.	$\pm 1\%$ F.S.	$\pm 1\%$ F.S.	$\pm 1\%$ F.S.	$\pm 1\%$ F.S.
Temp. Coefficient	$\pm 0.1\%/^{\circ}C$	$\pm 0.1\%/^{\circ}C$	$\pm 0.1\%/^{\circ}C$	$\pm 0.1\%/^{\circ}C$	$\pm 0.1\%/^{\circ}C$
Rated Frequency	DC \sim 10KHz	DC \sim 10KHz	DC \sim 10KHz	DC \sim 10KHz	DC \sim 10KHz
Withstanding Voltage	AC1500V/1minute (CT Hole & Output)	AC1500V/1minute (CT Hole & Output)	AC1500V/1minute (CT Hole & Output)	AC1500V/1minute (CT Hole & Output)	AC1500V/1minute (CT Hole & Output)
Operation Temperature	$-10 \sim +75^{\circ}C$ less than 80%RH	$-10 \sim +75^{\circ}C$ less than 80%RH	$-10 \sim +75^{\circ}C$ less than 80%RH	$-10 \sim +75^{\circ}C$ less than 80%RH	$-10 \sim +75^{\circ}C$ less than 80%RH
CT Inside Diameter	16mm	16mm	16mm	24mm	35mm
Dimension	31 \times 30 \times 54mm with 15cm lead wire	31 \times 30 \times 54mm with 15cm lead wire	31 \times 30 \times 54mm with 15cm lead wire	36 \times 45 \times 76mm with 15cm lead wire	60 \times 40 \times 80mm with 15cm lead wire
Weight	approx. 85 g	approx. 85 g	approx. 85 g	approx. 190 g	approx. 360 g
Materials	Ferrite CT Core PP Outer Case	Ferrite CT Core PP Outer Case	Ferrite CT Core PP Outer Case	Ferrite CT Core PP Outer Case	Ferrite CT Core PP Outer Case

Wiring: Red/+12V Black/-12V White/Output Green/Common

* Unipolar Power Supply Voltage (+24V DC) is available

NOTICE : Recommend to use the above CTs for more than 5% of the rated current, as the outputs might be affected by various kinds of surroundings.

MODEL CTF-6DC/CTF-30-10DC/CTF-60-10DC



FEATURES

Compact, Space-saving, Low Cost DC Current Sensors. Split-core type, easy to apply to existing circuit. Easy to use by unipolar +5V power supply. High speed responsibility – less than 10μsec. 0 rated primary current. Suitable for monitoring solar panel strings.

SPECIFICATIONS

Model	CTF-6DC	CTF-30-10DC	CTF-60-10DC
Rated Primary Current	DC 30A	DC 30A	DC 60A
Output Voltage	at +30A Input DC+4.5V at 0A Input DC+2.5V at -30A Input DC+0.5V	at 30A Input DC+4.5V at 0A Input DC+2.5V at -30A Input DC+0.5V	at +60A Input DC+4.5V at 0A Input DC+2.5 at -60A Input DC+0.5V
Accuracy	±2%F.S	±2%F.S	
Max. Capable Conductor	φ 6mm	φ 10mm	
Power Supply	DC +5V(Unipolar)	DC +5V(Unipolar)	
Response Time	0~Rated Input Current 10μsec	0~Rated Input Current 10μsec	
Max. Applicable Current	DC 33A	DC 33A	DC 66A
Withstanding Voltage	AC 2000V/1 min. (between outer case & output)	AC 2000V/1 min.(between outer case & output)	
Output Cable	2 Wick Single Shield Cable	2 Wick Single Shield Cable	
Wiring Method	Red:5V Power Supply, White:Output OUT, Shield:0V Power Supply · Output GND	Red:5V Power Supply, White:Output OUT, Shield:0V Power Supply · Output GND	
Operating Temp./Humidity	-10°C~+65°C less than 85%RH	-10°C~+65°C less than 85%RH	
Standards	RoHS Compliance UL94V-0 Based	RoHS Compliance UL94V-0 Based	
Dimension	19.3(W) × 59.0(H) × 30.5(D)mm	25.9(W) × 65.2(H) × 31.1(D)mm	

MODEL DCZCT-18S FEATURE Ultra Compact Size for DC Leakage Current Measurement



SPECIFICATIONS

Measuring Range : DC±0.1mA~±100mA
 Output Voltage : DC 25mV/1mA (2.5V/100mA)
 Power Supply Voltage : DC±5V
 Accuracy : ±0.1mA
 CT Inside Diameter : 18mm
 Insulation Resistance : more than 100MΩ by DC 500V Insulation Tester between CT hole & Output
 Operating Temperature : 0~60°C, Less than 80%RH
 Dimension/Weight : 45×98×20mm/65g with 15cm lead wire

MODEL DCZCT-110S FEATURE DC current measurements, DC0.1mA ~ 100mA, φ 30mm, DCV output



SPECIFICATIONS

Measuring Range : DC±0.1mA~±100mA
 Output Voltage : DC2.5V F.S. (±25mV/mA)
 Power supply Voltage : ±5VDC (external)
 Accuracy : ±0.1mA
 CT Inside Size : φ 30mm
 Insulation Resistance : DC500V, More than 100MΩ (between CT and output)
 Operating Temperature : 0~60°C, Less than 80%RH Without condensation
 Dimension/Weight : 59×117×20mm 120g

MODEL DCZCT-140S FEATURE Compact Size for DC Leakage Current Measurement at Feeder Line



SPECIFICATIONS

Measuring Range : DC±0.1mA~±100mA
 Output Voltage : DC 25mV/1mA (2.5V/100mA)
 Power Supply Voltage : DC±5V
 Accuracy : ±0.1mA
 CT Inside Diameter : 40mm
 Insulation Resistance : more than 100MΩ by DC 500V Insulation Tester between CT hole & Output
 Operating Temperature : 0~60°C, Less than 80%RH
 Dimension/Weight : 64×122×23mm/125g with 15cm lead wire

CLAMP TYPE DC/AC CURRENT SENSOR /WITH VOLTAGE OUTPUT

MODEL LAD-240 **FEATURE COMPACT, GENERAL PURPOSE**



SPECIFICATIONS

MEASURING RANGE : DC 1A~200A
 CT SIZE : ϕ 30mm
 OUTPUT CHARACTERISTI : DC 200mV f.s
 OUTPUT ACCURACY : 1~150A f.s $\pm 2\% + 0.5\%$ f.s
 150A~200A $\pm 2.5\% + 0.5\%$ f.s
 INPUT RESISTRANCE : MORE THAN 1M Ω
 POWER SUPPLY : BUTTON CELL LA-44
 WITHSTANDING VOLTAGE : AC 1000V, 1 MINITE (BETWEEN CT AND OUTPUT)
 INSULATION RESISTANCE : DC500V, 100M Ω MORE THAN 100M Ω
 (BETWEEN CT AND OUTPUT)
 OPERATING TEMPRATURE : 0~40°C LESS THAN 80%rh, NON-CONDENSING
 OUTPUT LEARDWIRE : 1.2m BANANA PLUG
 DIMENTION : 44×146×21mm
 WEIGHT : 100g

MODEL LAD-250 **FEATURE GENERAL PURPOSE**



SPECIFICATIONS

MEASURING RANGE : AC/DC 1A~1000A
 CT SIZE : ϕ 40mm
 OUTPUT CHARACTERISTI : 200A RANGE DC 200mV f.s 1000A RANGE DC 100mV f.s
 OUTPUT ACCURACY : $\pm 3\%$ f.s
 INPUT RESISTRANCE : MORE THAN 1M Ω
 POWER SUPPLY : BUTTON CELL LA-44
 WITHSTANDING VOLTAGE : AC 1000V, 1 MINITE (BETWEEN CT AND OUTPUT)
 INSULATION RESISTANCE : DC500V, 100M Ω MORE THAN 100M Ω
 (BETWEEN CT AND OUTPUT)
 OPERATING TEMPRATURE : 0~40°C LESS THAN 80%rh, NON-CONDENSING
 OUTPUT LEARDWIRE : 1.2m BANANA PLUG
 DIMENTION : 69×175×23mm
 WEIGHT : 140g

MODEL LAD-20 **FEATURE HI FREQUENCY AC/DC CURRENT PROBE**



SPECIFICATIONS

MEASURING RANGE : AC 0~20A (RMS), DC 0~ ± 30 A
 CT SIZE : ϕ 17mm
 OUTPUT CHARACTERISTIC : 100mV/A
 FREQUENCY CHARACTERISTIC : -1.5dB (DC~100KHz)
 OUTPUT ACCURACY : $\pm 1\%$ rdg ± 5 mA (DC~100KHz)
 LOAD IMPEDANCE : LESS THAN 100pF AT MORE THAN 10K Ω
 POWER SUPPLY : 9V ALKALINE BATTERY OR AC ADOPTER
 WITHSTANDING VOLTAGE : AC3700V/1 MINUTE (W/O USE OF AC ADOPTER)
 OPERATING TEMPRATURE : -10~60°C, 15~85%RH W/O CONDENSATION
 OUTPUT LEARDWIRE : 2m SHIELD WIRE
 DIMENTION : 70×192×25mm

CLAMP TYPE DC/AC CURRENT SENSOR /WITH VOLTAGE OUTPUT

MODEL DCT-10 **FEATURE HIGH ACCURACY FOR MEASURING EQUIPMENT**



SPECIFICATIONS

MEASURING RANGE : AC/DC 0.1~10A
 CT SIZE : ϕ 23mm
 OUTPUT CHARACTERISTI : DC 10V f.s (1V/A)
 OUTPUT ACCURACY : $\pm 3\%$ f.s
 INPUT RESISTRANCE : MORE THAN 1M Ω
 POWER SUPPLY : DC 24V
 WITHSTANDING VOLTAGE : AC 1000V, 1 MINITE (BETWEEN CT AND OUTPUT)
 INSULATION RESISTANCE : DC500V, 100M Ω MORE THAN 100M Ω
 (BETWEEN CT AND OUTPUT)
 OPERATING TEMPRATURE : 0~40°C LESS THAN 80%rh, NON-CONDENSING
 OUTPUT LEARDWIRE : SINGLE SHIELD WIRE (OUTPUT 10m·POWER SUPPLY 5m)
 W/ROUND
 DIMENTION : 48×146×20mm
 WEIGHT : 300g

MODEL DCT-100 **FEATURE COMPACT, GENERAL PURPOSE**



SPECIFICATIONS

MEASURING RANGE : AC/DC 1~100A
 CT SIZE : ϕ 23mm
 OUTPUT CHARACTERISTI : DC 10V f.s (0.1V/A)
 OUTPUT ACCURACY : $\pm 3\%$ f.s
 INPUT RESISTRANCE : MORE THAN 1M Ω
 POWER SUPPLY : DC 24V
 WITHSTANDING VOLTAGE : AC 1000V, 1 MINITE (BETWEEN CT AND OUTPUT)
 INSULATION RESISTANCE : DC500V, 100M Ω MORE THAN 100M Ω
 (BETWEEN CT AND OUTPUT)
 OPERATING TEMPRATURE : 0~40°C LESS THAN 80%rh, NON-CONDENSING
 OUTPUT LEARDWIRE : SINGLE SHIELD WIRE (OUTPUT 10m·POWER SUPPLY 5m)
 W/ROUND
 DIMENTION : 48×146×20mm
 WEIGHT : 300g

MODEL DCT-1000 **FEATURE GENERAL PURPOSE**



SPECIFICATIONS

MEASURING RANGE : AC/DC 1~1000A
 CT SIZE : ϕ 40mm
 OUTPUT CHARACTERISTI : DC 10V f.s (0.01V/A)
 OUTPUT ACCURACY : $\pm 3\%$ f.s
 INPUT RESISTRANCE : MORE THAN 1M Ω
 POWER SUPPLY : DC 24V
 WITHSTANDING VOLTAGE : AC 1000V, 1 MINITE (BETWEEN CT AND OUTPUT)
 INSULATION RESISTANCE : DC500V, 100M Ω MORE THAN 100M Ω
 (BETWEEN CT AND OUTPUT)
 OPERATING TEMPRATURE : 0~40°C LESS THAN 80%rh, NON-CONDENSING
 OUTPUT LEARDWIRE : SINGLE SHIELD WIRE (OUTPUT 10m·POWER SUPPLY 5m)
 W/ROUND
 DIMENTION : 69×175×23mm
 WEIGHT : 350g

MODEL CTF-6



FEATURES

For AC current and power measurements.
Ultra compact size and high accurate output linearity.
Easy installation in the distributing box.
Compliant with RoHS directive.

SPECIFICATIONS

Applicable Current :	AC 0.1~30A(50/60Hz)
Applicable Frequency :	10Hz~5KHz
Output characteristic :	AC10.0mA±1% (AC30A)
Max. Input Current :	AC 40Arms continuous
Phase Accuracy :	+2.5°±1.0° (AC30A RL=10Ω 60Hz)+2.1°±1.0°(50HZ)
CT Inside Diameter :	φ 6mm
Nominal CT Ratio :	3000 : 1
Max. Circuit Voltage :	Less than AC600V for insulated cable
Withstanding Voltage :	AC 2200V/1 minute (between output terminal and outer case)
Insulation Resistance :	More than 100MΩ by 500V insulation tester (between output terminal and outer case)
Open Circuit Protection :	7.5V (Zener diode)
Operational Temperature :	-20~50 °C, less than 80%RH Without condensation
Storage Temperature :	-30~60°C, less than 80%RH Without condensation
Flame Rating :	UL-94V-0
Size and Weight :	19.3×26.4×31mm, Approx. 20g
Standard :	Compliant with RoHS directive

MODEL CTF-10



FEATURES

For AC current and power measurements.
Wide measuring range (AC 0.1~60A).
Compliant with RoHS directive.

SPECIFICATIONS

Applicable Current :	AC 0.1~60A
Max. Input Current :	100Arms continuous
Phase Accuracy :	1.6°±0.5° (10Ω/50A/50Hz) 1.3°±0.5° (10Ω/50A/60Hz)
CT Inside Diameter :	φ 10mm
Nominal CT Ratio :	3000 : 1
Withstanding Voltage :	AC 2200V/1 minute (between output terminal and outer case)
Insulation Resistance :	More than 100MΩ by 500V insulation tester (between output terminal and outer case)
Open Circuit Protection :	7.5V
Operational Temperature :	-10~60°C, less than 80%RH Without condensation
Flame Rating :	Compliant with UL-94V0
Standard :	Compliant with RoHS directive
Output Example :	AC20mA±1% (AC60A)
Output lead :	AWG22 150mm
Dimension/Weight :	26.4(W)×25.5(D)×43.3(H)mm /Approx. 40g

MODEL CTF-16



FEATURES

For AC current and power measurements.
Wide measuring range (AC 0.1~100A).
Compliant with RoHS directive.

SPECIFICATIONS

Applicable Current :	AC 0.1~100A
Max. Input Current :	200Arms continuous
Phase Accuracy :	0.9°±0.5° (10Ω 100A 50/60Hz)
CT Inside Diameter :	φ 16mm
Nominal CT Ratio :	3000 : 1
Withstanding Voltage :	AC 2200V/1 minute (between output terminal and outer case)
Insulation Resistance :	More than 100MΩ by 500V insulation tester (between output terminal and outer case)
Open Circuit Protection :	7.5V
Operational Temperature :	-10~60°C, less than 80%RH Without condensation
Flame Rating :	Compliant with UL-94V0
Standard :	Compliant with RoHS directive
Output Example :	AC33.3mA±1% (AC100A)
Output lead :	AWG22 150mm
Dimension/Weight :	29.4(W)×30.5(D)×46.2(H)mm /Approx. 75g

MODEL CTF-24



FEATURES

For AC current and power measurements.
Wide measuring range (AC 0.1~200A).
Compliant with RoHS directive.

SPECIFICATIONS

Applicable Current :	AC 0.1~200A
Max. Input Current :	300Arms continuous
Phase Accuracy :	0.3°±0.5° (10Ω 200A 50/60Hz)
CT Inside Diameter :	φ 24mm
Nominal CT Ratio :	3000 : 1
Withstanding Voltage :	AC 2200V/1 minute (between output terminal and outer case)
Insulation Resistance :	More than 100MΩ by 500V insulation tester (between output terminal and outer case)
Open Circuit Protection :	7.5V
Operational Temperature :	-10~60°C, less than 80%RH Without condensation
Flame Rating :	Compliant with UL-94V0
Standard :	Compliant with RoHS directive
Output Example :	AC66.6mA±1% (AC200A)
Output lead :	AWG22 150mm
Dimension/Weight :	48.4(W)×35(D)×70(H)mm /Approx. 170g

MODEL CTF-7NF



FEATURES

Ultra compact size and high accuracy.
Easy installation in the distributing box.
Compliant with RoHS directive.

SPECIFICATIONS

Applicable Current :	AC 0.1~40A
Phase Accuracy :	-3.0°±1.0°
CT Inside Diameter :	φ 7mm
Nominal CT Ratio :	3000 : 1
Applicable Frequency :	10Hz~5KHz
Max. Circuit Voltage :	AC600V
Open Circuit Protection :	7.5V (Zener diode)
Operational Temperature :	-10~50 °C, less than 80%RH Without condensation
Flame Rating :	UL-94V-0
Size and Weight :	φ 25mm×20mm, Approx. 20g
Standard :	Compliant with RoHS directive
Output lead :	15cm (AWG22)
Output Current :	AC 10.0mA±1% (for AC30A)
Max.input current :	AC 80Arms continuous

MODEL CTF-13NF



FEATURES

Ultra compact size and high accuracy.
Easy installation in the distributing box.
Compliant with RoHS directive.

SPECIFICATIONS

Max. Input Current :	AC 150Arms continuous
Phase Accuracy :	-1°±0.5°
CT Inside Diameter :	φ 13mm
Nominal CT Ratio :	3000 : 1
Applicable Frequency :	10Hz~5KHz
Max. Circuit Voltage :	AC600V
Open Circuit Protection :	7.5V (Zener diode)
Operational Temperature :	-10~50 °C, less than 80%RH Without condensation
Flame Rating :	UL-94V-0
Size and Weight :	φ 38mm×30mm, Approx. 60g
Standard :	Compliant with RoHS directive
Output Current :	AC 33.3mA±1% (for AC100A)
Rated Primary Current :	AC 0.1~100A

MODEL CTF-5A/CTF-50A/CTF-100A/CTF-200A/CTF-400A/CTF-600A

Most Suitable for Current Measurement in the terminal feeder.
6 Models for 5A/50A/100A/200A/400A/600A.

With Stopper hardly slipping off from the wires.

No need the specific connector due to the terminal output.

Safety Design with Open Protective Element & Flame-resistant Material.



SPECIFICATIONS

Model No.	CTF-5A	CTF-50A	CTF-100A
Measuring Range	AC0.01~5A	AC0.1~50A	AC0.1~100A
Max. Capable Current	10A rms continuous	100A rms continuous	200A rms continuous
Nominal CT Ratio	3000:1	3000:1	3000:1
Output Characteristic (RL=10Ω)	16.6mV±1% (5A)	166.6mV±1% (50A)	333.3mV±1% (100A)
Phase Accuracy	-1.5°±0.5°(5A)	-1.4°±0.4°(50A)	-0.7°±0.5°(100A)
Applicable Frequency	10Hz~50KHz	10Hz~50KHz	10Hz~50KHz
Open Protective Element	7.5V	7.5V	7.5V
Dimension (W×H×D), Weight	25×33×41mm,60g	26×23×48mm, 45g	31×30×54mm, 85g
Inside Diameter	10mm	10mm	16mm

Model No.	CTF-200A	CTF-400A	CTF-600A
Measuring Range	AC0.1~200A	AC0.1~400A	AC0.1~600A
Max. Capable Current	300A rms continuous	600A rms continuous	800A rms continuous
Nominal CT Ratio	3000:1	6000:1	9000:1
Output Characteristic (RL=10Ω)	666.6mV±1% (200A)	666.6mV±1% (400A)	666.6mV±1% (600A)
Phase Accuracy	-0.3°±0.5°(200A)	-0.1°±0.5°(400A)	0°±0.5°(600A)
Applicable Frequency	10Hz~50KHz	50Hz~10KHz	50Hz~10KHz
Open Protective Element	7.5V	3.0V	3.0V
Dimension (W×H×D), Weight	36×45×76mm, 190g	60×40×80mm, 310g	60×40×80mm, 350g
Inside Diameter	24mm	35mm	35mm

Rated Voltage	Less than AC600V for low voltage circuit of coated wires
Withstanding Voltage	AC2200V/1 minute between output terminal and outer case
Insulation resistance	more than 100MΩ between output terminal and outer case
Material of Core	Ferrite
Material of Outer Case	P.P. (Flame Rating based on UL94V-0)
Operation Temperature	-20~50°C, less than 80%RH w/o condensation
Capable CT Open/Close	approx.. 100 times.

MODEL CTF-100T/CTF-200T/CTF-400T



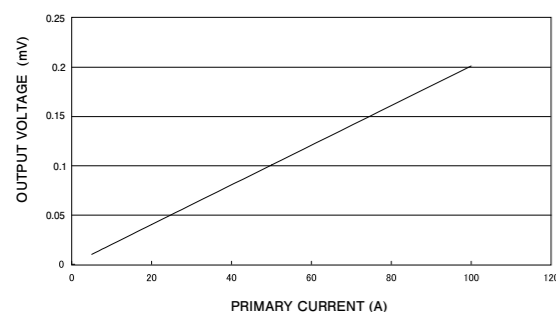
FEATURES

1A Output Type for General Metering Systems.
Easy to apply by split core type with stopper hardly slipping off from the wire.
No need to specified connector due to the terminal output.
Safety Design with Open Protective Element & Flame-resistant Material.

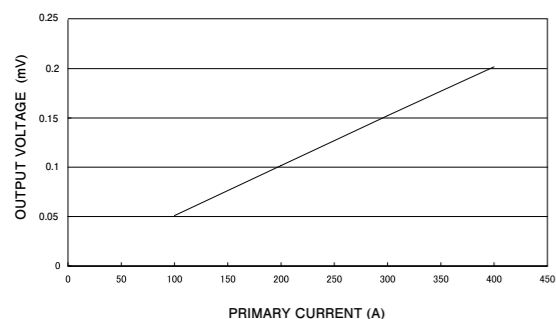
SPECIFICATIONS (CTF-100T)

Rated Primary Current : AC 100A
 Rated Secondary Current : 1A
 Rated Burden (VA) : 0.2VA
 Comparative Error : $\pm 1.0\%I_n \pm 1.0\%0.2I_n$
 Phase Accuracy : $\pm 1.5^\circ I_n \pm 2.0^\circ 0.2I_n$
 Output Characteristic : refer to the drawing of output voltage characteristic
 Inside Diameter : $\phi 24\text{mm}$
 Max. Capable Current : AC 120A
 Open Protective Element : 7.5V
 Applicable Frequency : 10Hz-5KHz
 Rated Voltage : Less than AC600V for low voltage circuit of coated wires
 Withstanding Voltage : AC2200V/1 minute
 (between output terminal and outer case)
 Insulation Resistance : more than $100M\Omega$ by 500V insulation tester
 (between output terminal and outer case)
 Operation Temperature : $-10\sim 50^\circ\text{C}$ less than 80%RH w/o condensation
 Material of Outer Case : P.P. (Flame Rating: based on UL94V-0)
 Material of Core : Ferrite
 Capable CT Open/Close : Approx. 100 times
 Dimension/Weight : $36(W) \times 45(D) \times 76(H)\text{mm}$ /Approx. 190g

CHARACTERISTIC OF OUTPUT VOLTAGE



CHARACTERISTIC OF OUTPUT VOLTAGE



SPECIFICATIONS (CTF-200T/-400T)

Rated Primary Current : AC 200A/CTF-200T
 AC 400A/CTF-400T
 Rated Secondary Current : 1A
 Rated Burden (VA) : 0.2VA
 Comparative Error : $\pm 1.0\%I_n \pm 1.0\%0.2I_n$
 Phase Accuracy : $\pm 1.5^\circ I_n \pm 2.0^\circ 0.2I_n$
 Output Characteristic : refer to the drawing of output voltage characteristic
 Inside Diameter : $\phi 35\text{mm}$
 Max. Capable Current : AC 240A/CTF-200T
 AC 480A/CTF-400T
 Open Protective Element : 3.0V
 Applicable Frequency : 10Hz-5KHz
 Rated Voltage : Less than AC600V for low voltage circuit of coated wires
 Withstanding Voltage : AC2200V/1 minute
 (between output terminal and outer case)
 Insulation Resistance : more than $100M\Omega$ by 500V insulation tester
 (between output terminal and outer case)
 Operation Temperature : $-10\sim 50^\circ\text{C}$, less than 80%RH w/o condensation
 Material of Outer Case : P.P. (Flame Rating: based on UL94V-0)
 Material of Core : Ferrite
 Capable CT Open/Close : Approx. 100 times
 Dimension/Weight : $60(W) \times 40(D) \times 80(H)\text{mm}$ /Approx. 310g

MODEL CTS-100/CTS-200/CTS-300/CTS-400/CTS-600



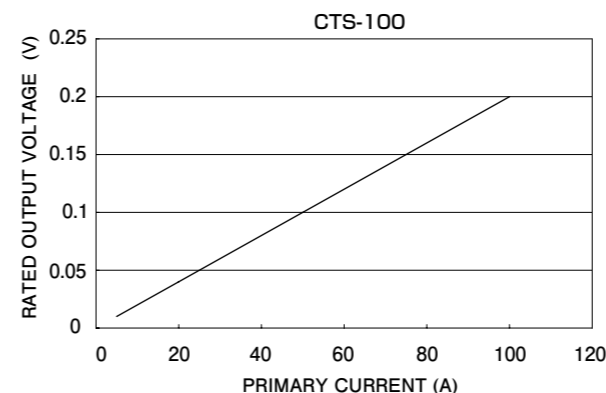
FEATURES

1A or 5A Output Types for General Metering Systems.
With Short-circuit Switch of Secondary Output for the safety.
High Accuracy equivalent to the first degree of general metering.
Easy to apply by split core type with fixing metal parts.

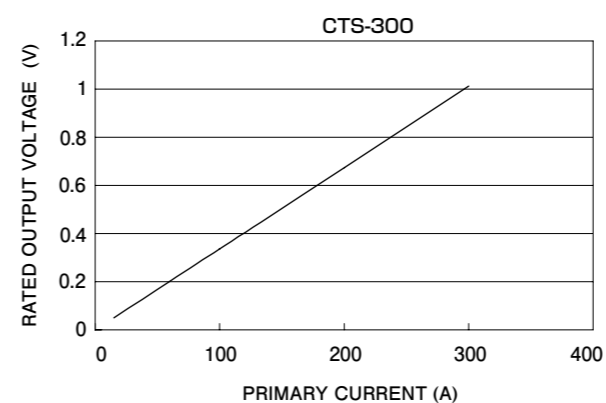
SPECIFICATIONS (CTS-100/-200)

Rated Primary Current : AC 100A/CTS-100A
 AC 200A/CTS-200A
 Rated Secondary Current : 1A
 Rated Burden (VA) : 0.2VA
 Comparative Error : $\pm 1.0\%I_n \pm 1.0\%0.2I_n$
 Phase Accuracy : $\pm 1.5^\circ I_n \pm 2.0^\circ 0.2I_n$
 Output Characteristic : refer to the drawing of output voltage characteristic
 Inside Diameter : $\phi 35\text{mm}$
 Max. Capable Current : AC 120A/CTS-100
 AC 240A/CTS-200
 Open Protection : With output short-circuit switch
 Applicable Frequency : 50/60Hz
 Rated Voltage : Less than AC600V for low voltage circuit of coated wires
 Withstanding Voltage : AC2200V/1 minute
 (between output terminal and outer case)
 Insulation Resistance : more than $100M\Omega$ by 500V insulation tester
 (between output terminal and outer case)
 Operation Temperature : $-10\sim 50^\circ\text{C}$, less than 80%RH w/o condensation
 Material of Outer Case : Flame-resistant ABS Resin (based on UL94V-0)
 Material of Core : Silicon Steel
 Dimension/Weight : $127(W) \times 40(D) \times 95(H)\text{mm}$ /Approx. 550g

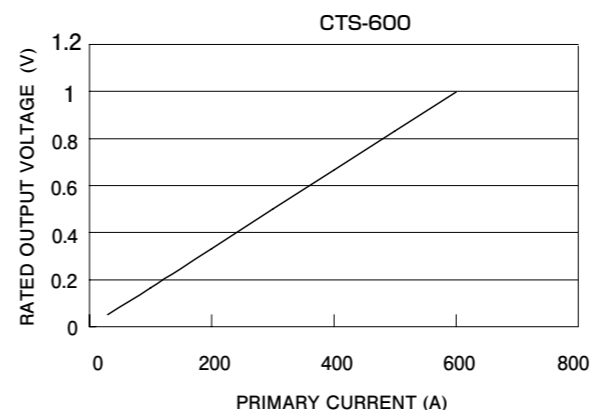
CHARACTERISTIC OF OUTPUT VOLTAGE



CHARACTERISTIC OF OUTPUT VOLTAGE



CHARACTERISTIC OF OUTPUT VOLTAGE



SPECIFICATIONS (CTS-300/-400/-600)

Rated Primary Current : AC 300A/CTS-300
 AC 400A/CTS-400
 AC 600A/CTS-600
 Rated Secondary Current : 5A
 Rated Burden (VA) : 5VA
 Comparative Error : $\pm 1.0\%I_n \pm 1.0\%0.2I_n$
 Phase Accuracy : $\pm 1.5^\circ I_n \pm 2.0^\circ 0.2I_n$
 Output Characteristic : refer to the drawing of output voltage characteristic
 Inside Diameter : $\phi 35\text{mm}$
 Max. Capable Current : AC 360A/CTS-300
 AC 480A/CTS-400
 AC 720V/CTS-600
 Open Protection : With output short-circuit switch
 Applicable Frequency : 50/60Hz
 Rated Voltage : Less than AC600V for low voltage circuit of coated wires
 Withstanding Voltage : AC2200V/1 minute
 (between output terminal and outer case)
 Insulation Resistance : more than $100M\Omega$ by 500V insulation tester
 (between output terminal and outer case)
 Operation Temperature : $-10\sim 50^\circ\text{C}$, less than 80%RH w/o condensation
 Material of Outer Case : Flame-resistant ABS Resin (based on UL94V-0)
 Material of Core : Silicon Steel
 Dimension/Weight : $127(W) \times 40(D) \times 95(H)\text{mm}$ /Approx. 550g

MODEL CT-13K



FEATURES

For AC current and power measurements.
High accuracy and compact size.
Measuring range:AC 1A~50A.

SPECIFICATIONS

Output characteristic :	0.5V±3% (50A RL=60Ω)
Nominal CT Ratio :	6000 : 1
Withstanding Voltage :	AC 2200V,1 minute (between output terminal and CT)
Insulation Resistance :	More than 100MΩ by 500V insulation tester (between output terminal and CT)
Standard :	Compliant with RoHS directive
Dimension/Weight :	37×42×14mm, 45g
Lead cable :	15cm
Rated Current :	AC 1A~50Arms
CT Inside Size :	φ12.5mm
Max Input Current :	AC 150Arms
Operathing Temperature :	-10~50°C, less than 80%RH Without condensation

MODEL CTA-30A



FEATURES

For AC current and power measurements.
High accuracy and compact size.
Measuring range:AC 0.1A~30A.

SPECIFICATIONS

Applicable Current :	AC 0.1~30A
Max. Input Current :	AC 50A
CT Inside Diameter :	φ6mm
Nominal CT Ratio :	1500 : 1
Withstanding Voltage :	AC 2200V/1 minute (between output terminal and CT)
Insulation Resistance :	More than 100MΩ by 500V insulation tester (between output terminal and CT)
Operational Temperature :	-10~50°C less than 80%RH Without condensation
Output lead :	15cm
Dimension/Weight :	21(W)×25(D)×10(H)mm /Approx. 7g
Accuracy :	30A (50/60Hz) ±0.3% LR=6.8Ω

MODEL CTA-120A



FEATURES

For AC current and power measurements.
High accuracy and compact size.
Wide measuring range:AC 1A~120A.

SPECIFICATIONS

Applicable Current :	AC 1~120A
Max. Input Current :	AC 150A
CT Inside Diameter :	φ19.4mm
Nominal CT Ratio :	3000 : 1
Withstanding Voltage :	AC 2200V/1 minute (between output terminal and CT)
Insulation Resistance :	More than 100MΩ by 500V insulation tester (between output terminal and CT)
Operational Temperature :	-10~50°C less than 80%RH Without condensation
Output lead :	15cm
Dimension/Weight :	19.4(W)×40.4(D)×13(H)mm /Approx. 36g
Accuracy :	120A (50/60Hz) ±0.3% LR=6.8Ω

MODEL CTF-50B



FEATURES

For AC current and power measurements.
Suitable for current measurements of feeder cable.
Measuring range:AC 0.1A~50A.

SPECIFICATIONS

Applicable Current :	AC 0.1~50A
Max. Input Current :	100Arms continuous
Phase Accuracy :	1.6°±0.5° (10Ω/50A/50Hz) 1.2°±0.5° (10Ω/50A/60Hz)
Nominal CT Ratio :	3000 : 1
Withstanding Voltage :	AC 2200V/1 minute (between output terminal and CT)
Insulation Resistance :	More than 100MΩ by 500V insulation tester (between output terminal and CT)
Open Circuit Protection :	7.5V
Operational Temperature :	-10~60°C less than 80%RH Without condensation
Flame Rating :	Compliant with UL-94V0
Standard :	Compliant with RoHS directive
Output Example :	AC16.6mA±1% (AC50A)
Dimension/Weight :	23(W)×27.6(D)×52.8(H)mm /Approx. 50g
Terminal :	M3 terminal
CT Inside Size :	8.4×9mm

MODEL CTF-100B



FEATURES

For AC current and power measurements.
Suitable for current measurements of feeder cable.
Measuring range:AC 1A~100A.

SPECIFICATIONS

Applicable Current :	AC 1~100A
Max. Input Current :	200Arms continuous
Phase Accuracy :	0.7°±0.5° (10Ω 100A 50Hz/60Hz)
Nominal CT Ratio :	3000 : 1
Withstanding Voltage :	AC 2200V/1 minute (between output terminal and CT)
Insulation Resistance :	More than 100MΩ by 500V insulation tester (between output terminal and CT)
Open Circuit Protection :	7.5V
Operational Temperature :	-10~60°C less than 80%RH Without condensation
Flame Rating :	Compliant with UL-94V0
Standard :	Compliant with RoHS directive
Output Example :	AC33.3mA±1% (AC100A)
Dimension/Weight :	29.4(W)×32.6(D)×60.2(H)mm /Approx. 90g
Terminal :	M3 terminal
CT Inside Size :	14.1mm×14.1mm

THROUGH HOLE TYPE AC CURRENT SENSOR

MODEL CTF-200B FEATURES

For AC current and power measurements.
Suitable for current measurements of main cable.
Measuring range:AC 1A~200A.



SPECIFICATIONS

Applicable Current :	AC 1~200A
Max. Input Current :	300Arms continuous
Phase Accuracy :	0.3°±0.5° (10Ω 100A 50Hz/60Hz)
Nominal CT Ratio :	3000 : 1
Withstanding Voltage :	AC 2200V/1 minute (between output terminal and CT)
Insulation Resistance :	More than 100MΩ by 500V insulation tester (between output terminal and CT)
Open Circuit Protection :	7.5V
Operational Temperature :	-10~60°C less than 80%RH Without condensation
Flame Rating :	Compliant with UL-94V0
Standard :	Compliant with RoHS directive
Output Example :	AC66.6mA±1% (AC200A)
Dimension/Weight :	45(W)×38.6(D)×82.2(H)mm /Approx. 210g
Terminal :	M3 terminal
CT Inside Size :	23.5mm×24.1mm

MODEL CTF-400B FEATURES

For AC current and power measurements.
Suitable for current measurements of main cable.
Measuring range:AC 1A~400A.



SPECIFICATIONS

Applicable Current :	AC 1~400A
Max. Input Current :	600Arms continuous
Phase Accuracy :	0.1°±0.5° (10Ω 400A 50Hz/60Hz)
Nominal CT Ratio :	6000 : 1
Withstanding Voltage :	AC 2200V/1 minute (between output terminal and CT)
Insulation Resistance :	More than 100MΩ by 500V insulation tester (between output terminal and CT)
Open Circuit Protection :	7.5V
Operational Temperature :	-10~60°C less than 80%RH Without condensation
Flame Rating :	Compliant with UL-94V0
Standard :	Compliant with RoHS directive
Output Example :	AC66.6mA±1% (AC400A)
Dimension/Weight :	62.5(W)×38.6(D)×101(H)mm /Approx. 320g
Terminal :	M3 terminal
CT Inside Size :	32.9mm×34.5mm

MODEL CTF-600B FEATURES

For AC current and power measurements.
Suitable for current measurements of main cable.
Measuring range:AC 1A~600A.



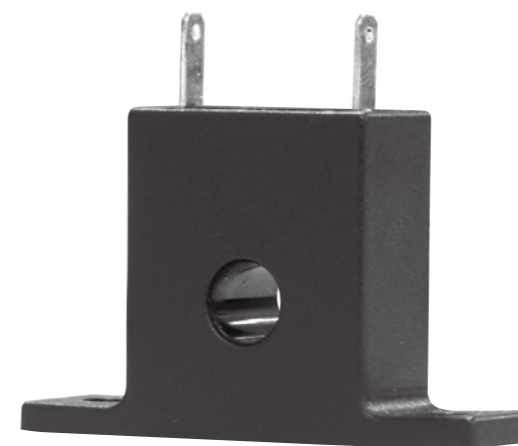
SPECIFICATIONS

Applicable Current :	AC 1~600A
Max. Input Current :	800Arms continuous
Phase Accuracy :	0°±0.5° (10Ω 600A 50Hz/60Hz)
Nominal CT Ratio :	9000 : 1
Withstanding Voltage :	AC 2200V/1 minute (between output terminal and CT)
Insulation Resistance :	More than 100MΩ by 500V insulation tester (between output terminal and CT)
Open Circuit Protection :	7.5V
Operational Temperature :	0~60°C less than 80%RH Without condensation
Flame Rating :	Compliant with UL-94V0
Standard :	Compliant with RoHS directive
Output Example :	AC66.6mA±1% (AC600A)
Dimension/Weight :	62.5(W)×38.6(D)×101(H)mm /Approx. 370g
Terminal :	M3 terminal
CT Inside Size :	32.9mm×34.5mm

THROUGH HOLE TYPE AC CURRENT SENSOR

MODEL CT-6K FEATURE

Non-split core current sensor to be applied for panel board.



SPECIFICATIONS

Measuring Range :	AC 0.1~80Arms
Max Applicable Current :	AC 100Arms continuous
Applicable Frequency :	10Hz~5kHz
CT Inside Diameter :	φ 6mm
Core Material :	Silicon plated steel
Winding Wire :	Polyurethane copper wire (2UEW)
Rated CT Ratio :	800:1
Rated Voltage :	less than AC 600V for low voltage circuit
Withstanding Voltage :	AC2000V/1minute between through hole and outer case
Insulation Resistance :	more than 100M Ω by 500V insulation resistance tester between through hole and outer case
Operational Temperature :	-20~55°C less than 90%RH
Storage Temperature :	-30~90°C less than 90%RH
Output Terminal :	Faston terminal
Flame Rating :	UL94V-0 equivalent
Weight :	12g
Reference Standard :	RoHS conformity

MODEL CT-6S FEATURES

Non-split core current sensor. Wide range (0.1A-80A) with compact structure & light weight. #110 standard tab output terminal. Wide range (0.1A-80A) with compact structure & light weight. #110 standard tab output terminal.



SPECIFICATIONS

Measuring Range :	AC 0.1~80Arms(50/60Hz) RL≤10Ω
Max Applicable Current :	80Arms continuous
Limit Current for Saturation :	100Arms(50/60Hz) RL≤1Ω
CT Inside Diameter :	φ 5.8mm
Winding Wire :	Polyurethane copper wire (2UEW)
Number of Windings :	800±2turns
Wiring Resistance :	reference value
Polarity :	Subtractive polarity
Applicable Circuit Voltage :	less AC 500V for low voltage circuit
Withstanding Voltage :	AC2000V/1minute between through hole and output terminal
Insulation Resistance :	more than 100M Ω by 500V insulation resistance tester between through hole and output terminal
Operational Temperature :	φ 20~70°C less than 80%RH
Storage Temperature :	-30~90°C less than 80%RH
Structure :	PBT resin case/one side epoxy filling up, resin case side=K (primary), epoxy filling up side=L (secondary)
Output Terminal :	#110 Faston terminal with tin-plating
Weight :	14g
Reference Standard :	RoHS conformity

MODEL CT-30AR FEATURE

Non-split core current sensor to be applied for panel board.



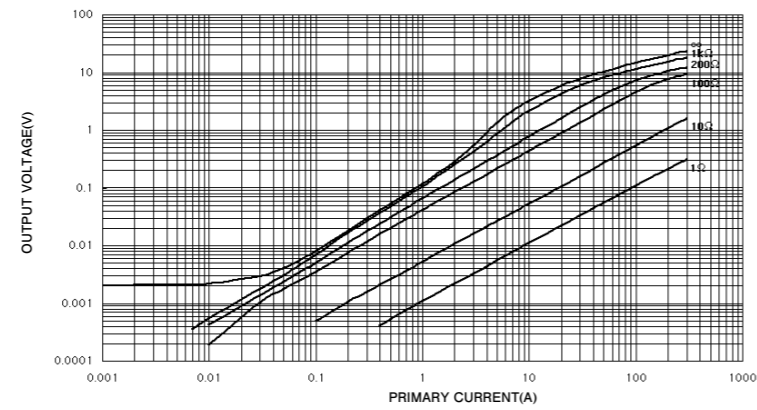
SPECIFICATIONS

Rated Primary Current :	30A
Max. Applicable Current :	90A
CT Ratio :	1:1000
Frequency Range :	50/60Hz
Rated Burden :	10Ω
Rated Secondary Voltage :	0.297V
Linearity :	0.2%
Coil Resistance (reference) :	43±3Ω
Withstanding Voltage :	4KVrms
Outer Case :	ABS
Filling-up Material :	EPOXY
Lead Wire :	UL1007 26AWG
Weight :	9.3g
Insulation Resistance :	DC500V>=1000MΩ
Temperature Increase :	<=25°C
Storage Temperature :	-40~100°C
Outer Dimension :	φ 9.3×22×8.8
Length of Lead Wire :	80±5

MODEL CT-23/23S FEATURE COMPACT, GENERAL PURPOSE



CHARACTERISTIC OF OUTPUT VOLTAGE



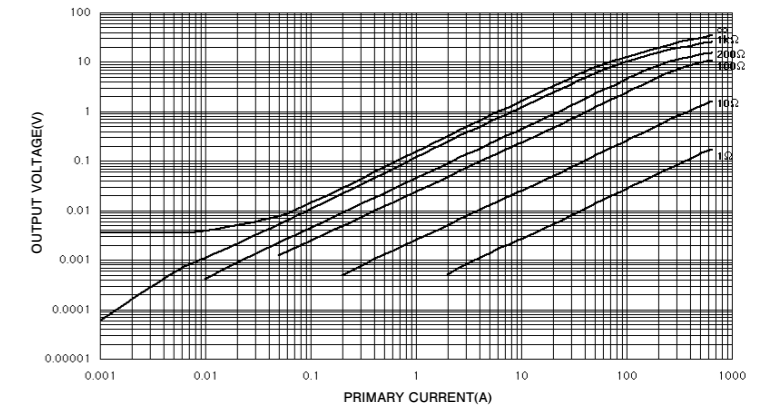
SPECIFICATIONS

MEASURING RANGE : AC 1A~200A
 CT SIZE : ϕ 23mm
 OUTPUT CHARACTERISTIC : REFER TO THE DRAWING
 SECONDARY WINDINGS : 2000TURNS
 RECOMMENDABLE LOAD RESISTOR : 1~100 Ω
 FREQUENCY APPLICATION : 10~500Hz
 WITHSTANDING VOLTAGE : AC 2200V 1MINUTE (BETWEEN CT AND OUTPUT)
 INSULATION RESISTANCE : DC500V, MORE THAN 100M Ω (BETWEEN CT AND OUTPUT)
 OPERATING TEMPRATURE : 0~60°C LESS THAN 80%RH, NON-CONDENSING
 OUTPUT LEADWIRE : 0.3s RED/BLACK WIRE20cm
 DIMENTION : 48×146×20mm (CT-23), 48×105×20mm(CT-23S)
 WEIGHT : 70g(CT-23), 65g(CT-23S)

MODEL CT-40 FEATURE GENERAL PURPOSE



CHARACTERISTIC OF OUTPUT VOLTAGE



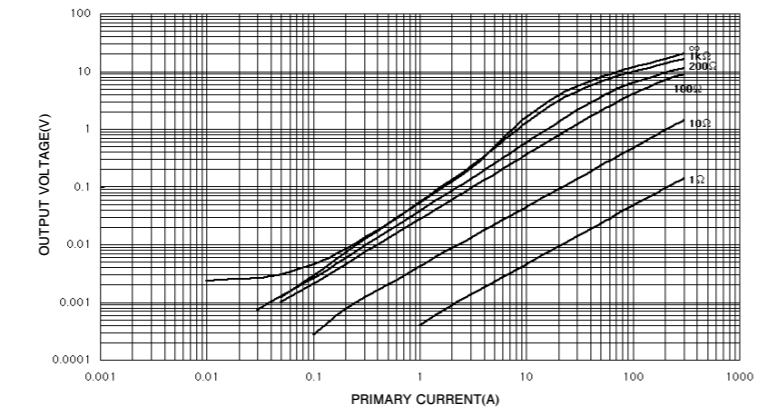
SPECIFICATIONS

MEASURING RANGE : AC 1A~600A
 CT SIZE : ϕ 40mm
 OUTPUT CHARACTERISTIC : REFER TO THE DRAWING
 SECONDARY WINDINGS : 3600TURNS
 RECOMMENDABLE LOAD RESISTOR : 1~100 Ω
 FREQUENCY APPLICATION : 10~500Hz
 WITHSTANDING VOLTAGE : AC 2200V 1MINUTE (BETWEEN CT AND OUTPUT)
 INSULATION RESISTANCE : DC500V, MORE THAN 100M Ω (BETWEEN CT AND OUTPUT)
 OPERATING TEMPRATURE : 0~60°C LESS THAN 80%RH, NON-CONDENSING
 OUTPUT LEADWIRE : ϕ 3 SINGLE SHIELD WIRE
 DIMENTION : 64×175×23mm
 WEIGHT : 90g

MODEL CT-33/33S FEATURE COMPACT, GENERAL PURPOSE



CHARACTERISTIC OF OUTPUT VOLTAGE



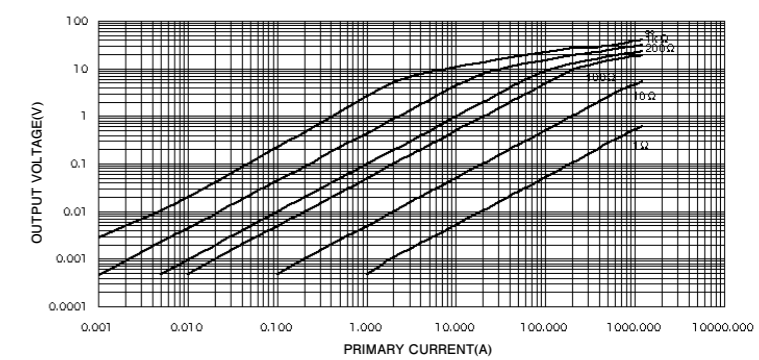
SPECIFICATIONS

MEASURING RANGE : AC 1A~200A
 CT SIZE : ϕ 33mm
 OUTPUT CHARACTERISTIC : REFER TO THE DRAWING
 SECONDARY WINDINGS : 2000TURNS
 RECOMMENDABLE LOAD RESISTOR : 1~100 Ω
 FREQUENCY APPLICATION : 10~500Hz
 WITHSTANDING VOLTAGE : AC 2200V 1MINUTE (BETWEEN CT AND OUTPUT)
 INSULATION RESISTANCE : DC500V, MORE THAN 100M Ω (BETWEEN CT AND OUTPUT)
 OPERATING TEMPRATURE : 0~60°C LESS THAN 80%RH, NON-CONDENSING
 OUTPUT LEADWIRE : 0.3s RED/BLACK WIRE20cm
 DIMENTION : 54×155×20mm(CT-33), 54×144×20mm(CT-33S)
 WEIGHT : 80g(CT-33), 75g(CT-33S)

MODEL CT-80 FEATURE BIG WINDOW



CHARACTERISTIC OF OUTPUT VOLTAGE



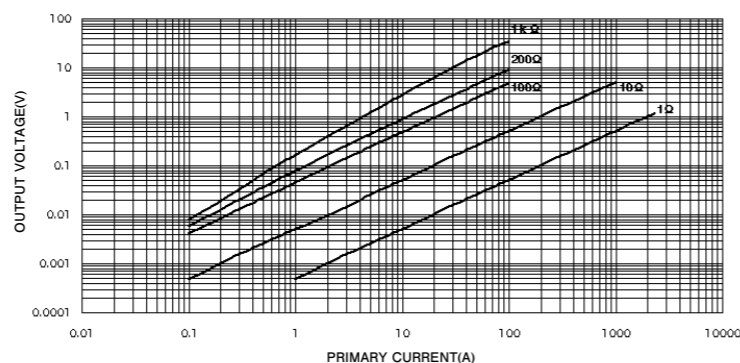
SPECIFICATIONS

MEASURING RANGE : AC 1A~1800A
 CT SIZE : 80×74mm
 OUTPUT CHARACTERISTIC : REFER TO THE DRAWING
 SECONDARY WINDINGS : 4000TURNS
 RECOMMENDABLE LOAD RESISTOR : 1~100 Ω
 FREQUENCY APPLICATION : 10~500Hz
 WITHSTANDING VOLTAGE : AC 2200V 1MINUTE (BETWEEN CT AND OUTPUT)
 INSULATION RESISTANCE : DC500V, MORE THAN 100M Ω (BETWEEN CT AND OUTPUT)
 OPERATING TEMPRATURE : 0~60°C LESS THAN 80%RH, NON-CONDENSING
 OUTPUT LEADWIRE : ϕ 3 SINGLE SHIELD WIRE
 DIMENTION : 138×225×37mm
 WEIGHT : 500g

MODEL CT-3000 **FEATURE ULTRA BIG WINDOW**



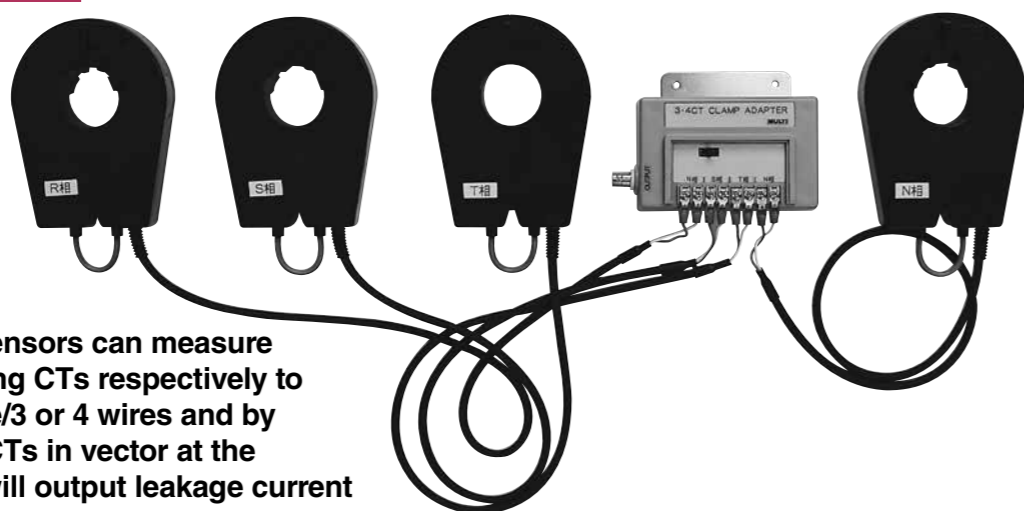
CHARACTERISTIC OF OUTPUT VOLTAGE



SPECIFICATIONS

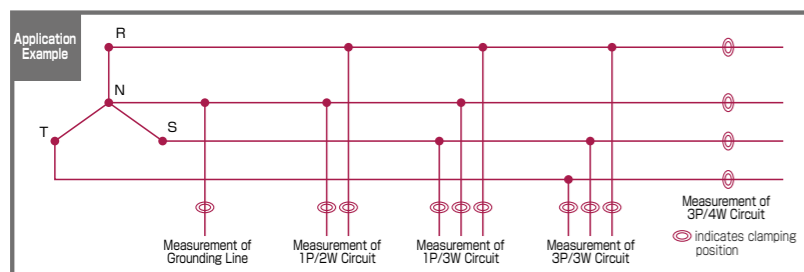
MEASURING RANGE :	AC 1A~3000A
CT SIZE :	128 × 108mm
OUTPUT CHARACTERISTIC :	REFER TO THE DRAWING
SECONDARY WINDINGS :	2000TURNS
RECOMMENDABLE LOAD RESISTOR :	1~100Ω
FREQUENCY APPLICATION :	10~500Hz
WITHSTANDING VOLTAGE :	AC 2200V 1MINUTE (BETWEEN CT AND OUTPUT)
INSULATION RESISTANCE :	DC500V, MORE THAN 100MΩ (BETWEEN CT AND OUTPUT)
OPERATING TEMPRATURE :	0~60°C LESS THAN 80%RH, NON-CONDENSING
OUTPUT LEADWIRE :	φ 3 SINGLE SHIELD WIRE
DIMENTION :	194 × 342 × 52mm
WEIGHT :	1800g

MODEL ZCT-3300



FEATURES

These 3 (or4) CT Clamp Sensors can measure leakage current by clamping CTs respectively to each conductor of 3 phase/3 or 4 wires and by adding each output from CTs in vector at the transmission box, which will output leakage current value of the circuit

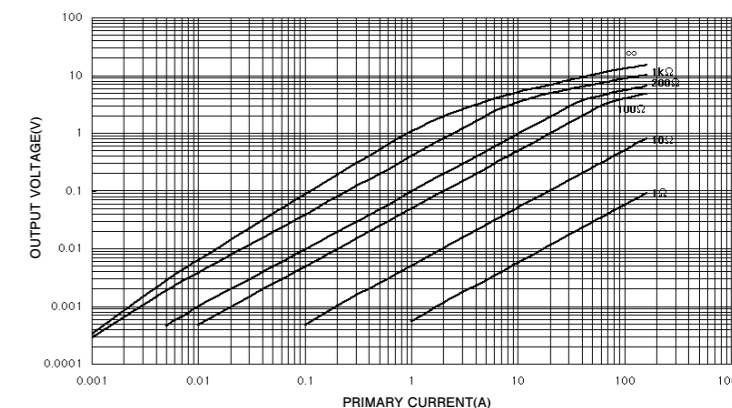


Measuring Range :	AC 0~2000mA
Nominal CT Ratio :	2000:1
Applicable Current :	less than 400A
Circuit Voltage :	less than 600V (coated wires)
Remanence :	less than 10mA at 100A
Size & Weight :	CT.....100 × 130 × 25mm, 420g T.M.Box.....110 × 70 × 35mm, 300g
Cable Length :	each 3m
Output Terminal :	BNC
Option :	Additional CT for 3P/4W (MCL-400H-NCT)

MODEL ZCT-23/23S **FEATURE COMPACT, GENERAL PURPOSE**



CHARACTERISTIC OF OUTPUT VOLTAGE



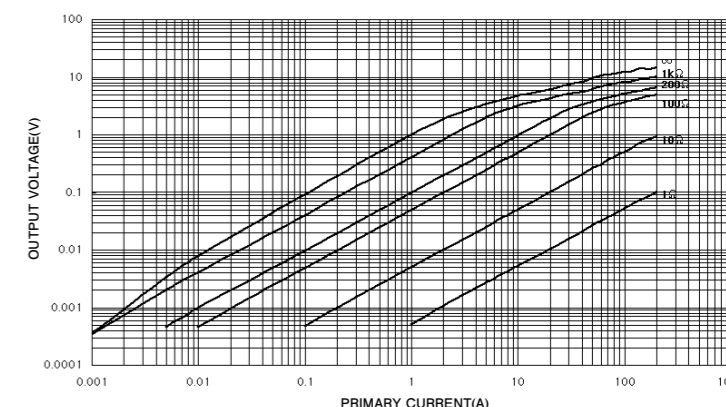
SPECIFICATIONS

MEASURING RANGE :	AC 0.1~120A
CT SIZE :	φ 23mm
OUTPUT CHARACTERISTIC :	REFER TO THE DRAWING
SECONDARY WINDINGS :	2000TURNS
RECOMMENDABLE LOAD RESISTOR :	1~10Ω
FREQUENCY APPLICATION :	10~500Hz
PHASE CHARCTREISTICK(100V/10A) :	± 1.5°
WITHSTANDING VOLTAGE :	AC 2200V 1MINUTE (BETWEEN CT AND OUTPUT)
INSULATION RESISTANCE :	DC500V, MORE THAN 100MΩ (BETWEEN CT AND OUTPUT)
OPERATING TEMPRATURE :	0~60°C LESS THAN 80%RH, NON-CONDENSING
OUTPUT LEADWIRE :	φ 3 SINGLE SHIELD WIRE
DIMENTION :	48 × 146 × 20mm(ZCT-23), 48 × 105 × 20mm(ZCT-23S)
WEIGHT :	70g(ZCT-23), 65g(ZCT-23S)

MODEL ZCT-33/33S **FEATURE COMPACT, GENERAL PURPOSE**



CHARACTERISTIC OF OUTPUT VOLTAGE



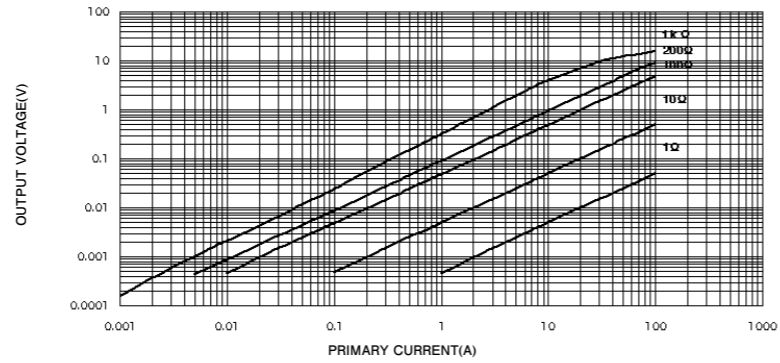
SPECIFICATIONS

MEASURING RANGE :	AC 0.1~150A
CT SIZE :	φ 33mm
OUTPUT CHARACTERISTIC :	REFER TO THE DRAWING
SECONDARY WINDINGS :	2000TURNS
RECOMMENDABLE LOAD RESISTOR :	1~10Ω
FREQUENCY APPLICATION :	10~500Hz
PHASE CHARCTREISTICK(100V/10A) :	± 1.5°
WITHSTANDING VOLTAGE :	AC 2200V 1MINUTE (BETWEEN CT AND OUTPUT)
INSULATION RESISTANCE :	DC500V, MORE THAN 100MΩ (BETWEEN CT AND OUTPUT)
OPERATING TEMPRATURE :	0~60°C LESS THAN 80%RH, NON-CONDENSING
OUTPUT LEADWIRE :	φ 3 SINGLE SHIELD WIRE
DIMENTION :	54 × 155 × 20mm(ZCT-33), 54 × 114 × 20mm(ZCT-33S)
WEIGHT :	80g(ZCT-33), 75g(ZCT-33S)

MODEL ZCT-40P/40PS **FEATURE** GENERAL PURPOSE



■ CHARACTERISTIC OF OUTPUT VOLTAGE



■ SPECIFICATIONS

MEASURING RANGE :	AC 0.1~500A
CT SIZE :	φ 40mm
OUTPUT CHARACTERISTIC :	REFER TO THE DRAWING
SECONDARY WINDINGS :	2000TURNS
RECOMMENDABLE LOAD RESISTOR :	1~10Ω
PHASE CHARCTREISTICK(10Ω/10A) :	±2°
WITHSTANDING VOLTAGE :	AC 2200V 1MINUTE (BETWEEN CT AND OUTPUT)
INSULATION RESISTANCE :	DC500V, MORE THAN 100MΩ (BETWEEN CT AND OUTPUT)
OPERATING TEMPRATURE :	0~60°C LESS THAN 80%RH, NON-CONDENSING
OUTPUT LEADWIRE :	φ 3 2 WICK SHIELD WIRE 20cm
DIMENTION/WEIGHT :	64×168×23mm, 120g (ZCT-40P) 64×128×23mm, 115g (ZCT-40PS)

MODEL CT-80PB **FEATURE** BIG CT WINDOW FOR MAIN CABLE



■ CHARACTERISTIC OF OUTPUT VOLTAGE

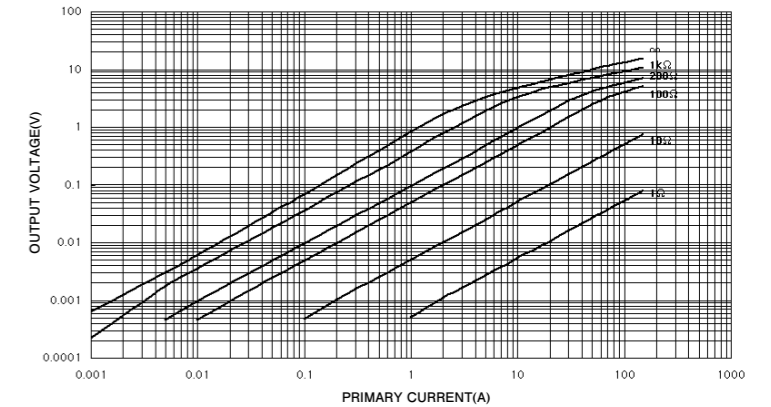
■ SPECIFICATIONS

Output characteristic :	Refer to the drawing
Phase Accuracy :	±1.5° (10A/10Ω)
Nominal CT Ratio :	2000 : 1
Applicable Frequency :	10~500Hz
Withstanding Voltage :	AC 2200V, 1 minute (between CT and output)
Insulation Resistance :	DC500V, more than 100MΩ (between CT and output)
Operating Temperature :	0~60°C less than 80%RH Without condensation
CT Inside Size :	80×74mm
Recommendable Load Resistance :	1~10Ω
Output Cable :	φ 3mm, 1wire shield cable (1m)
Dimension :	138×225×37mm
Weight :	500g
Measuring Range :	AC 1A~500A
Recommendable CT Ratio :	1~200Ω

MODEL ZCT-22 **FEATURE** ULTRA COMPACT SIZE



■ CHARACTERISTIC OF OUTPUT VOLTAGE



■ SPECIFICATIONS

MEASURING RANGE :	AC 1mA~100A
CT SIZE :	φ 22mm
OUTPUT CHARACTERISTIC :	REFER TO THE DRAWING
SECONDARY WINDINGS :	2000TURNS
RECOMMENDABLE LOAD RESISTOR :	1~200Ω
FREQUENCY APPLICATION :	10~500Hz
WITHSTANDING VOLTAGE :	AC 2200V 1MINUTE (BETWEEN CT AND OUTPUT)
INSULATION RESISTANCE :	DC500V, MORE THAN 100MΩ (BETWEEN CT AND OUTPUT)
OPERATING TEMPRATURE :	0~60°C LESS THAN 80%RH, NON-CONDENSING
OUTPUT LEADWIRE :	φ 4 SINGLE SHIELD WIRE 4m, "Y" TERMINAL
DIMENTION :	54×58×30mm
WEIGHT :	200g

MODEL ZCT-22F



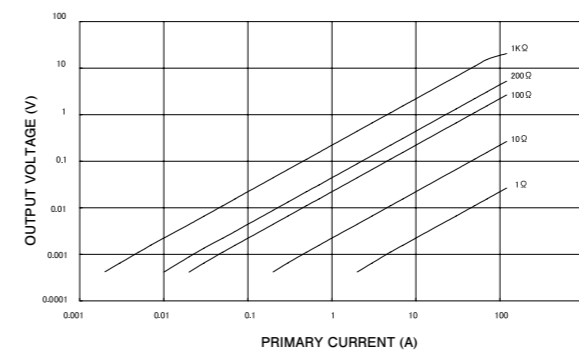
FEATURES

Suitable for operation check by detecting pulse current and for the detection of wire connection or disconnection of the internal circuit of equipment.
Wide Range of 1mA - 100A.
Ultra super compact & lightweight.
High sensitive and strong for outer magnetic field influence.

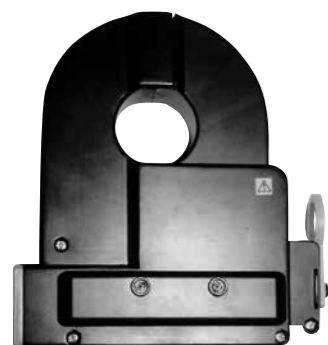
■ SPECIFICATIONS

Applicable Current :	AC 1mA~100Arms
Output Characteristic :	refer to the drawing of output voltage characteristic
Output Example :	AC19.1mV±5% (200A/430Ω)
Nominal CT Ratio :	4000:1
Inside Diameter :	φ 22mm
Max. Capable Current :	100Arms continuous
Applicable Frequency :	10Hz~5KHz
Rated Voltage :	Less than AC600V for low voltage circuit of coated wires
Withstanding Voltage :	AC2200V/1 minute (between output terminal and outer case)
Insulation Resistance :	more than 100MΩ by 500V insulation tester (between output terminal and outer case)
Operation Temperature :	-10~50°C, less than 80%RH w/o condensation
Material of Outer Case :	ABS Resin
Material of Core :	Ferrite
Capable CT Open/Close :	Approx. 100 times
Dimension/Weight :	26(W)×23(D)×48(H)mm /Approx. 200g

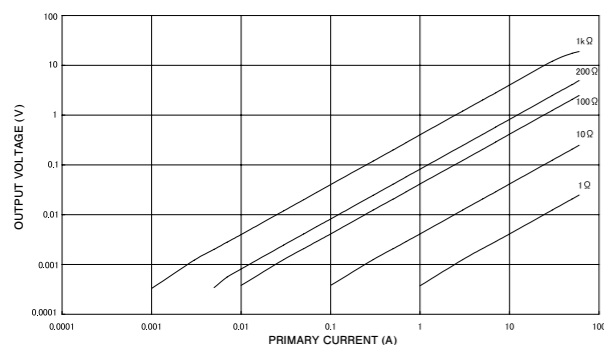
■ CHARACTERISTIC OF OUTPUT VOLTAGE



MODEL ALCL-40D



■ CHARACTERISTIC OF OUTPUT VOLTAGE



FEATURES

For Measurement of Very Low Current in μA Order.
 Highest Precision Model as A Clamp Type CT Sensor.
 Highest Sensitive & Best Noise-proof.
 (Influence of Outer Magnetic Field: less than $10\mu\text{A}$ near by 400A turns).
 Most Suitable for Measurement of Lowest Leakage Current like as for the grounding line with Arrester, etc.
 Stable Output in High Electric & Strong Magnetic Field.

■ SPECIFICATIONS

Applicable Current : AC $1\mu\text{A}$ - 50A
 Output Characteristic : refer to the drawing of output voltage characteristic
 Output Example : AC $1.66\text{mV} \pm 2\%$ (20A/200 Ω)
 Nominal CT Ratio : 2400:1
 Inside Diameter : ϕ 37mm
 Max. Capable Current : AC 60Arms continuous
 Applicable Frequency : 45Hz~65Hz
 Rated Voltage : Less than AC600V for low voltage circuit of coated wires
 Withstanding Voltage : AC2200V/1 minute
 (between output terminal and outer case)
 Insulation Resistance : more than 100M Ω by 500V insulation tester
 (between output terminal and outer case)
 Operation Temperature : $-10\sim 50^\circ\text{C}$, less than 80%RH w/o condensation
 Material of Outer Case : ABS Resin
 Material of Core : Parmalloy
 Output Leadwire : 2 wick shield wire
 Dimension/Weight : 135 \times 166 \times 61mm /Approx. 1000g

MODEL ZCT-80H



FEATURES

Least affection from the external magnetic field and residual current.
 High precision clamp type ZCT sensor
 Big CT window, ϕ 80mm
 AC 0~10A
 Least affection from the external magnetic field and residual current

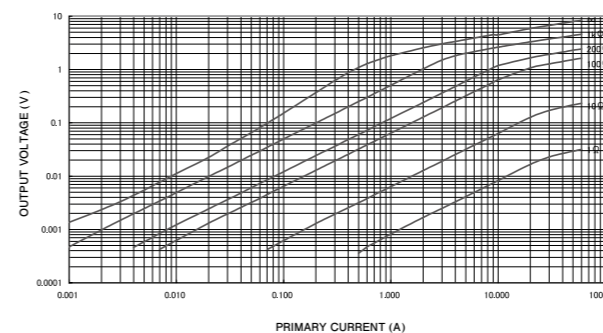
■ SPECIFICATIONS

Applicable Frequency : 50/60Hz
 Withstanding Voltage : AC 2200V, 1 minute(between CT and output)
 Insulation Resistance : DC500V, More than 100M Ω
 (between CT and output)
 Operational Temperature: $0\sim 60^\circ\text{C}$, Less than 80%RH
 (Without condensation)
 Standard : Compliant with RoHS directive
 CT Inside Size : ϕ 80mm
 Dimension : 123(W) \times 240(H) \times 28(D)mm
 Measuring Range : AC 0~10A
 Secondary winding : 1960 turns

MODEL ZCT-110/110S



■ CHARACTERISTIC OF OUTPUT VOLTAGE



FEATURES

For Measurement of Low Current of less than AC 1mA.
 Exclusive Use for Leakage Current Measurement.
 Suitable for the use in Terminal Feeder.
 High Sensitive & Good Defensive to Outer Magnetic Field

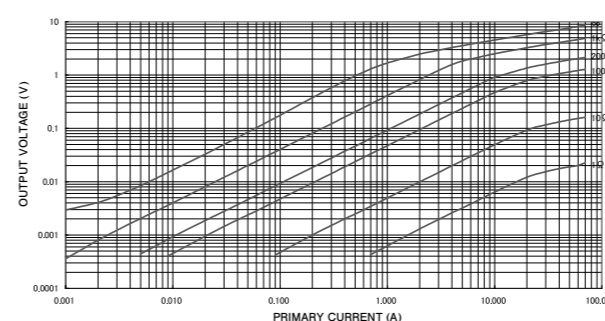
■ SPECIFICATIONS

Applicable Current : AC 0.01mA - 20A
 Output Characteristic : refer to the drawing of output voltage characteristic
 Output Example : AC $63.5\text{mV} \pm 2\%$ (10A/10 Ω)
 Nominal CT Ratio : 1600:1
 Inside Diameter : ϕ 30mm
 Max. Capable Current : AC 30Arms continuous
 Applicable Frequency : 10Hz~1KHz
 Rated Voltage : Less than AC600V for low voltage circuit of coated wires
 Withstanding Voltage : AC2200V/1 minute
 (between output terminal and outer case)
 Insulation Resistance : more than 100M Ω by 500V insulation tester
 (between output terminal and outer case)
 Operation Temperature : $-10\sim 50^\circ\text{C}$, less than 80%RH w/o condensation
 Material of Outer Case : ABS Resin
 Material of Core : Parmalloy
 Output Leadwire : ϕ 3 2wick shield wire (20cm)
 Dimension/Weight : 59 \times 158 \times 23mm /Approx. 105g (ZCT-110)
 59 \times 117 \times 23mm /Approx. 95g (ZCT-110S)

MODEL ZCT-340/340S



■ CHARACTERISTIC OF OUTPUT VOLTAGE



FEATURES

For Measurement of Low Current of less than AC 1mA.
 Exclusive Use for Leakage Current Measurement.
 Suitable for the use in Terminal Feeder.
 High Sensitive & Good Defensive to Outer Magnetic Field.

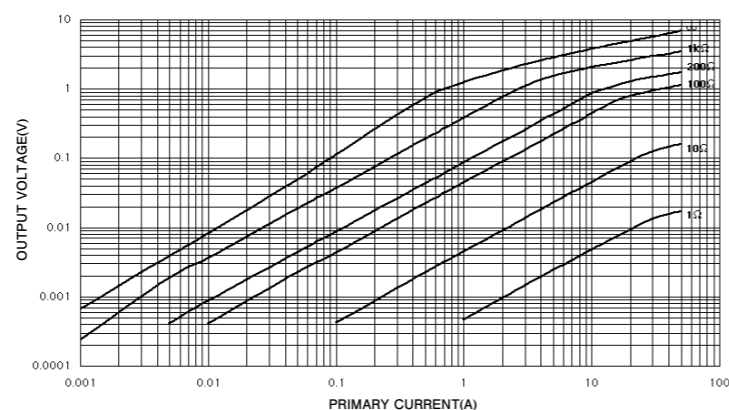
■ SPECIFICATIONS

Applicable Current : AC 0.01mA - 20A
 Output Characteristic : refer to the drawing of output voltage characteristic
 Output Example : AC $49.5\text{mV} \pm 2\%$ (10A/10 Ω)
 Nominal CT Ratio : 2000:1
 Inside Diameter : ϕ 40mm
 Max. Capable Current : AC 30Arms continuous
 Applicable Frequency : 10Hz~1KHz
 Rated Voltage : Less than AC600V for low voltage circuit of coated wires
 Withstanding Voltage : AC2200V/1 minute
 (between output terminal and outer case)
 Insulation Resistance : more than 100M Ω by 500V insulation tester
 (between output terminal and outer case)
 Operation Temperature : $-10\sim 50^\circ\text{C}$, less than 80%RH w/o condensation
 Material of Outer Case : ABS Resin
 Material of Core : Parmalloy
 Output Leadwire : ϕ 3 2wick shield wire (20cm)
 Dimension/Weight : 69 \times 175 \times 23mm /Approx. 120g (ZCT-340)
 69 \times 136 \times 23mm /Approx. 115g (ZCT-340S)

MODEL ZCT-18/18S FEATURE COMPACT, GENERAL PURPOSE



CHARACTERISTIC OF OUTPUT VOLTAGE



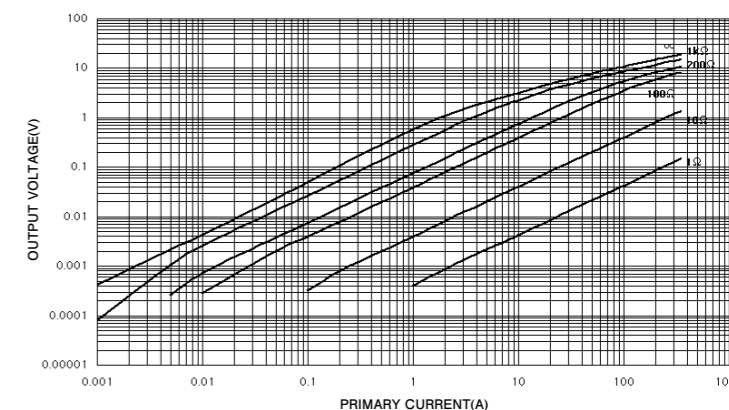
SPECIFICATIONS

MEASURING RANGE : AC 0.01mA~20A
 CT SIZE : ϕ 18mm
 OUTPUT CHARACTERISTIC : REFER TO THE DRAWING
 SECONDARY WINDINGS : 2200TURNS
 RECOMMENDABLE LOAD RESISTOR : 1~200 Ω
 FREQUENCY APPLICATION : 10~500Hz
 WITHSTANDING VOLTAGE : AC 2200V 1MINUTE (BETWEEN CT AND OUTPUT)
 INSULATION RESISTANCE : DC500V, MORE THAN 100M Ω (BETWEEN CT AND OUTPUT)
 OPERATING TEMPRATURE : 0~60°C LESS THAN 80%RH, NON-CONDENSING
 OUTPUT LEADWIRE : ϕ 3 SINGLE SHIELD WIRE
 DIMENTION : 45 x 140 x 20mm(ZCT-18), 45 x 98 x 20mm(ZCT-18S)
 WEIGHT : 70g(ZCT-18), 65g(ZCT-18S)

MODEL ZCT-140/140S FEATURE GENERAL PURPOSE



CHARACTERISTIC OF OUTPUT VOLTAGE



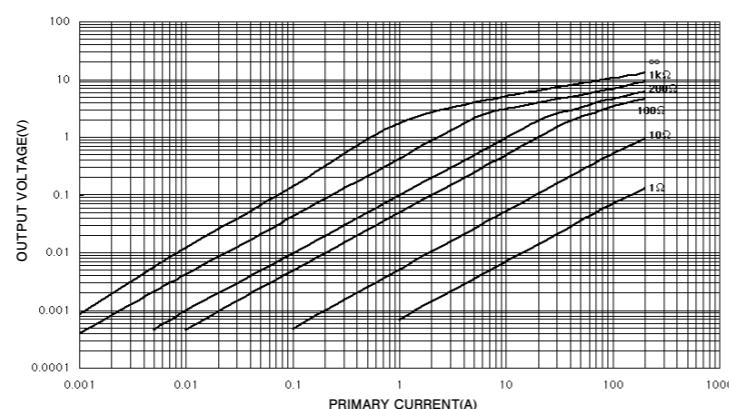
SPECIFICATIONS

MEASURING RANGE : AC 1mA~300A
 CT SIZE : ϕ 40mm
 OUTPUT CHARACTERISTIC : REFER TO THE DRAWING
 SECONDARY WINDINGS : 2400TURNS
 RECOMMENDABLE LOAD RESISTOR : 1~200 Ω
 FREQUENCY APPLICATION : 10~500Hz
 WITHSTANDING VOLTAGE : AC 2200V 1MINUTE (BETWEEN CT AND OUTPUT)
 INSULATION RESISTANCE : DC500V, MORE THAN 100M Ω (BETWEEN CT AND OUTPUT)
 OPERATING TEMPRATURE : 0~60°C LESS THAN 80%RH, NON-CONDENSING
 OUTPUT LEADWIRE : ϕ 3 2 WICK SHIELD WIRE 20cm
 DIMENTION : 64 x 162 x 23mm
 WEIGHT : 130g

MODEL ZCT-30/30S FEATURE GENERAL PURPOSE



CHARACTERISTIC OF OUTPUT VOLTAGE



SPECIFICATIONS

MEASURING RANGE : AC 1mA~100A
 CT SIZE : ϕ 30mm
 OUTPUT CHARACTERISTIC : REFER TO THE DRAWING
 SECONDARY WINDINGS : 2000TURNS
 RECOMMENDABLE LOAD RESISTOR : 1~200 Ω
 FREQUENCY APPLICATION : 10~500Hz
 WITHSTANDING VOLTAGE : AC 2200V 1MINUTE (BETWEEN CT AND OUTPUT)
 INSULATION RESISTANCE : DC500V, MORE THAN 100M Ω (BETWEEN CT AND OUTPUT)
 OPERATING TEMPRATURE : 0~60°C LESS THAN 80%RH, NON-CONDENSING
 OUTPUT LEADWIRE : ϕ 3 SINGLE SHIELD WIRE
 DIMENTION : 59 x 158 x 20mm(ZCT-30), 59 x 117 x 20mm(ZCT-30S)
 WEIGHT : 100g(ZCT-30), 95g(ZCT-30S)

MODEL ZCT-40SQ FEATURES



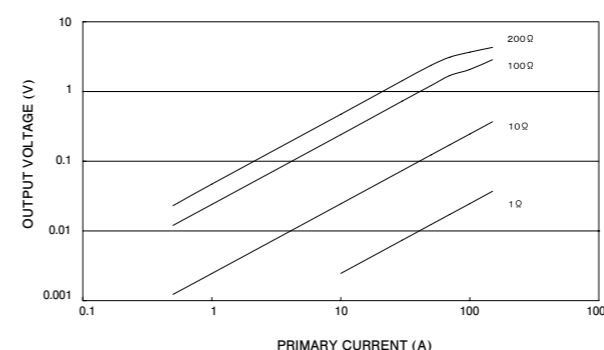
FEATURES

For Measurement of Low Current of less than AC 1mA. Exclusive Use for Leakage Current Measurement. Suitable for the use in Terminal Feeder. High Sensitive & Good Defensive to Outer Magnetic Field.

SPECIFICATIONS

Applicable Current : AC 1mA~50A
 Output Characteristic : refer to the drawing of output voltage characteristic
 Output Example : AC24.5mV \pm 2% (10A/10 Ω)
 Nominal CT Ratio : 4000:1
 Inside Diameter : ϕ 40mm
 Max. Capable Current : AC 60Arms continuous
 Applicable Frequency : 10Hz~1KHz
 Rated Voltage : Less than AC600V for low voltage circuit of coated wires
 Withstanding Voltage : AC2200V/1 minute (between output terminal and outer case)
 Insulation Resistance : more than 100M Ω by 500V insulation tester (between output terminal and outer case)
 Operation Temperature : -10~50°C, less than 80%RH w/o condensation
 Material of Outer Case : ABS Resin
 Material of Core : Parmalloy
 Output Leadwire : ϕ 3 2wick shield wire (20cm)
 Dimension/Weight : 98 x 155 x 23mm/Approx. 155g

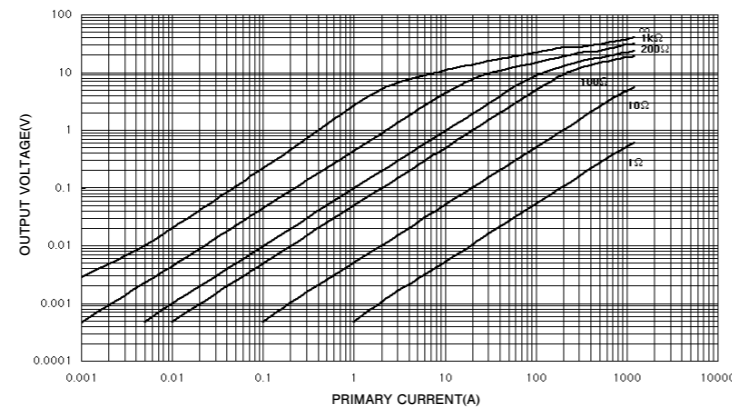
CHARACTERISTIC OF OUTPUT VOLTAGE



MODEL ZCT-80 FEATURE BIG WINDOW



CHARACTERISTIC OF OUTPUT VOLTAGE



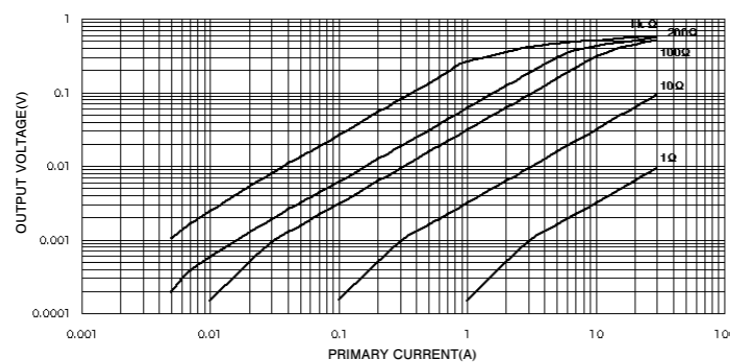
SPECIFICATIONS

MEASURING RANGE :	AC 1A~500A
CT SIZE :	80×74mm
OUTPUT CHARACTERISTIC :	REFER TO THE DRAWING
SECONDARY WINDINGS :	2000TURNS
RECOMMENDABLE LOAD RESISTOR :	1~10Ω
FREQUENCY APPLICATION :	10~500Hz
PHASE CHARACTERISTIC(10Ω/10A) :	±1.5°
WITHSTANDING VOLTAGE :	AC 2200V 1MINUTE (BETWEEN CT AND OUTPUT)
INSULATION RESISTANCE :	DC500V, MORE THAN 100MΩ (BETWEEN CT AND OUTPUT)
OPERATING TEMPERATURE :	0~60°C LESS THAN 80%RH, NON-CONDENSING
OUTPUT LEADWIRE :	φ3 SINGLE SHIELD WIRE
DIMENSION :	138×225×37mm
WEIGHT :	500g

MODEL ZCT-1100 FEATURE ULTRA BIG WINDOW



CHARACTERISTIC OF OUTPUT VOLTAGE



SPECIFICATIONS

MEASURING RANGE :	AC 1mA~3000A
CT SIZE :	128×108mm
OUTPUT CHARACTERISTIC :	REFER TO THE DRAWING
SECONDARY WINDINGS :	2000TURNS
RECOMMENDABLE LOAD RESISTOR :	1~200Ω
FREQUENCY APPLICATION :	10~500Hz
WITHSTANDING VOLTAGE :	AC 2200V 1MINUTE (BETWEEN CT AND OUTPUT)
INSULATION RESISTANCE :	DC500V, MORE THAN 100MΩ (BETWEEN CT AND OUTPUT)
OPERATING TEMPERATURE :	0~60°C LESS THAN 80%RH, NON-CONDENSING
OUTPUT LEADWIRE :	φ4 4 WICK SHIELD WIRE 1m
DIMENSION :	194×342×52mm
WEIGHT :	1800g

MODEL RCT-18 FEATURE FOR RECORDER



SPECIFICATIONS

MEASURING RANGE :	0.1~10mA/100mA
CT SIZE :	φ18mm
OUTPUT CHARACTERISTIC & ACCURACY :	DC100mV f.s ±2% 10mA RANGE, 10mV/mA, 100mA RANGE 1mV/mA
FREQUENCY APPLICATION :	50/60Hz
MEASURING METHOD :	AVERAGE DETECTING
INPUT RESISTANCE :	MORE THAN 1MΩ
WITHSTANDING VOLTAGE :	AC 1000V, 1 MINUTE (BETWEEN CT AND OUTPUT)
INSULATION RESISTANCE :	DC500V, 100MΩ MORE THAN 100MΩ (BETWEEN CT AND OUTPUT)
OPERATING TEMPERATURE :	0~60°C LESS THAN 80%rh, NON-CONDENSING
OUTPUT LEADWIRE :	1.2m BANANA PLUG
DIMENSION :	45×140×20mm
WEIGHT :	100g
POWER SUPPLY :	BOTTOM CELL LR-44×2

MODEL ACT-5H/50H FEATURE FOR MEASURING EQUIPMENT



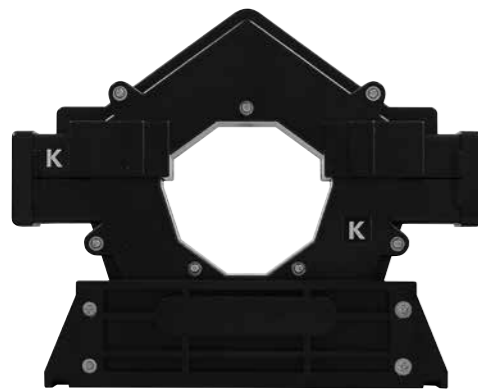
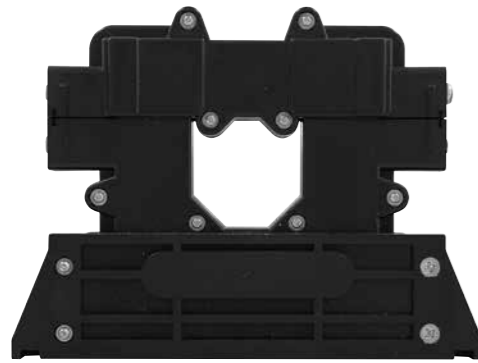
SPECIFICATIONS

MEASURING RANGE :	AC 0.5A~50A
CT SIZE :	φ23mm
OUTPUT CHARACTERISTIC & ACCURACY :	DC 5V f.s (0.1V/A) ±2%
FREQUENCY APPLICATION :	50/60Hz
MEASURING METHOD :	AVERAGE DETECTING
INPUT RESISTANCE :	MORE THAN 1MΩ
WITHSTANDING VOLTAGE :	AC 1000V, 1 MINUTE (BETWEEN CT AND OUTPUT)
INSULATION RESISTANCE :	DC500V, 100MΩ MORE THAN 100MΩ (BETWEEN CT AND OUTPUT)
OPERATING TEMPERATURE :	CONDENSING
OUTPUT LEADWIRE :	SINGLE SHIELD WIRE
DIMENSION :	48×146×20mm
WEIGHT :	85g
POWER SUPPLY :	DC 24V

MODEL **MZL-30 / MZL-45 / MZL-65**

FEATURES

Most suitable for the observation of leakage current at each feeder
 Split core ZCT for easy installation to already constructed circuits
 Stable output and superior equilibrium characteristic



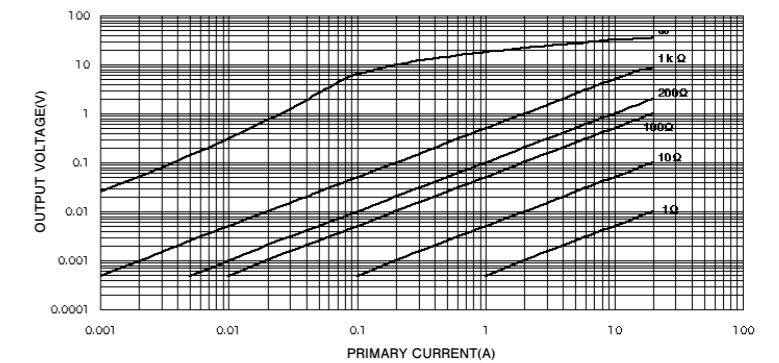
SPECIFICATIONS

Model No.	MZL-30	MZL-45	MZL-65
Rated Primary Current	AC 100A	AC 200A	AC400A
CT Inside Diameter	φ 30mm	φ 45mm	φ 65mm
Rated Zero Phase Current	AC 0~800mA		
Load Resistance	530Ω		
Output Characteristic	Primary Input Current	Criterion Output	Tolerance
	0.1A	50mV	+5% -10%
	0.2A	100mV	
	0.4A	200mV	
	0.8A	400mV	
Equilibrium Characteristic	Less than 30mV (max. residual voltage when AC42mA is piled up to the rated current)		
Rated Voltage	Less than AC 600V 50/60Hz		
Applicable Place	Indoor		
Operation Temperature	-10°C~60°C、45%~85%RH (w/o condensation)		
Withstanding Voltage	AC2200V 1 min. (Between CT and output terminal)		
Insulation Resistance	More than DC 500V 50MΩ (Between CT and output terminal)		

MODEL **ZCT-20M** FEATURE **NON-SPLIT TYPE**



CHARACTERISTIC OF OUTPUT VOLTAGE



SPECIFICATIONS

MEASURING RANGE : AC 1mA~20A
 CT SIZE : φ 20mm
 OUTPUT CHARACTERISTIC : REFER TO THE DRAWING
 SECONDARY WINDINGS : 2000TURNS
 RECOMMENDABLE LOAD RESISTOR : 1~200Ω
 FREQUENCY APPLICATION : 10~500Hz
 WITHSTANDING VOLTAGE : AC 2200V 1MINUTE (BETWEEN CT AND OUTPUT)
 INSULATION RESISTANCE : DC500V, MORE THAN 100MΩ (BETWEEN CT AND OUTPUT)
 OPERATING TEMPRATURE : 0~60°C LESS THAN 80%rh, NON-CONDENSING
 OUTPUT LEADWIRE : φ 4 SINGLE SHIELD WIRE 4m, "Y" TERMINAL
 DIMENTION : 39×41×17mm
 WEIGHT : 160g

TRACK SHAPE ZCT SENSOR – High Accurete ZCT



SPECIFICATIONS

Rated Current : AC 400A
 Loading Resistance : 100Ω
 Applicable Frequency : 50/60Hz
 Zero Phase Primary Current : AC 200mA
 Output Voltage : AC 19.4mV±5%
 Remanence Voltage : Less than AC 5mV (3 φ 400A)
 Dimension/Weight : 350×120×10mm, 350g

※ Available Any Customized Non-Split Core Current Sensors.
 Please Contact Us or Our Sales Representative.

ROUND SHAPE CT SENSOR – General & Common Use



SPECIFICATIONS

Rated Current : AC 30~600A
 Nominal CT Ratio : 2000:1
 Loading Resistance : 1Ω
 Applicable Frequency : 50 or 60Hz
 Output Voltage : AC 300mV±5%FS
 Dimension : φ 68×φ 126×30mm

※ Available Any Customized Non-Split Core Current Sensors.
 Please Contact Us or Our Sales Representative.

MODEL CTF-13K – General & Common Use with Fixing Stand



SPECIFICATIONS

Rated Current :	AC 100A
Rated Frequency :	40~120Hz
Lodging Resistance :	30Ω
Output Characteristic :	AC 0.97~1.03V
Max Applicable Current :	AC 150Arms
Applicable Circuit Voltage :	Less than 600V
Withstanding Voltage :	AC 2000V/1 minute (between core hole and output)
Operathing Temperature :	-20~80°C, Less than 80%RH
Dimension/Weight :	39 × 41 × 17mm, 160g

※ Available Any Customized Non-Split Core Current Sensors.
Please Contact Us or Our Sales Representative.

MODEL INJ-80

FEATURES

Big CT window, φ 80mm
For signal injection
Applicable frequency:4300Hz



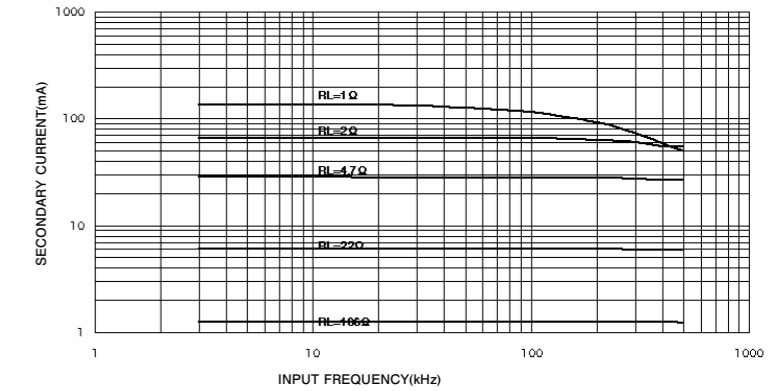
SPECIFICATIONS

Applicable Frequency:	Approx.4300Hz
Withstanding Voltage:	AC 2200V,1 minute (between CT and output)
Insulation Resistance:	DC500V, More than 100MΩ (between CT and output)
Operational Temperature:	0~60°C, Less than 80%RH (Without condensation)
Standard:	Compliant with RoHS directive
CT Inside Size:	φ 80mm
Dimension:	123(W) × 240(H) × 28(D)mm
Secondary winding:	203 turns

MODEL INJ-34 FEATURE FOR INJECTION



CHARACTERISTIC OF OUTPUT VOLTAGE



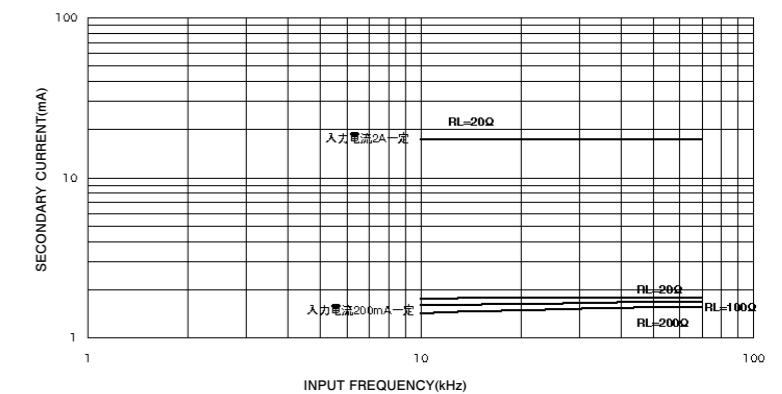
SPECIFICATIONS

CT SIZE :	φ 34mm
OUTPUT CHARACTERSTIC :	REFER TO THE DRAWING
SECONDARY WINDINGS :	50TURNS
RECOMMENDABLE LOAD RESISTOR :	2~100Ω
FREQUENCY APPLICATION :	4KHz~200KHz
WITHSTANDING VOLTAGE :	AC 3700V 1MINUTE (BETWEEN CT AND OUTPUT)
INSULATION RESISTANCE :	DC500V, 100MΩ MORE THAN 100MΩ (BETWEEN CT AND OUTPUT)
OPERATING TEMPRATURE :	LESS THAN 80%rh, NON-CONDENSING
OUTPUT LEADWIRE :	2.5 SHIELD WIRE
DIMENTION :	91 × 165 × 38mm
WEIGHT :	440g

MODEL HFCT-34 FEATURE FOR HI-FREQUENCY CURRENT



CHARACTERISTIC OF OUTPUT VOLTAGE



SPECIFICATIONS

MEASURING RANGE :	1mA~20A
CT SIZE :	φ 34mm
OUTPUT CHARACTERSTIC :	REFER TO THE DRAWING
SECONDARY WINDINGS :	108TURNS
RECOMMENDABLE LOAD RESISTOR :	20~200Ω
FREQUENCY APPLICATION :	4kHz~200kHz
WITHSTANDING VOLTAGE :	AC 3700V 1MINUTE (BETWEEN CT AND OUTPUT)
INSULATION RESISTANCE :	DC500V, 100MΩ MORE THAN 100MΩ (BETWEEN CT AND OUTPUT)
OPERATING TEMPRATURE :	LESS THAN 80%rh, NON-CONDENSING
OUTPUT LEADWIRE :	2.5 SHIELD WIRE
DIMENTION :	91 × 165 × 38mm
WEIGHT :	460g

EXPLANATION OF AC CURRENT SENSOR

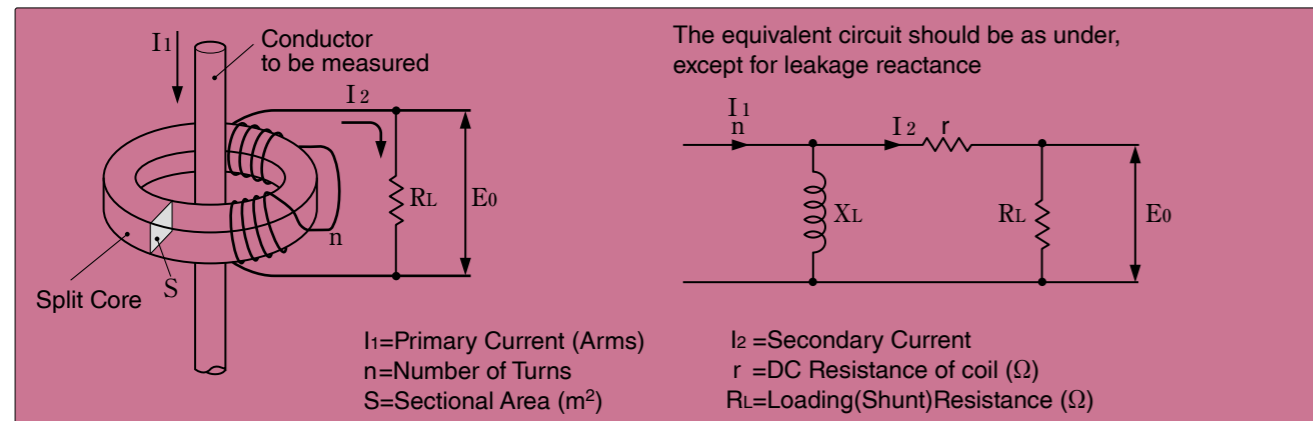
FUNDAMENTALS OF SPLIT TYPE AC CURRENT SENSOR

MULTI Split Type Current Sensors(CT Series & ZCT Series) seek after the various utility, high reliability and cost-performance for the use of measurement & control.

CT series are developed as load current sensors and ZCT series are mainly for leakage current. By locating the electric wire at the hole of CT, you can get the current data which can be directly interfaced to the circuit

[PRICIPLE]

[EQUIVALENT CIRCUIT]



The space between the secondary coils wound to split core by "n" turns and the conductor to be measured is the current transformer with ratio of "n:1" and it will be converted to the voltage signal by flowing output current to loading resistor.

$$E_0 = K \cdot I_1 / n \cdot R_L \quad K = \text{Coupling Coefficient}$$

(The coupling coefficient depends on the using magnetic materials and structure).

The magnetic material of CT will saturate by the current flowing on the conductor to be measured and or by the situation to be used and the linearity of secondary current will get wrong, the wave form will be distorted and or the phase characteristic will get wrong.

Saturation Formula : $\sqrt{2} \leq nsBW$

- : V = Inducted Voltage (v)
- : B = Magnetic Flux Dencity (Wb/m^2)
- : $W = 2 \pi f$ (f = Frequency)

"B" is the magnetic flux dencity which depends on the magnetic materials.

The magnetic materials used for ZCT Series are mostly permalloy which will start saturation under the condition "B" = more than $0.35Wb/m^2$.

Before the actual use of our CT Sensors, please refer to the list and graph of each characteristic and select suitable CT for the appropriate application.

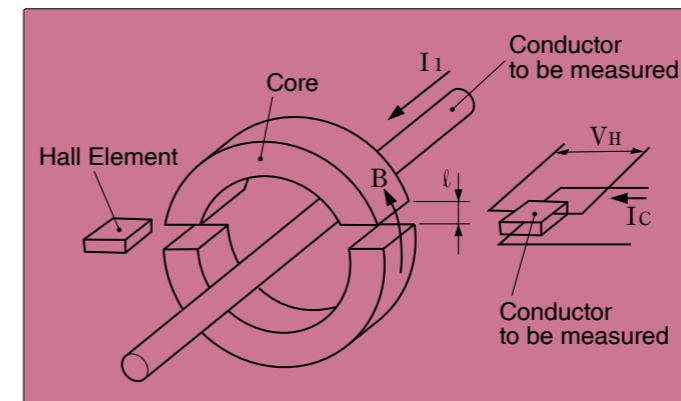
Also, there are some CTs with voltage output by having circuit internally and are specific CTs for Injection, High Frequency, Remote Control, etc.

EXPLANATION OF DC CURRENT SENSOR

MULTI DC Current Sensors are based on the combination of cut core and hall element as a magnetic sensor and can detect not only DC but also AC Current continuously.

CT SENSORS FOR DC LINE CURRENT P36 ~ P37

[PRINCIPLE OF HALL ELEMENT SENSOR]



The magnetic flux in proportion to the current (I_1) flowing at the conductor to be measured will be converged at the core and will go through the hall element located in the gaps of core. Then, the voltage (V_H) will generate by effect of hall element.

[EXAMPLE OF CIRCUIT APPLICATION]

