

S50

1200A 1mV/A AND 1mA/A OUTPUT AC CURRENT CLAMP ON CT

The round jaw design on the S50 Series AC current clamp on CT along with the high content nickel metal core makes them well suited for power quality applications where high accuracy and low phase shift along with wide frequency are important from 10Hz to 10MHz. Measurement range is 1mA to 1200A. The S50 is a general purpose 1200A AC current clamp on CT designed for use with DMMs, power loggers and energy meter calibration instruments that have a current input. It has a 1000:1 ratio and output of 1mA per amp or 1mV per amp measured in the jaw. The S50 clamp on CT has an integral 2.5m lead terminated. The rounded jaw design on this current clamp makes it well-suited for power applications where high accuracy 0.1% and low phase shift and wide frequency response are important.

Features

1. UL, CE CNAS mark;
2. High content permalloy core;
3. Holding wire diameter: $\phi 52\text{mm}$;
4. Frequency 10Hz-10MHz Bandwidth;
5. Conforms to EN 61010, 600V CAT III;
6. Low phase shift for power measurement;
7. Industrial design & beautiful appearance;
8. Measurement range of 1mA to 1200A AC;
9. High precision 0.1% for current measurement;
10. Improved ergonomic design & easy operation;
11. Designed for DMMs, recorders, loggers, oscilloscopes, power and harmonic meters;



Application

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|----------------------------|-------------------------------|---|
| 1. Power meter; | 6. Earth resistance meter; | 11. power and harmonic meters; |
| 2. Phase angle meter; | 7. Power load monitoring; | 12. Power quality analyzer(PQA); |
| 3. Energy sub-meters; | 8. Data logging/recording; | 13. CT secondary current detection; |
| 4. Cable fault analysis; | 9. Energy meter calibrator; | 14. Measuring around cable bundles; |
| 5. Large industrial loads; | 10. Power quality monitoring; | 15. Waveform analysis(oscilloscopes meter); |

Parameters

Electrical parameters

Ratio	1000: 1 , 2000:1, 1000:5 (customized)
Accuracy class	0.1%, 0.2%, 0.5%
Primary current	0 - 500A AC and 0-1000A AC
Signal output	1mA/A, 1mV/A, 10mV/A, 100mV/A
Secondary voltage	0 - 0.5V AC and 0 - 1V AC;
Secondary current	0-1A or 0-5A AC
Max. Cont. Input current	1200A
Load capacity	≤20Ω, standard 4Ω
Over voltage category	CAT III 600V
Frequency range	10Hz-10MHz
Dielectric strength	3KV 50Hz/60Hz at 1minute
Temperature range	-40°C to +55°C
Output	2.5 meter cable with D01 or BNC connector
Max. voltage not insulated conductors	720 V
Standard	EN 61010-1, EN 61010-2-032, EN 61010-2-031 IEC60044-1, & IEC61869-2, 600V CAT III
Installation	clamp type
Range	10A, 100A, 1000A optional
Output mode	lead output(2.5m)
Connector	BNC, 4mm banana, signal cable(2 cores),customized

Accuracy (1000A Range)

0-10A	≤0.5%
10-100	≤0.2%
10-1200A	≤0.1%

Phase Shift(1000A Range)

0-10A	≤0.5°
10-100	≤0.2°
100-1200A	≤0.1°

Mechanical parameters

Dimensions (L x W x H) (mm)	105 x 218 x 30
Weight (g)	650
Holding wire diameter (mm)	φ52
Max. jaw opening (mm)	52
Jaw color	Red & Grey
Material	PC+ABS, UL94 V0

Selection guide

Model	Rate Current	Max Current	Secondary Current	Coil Ratio	Burden Resistance	Accuracy
S50A5-100	100A	120A	5A	20:1	2.5VA	1%
S50A5-200	200A	240A	5A	40:1	2.5VA	0.5%
S50A5-300	300A	360A	5A	60:1	2.5VA	0.5%
S50A5-400	400A	480A	5A	80:1	2.5VA	0.5%
S50A5-500	500A	600A	5A	100:1	2.5VA	0.5%
S50A5-600	600A	720A	5A	120:1	2.5VA	0.5%
S50A5-800	800A	960A	5A	160:1	2.5VA	0.5%
S50A5-1000	1000A	1200A	5A	200:1	2.5VA	0.5%
S50A1-100	100A	120A	1A	100:1	customized	0.2%
S50A1-200	200A	240A	1A	200:1	customized	0.2%
S50A1-300	300A	360A	1A	300:1	customized	0.2%
S50A1-400	400A	480A	1A	400:1	customized	0.2%
S50A1-500	500A	600A	1A	500:1	customized	0.2%
S50A1-600	600A	720A	1A	600:1	customized	0.2%
S50A1-800	800A	960A	1A	800:1	customized	0.2%
S50A1-1000	1000A	1200A	1A	1000:1	customized	0.1%
S502-300	300A	360A	300mA	1000:1	customized	0.1%
S502-500	500A	600A	500mA	1000:1	customized	0.1%
S502-1000	1000A	1200A	500mA	2000:1	customized	0.1%
S503-800	800A	960A	400mA	2000:1	customized	0.1%
S503-1000	1000A	1200A	400mA	2500:1	customized	0.1%
S504-500	500A	600A	250mA	2000:1	customized	0.1%
S504-1000	1000A	1200A	250mA	4000:1	customized	0.1%
S50V1-1000	1000A	1200A	1V	1000:1	customized	0.1%
S50V2-1000	1000A	1200A	2V	1000:1	customized	0.1%
S50V4-1000	1000A	1200A	4V	1000:1	customized	0.1%
S50V5-1000	1000A	1200A	5V	1000:1	customized	0.1%
S50V10-1000	1000A	1200A	10V	1000:1	customized	0.1%
S50V03-300	300A	360A	300mV	1000:1	customized	0.2%
S50V05-500	500A	600A	500mV	1000:1	customized	0.2%
S50V1-500	500A	600A	1V	2000:1	customized	0.2%
S50V2-500	500A	600A	2V	2000:1	customized	0.2%
S50V4-500	500A	600A	4V	2000:1	customized	0.2%
S50V5-500	500A	600A	5V	2000:1	customized	0.2%
S50V10-500	500A	600A	10V	2000:1	customized	0.2%
S50V13-1000	10/100/1000A	12/120/1200A	1V	1000:1	customized	0.1%

Notes: Can be customized current probe according to user requirements!

Dimension

