

S120

30A/300A/3000A 200KHZ BANDWIDTH HIGH PRECISION OSCILLOSCOPE CURRENT MEASUREMENT CLAMP

The S120 current clamp is a high performance AC Clamp on current transformer probe with excellent transformation and low phase shift. The high quality magnetic permalloy core and uniform windings provide for accurate measurements up to 3000AAC/2000AAC/1000AAC/500AAC. The "ring type" jaw permits good magnetic conduction and cable positionings. Provide excellent RMS capabilities and reliable signal reproduction.

The S120 clamp on ct is well suited for power quality applications where high accuracy and low phase shift along with wide frequency from 10Hz to 2MHz are important. Measurement range is 100mA to 3000A.

The S120 clamp on current transformer is a general purpose 3000A AC Clamp current probe transformer designed for use with DMMs & BNC, cable fault analysis and loggers instruments that have a current input. It has a 1000:1 or 2000:1 ratio and output of 1mA per amp or 1mV per amp measured in the jaw. The S120 has an integral 2.5m or 5m lead terminated. The rounded jaw design on this clamp probe makes it well-suited for cable fault analysis applications where high accuracy and low phase shift and wide frequency.

All of our CT current clamp are strictly comply IEC60044-1, IEC 61869-2, ANSI/IEEE C57.13, GB1208-2006, GB/T 20840.1-2010, GB/T 20840.2-2014, GB/T 22071.1-2018, IEC/EN61010-2-032, IEC/EN 61010-2-031.

Features

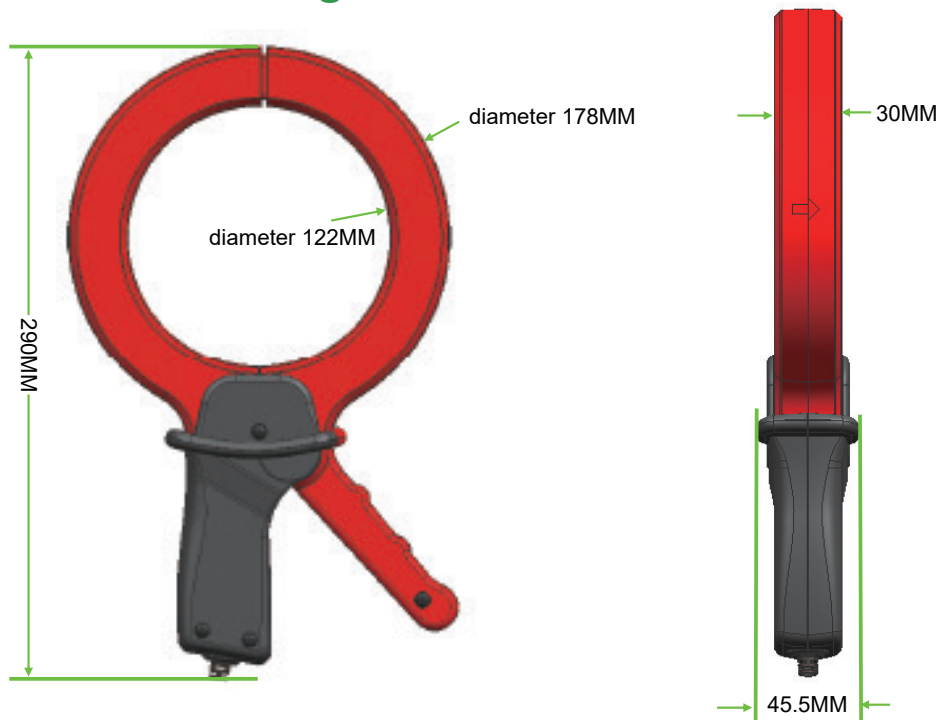
1. UL, CE CNAS mark;
2. Frequency 10Hz-2MHz;
3. Holding wire diameter: $\phi 120\text{mm}$;
4. Conforms to EN 61010, 600V CAT III;
5. With high time harmonic measurement;
6. Industrial design & beautiful appearance;
7. Low phase shift for power measurement;
8. High content nickel metal permalloy core;
9. Measurement range of 1mA to 3000A AC;
10. Transformation ratio: 1000:1, 2000:5, 3000:5;
11. High precision 0.1% for current measurement;
12. Improved ergonomic design & easy operation;
13. 1mA/A, 1mV/A, 10mV/A, 100mV/A signal output;
14. IEC/EN61010-2-032, IEC/EN 61010-2-031, IEC 61869-2 etc standard;
15. Designed for DMMs, recorders, loggers, oscilloscopes, power and harmonic meters;



Applications

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|----------------------------------|-------------------------------------|---|
| 1. Multimeter; | 2. Power meter; | 3. Energy sub-meters; |
| 4. Phase angle meter; | 5. Cable fault analysis; | 6. Large industrial loads; |
| 7. Earth resistance meter; | 8. Power load monitoring; | 9. Data logging/recording; |
| 10. Energy meter calibrator; | 11. Power quality monitoring; | 12. Measuring around cable bundles; |
| 13. Power and harmonic meters; | 14. CT secondary current detection; | 15. Waveform analysis(oscilloscopes meter); |
| 16. Power quality analyzer(PQA); | | |

Outline Drawing



Parameters

Technical parameters

Ratio	1000:1, 2000:1, 2000:5, 3000:5 (customized)
Accuracy Class	0.1%, 0.2%, 0.5%
Primary current	0-3000A AC, 0-2000A AC, 0-1000A AC
Signal output	1mA/A, 1mV/A, 10mV/A, 100mV/A
Secondary voltage	0 - 1V AC, 0 - 2V AC, 0 - 5V AC; (customized)
Secondary current	0-500mA, 0-1A, 0-2A or 0-5A AC; (customized)

Technical parameters - continued

Max. Cont. Input current	3600A
Load capacity	$\leq 20\Omega$, standard 4Ω
Over voltage category	CAT III 600V
Frequency range	10Hz-2MHz
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	1000A, 2000A, 3000A optional
Output mode	Lead output (2.5m, 5m, 10m)
Connector	BNC, 4mm banana, signal cable(2 cores), customized

Accuracy (3000A Range)

0-10A	$\leq 0.5\%$
10-100A	$\leq 0.2\%$
100-3000A	$\leq 0.1\%$

Phase Shift(3000A Range)

0-10A	$\leq 0.5^\circ$
10-100A	$\leq 0.2^\circ$
100-3000A	$\leq 0.1^\circ$

Mechanical parameters

Dimensions (L x W x H) (mm)	178 x 290 x 30
Weight (g)	1200
Holding wire diameter (mm)	$\phi 120$
Max. jaw opening (mm)	120
Jaw color	Red & Grey
Material	PC+ABS, UL94 V0

Selection Guide

Model	Rate Current	Max Current	Secondary Current	Coil Ratio	Burden Resistance	Accuracy
S120-200	200A	240A	5A	40:1	2.5VA	0.5%
S120-300	300A	360A	5A	60:1	2.5VA	0.5%
S120-400	400A	480A	5A	80:1	2.5VA	0.5%
S120-500	500A	600A	5A	100:1	2.5VA	0.5%
S120-600	600A	720A	5A	120:1	2.5VA	0.5%
S120-800	800A	960A	5A	160:1	2.5VA	0.5%
S120-1000	1000A	1200A	5A	200:1	2.5VA	0.5%
S120-1500	1500A	1800A	5A	300:1	2.5VA	0.5%
S120-2000	2000A	2400A	5A	400:1	2.5VA	0.5%
S120-3000	3000A	3600A	5A	600:1	2.5VA	0.5%
S120A1-200	200A	240A	1A	200:1	customized	0.2%
S120A1-300	300A	360A	1A	300:1	customized	0.2%
S120A1-400	400A	480A	1A	400:1	customized	0.2%
S120A1-500	500A	600A	1A	500:1	customized	0.2%
S120A1-600	600A	720A	1A	600:1	customized	0.2%
S120A1-800	800A	960A	1A	800:1	customized	0.2%
S120A1-1000	1000A	1200A	1A	1000:1	customized	0.1%
S120A1-1500	1500A	1800A	1A	1500:1	customized	0.1%
S120A1-2000	2000A	2400A	1A	2000:1	customized	0.1%
S120A1-3000	3000A	3600A	1A	3000:1	customized	0.1%
S120A2-500	500A	600A	500mA	1000:1	customized	0.1%
S120A2-600	600A	720A	500mA	1200:1	customized	0.1%
S120A2-800	800A	960A	500mA	1500:1	customized	0.1%
S120A2-1000	1000A	1200A	500mA	2000:1	customized	0.1%
S120A3-800	800A	960A	400mA	2000:1	customized	0.1%
S120A3-1000	1000A	1200A	400mA	2500:1	customized	0.1%
S120A4-250	250A	300A	250mA	1000:1	customized	0.1%
S120A4-500	500A	600A	250mA	2000:1	customized	0.1%

Model	Rate Current	Max Current	Secondary Current	Coil Ratio	Burden Resistance	Accuracy
S120A4-1000	1000A	1200A	250mA	4000:1	customized	0.1%
S120V5-200	200A	240A	1V	1000:1	customized	0.1%
S120V5-300	300A	360A	1V	1000:1	customized	0.1%
S120V5-400	400A	480A	1V	1000:1	customized	0.1%
S120V5-500	500A	600A	1V	1000:1	customized	0.1%
S120V5-600	600A	720A	1V	1000:1	customized	0.1%
S120V5-800	800A	960A	1V	1000:1	customized	0.1%
S120V5-1000	1000A	1200A	1V	1000:1	customized	0.1%
S120V5-2000	2000A	2400A	2V	1000:1	customized	0.1%
S120V5-3000	3000A	3600A	3V	1000:1	customized	0.2%
S120V6-200	200A	240A	5V	1000:1	customized	0.1%
S120V6-300	300A	360A	5V	1000:1	customized	0.1%
S120V6-400	400A	480A	5V	1000:1	customized	0.1%
S120V6-500	500A	600A	5V	1000:1	customized	0.1%
S120V6-600	600A	720A	5V	1000:1	customized	0.1%
S120V6-800	800A	960A	5V	1000:1	customized	0.1%
S120V6-1000	1000A	1200A	5V	1000:1	customized	0.1%
S120V6-2000	2000A	2400A	5V	1000:1	customized	0.1%
S120V6-3000	3000A	3600A	5V	1000:1	customized	0.2%
S120V8-200	200A	240A	10V	1000:1	customized	0.1%
S120V8-300	300A	360A	10V	1000:1	customized	0.1%
S120V8-400	400A	480A	10V	1000:1	customized	0.1%
S120V8-500	500A	600A	10V	1000:1	customized	0.1%
S120V8-600	600A	720A	10V	1000:1	customized	0.1%
S120V8-800	800A	960A	10V	1000:1	customized	0.1%
S120V8-1000	1000A	1200A	10V	1000:1	customized	0.1%
S120V5-3000	30/300/3000A	36/360/3600A	1V or 3V	1000:1	customized	0.2%

Notes: Can be customized clamp on current transformers according to user requirements!

Clamp On Current Transformer Selection Model

Model	Current Range	Max Current	Secondary Output Signal	Ratio	Resistance	Accuracy
S50	0-1200A	1200A	250mA, 500mA, 1A, 5A, 333mV, 1V, 2V , 5V, 10V etc	1000:1, 2000:1,4000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
S120	0-3000A	3600A	250mA, 500mA, 1A, 2A, 5A, 333mV, 1V, 2V , 5V, 10V etc	600:1, 1000:1, 2000:1,4000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
P8	0-10A	20A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1, 4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
P18	0-200A	240A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1, 4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
P50	0-1000A	1200A	250mA, 500mA, 1A, 5A, 333mV, 1V, 2V , 5V, 10V etc	1000:1,2000:1, 2500:1,4000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
P110	0-1500A	1500A	250mA, 500mA, 1A, 2A, 5A, 333mV, 1V, 2V , 5V, 10V etc	200:1, 600:1, 1000:1, 2000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q8A1	20A	20A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q8A2	20A	20A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q13	100A	120A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q20A	200A	240A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q20B	200A	240A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q40	500A	600A	200mA, 250mA, 500mA, 333mV, 1V, 2V , 5V, 10V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q50A	1000A	1000A	250mA, 500mA, 1A, 5A, 333mV, 1V, 2V , 5V, 10V etc	1000:1,2000:1, 2500:1,4000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q70	1000A	1200A	250mA, 500mA, 1A, 5A, 333mV, 1V, 2V , 5V, 10V etc	200:1, 600:1, 1000:1, 2000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q110	1500A	1500A	250mA, 500mA, 1A, 5A, 333mV, 1V, 2V , 5V, 10V etc	200:1, 600:1, 1000:1, 2000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q125	2000A	2400A	500mA, 1A, 5A, 333mV, 1V, 2V , 5V, 10V etc	200:1, 600:1, 1000:1, 2000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.2%, 0.5%
Q125B	3000A	3600A	250mA, 500mA, 1A, 5A, 333mV, 1V, 2V , 5V, 10V etc	600:1, 1000:1, 2000:1,4000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.2%, 0.5%
Q150	3000A	3600A	500mA, 1A, 5A, 333mV, 1V, 2V , 5V, 10V etc	600:1, 1000:1, 2000:1,4000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.2%, 0.5%
XQ13	100A	120A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
XQ20	200A	240A	2mA, 2.5mA, 5mA, 10mA,20mA, 333mV, 1V, 2V , 5V, 10V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
HQ15	100A	120A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%