

Q20A

100A/200A LOW COST HIGH ACCURACY MAGNETIC AC MINI CT CURRENT CLAMP

The model Q20A 100A/200A ct current clamp is ideal for using with electronic meter or other device with AC current input, it is suitable for 100A cable online measurement, max 120A. Only weight 300g, it has high accuracy class 0.1% and wide frequency range from 10Hz to 20KHz. Clamp type structure and non-contact measurement, mini design, easy to operate, fast, safe and reliable. it can be used for power analyzer, watt-hour meter tester & smart power meter etc. The Q20A series ct clamp is a economical current clamp, has been the first choice of many instrument manufacturers.

This model Q20A current clamp are strictly in conformity with IEC/EN61010-2-032, IEC/EN 61010-2-031, 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 etc.

Features

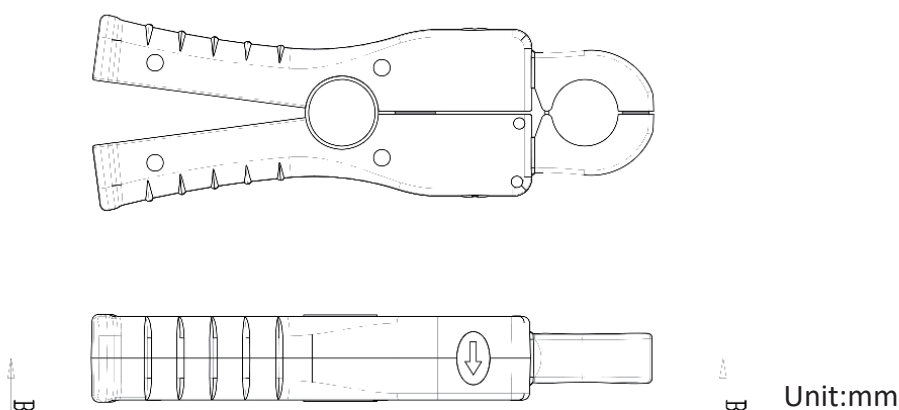
1. UL, CE, CNAS mark;
2. Small, compact size;
3. 10Hz to 20kHz response;
4. With load capacity $\leq 10\Omega$;
5. With harmonic measurement;
6. Installation: clamp type design;
7. Holding wire diameter: $\phi 20\text{mm}$;
8. Measurement range of 1mA to 200A AC;
9. Low phase shift for power measurement;
10. High content nickel metal permalloy core;
11. As a high accuracy clamp on current sensor;
12. High precision 0.1% for current measurement;
13. Improved ergonomic design and easy operation;
14. Can be customized 4mm banana/BNC connector;
15. 1mV/A AC, 10mV/A AC or 1mA/A AC output signals;
16. Designed to EN 61010, 600V CAT III safety standard;
17. Designed for DMMs, PQA, loggers, recorders and oscilloscopes;
18. IEC/EN61010-2-032, IEC/EN 61010-2-031, IEC 61869-2 etc standard;
19. Suitable for 5A, 10A, 20A, 50A, 100A, 200A cable online measurement;



Applications

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|-------------------------------------|-------------------------------------|----------------------------------|
| 1. Multimeter; | 2. Power meter; | 3. Energy sub-meters; |
| 4. Digital multi-meter; | 5. Phase angle meter; | 6. Oscilloscopes meter; |
| 7. Leakage current meter; | 8. Data logging/recording; | 9. Power load monitoring; |
| 10. Data logging/recording; | 11. Energy meter field tester; | 12. Power quality monitoring; |
| 13. Power quality analyzer(PQA); | 14. Power and harmonic meters; | 15. Multi-function energy meter; |
| 16. CT secondary current detection; | 17. Measuring around cable bundles; | |

Outline Drawing



Parameters

Technical parameters	
Ratio	1000:1, 2000:1, 2500:1 (customized)
Accuracy Class	0.1%, 0.2%, 0.5%
Primary current	0-5A, 0-10A, 0-20A, 0-100A , 0-200A AC
Signal output	1mA/A, 1mV/A, 5mV/A, 10mV/A, 100mV/A
Secondary voltage	0-50mV, 0-100mV, 0-200mV, 0-1V, 0-5V AC (customized)
Secondary current	0-5mA, 0-10mA, 0-100mA , 0-200mA AC (customized)
Max. Cont. Input current	240A
Load capacity	≤10Ω, standard 4Ω
Over voltage category	CAT III 600V
Frequency range	10Hz-20KHz
Dielectric strength	3KV 50Hz/60Hz at 1minute
Temperature range	-20°C to +55°C

Technical parameters - continued

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	5A, 10A, 20A, 100A , 200A optional
Output mode	Lead output(2.5m, 5m, 10m or customized)
Output signal	333mV, 50mV,1V,2V,5V AC at nominal input current
Connector	BNC, 4mm banana, signal cable(2 cores), Audio plug, customized

Accuracy (200A Range)

0-200mA	≤0.5%
200mA-20A	≤0.2%
20A-240A	≤0.1%

Phase Shift(200A Range)

0-200mA	≤0.5°
200mA-20A	≤0.2°
20A-240A	≤0.1°

Mechanical parameters

Dimensions (L x W x H) (mm)	48 x 186 x 27
Weight (g)	300
Holding wire diameter (mm)	φ20
Max. jaw opening (mm)	20
Jaw color	Black
Material	PC+ABS+Polycarbonate, UL94 V0

Selection Guide

Model	Rate Current	Max Current	Secondary Current	Coil Ratio	Burden Resistance	Accuracy
Q20A-10-1	10A	12A	10mA	1000:1	customized	0.1%
Q20A-10-2	10A	12A	5mA	2000:1	customized	0.1%
Q20A-10-3	10A	12A	4mA	2500:1	customized	0.1%
Q20A-20-1	20A	24A	20mA	1000:1	customized	0.1%
Q20A-20-2	20A	24A	10mA	2000:1	customized	0.1%
Q20A-20-3	20A	24A	8mA	2500:1	customized	0.1%
Q20A-100-1	100A	120A	100mA	1000:1	customized	0.1%
Q20A-100-2	100A	120A	50mA	2000:1	customized	0.1%
Q20A-100-3	100A	120A	40mA	2500:1	customized	0.1%
Q20A-200-1	200A	240A	200mA	1000:1	customized	0.1%
Q20A-200-2	200A	240A	100mA	2000:1	customized	0.1%
Q20A-200-3	200A	240A	80mA	2500:1	customized	0.1%
Q20A-V10-1	10A	50A	100mV	1000:1	customized	0.1%
Q20A-V10-2	10A	12A	1V	1000:1	customized	0.1%
Q20A-V10-3	10A	12A	5V	1000:1	customized	0.1%
Q20A-V20-1	20A	50A	200mV	1000:1	customized	0.1%
Q20A-V20-2	20A	24A	2V	1000:1	customized	0.1%
Q20A-V20-3	20A	24A	5V	1000:1	customized	0.1%
Q20A-V100-1	100A	120A	100mV	1000:1	customized	0.1%
Q20A-V100-2	100A	120A	1V	1000:1	customized	0.1%
Q20A-V100-3	100A	120A	5V	1000:1	customized	0.1%
Q20A-V200-1	200A	240A	200mV	1000:1	customized	0.1%
Q20A-V200-2	200A	240A	2V	1000:1	customized	0.1%
Q20A-V200-3	200A	240A	5V	1000:1	customized	0.1%

Model	Rate Current	Max Current	Secondary Current	Coil Ratio	Burden Resistance	Accuracy
Q20A-5-12	5A	6A	5mA	1000:1	customized	0.2%
Q20A-5-22	5A	6A	2.5mA	2000:1	customized	0.2%
Q20A-5-32	5A	6A	2mA	2500:1	customized	0.2%
Q20A-10-12	10A	12A	10mA	1000:1	customized	0.2%
Q20A-10-22	10A	12A	5mA	2000:1	customized	0.2%
Q20A-10-32	10A	12A	4mA	2500:1	customized	0.2%
Q20A-20-12	20A	24A	20mA	1000:1	customized	0.2%
Q20A-20-22	20A	24A	10mA	2000:1	customized	0.2%
Q20A-20-23	20A	24A	8mA	2500:1	customized	0.2%
Q20A-100-12	100A	120A	100mA	1000:1	customized	0.2%
Q20A-100-22	100A	120A	50mA	2000:1	customized	0.2%
Q20A-100-32	100A	120A	40mA	2500:1	customized	0.2%
Q20A-V5-12	5A	50A	50mV	1000:1	customized	0.2%
Q20A-V5-22	5A	6A	500mV	1000:1	customized	0.2%
Q20A-V5-32	5A	6A	1V	1000:1	customized	0.2%
Q20A-V10-12	10A	50A	100mV	1000:1	customized	0.2%
Q20A-V10-22	10A	12A	1V	1000:1	customized	0.2%
Q20A-V10-32	10A	12A	5V	1000:1	customized	0.2%
Q20A-V20-12	20A	50A	200mV	1000:1	customized	0.2%
Q20A-V20-22	20A	24A	2V	1000:1	customized	0.2%
Q20A-V20-32	20A	24A	5V	1000:1	customized	0.2%
Q20A-V100-12	100A	120A	100mV	1000:1	customized	0.2%
Q20A-V100-22	100A	120A	1V	1000:1	customized	0.2%
Q20A-V100-32	100A	120A	5V	1000:1	customized	0.2%
Q20A-V200-12	200A	240A	200mV	1000:1	customized	0.2%
Q20A-V200-22	200A	240A	2V	1000:1	customized	0.2%
Q20A-V200-32	200A	240A	5V	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%