

XQ20

HIGH PRECISION 20A/200A AC SPLIT CORE CLAMP ON CURRENT SENSOR

The model XQ20 clamp on current sensor is suitable for 200A cable online measurement, the user friendly shape make It easily clamp onto cables or bus bars, no need to interrupt the power supply and disconnect the circuit in testing, easy to carry and especially suitable for on-site online testing. It output 0-200mA or 0-100mA AC signal for measuring and analyzing system. This XQ20 clamp on current sensor can customized two gear 10A/100A or 20A/200A, 1V or 2V output, the frequency output from 10Hz to 2MHz. It have been used many in power quality analyzer or energy meter accuracy tester manufacturers, high reliability and accuracy 0.1%. This model XQ20 clamp current sensor 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

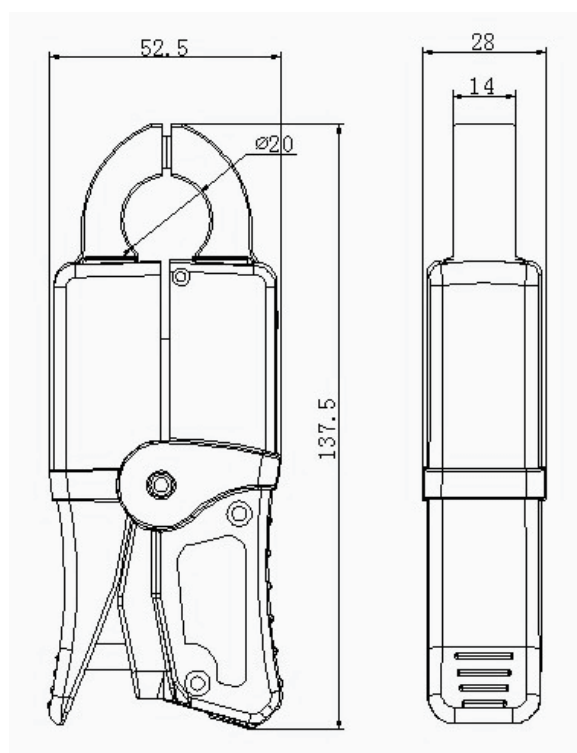
1. UL, CE, CNAS mark;
2. Small, compact size;
3. 10Hz to 2MHz response;
4. High content nickel metal core;
5. Installation: clamp type design;
6. Holding wire diameter: $\phi 20\text{mm}$;
7. Measurement range of 1mA to 240A AC;
8. Low phase shift for power measurement;
9. As a high accuracy clamp on current sensor;
10. High precision 0.1% for current measurement;
11. Improved ergonomic design and easy operation;
12. Can be customized 4mm banana/BNC connector;
13. Support two ratio 10A/100A or 20A/200A design;
14. 1mV/A AC, 10mV/A AC or 1mA/A AC output signals;
15. Designed to EN 61010, 600V CAT III safety standard;
16. Designed for DMMs, PQA, loggers, recorders and oscilloscopes;
17. IEC/EN61010-2-032, IEC/EN 61010-2-031, IEC 61869-2 etc standard;
18. Suitable for 5A, 10A, 20A, 50A, 100A, 200A cable online measurement;



Application

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

Outline Drawing



Parameters

Technical parameters	
Ratio	1000:1, 2000:1, 2500:1 (customized)
Accuracy Class	0.1%, 0.2%
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

Technical parameters - continued	
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	-20°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	5A, 10A, 20A, 100A , 200A optional
Two gear optional	10A/100A, 20A/200A
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	$\leq 0.5\%$
200mA-20A	$\leq 0.2\%$
20A-240A	$\leq 0.1\%$
Phase Shift(200A Range)	
0-200mA	$\leq 0.5^\circ$
200mA-20A	$\leq 0.2^\circ$
20A-240A	$\leq 0.1^\circ$
Mechanical parameters	
Dimensions (L x W x H) (mm)	52.5 x 137.5 x 28
Weight (g)	400
Holding wire diameter (mm)	$\varnothing 20$
Max. jaw opening (mm)	20
Jaw color	Red, yellow, blue, green, black
Material	PC+ABS+Polycarbonate, UL94 V0

Selection Guide

Model	Rate Current	Max Current	Secondary Current	Coil Ratio	Burden Resistance	Accuracy
XQ20-10-1	10A	12A	10mA	1000:1	customized	0.1%
XQ20-10-2	10A	12A	5mA	2000:1	customized	0.1%
XQ20-10-3	10A	12A	4mA	2500:1	customized	0.1%
XQ20-20-1	20A	24A	20mA	1000:1	customized	0.1%
XQ20-20-2	20A	24A	10mA	2000:1	customized	0.1%
XQ20-20-3	20A	24A	8mA	2500:1	customized	0.1%
XQ20-100-1	100A	120A	100mA	1000:1	customized	0.1%
XQ20-100-2	100A	120A	50mA	2000:1	customized	0.1%
XQ20-100-3	100A	120A	40mA	2500:1	customized	0.1%
XQ20-200-1	200A	240A	200mA	1000:1	customized	0.1%
XQ20-200-2	200A	240A	100mA	2000:1	customized	0.1%
XQ20-200-3	200A	240A	80mA	2500:1	customized	0.1%
XQ20-V10-1	10A	50A	100mV	1000:1	customized	0.1%
XQ20-V10-2	10A	12A	1V	1000:1	customized	0.1%
XQ20-V10-3	10A	12A	5V	1000:1	customized	0.1%
XQ20-V20-1	20A	50A	200mV	1000:1	customized	0.1%
XQ20-V20-2	20A	24A	2V	1000:1	customized	0.1%
XQ20-V20-3	20A	24A	5V	1000:1	customized	0.1%
XQ20-V100-1	100A	120A	100mV	1000:1	customized	0.1%
XQ20-V100-2	100A	120A	1V	1000:1	customized	0.1%
XQ20-V100-3	100A	120A	5V	1000:1	customized	0.1%
XQ20-V200-1	200A	240A	200mV	1000:1	customized	0.1%
XQ20-V200-2	200A	240A	2V	1000:1	customized	0.1%
XQ20-V200-3	200A	240A	5V	1000:1	customized	0.1%
XQ20-5-12	5A	6A	5mA	1000:1	customized	0.2%
XQ20-5-22	5A	6A	2.5mA	2000:1	customized	0.2%
XQ20-5-32	5A	6A	2mA	2500:1	customized	0.2%
XQ20-10-12	10A	12A	10mA	1000:1	customized	0.2%
XQ20-10-22	10A	12A	5mA	2000:1	customized	0.2%

Model	Rate Current	Max Current	Secondary Current	Coil Ratio	Burden Resistance	Accuracy
XQ20-10-32	10A	12A	4mA	2500:1	customized	0.2%
XQ20-20-12	20A	24A	20mA	1000:1	customized	0.2%
XQ20-20-22	20A	24A	10mA	2000:1	customized	0.2%
XQ20-20-23	20A	24A	8mA	2500:1	customized	0.2%
XQ20-100-12	100A	120A	100mA	1000:1	customized	0.2%
XQ20-100-22	100A	120A	50mA	2000:1	customized	0.2%
XQ20-100-32	100A	120A	40mA	2500:1	customized	0.2%
XQ20-V5-12	5A	50A	50mV	1000:1	customized	0.2%
XQ20-V5-22	5A	6A	500mV	1000:1	customized	0.2%
XQ20-V5-32	5A	6A	1V	1000:1	customized	0.2%
XQ20-V10-12	10A	50A	100mV	1000:1	customized	0.2%
XQ20-V10-22	10A	12A	1V	1000:1	customized	0.2%
XQ20-V10-32	10A	12A	5V	1000:1	customized	0.2%
XQ20-V20-12	20A	50A	200mV	1000:1	customized	0.2%
XQ20-V20-22	20A	24A	2V	1000:1	customized	0.2%
XQ20-V20-32	20A	24A	5V	1000:1	customized	0.2%
XQ20-V100-12	100A	120A	100mV	1000:1	customized	0.2%
XQ20-V100-22	100A	120A	1V	1000:1	customized	0.2%
XQ20-V100-32	100A	120A	5V	1000:1	customized	0.2%
XQ20-V200-12	200A	240A	200mV	1000:1	customized	0.2%
XQ20-V200-22	200A	240A	2V	1000:1	customized	0.2%
XQ20-V200-32	200A	240A	5V	1000:1	customized	0.2%
XQ20-V100-10	10/100A	12/120A	1V	1000:1	customized	0.1%
XQ20-V200-20	20/200A	24/240A	2V	1000:1	customized	0.1%

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	130A	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%