

Q40

ECONOMIC TYPE SHARP MOUTH 500A AC SPLIT CORE CLAMP CT

The Q40 Series clamp on CT are high performance current clamp models, and use a custom nickel core to improve accuracy and phase shift on the low end of the measurement range. The Q40 ct clamp is an excellent probe to be used in power and low level current measurement applications detection. The range, transformation ratio, output interface of the sensor can be customized according to customer requirements. Q40 CT clamp sensors, also known as current transformers or current sensors, are devices that measure the current running through a wire by using the magnetic field to detect the current and generate a proportional output. Q40 split core clamp CT can be used to measure less than 500A AC current circuit on site.

This model Q40 Clamp CT 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

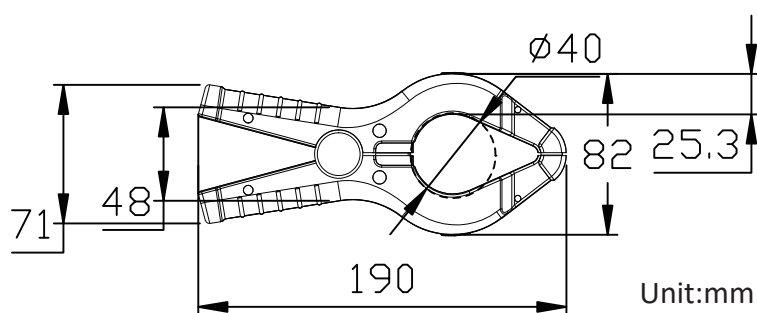
1. UL, CE, CNAS mark;
2. With load capacity $\leq 20\Omega$;
3. 10Hz to 200kHz response;
4. With harmonic measurement;
5. Installation: clamp type design;
6. Holding wire diameter: $\phi 40\text{mm}$;
7. As a high accuracy split core clamp ct;
8. Measurement range of 1mA to 600A AC;
9. Low phase shift for power measurement;
10. Small, compact size, sharp mouth design;
11. High content nickel metal permalloy core;
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. IEC/EN61010-2-032, IEC/EN 61010-2-031, IEC 61869-2 etc standard;
18. Suitable for 10A, 50A, 100A, 200A, 500A cable online measurement;
19. Designed for DMMs, PQA, recorders, power meter and oscilloscopes;



Applications

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|-------------------------------------|--------------------------------------|-------------------------------------|
| 1. Multimeter; | 2. Power meter; | 3. Oscilloscopes; |
| 4. Power analyzer; | 5. Digital multi-meter; | 6. Energy sub-meters; |
| 7. Phase angle meter; | 8. Waveform analysis; | 9. Large industrial loads; |
| 10. Power quality analyzer; | 11. Data logging/recording; | 12. Power load monitoring; |
| 13. Power quality monitoring; | 14. Power and harmonic meters; | 15. Multi-function energy meter; |
| 16. CT secondary current detection; | 17. On site energy meter calibrator; | 18. Measuring around cable bundles; |

Outline Drawing



Parameters

Technical parameters	
Ratio	1000:1, 2000:1 (customized)
Accuracy Class	0.1%, 0.2%, 0.5%
Primary current	0-50A, 0-100A, 0-200A, 0-500A 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	0-50mA, 0-100mA, 0-200mA, 0-500mA AC (customized)
Max. Cont. Input current	600A
Load capacity	≤20Ω, standard 4Ω
Over voltage category	CAT III 600V
Frequency range	10Hz-200KHz
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

Technical parameters - continued	
Installation	Clamp type
Range	50A, 100A, 200A, 300A, 500A 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 (500A Range)	
0-200mA	≤0.5%
200mA-20A	≤0.2%
20A-240A	≤0.1%
Phase Shift(500A Range)	
0-200mA	≤0.5°
200mA-20A	≤0.2°
20A-240A	≤0.1°
Mechanical parameters	
Dimensions (L x W x H) (mm)	82 x 290 x 25.3
Weight (g)	500
Holding wire diameter (mm)	φ40
Max. jaw opening (mm)	40
Jaw color	Black
Material	PC+ABS+Polycarbonate, UL94 V0

Selection Guide

Model	Rate Current	Max Current	Secondary Current	Coil Ratio	Burden Resistance	Accuracy
Q40A1-300	300A	360A	300mA	1000:1	customized	0.1%
Q40A1-400	400A	480A	400mA	1000:1	customized	0.1%
Q40A1-500	500A	600A	500mA	1000:1	customized	0.1%
Q40A2-500	500A	600A	250mA	2000:1	customized	0.1%
Q40A3-500	500A	600A	200mA	2500:1	customized	0.1%
Q40V03-300	300A	360A	300mV	1000:1	customized	0.1%
Q40V04-400	400A	480A	400mV	1000:1	customized	0.1%
Q40V05-500	500A	600A	500mV	1000:1	customized	0.1%
Q40V1-500	500A	600A	1V	2000:1	customized	0.1%
Q40V2-500	500A	600A	2V	2000:1	customized	0.1%
Q40V4-500	500A	600A	4V	2000:1	customized	0.1%
Q40V5-500	500A	600A	5V	2000:1	customized	0.1%
Q40V10-500	500A	600A	10V	2000:1	customized	0.1%
Q40A1-300-2	300A	360A	300mA	1000:1	customized	0.2%
Q40A1-400-2	400A	480A	400mA	1000:1	customized	0.2%
Q40A1-500-2	500A	600A	500mA	1000:1	customized	0.2%
Q40A2-500-2	500A	600A	250mA	2000:1	customized	0.2%
Q40A3-500-2	500A	600A	200mA	2500:1	customized	0.2%
Q40V03-300-2	300A	360A	300mV	1000:1	customized	0.2%
Q40V04-400-2	400A	480A	400mV	1000:1	customized	0.2%
Q40V05-500-2	500A	600A	500mV	1000:1	customized	0.2%
Q40V1-500-2	500A	600A	1V	2000:1	customized	0.2%
Q40V2-500-2	500A	600A	2V	2000:1	customized	0.2%
Q40V4-500-2	500A	600A	4V	2000:1	customized	0.2%
Q40V5-500-2	500A	600A	5V	2000:1	customized	0.2%
Q40V10-500-2	500A	600A	10V	2000:1	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%