

## P18

### EUROPE STANDARD 200KHZ 10A/100A DOUBLE RANGE SPLIT CORE CLAMP ON CT

The round jaw design on the P18 Series double range clamp on ct along with the high content permalloy core makes them well suited for power quality applications where high accuracy and low phase shift along with wide frequency ~200kHz are important. Measurement range is 1mA to 200A. for example 10A/100A, 20A/200A range.

The P18 clamp on ct is a general purpose 200A AC current clamp probe designed for use with DMMs, power loggers and energy meter calibration 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 P18 clamp 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. It can as one high precision clamp on current transformer for metering device.

All of our clamp on cts 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 mark;
2. High content permalloy core;
3. Holding wire diameter:  $\phi 18\text{mm}$ ;
4. Frequency 10Hz-2MHz Bandwidth;
5. 128 times harmonic measurement;
6. Conforms to EN 61010, 600V CAT III;
7. Measurement range of 1mA to 240A AC;
8. Low phase shift for power measurement;
9. Double range 10A/100A or 20A/200A design;
10. Improved ergonomic design & easy operation;
11. As a high accuracy clamp current transformer;
12. High precision 0.1% for current measurement;
13. Large jaw opening accommodates conductors up to two 500kcoil;
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

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

## Parameters

| Technical parameters                  |                                                                                      |
|---------------------------------------|--------------------------------------------------------------------------------------|
| Ratio                                 | 1000: 1 , 2000:1, 2500:1, 4000:1 (customized)                                        |
| Accuracy Class                        | 0.1%, 0.2%                                                                           |
| Primary current                       | 0-100A AC, 0-200A AC                                                                 |
| Signal output                         | 1mA/A, 1mV/A, 10mV/A, 100mV/A                                                        |
| Secondary voltage                     | 0 - 100mV AC, 0 - 1V AC, 0 - 5V AC;                                                  |
| Secondary current                     | 0-40mA, 0-100mA or 0-200mA AC                                                        |
| Max. Cont. Input current              | 120A or 240A                                                                         |
| Load capacity                         | ≤20Ω, 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<br>IEC60044-1, & IEC61869-2, 600V CAT III |
| Ratio type                            | single winding, or double winding                                                    |
| Installation                          | clamp type                                                                           |
| Range                                 | 10A, 20A, 100A, 200A optional                                                        |
| Output mode                           | lead output(2.5m)                                                                    |
| Output signal                         | 333mV, 500mV, 1V, 2V, 5V AC at nominal input current                                 |
| Connector                             | BNC, 4mm banana, signal cable(2 cores),customized                                    |

| Accuracy (100A/200A Range)   |                                 |
|------------------------------|---------------------------------|
| 0-1A                         | ≤0.5%                           |
| 1-10A                        | ≤0.2%                           |
| 10-200A                      | ≤0.1%                           |
| Phase Shift(100A/200A Range) |                                 |
| 0-1A                         | ≤0.5°                           |
| 1-10A                        | ≤0.2°                           |
| 10-200A                      | ≤0.1°                           |
| Mechanical parameters        |                                 |
| Dimensions (L x W x H) (mm)  | 52.5 x 137 x 28                 |
| Weight (g)                   | 400                             |
| Holding wire diameter (mm)   | φ18                             |
| Max. jaw opening (mm)        | 18                              |
| Jaw color                    | Red, yellow, blue, green, black |
| Material                     | PC+ABS, UL94 V0                 |

## Selection Guide

| Model     | Rate Current | Max Current | Secondary Current | Coil Ratio | Burden Resistance | Accuracy |
|-----------|--------------|-------------|-------------------|------------|-------------------|----------|
| P18-5     | 5A           | 6A          | 5mA               | 1000:1     | customized        | 0.1%     |
| P18-10    | 10A          | 12A         | 10mA              | 1000:1     | customized        | 0.1%     |
| P18-20    | 20A          | 24A         | 20mA              | 1000:1     | customized        | 0.1%     |
| P18-100   | 100A         | 120A        | 100mA             | 1000:1     | customized        | 0.1%     |
| P18-200   | 200A         | 240A        | 200mA             | 1000:1     | customized        | 0.1%     |
| P18-10-2  | 10A          | 12A         | 10mA              | 1000:1     | customized        | 0.2%     |
| P18-20-2  | 20A          | 24A         | 20mA              | 1000:1     | customized        | 0.2%     |
| P18-100-2 | 100A         | 120A        | 100mA             | 1000:1     | customized        | 0.2%     |
| P18-200-2 | 200A         | 240A        | 200mA             | 1000:1     | customized        | 0.2%     |
| P18-5     | 5A           | 6A          | 2.5mA             | 2000:1     | customized        | 0.1%     |
| P18-10    | 10A          | 12A         | 5mA               | 2000:1     | customized        | 0.1%     |
| P18-20    | 20A          | 24A         | 10mA              | 2000:1     | customized        | 0.1%     |
| P18-100   | 100A         | 120A        | 50mA              | 2000:1     | customized        | 0.1%     |
| P18-200   | 200A         | 240A        | 100mA             | 2000:1     | customized        | 0.1%     |

| Model        | Rate Current | Max Current | Secondary Current | Coil Ratio | Burden Resistance | Accuracy |
|--------------|--------------|-------------|-------------------|------------|-------------------|----------|
| P18-10-2     | 5A           | 6A          | 2.5mA             | 2000:1     | customized        | 0.2%     |
| P18-10-2     | 10A          | 12A         | 5mA               | 2000:1     | customized        | 0.2%     |
| P18-20-2     | 20A          | 24A         | 10mA              | 2000:1     | customized        | 0.2%     |
| P18-100-2    | 100A         | 120A        | 50mA              | 2000:1     | customized        | 0.2%     |
| P18-200-2    | 200A         | 240A        | 100mA             | 2000:1     | customized        | 0.2%     |
| P18-10       | 10A          | 12A         | 2.5mA             | 4000:1     | customized        | 0.1%     |
| P18-20       | 20A          | 24A         | 5mA               | 4000:1     | customized        | 0.1%     |
| P18-100      | 100A         | 120A        | 25mA              | 4000:1     | customized        | 0.1%     |
| P18-200      | 200A         | 240A        | 50mA              | 4000:1     | customized        | 0.1%     |
| P18-10-2     | 10A          | 12A         | 2.5mA             | 4000:1     | customized        | 0.2%     |
| P18-20-2     | 20A          | 24A         | 5mA               | 4000:1     | customized        | 0.2%     |
| P18-100-2    | 100A         | 120A        | 25mA              | 4000:1     | customized        | 0.2%     |
| P18-200-2    | 200A         | 240A        | 50mA              | 4000:1     | customized        | 0.2%     |
| Model        | Rate Current | Max Current | Secondary Voltage | Coil Ratio | Burden Resistance | Accuracy |
| P18V1-100    | 100A         | 120A        | 1V                | 1000:1     | customized        | 0.1%     |
| P18V2-100    | 100A         | 120A        | 2V                | 1000:1     | customized        | 0.1%     |
| P18V5-100    | 100A         | 120A        | 5V                | 1000:1     | customized        | 0.1%     |
| P18V10-100   | 100A         | 120A        | 10V               | 1000:1     | customized        | 0.1%     |
| P18V1-200    | 200A         | 240A        | 1V                | 1000:1     | customized        | 0.1%     |
| P18V2-200    | 200A         | 240A        | 2V                | 1000:1     | customized        | 0.1%     |
| P18V5-200    | 200A         | 240A        | 5V                | 1000:1     | customized        | 0.1%     |
| P18V1-100-2  | 100A         | 120A        | 1V                | 1000:1     | customized        | 0.2%     |
| P18V2-100-2  | 100A         | 120A        | 2V                | 1000:1     | customized        | 0.2%     |
| P18V5-100-2  | 100A         | 120A        | 5V                | 1000:1     | customized        | 0.2%     |
| P18V10-100-2 | 100A         | 120A        | 10V               | 1000:1     | customized        | 0.2%     |
| P18V1-200-2  | 200A         | 240A        | 1V                | 1000:1     | customized        | 0.2%     |
| P18V2-200-2  | 200A         | 240A        | 2V                | 1000:1     | customized        | 0.2%     |
| P18V5-200-2  | 200A         | 240A        | 5V                | 1000:1     | customized        | 0.2%     |
| P18V1-100-D  | 10A/100A     | 12A/120A    | 1V                | 1000:1     | customized        | 0.1%     |
| P18V2-200-D  | 20A/200A     | 24A/240A    | 2V                | 1000:1     | customized        | 0.1%     |

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