

HQ46

cable type 500a mv output ac clamp on current probe

The HQ46 AC Current Probe is designed for easy installed in tight spaces and without the need for dismantling the primary busbar or cables. The sensing head uses sliding push-fit clamp structure, safety isolation to avoid the user to contact with charged objects directly. It complies with CE standards and meets 600V CAT III safety class. The HQ46 clamp on current probe range from 0 to 500A, frequency from 10Hz to 200kHz, ratio 1000:1 or 2000:1, signal output 1mV/A AC, 10mV/A AC or 1mA/A AC, can be customized. This clamp on sensor has been used many for power quality analyzer, load data logger, harmonic measurement. It is a high quality clamp on current sensor.

Features

1. Excellent linearity
2. UL, CE, CNAS mark;
3. Installation: clamp type design;
4. Holding wire diameter: $\phi 46\text{mm}$;
5. 10Hz to 200kHz Frequency response;
6. Easy & quick installation in tight spaces;
7. Measurement range of 1mA to 600A AC;
8. High content nickel metal permalloy core;
9. Lower phase shift for power measurement;
10. Improved ergonomic design and easy operation;
11. 1mV/A AC, 10mV/A AC or 1mA/A AC output signals;
12. Designed to EN 61010-2-032, 600V CAT III safety standard;
13. Suitable for 10A, 50A, 100A, 500A cable online measurement;
14. Designed for DMMs, PQA, recorders, oscilloscopes and power meter;



Application

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

Parameter

Electrical parameters	
Rated primary current	
Output voltage	1 mV AC/A
Amplitude accuracy	$\pm 0.3\%RD \pm 0.02\%FS$ (10%~100%I _{1n}), 45Hz- 66Hz Wire centered
Phase accuracy	$\pm 0.5^\circ$ (10%~100%I _{1n}) (45Hz-5kHz)
The amplitude frequency characteristic	$\pm 1\%$ (45Hz-5kHz) (Deviation accuracy)
Conductor impact	$\pm 0.5\%$ (Off-center)
The influence of external magnetic fields	$\leq 0.1A$ (In AC 400A/m electromagnetic fields)
Maximum input current	600A AC (Continuous) (45-66Hz, Ambient temperature 50°C)
Temperature coefficient	$\pm 0.02\%/^\circ C$ of the reading data
Dielectric strength	5500 V AC rms/Continue 15 seconds (Circuits-iron core, iron core-shell)
The maximum rated voltage	600V AC rms
Applicable standards	EMC: EN61326:1997+A1:1998+A2:2001+A3:2003 (Class A)
Mechanical parameters	
Measurable conductor diameter	Max.46mm
Cable length	About 3 m
Dimension (W x H x E)	About 96×160×40 (Excluding protruding parts)
Weight	About 395g
Environmental conditions	
Operating temperature	0 to 50°C (32-122°F)
Operating humidity	$\leq 80\%RH$ (No condensate)
Storage temperature	-10 to 60°C (14-140°F)
Storage humidity	$\leq 80\%RH$ (No condensate)
Operating environment	Indoor, altitude up to 2000 meters

Selection Guide

Model	Rate Current	Max Current	Secondary	Coil Ratio	Burden Resistance	Accuracy
HQ46A1-300	300A	360A	300mA	1000:1	customized	0.1%
HQ46A1-400	400A	480A	400mA	1000:1	customized	0.1%
HQ46A1-500	500A	600A	500mA	1000:1	customized	0.1%
HQ46A2-500	500A	600A	250mA	2000:1	customized	0.1%
HQ46A3-500	500A	600A	200mA	2500:1	customized	0.1%
HQ46V03-300	300A	360A	300mV	1000:1	customized	0.1%
HQ46V04-400	400A	480A	400mV	1000:1	customized	0.1%
HQ46V05-500	500A	600A	500mV	1000:1	customized	0.1%
HQ46V1-500	500A	600A	1V	2000:1	customized	0.1%
HQ46V2-500	500A	600A	2V	2000:1	customized	0.1%
HQ46V4-500	500A	600A	4V	2000:1	customized	0.1%
HQ46V5-500	500A	600A	5V	2000:1	customized	0.1%
HQ46V10-500	500A	600A	10V	2000:1	customized	0.1%
HQ46A1-300-2	300A	360A	300mA	1000:1	customized	0.2%
HQ46A1-400-2	400A	480A	400mA	1000:1	customized	0.2%
HQ46A1-500-2	500A	600A	500mA	1000:1	customized	0.2%
HQ46A2-500-2	500A	600A	250mA	2000:1	customized	0.2%
HQ46A3-500-2	500A	600A	200mA	2500:1	customized	0.2%
HQ46V03-300-2	300A	360A	300mV	1000:1	customized	0.2%
HQ46V04-400-2	400A	480A	400mV	1000:1	customized	0.2%
HQ46V05-500-2	500A	600A	500mV	1000:1	customized	0.2%
HQ46V1-500-2	500A	600A	1V	2000:1	customized	0.2%
HQ46V2-500-2	500A	600A	2V	2000:1	customized	0.2%
HQ46V4-500-2	500A	600A	4V	2000:1	customized	0.2%
HQ46V5-500-2	500A	600A	5V	2000:1	customized	0.2%
HQ46V10-500-2	500A	600A	10V	2000:1	customized	0.2%

Notes: Can be customized current probe according to user requirements!