

# SE-CUR-CLAMP-500-DC

## CURRENT CLAMP



**CURRENT CLAMP, UP TO 500 A,  
VOLTAGE OUTPUT, INCLUDED ADAPTER CABLE**



### SPECIFICATIONS

f.s.: Maximum display value or scale length (indicates the rated current)

rdg.: Reading value (the value currently being measured and indicated on the measuring instrument)

SE-CUR-CLAMP-500-DC			
Operating environment	Indoors, pollution degree II, altitude up to 2000 m (6562 ft.)		
Operating temperature and humidity	-40 to 85 °C (-40.0 to 185 °F), 80 % rel. humidity or less (no condensation)		
Storage temperature and humidity	-40 to 85 °C (-40.0 to 185 °F), 80 % rel. humidity or less (no condensation)		
Dielectric strength	4260 V <sub>AC</sub> (current sensitivity: 1 mA), 50/60 Hz, for 1 min, between jaw and output connector of cable		
Standards	Safety: EN61010 EMC: EN61326		
Product warranty period	1 year		
Rated current	500 A AC/DC		
Output voltage	4 mV/A		
Maximum input current	Within the derating curve (see <a href="#">Frequency derating curve on page 2</a> )		
Output resistance	50 Ω (±5 %)		
Temperature and humidity for guaranteed accuracy	0 to 40 °C (32 to 104.0 °F), 80 % rel. humidity or less		
Guaranteed accuracy period	1 year, opening and closing of the jaw: up to 10 000 times		
Accuracy	Sine wave input; conductor at center position; connected with Model 9555-10; not including each effect; measuring instrument that has an input resistance of 1 MΩ or higher		
	<ul style="list-style-type: none"> <li>▶ Amplitude accuracy: defined at the rated value or less and within the derating curve<sup>1)</sup>; the accuracy defined for the frequency range of DC &lt; f &lt; 5 Hz is the design value),</li> <li>▶ Phase accuracy (defined at the rated value or the maximum value of derating curve, whichever is smaller; the accuracy defined for a frequency range of DC &lt; f &lt; 10 Hz is a design value)</li> </ul>		
	<b>Frequency</b>	<b>Amplitude</b>	<b>Phase</b>
	DC	±0.3 % rdg. ±0.02 % f.s. <sup>2)</sup>	-
	DC < f ≤ 100 Hz	±0.3 % rdg. ±0.01 % f.s.	±0.1°
	100 Hz < f ≤ 500 Hz	±0.3 % rdg. ±0.02 % f.s.	±0.2°
	500 Hz < f ≤ 1 kHz	±0.5 % rdg. ±0.02 % f.s.	±0.5°
	1 kHz < f ≤ 5 kHz	±1.0 % rdg. ±0.02 % f.s.	±1.0°
	5 kHz < f ≤ 10 kHz	±1.5 % rdg. ±0.02 % f.s.	±1.5°
	10 kHz < f ≤ 50 kHz	±5 % rdg. ±0.02 % f.s.	±(0.5 + 0.1 x f kHz)°
50 kHz < f ≤ 100 kHz	±15 % rdg. ±0.05 % f.s.	±(0.5 + 0.1 x f kHz)°	
100 kHz < f ≤ 200 kHz	±30 % rdg. ±0.05 % f.s.	±(0.5 + 0.1 x f kHz)°	

# SE-CUR-CLAMP-500-DC

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Offset adjustable range	±2 mV
Emitted noise	5 mV <sub>pp</sub> or less (100 kHz or less)
Temperature coefficient	-40 °C to 0 °C and 40 °C to 85 °C
– Amplitude sensitivity	±0.01 % rdg./°C or less
– Offset voltage	±0.005 % f.s./°C or less
Effect of conductor position	±0.1 % rdg. or less (input current of 100 A, DC to 100 Hz, using a 10 mm diameter wire)
Effect of external magnetic field	100 mA or less (value scaled to the input, in a DC or 60 Hz magnetic field of 400 A/m)
Effect of magnetization	75 mA or less (value scaled to the input, after 500 A <sub>DC</sub> input)
Effect of common mode voltage	0.05 % f.s. or less (1000 V <sub>RMS</sub> , DC to 100 Hz)
Effect of radiated radio-frequency electromagnetic field	6 % f.s. at 10 V/m
Effect of conducted radio-frequency electromagnetic field	6 % f.s. at 3 V
Measurable conductor diameter	∅20 mm (0.79 in.) or less
Supply voltage	±11 V to ±15 V (tracking)
Power supply capacity	±300 mA or less (when measuring a current of 500 A with a frequency of 55 Hz, while ±12 V power is supplied)
Maximum rated power	7 VA or less (when measuring a current of 500 A with a frequency of 55 Hz, while ±12 V power is supplied)
Dimensions (W x H x D)	Approx. 153 x 67 x 25 mm (6.02 x 2.64 x 0.98 in.); excluding protrusions or cable
Mass	Approx. 400 g. (14.1 oz.)
Cable length	Approx. 3 m
Output connector	HIOKI ME15W

- 1) See frequency derating curve.
- 2) **INFORMATION** An accuracy of ±0.02 % f.s is accomplished after the offset voltage is adjusted within a range of ±0.2 mV.

## FREQUENCY DERATING CURVE

