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# AC/DC CURRENT SENSOR CT6862/6863, 9709

Clamp Sensors 

## Wide-Bandwidth and High-Precision Current Measurement



■CT6862  
 Rated at 50A rms AC/DC  
 Bandwidth:DC to 1MHz

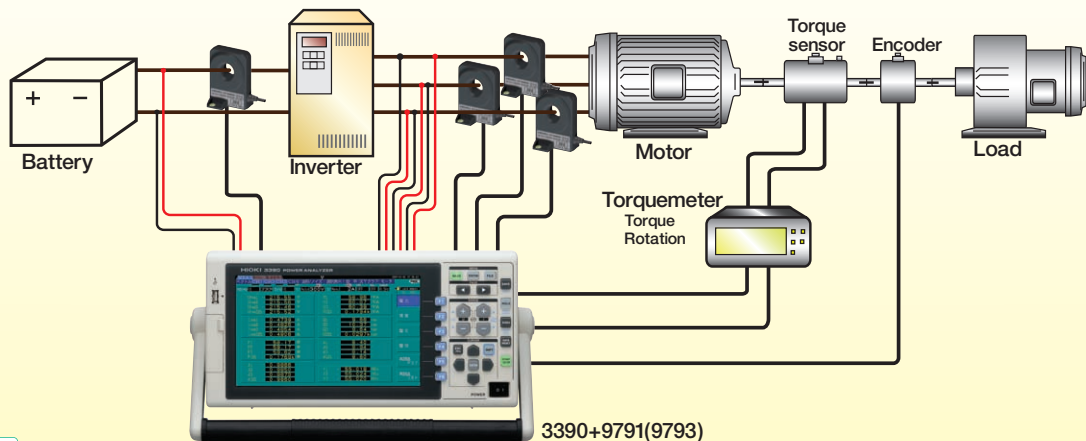
■CT6863  
 Rated at 200A rms AC/DC  
 Bandwidth:DC to 500kHz

■9709  
 Rated at 500A rms AC/DC  
 Bandwidth:DC to 100kHz



HIOKI 9709, CT6862, and CT6863 wide-bandwidth and high-precision AC/DC current sensors achieve high accuracy measurement of both small- and large-current signals. They can be used for a wide variety of applications in the fields of electric and hybrid electric vehicles, inverters and other devices, alternative energy sources such as solar power and fuel cells, as well as home electronic appliances and system equipment.

**Ideal for comprehensive evaluation of wide-bandwidth and high-precision inverter motors**



3390+9791(9793)



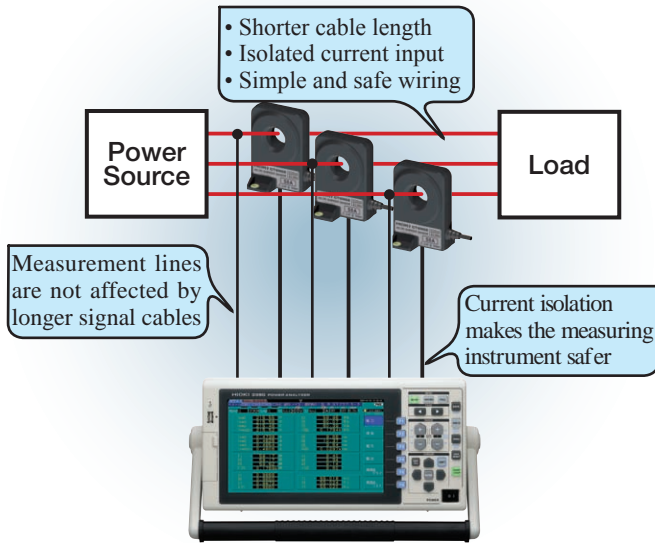
ISO 9001  
 JMI-0216



ISO14001  
 JQA-E-90091

# HIOKI's Current Sensors Support More Accurate Current and Power Measurements

## ■When a current sensor is used:



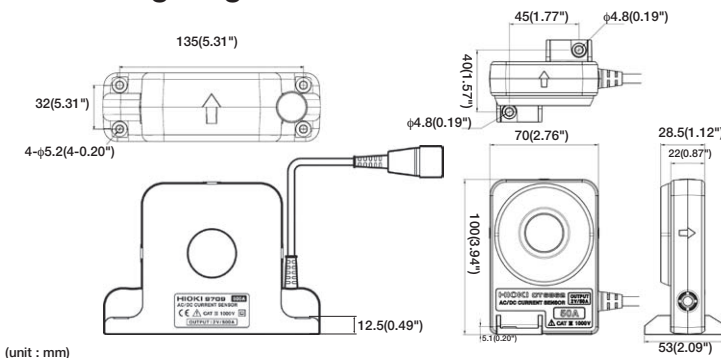
## New Age for Current Measurement with High Precision, Wide Bandwidth, and Excellent Temperature Characteristics

- Achieve a maximum accuracy of  $\pm 0.16\%$ , which is equivalent to power meters using a direct cable connection (when used with the POWER ANALYZER 3390).
- The cable connecting the power source and load can be made thicker and shorter to allow measurement to be performed in nearly the same cable condition as the real operation of a device under test.
- Insert loss is far smaller than with a shunt resistor so the operation of a device under test is not affected.
- A wide range of measurements are possible, including battery charge and discharge measurement and inverter secondary circuit measurement.
- A wide operating temperature range allows the sensor to be used in the same environment conditions as a device under test.
- Installing a power line is simple, secure, and safe.
- Excellent characteristics reduce the effect of the conductor position, external magnetic field, and magnetization
- CAT III 1000V Safe
- Convenient voltage output design

## ■Specifications

	CT6862	CT6863	9709
Frequency characteristics	DC to 1MHz	DC to 500kHz	DC to 100kHz
Rated current	50A AC/DC	200A AC/DC	500A AC/DC
Output voltage	2V/50A	2V/200A	2V/500A
Measurable conductor diameter	26mm(1.02") or less		36mm(1.42") or less
Compatible power meters	3390	3390, 3193, 3194 (with 9602)	
Output resistance	50Ω		
Basic accuracy	DC, $16\text{Hz} \leq f \leq 400\text{Hz}$ $\pm 0.05\%$ rdg. $\pm 0.01\%$ f.s. $\pm 0.2$ deg Accuracy is given for 0°C to 40°C, 80% rh or less		DC, $45\text{Hz} \leq f \leq 66\text{Hz}$ $\pm 0.05\%$ rdg. $\pm 0.01\%$ f.s. $\pm 0.2$ deg Accuracy is given for 18°C to 28°C, up to 80% rh
Period of accuracy guaranteed	1 year		6 months
Max. rated voltage to earth	AC/DC 1000V (50/60Hz) (measurement category III)		
Cord length	3 m		
Operating temperature and humidity range	-30°C to 85°C, 80%rh or less (with no condensation)		0°C to 50°C, 80%rh or less (with no condensation)
Dimensions, Mass	70W(2.76") × 100H(3.94") × 53D(2.09") mm, 340g(12.0oz)		160W(6.30") × 112H(4.41") × 50D(1.97") mm, 850g(30.0oz)
Supplied Accessories	Mark bands × 6, Operating manual × 1		

## ■Mounting diagram



(unit : mm)

**HIOKI**  
HIOKI E. E. CORPORATION

## ■Options

### SENSOR UNIT 9555-10

When using an AC/DC CURRENT SENSOR on a standalone basis, the 9555-10 SENSOR UNIT can be used as a power supply.



## ■HIOKI instruments compatible with CURRENT SENSORS

Model number	Compatibility level
3390	Full
9555-10	Full
9602(3193/3194)	Full (CT6862 will compatibility available in November 2009.) (Subtract 0.1% rdg. from the standard accuracy of the CURRENT SENSOR when used in this combination)
3167	Partial (Please contact your HIOKI distributor for further information.)