



Clamp-on type
AC Current Sensors
C-CT series



To construct new energy management system
and contribute to the promotion of energy conservation.

A *Nidec* Group Company

COPAL ELECTRONICS

→ All for dreams

Clamp-on type

RoHS
Compliant

AC Current Sensors **C-CT series**

C-CT-6



C-CT-10



C-CT-16



C-CT-24



Features

- Clamp-on type (split core design).
Easy installation to distribution panels.
- Compact size and wide measuring range.
- Outstanding output linearity at all current ranges.
- Direct interface.
- Overvoltage protection (zener diode).
- RoHS compliant.
- UL-94V-0 flame rating.

Applications

- To measure or monitor current or power consumption in smart energy systems such as:
 - HEMS (Home Energy Management System)
 - BEMS (Building Energy Management System)
 - Various power monitoring systems.

Part Number Designation

C - CT - 6

Series Name

Hole Diameter

6: φ 6mm 10: φ10mm
16: φ16mm 24: φ24mm

List of Part Numbers

Part Number	Rated Primary Current	Max. Input Current	Output characteristic Example	Size and Weight
C-CT-6	AC 0.1 ~ 30A (50/60Hz)	AC 50Arms continuous	AC 100mV±1% (AC30A RL=10Ω 50/60Hz)	19.3×26.4×31mm, Approx. 20gs
C-CT-10	AC 0.1 ~ 60A (50/60Hz)	AC 100Arms continuous	AC 200mV±1% (AC60A RL=10Ω 50/60Hz)	26.4×25.5×43.3mm, Approx. 40gs
C-CT-16	AC 0.1 ~ 100A (50/60Hz)	AC 200Arms continuous	AC 333mV±1% (AC100A RL=10Ω 50/60Hz)	32.5×30.5×46.2mm, Approx. 75gs
C-CT-24	AC 0.1 ~ 200A (50/60Hz)	AC 300Arms continuous	AC 666mV±1% (AC200A RL=10Ω 50/60Hz)	48.4×35.5×69.6mm, Approx. 170gs

Specifications

Part Number	C-CT-6	C-CT-10	C-CT-16	C-CT-24
Rated Primary Current	AC 0.1 ~ 30A (50/60Hz)	AC 0.1 ~ 60A (50/60Hz)	AC 0.1 ~ 100A (50/60Hz)	AC 0.1 ~ 200A (50/60Hz)
Max. Input Current	AC 50Arms continuous	AC 100Arms continuous	AC 200Arms continuous	AC 300Arms continuous
Output characteristic Example	AC 100mV±1% (AC30A RL=10Ω 50/60Hz)	AC 200mV±1% (AC60A RL=10Ω 50/60Hz)	AC 333.3mV±1% (AC100A RL=10Ω 50/60Hz)	AC 666.6mV±1% (AC200A RL=10Ω 50/60Hz)
Phase Accuracy	+2.5°±0.5° (AC30A RL=10Ω 50Hz) +2.1°±0.5° (AC30A RL=10Ω 60Hz)	+1.6°±0.5° (AC60A RL=10Ω 50Hz) +1.3°±0.5° (AC60A RL=10Ω 60Hz)	+0.9°±0.5° (AC100A RL=10Ω 50/60Hz)	+0.3°±0.5° (AC200A RL=10Ω 50/60Hz)
Hole Diameter	φ6mm	φ10mm	φ16mm	φ24mm
Nominal Current Ratio	3000 : 1			
Applicable Frequency	10Hz ~ 5kHz			
Max. Circuit Voltage	Less than AC600V (for insulated cable)			
Withstanding Voltage	AC 2200V/1 minute (between output terminal and outer case)			
Insulation Resistance	More than 50MΩ by 500V insulation tester (between output terminal and outer case)			
Open Circuit Protection	7.5V (Zener diode)			
Operational Temperature	-20 ~ 60°C, less than 80%RH Without condensation			
Storage Temperature	-30 ~ 60°C, less than 80%RH Without condensation			
Flame Rating	UL-94V-0			
Output Cable lead	AWG24 Approx. L=200mm	AWG22 Approx. L=150mm		
Size and Weight	19.3×26.4×31mm Approx. 20gs	26.4×25.5×43.3mm Approx. 40gs	32.5×30.5×46.2mm Approx. 75gs	48.4×35.5×69.6mm Approx. 170gs

Packing Specifications

- Bulk Packing specifications
Individually packaged in a plastic bag (1pc per bag).

Handling Notes

- Do not disassemble or modify the product.
- To ensure proper operation, do not apply shock to the product and keep the sensing part free from contamination.

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■ Specifications are subject to change without notice.

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