

## Overview

The C/CT-1216 clamp-on current sensor can be used to measure currents in live wires.

## Applications

Typical applications include EMS current measurement, high performance distributions boards, power conditioners, power monitoring systems, inverters and industrial machinery.

## Benefits

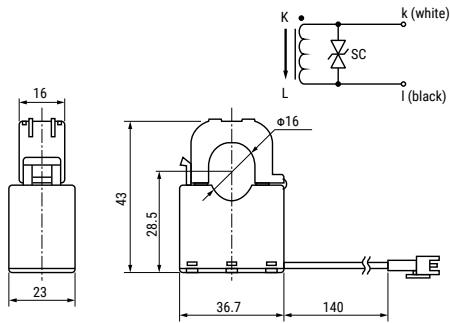
- Compact and slim design
- Flat temperature characteristics
- UL 94 V-0 flame retardant rated case
- RoHS compliant



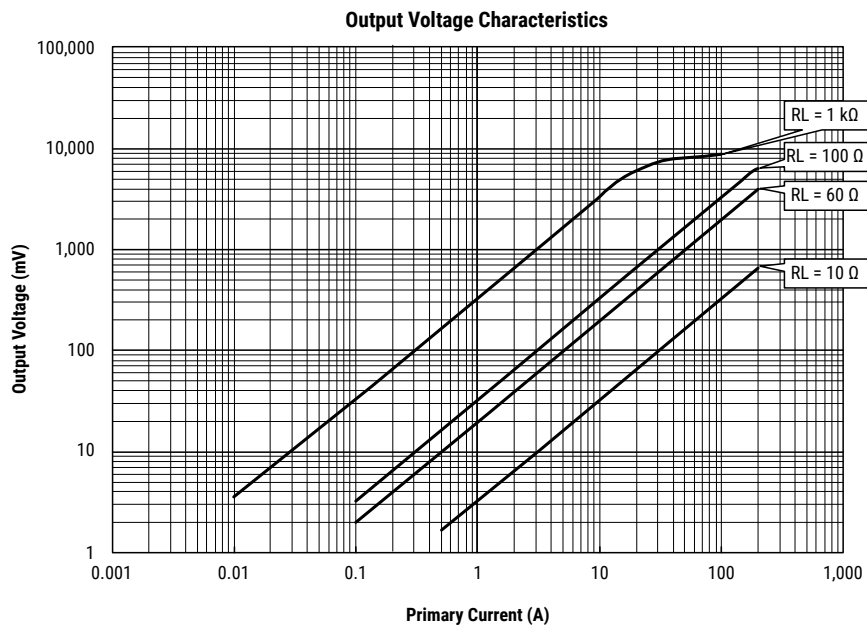
## Ordering Information

C/CT-	12	16
Series	Rated Current AC (A)	Diameter (mm)
C/CT	12 = 120	16

## Dimensions in mm



## AC Output Characteristics



## Environmental Compliance

All C/CT sensors are RoHS compliant.



## Specifications

Item	Performance Characteristics
Rated Current	120 A
Applicable Current	0.1 – 120.0 A
Output Voltage	1,000 ±20 V
Current Transformation Ratio	3,000
Output Protection	7.5 V
Insulation Resistance	100 MΩ at 500 VDC (between core and terminal)
Operating Temperature Range	-20°C to +60°C
Storage Temperature Range	-20°C to +75°C

**Table 1 – Ratings & Part Number Reference**

Part Number	Rated Current <sup>1</sup> (A)	Applicable Current <sup>1</sup> (A)	Output Voltage <sup>2</sup> (mV)	Current Transformation Ratio	Output Protection (V)	Insulation Resistance <sup>3</sup>	Weight (g)
C/CT-1216	120	0.1 – 120.0	1,000 ±20	3,000	7.5	100 MΩ	63.3

<sup>1</sup> 50 Hz/60 Hz

<sup>2</sup> Measurement conditions from output voltage:  $f = 50 \text{ Hz}$ ,  $R_L = 60 \Omega$ ,  $I_o = 50 \text{ A}$

<sup>3</sup> At 500 VDC, between core and terminal

## Packaging

Part Number	Packaging Type	Pieces Per Box
C/CT-1216	Tray	108

## Handling Precautions

### Precautions for Product Storage

Current sensors should be stored in normal working environments. While the sensors are quite robust in other environments, exposure to high temperatures, high humidity, corrosive atmospheres, and long-term storage degrade solderability.

KEMET recommends that maximum storage temperature not exceed 75°C, and that atmospheres should be free of chlorine and sulfur-bearing compounds. Temperature fluctuations should be minimized to avoid condensation on the parts. Avoid storage near strong magnetic fields, as they can magnetize the product and cause its characteristics to change.

For optimized solderability, the stock of current sensors should be used within 12 months of receipt.

### Before Using High Alternating Current Sensors, Snap-on Type

- Do NOT drop or apply any other mechanical stress, as such stresses may change performance characteristics.
- Conduct a preliminary study when heating by current conduction (required).
- Do NOT use the high alternating current sensors, snap-on type, opened between secondary output terminals. Heat build-up in the magnetic core may occur, resulting in damage to the parts by coil melting.

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## Export Control

### For customers in Japan

For products that are controlled items subject to the “Foreign Exchange and Foreign Trade Law” of Japan, the export license specified by the law is required for export.

### For customers outside Japan

Sensors should not be used or sold for use in the development, production, stockpiling or utilization of any conventional weapons or mass-destructive weapons (nuclear weapons, chemical or biological weapons, or missiles), or any other weapons.

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Although KEMET designs and manufactures its products to the most stringent quality and safety standards, given the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage.

Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated or that other measures may not be required.

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