CT Series Low Current AC



Overview

The CT Series Low Alternating Current Sensors can be used to detect very low current levels and for overcurrent protection in electronic appliances.

Applications

Typical applications include overcurrent detection in microcontroller-based equipment, refrigerators, air conditioners, inductive heating, servo motors, inverters, UPSs and SMPS.

Benefits

- · High sensitivity
- · High performance
- · Compact and lightweight
- · Mountable on printed circuit boards

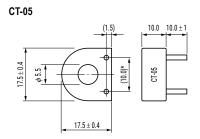


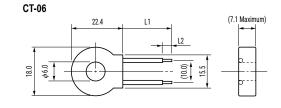
Ordering Information

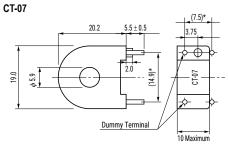
CT-	06-	50	
Series	Shape Classification	Number of Turns	
СТ	05 06 07	Blank (CT-05 only) = 500 turns 50 = 500 turns 100 = 1,000 turns	



Dimensions in mm



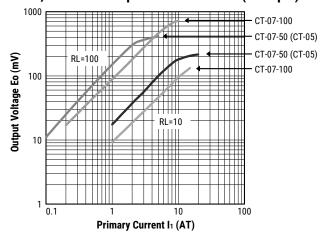




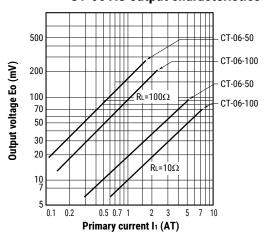
Product Name	L1 (±5)	L2 (±2)
CT-06-50	56.0	4.0
CT-06-100	85.0	5.0

Output Characteristics

CT-05, CT-07 AC output characteristics (example)

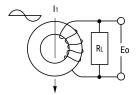


CT-06 AC output characteristics (example)





Measuring Circut



 $\begin{array}{ll} \text{I1} & : Primary current (AT) \\ \text{RL} & : Load resistance (\Omega) \\ \text{Eo} & : Output voltage (mV_{rms}) \end{array}$

Environmental Compliance

All CT sensors are RoHS compliant.

Table 1 - Ratings & Part Number Reference

Part Number	Turns	Core	Lead Wires	Material
CT-05	500	Permalloy	φ0.6 mm pin connectors	Phenolic resin case, epoxy-filled
CT-06-50	500	Permalloy	Polyethylene sheath φ0.5 mm single wire	Phenolic resin case, silicon-filled
CT-06-100	1,000	Permalloy	Polyethylene sheath φ0.5 mm single wire	Phenolic resin case, silicon-filled
CT-07-50	500	Permalloy	φ0.8 mm pin connectors	Phenolic resin case, epoxy-filled
CT-07-100	1,000	Permalloy	φ0.8 mm pin connectors	Phenolic resin case, epoxy-filled

Precautions

Before Using Low Alternating Current Sensors

- Do NOT drop or apply any other mechanical stress.
- Preliminary study is required when heating by current conduction.
- Do NOT use the Low Alternating Current Sensors opened between secondary output terminals. Heat build-up in the magnetic core may occur, resulting in damages to the parts by melting of the coil.



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