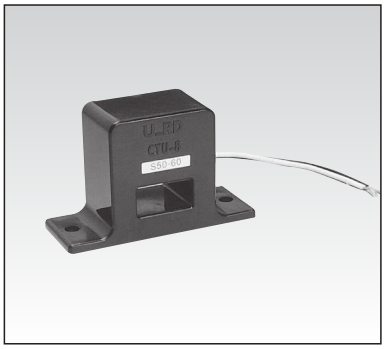
High current ratio, high output, high accuracy AC current sensor

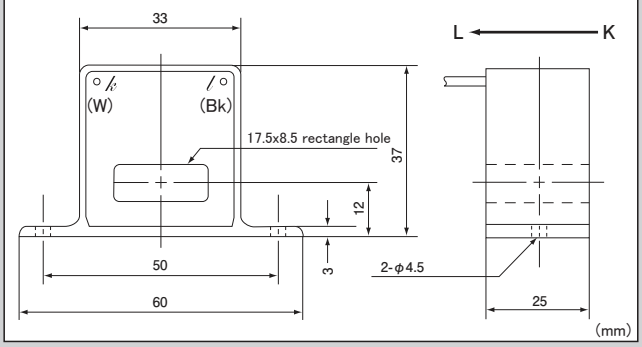


Model CTU-8-S50-60

〔Features〕

- ●Almighty, multiple function current sensor with combination of ferrite core and high current ratio
- ●Possible to earn the high output voltage by small size, because of high current ratio
- ●Good linearity from very small current as 1mA~1A to high current range as 1~80A

〔Outline drawing〕



〔Specification〕 Ta=25℃

Model	CTU-8-S50-60
Primary current	1mA ～ 80Arms （50 ／ 60Hz）、R_L≦10Ω
Maximum primary current	240Arms continuous
Saturation limited current	80Arms （50 ／ 60Hz）、R_L≦1Ω
Output characteristics	Refer "Output voltage characteristics"
Linearity	Refer "Coupling efficiency [K] characteristics" (Use the flat range of [K] characteristic in the application as the linear sensor)
Secondary windings (n)	6000±2 turn
Secondary windings resistance	1640Ω （reference）
Withstand voltage	AC2000V(50/60Hz), 1min(between aperture and output wire in a lump)
Insulation resistance	DC500V, ≧100MΩ (between aperture and output wire in a lump)
Operating temperature	－20℃～＋75℃
Storage temperature	－30℃～＋90℃
Structure	PBT plastic case, potted by silicone on one side
Output wire	Heat resisting Vinyl wire (AWG22X150ℓ)
Screw torque	0.7N・m
Mass	approximately 60g

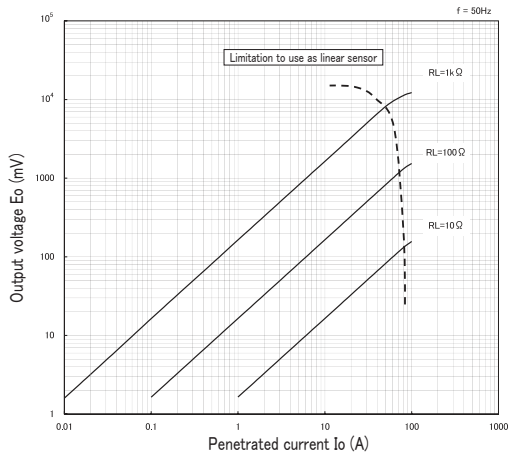
Remark (1) Output voltage is changed by the penetrated current/ load resistor/[K] characteristic and so on. Please set up the condition for use with careful investigation of each characteristic

(2) Please use with enough margin if the range of coupling efficiency [K] ≤ 0.9, because it is the range to happen the individual difference.

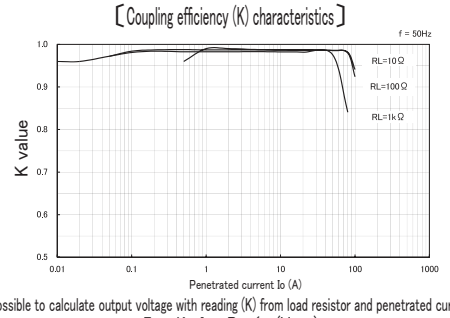
(3) Opening the secondary during turn ON is hazardous and the cause of failure, because of generating high voltage

(4) Please be careful of CT heating in case to use with high frequency, although this CT is basically used at 50/60Hz.

〔Output voltage characteristics〕

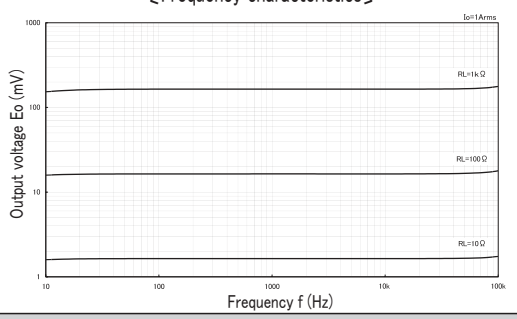


〔Coupling efficiency (K) characteristics〕



(Possible to calculate output voltage with reading (K) from load resistor and penetrated current
$Eo = K \cdot Io \cdot R_L / n$ (Vrms))

〔Frequency characteristics〕



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