

# TKC-HAT Series Open Loop Mode Hall Effect Current Sensor



TKC-HAT series current sensor series is a open loop device based on the principle of the hall effect, with a galvanic isolation between primary and secondary circuit, It provides accurate electronic measurement of DC, AC or pulsed currents.

**Electrical data (Ta=25°C±5°C,RL=2KΩ,CL=10000PF)**

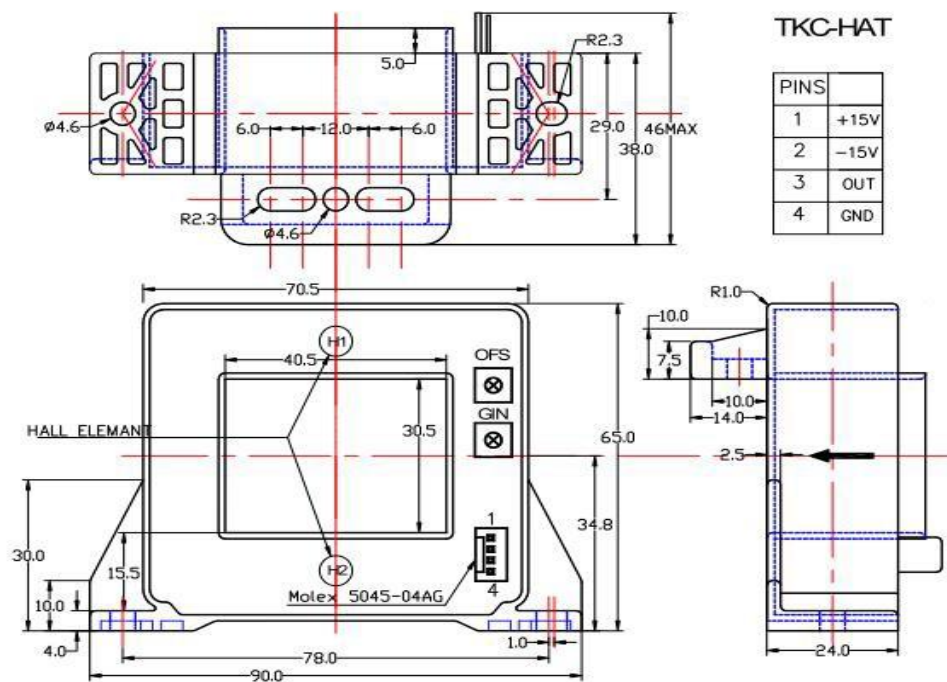
Type Parameter	TKC 200HAT	TKC 400HAT	TKC 500HAT	TKC 600HAT	TKC 750HAT	TKC 800HAT	TKC 1000HAT	TKC 1200HAT	TKC 1500HAT	Unit
Rated input (I <sub>pn</sub> )	±200	±400	±500	±600	±750	±800	±1000	±1200	±1500	A
Measure range(I <sub>p</sub> )	±600	±1200	±1500	±1800	±2250	±2400	±3000	±3000	±3000	A
Rated output	@ I <sub>P</sub> =±I <sub>PN</sub> ±4±1%									V
Supply voltage	±15 ±5%									V
Consumption current	@ I <sub>s</sub> =0 +28,-15									mA
Offset voltage	≤±20									mV
Magnetic offset	@ I <sub>P</sub> =±I <sub>PN</sub> -0 ±15									mV
Offset drift	≤±1.0									mV/°C
output drift	≤±1.0									mV/°C
Linearity	@ I <sub>P</sub> =0-±I <sub>PN</sub> ≤1									%FS
Response time	@50A/μS, 10%-90% ≤5									μS
Band-width	@-3dB DC-25									KHz
Galvanic isolation	@ 50HZ/60HZ , AC , 1min 3									KV
Isolation resistance	@ DC 500V 1000									MΩ

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## Applications

- Variable speed drives
- Welding machine
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Electrochemical

## Mechanical dimension (for reference only)



Remarks :

1. All dimensions are in mm.
2. General tolerance  $\pm 1\text{mm}$ .

## Directions for use

1. When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor)
2. Customs can adjust Output amplitude of the sensor by needs.
3. Custom design in the different rated input current and the output voltage are available.

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## Standards

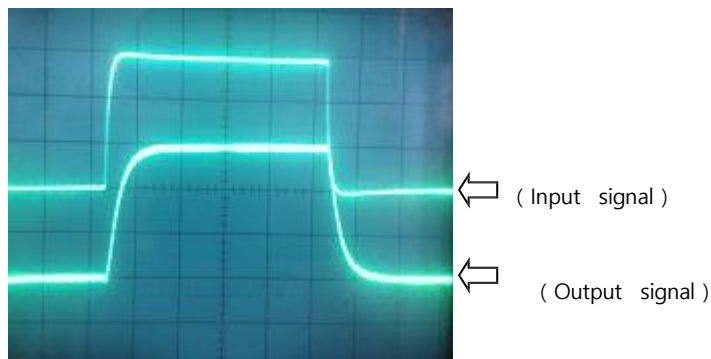
UL94-V0.  
EN60947-1:2004  
IEC60950-1:2001  
EN50178:1998  
SJ 20790-2000

## General data

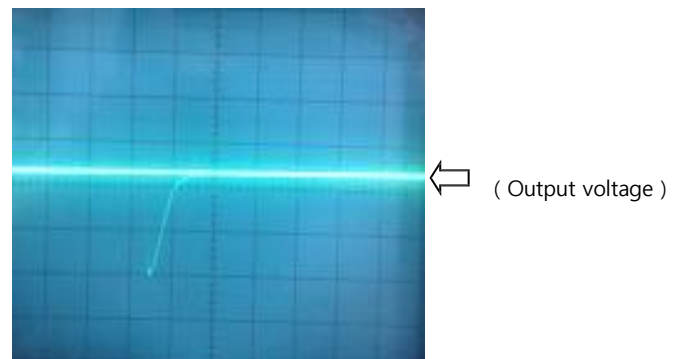
	Value	Unit	Symbol
Operating temperature	-40 to +105	°C	TA
Storage temperature	-40 to +125	°C	TS
Mass(approx)	290	g	M

## Characteristics chart

Pulse current signal response characteristic



Effects of impulse noise



Input current Output voltage characteristic

