TKC-HAT1 Series Open Loop Mode Hall Effect Current Sensor

The TKC-HAT1 series current sensor series is an 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.

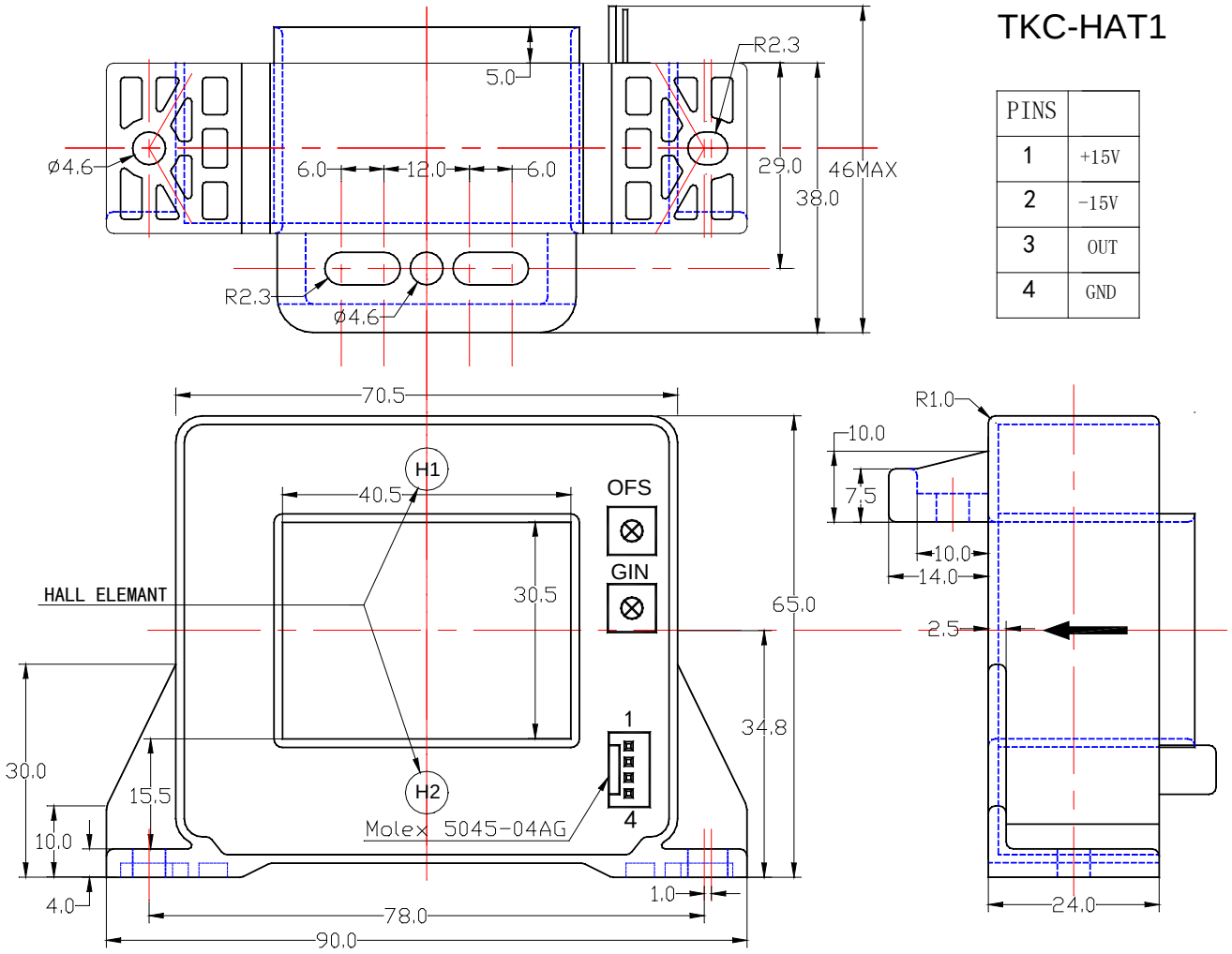
Electrical data (Ta=25℃±5℃,RL=10KΩ,CL=10000PF)

Parameter \ Type	TKC 200HA T1	TKC 400HA T1	TKC 500HA T1	TKC 600HA T1	TKC 750HA T1	TKC 800HA T1	TKC 1000 HAT1	TKC 1200 HAT1	TKC 1500 HAT1	Unit
Rated input (Ipn)	±200	±400	±500	±600	±750	±800	±1000	±1200	±1500	A
Measure range(Ip)	±600	±1200	±1500	±1800	±2250	±2400	±3000	±3000	±3000	A
Rated output	@ IP=±IPN ±4±1%									V
Supply voltage	±15 ±5%									V
Consumption current	@ Is=0 ±15									mA
Offset voltage	@ IP=0 ≤±20									mV
Magnetic offset	@ IP=±IPN -0 ±15									mV
Offset drift	@ -40℃～105℃ ≤±1.0									mV/℃
output drift	@ -40℃～105℃ ≤±1.0									mV/℃
Linearity	@ IP=0-±IPN ≤1									%FS
Response time	@50A/μS, 10%-90% ≤5									μS
Bandwidth	@ -3dB DC-25									KHz
Galvanic isolation	@ 50HZ/60HZ, AC, 1min 3									KV
Isolation resistance	@ DC 500V 1000									MΩ

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 ±1mm.

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.

Standards

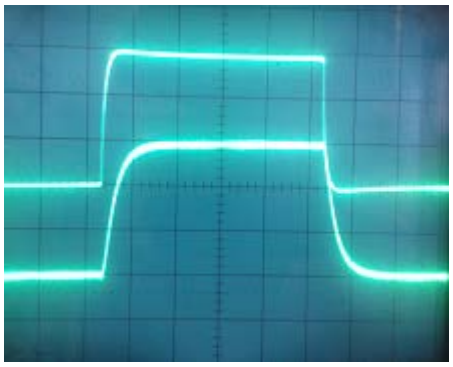
- UL94-V0.
- EN60947-1:2004
- IEC60950-1:2001
- EN50178:1998
- SJ 20790-2000

General date

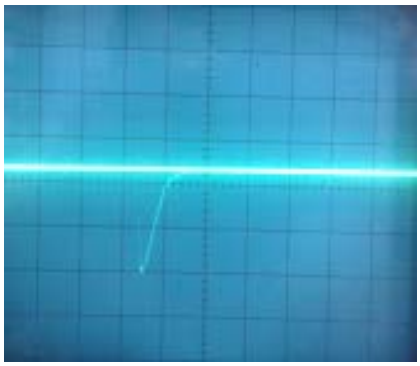
	Value	Unit	Symbol
Operating temperature	-40 to +105	ºC	TA
Storage temperature	-40to +125	ºC	TS
Mass(approx.)	290	g	M

Characteristics chart

Pulse current signal response characteristic



Effects of impulse noise



Input current Output voltage characteristic

TKC-HAT1 SERIES

Primary Current(Ip)--Output(V)