TKC-HAX248 Series Open Loop Mode Hall Effect Current Sensor

TKC-HAX248 series current sensor is an open loop device based on the measuring 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=200Ω,CL=10000PF)

Parameter \ Type	TKC-500 HAX248	TKC-600 HAX248	TKC-800 HAX248	TKC-1000 HAX248	TKC-1500 HAX248	TKC-2000 HAX248	TKC-2500 HAX248	Unit
Rated input (Ipn)	±500	±600	±800	±1000	±1500	±2000	±2500	A
Measure range(Ip)	±750	±900	±1200	±1500	±2250	±3000	±3750	A
Rated output (Io)	@Ip=0-±Ipn	12±8±1.0%						mA
Supply voltage	+24 ±5%							V
Power Consumption	+35+Io							mA
Zero current	@Ip=0	12±0.1						mA
Magnetic offset	@Ip=±Ipn-0	≤±0.05						mA
Offset drift	≤±0.0075							mA/℃
Output drift	≤±0.0075							mA/℃
Linearity	@Ip=0-±Ipn	≤±1.0						%FS
Accuracy	@ IPN ,Ta=25℃(excluding offset)	≤±1.0						%FS
Response time	@50A/μS, 10%-90%	≤5						μS
Band-width	@-3dB	DC-25						KHz
Galvanic isolation	@ 50HZ/60HZ , AC , 1min	5						KV
Isolation resistance	@ DC 500V	1000						MΩ

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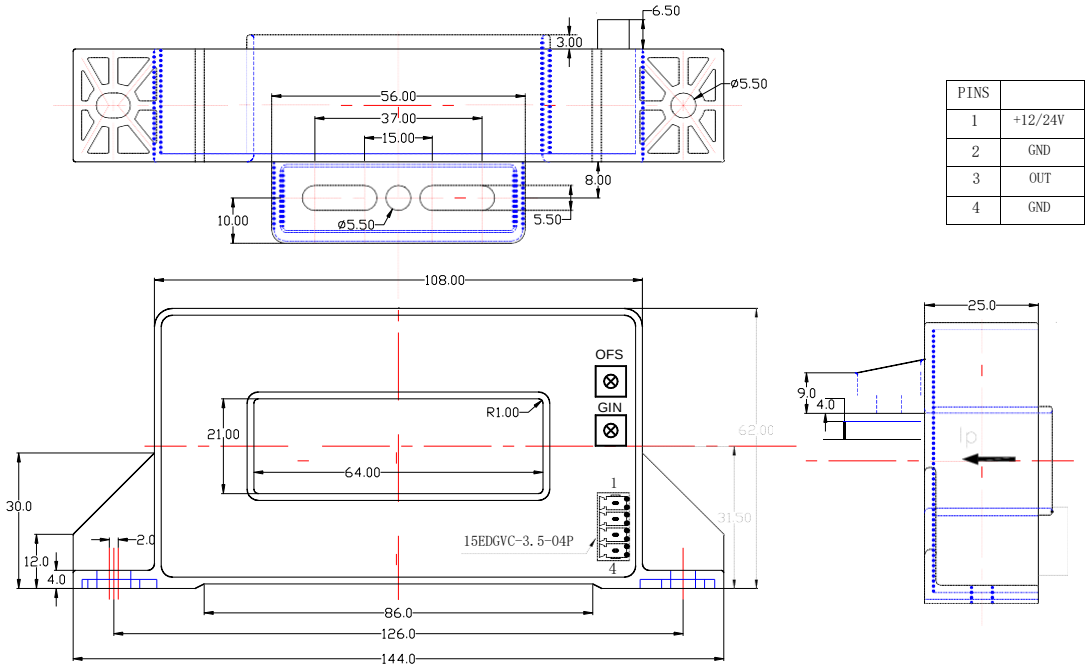
Applications

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

Mechanical dimension (for reference only)



PINS	
1	+12/24V
2	GND
3	OUT
4	GND

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

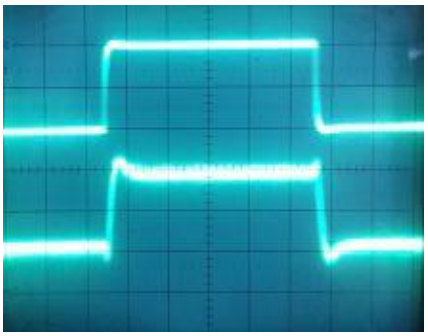
SJ 20790-2000

General data

	Value	Unit	Symbol
Operating temperature	-40 to +105	ºC	TA
Storage temperature	-40 to +125	ºC	TS
Mass(approx)	520	g	M

Characteristics chart

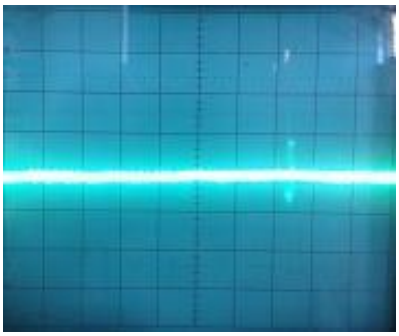
Pulse current signal response characteristic



(Input signal)

(Output signal)

Effects of impulse noise



(Output voltage)

Input current-Output current

+24V(+12V)