TKC-DT51 Series Open Loop Mode Dismountable Hall Effect Current Sensor

TKC-DT51 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=2KΩ ,CL=10000PF)

Parameter \ Type	TKC 25DT51	TKC 30DT51	TKC 40DT51	TKC 50DT51	TKC 75DT51	Unit
Rated input (Ipn)	±25	±30	±40	±50	±75	A
Measure range (Ip)	±50	±60	±80	±100	±150	A
Rated output	@Ip=±Ipn	±1±1%				V
Zero voltage	@Ip=0	1/2 VCC±1%				V
Reference voltage	+5±5%					V
Supply voltage	≤15					mA
Power Consumption	≤±20					mV
Offset voltage	±15	±10				mV
Magnetic offset	≤±1.2	≤±1				mV/℃
Offset drift	≤±1.2	≤±1				mV/℃
output drift	@Ip=0-±Ipn	≤1				%FS
Linearity	@50A/μ S, 10%-90%	≤0.5				MS
Response time	@-3dB	DC-25				KHz
Band-width	@ 50HZ, AC,1min	2.5				KV

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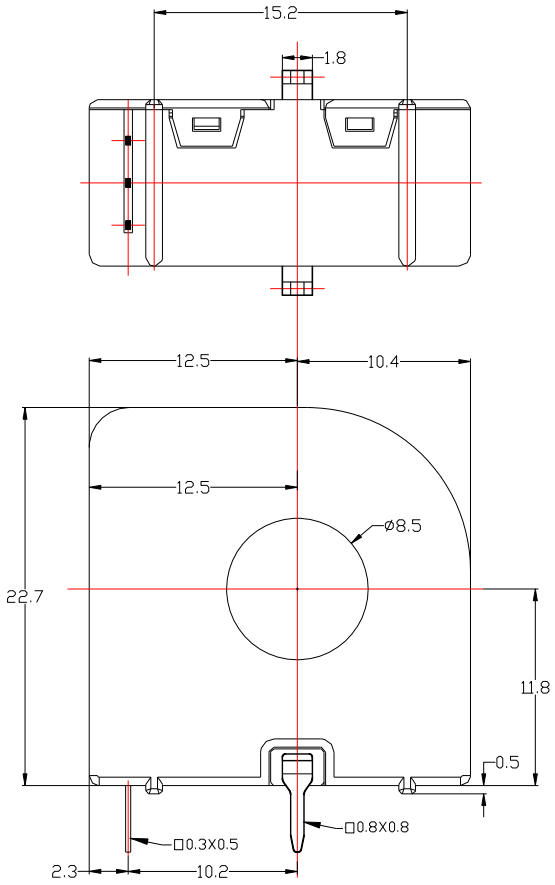
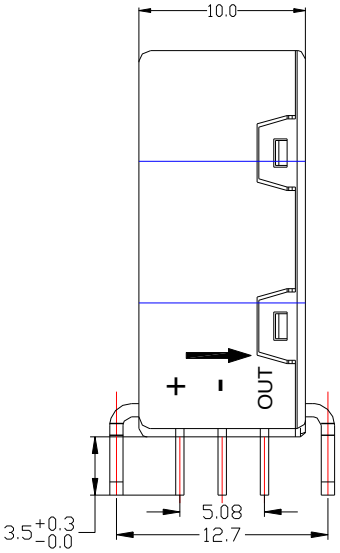
- AC variable speed drives
- Static converters for DC motor drives
- Variable speed drives
- Power supplies for welding applications
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS

Mechanical dimension (for reference only)



Terminal Pin Identification

+.....	+5V
0....	0V
OUT.....	Output



Remarks :

1. All dimensions are in mm.
2. General tolerance ±1mm

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 the 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

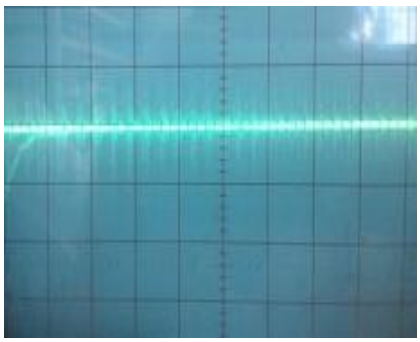
SJ 20790-2000

General data

	Value	Unit	Symbol
Operating temperature	-40 to +105	ºC	TA
Storage temperature	-50 to +150	ºC	TS
Mass(approx)	10	g	M

Characteristics chart

Effects of impulse noise



Input Current-Output Voltage characteristic