TKC-LSR508-1 Series Open Loop Mode Hall Effect Current Sensor

TKC-LSR508-1 series current sensor is open loop device based on the measuring principle of the hall effect, with a galvanic isolation between primary and secondary circuit. provides accurate electronic measurement of DC, AC or pulsed currents.

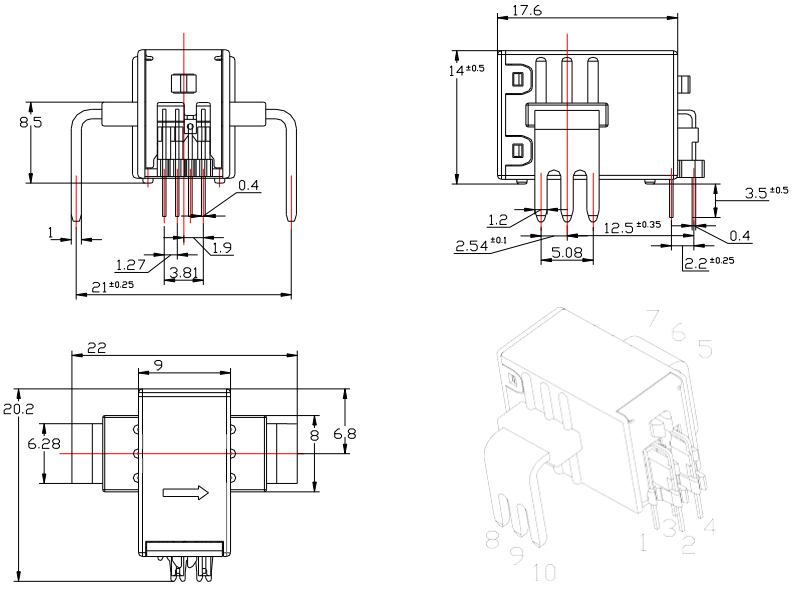
Electrical data (Ta=25℃±5℃, RL=10KΩ, CL=10nF)

Parameter \ Type	TKC06LSR 508-1	TKC10LSR 508-1	TKC16LSR 508-1	TKC20LSR 508-1	TKC25LSR 508-1	TKC32LSR 508-1	TKC40LSR 508-1	TKC50LSR 508-1	TKC60LSR 508-1	Unit
Rated input (Ipn)	±6	±10	±15	±20	±25	±32	±40	±50	±60	A
Measuring range (Ip)	±15	±25	±40	±50	±62.5	±80	±100	±125	±150	A
Rated output	@ Ip=±Ipn ±0.8±1.0%FS									V
Output resistance	≤20									Ω
Size of primary pins	□6.28 ×1.0									mm
Supply voltage	+5±5%									V
Power consumption	≤15									mA
Reference voltage	+2.5±0.5%(Output)									V
Vref internal resistor	200									Ω
Vref external range	1.5-2.65(Input)									V
Zero voltage	@ Ip=0 +2.5±0.5%									V
Offset drift	@ -40 ~ +25℃ ≤±0.3 ; @ 25 ~ +105℃ ≤±0.2									mV/℃
output drift	@ -40 ~ +105℃ ≤±0.2									mV/℃
Linearity	@ Ip=0-±Ipn ≤0.5									%FS
Total accuracy	≤±2.5									%
di/dt accurately followed	> 50									A/μS
Response time	@ Ip=Ipn, 50 A/μS ,10%-90% < 2.5									μS
Bandwidth	@ -1db DC ~ 100									KHZ
Galvanicisolation	@ 50Hz, AC,1min 3.0									KV

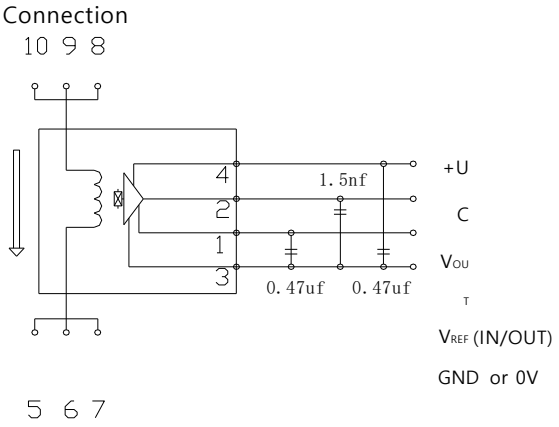
Applications

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

Mechanical dimension (for reference only)



Connection



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 damage to the sensor).

2. Custom design in the different rated input current and the output voltage available.

Standards

UL94-V0

EN60947-1:2004

IEC60950-1:2001

EN50178:1998

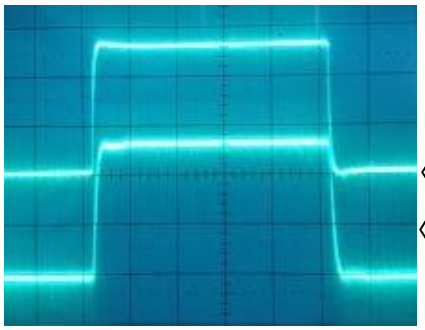
SJ 20790-2000

General date

	Value	Unit	Symbol
Operating temperature	-40 to +105	ºC	TA
Storage temperature	-40 to +125	ºC	TS
Mass(approx)	12	g	M

Characteristics chart

Pulse current signal response characteristic



Effects of impulse noise