

MCT-D 系列多量程闭环型霍尔电流传感器的初、次级之间是绝缘的，可用于测量直流、交流和脉冲电流。

MCT-D series multi-range current sensor is a closed loop device based on the measuring principle of the hall effect and null balance method, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.



## 电参数 Electrical data(Ta=25℃±5℃)

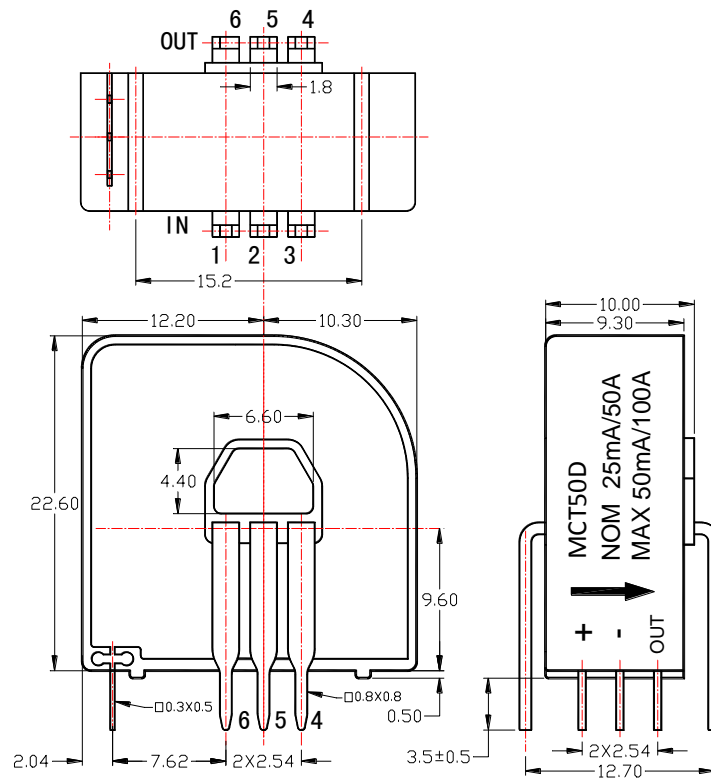
型号 Type	MCT25D	MCT50D	单位 Unit
参数 Parameter			
额定输入电流 (I <sub>pn</sub> ) Rated input current (I <sub>pn</sub> )	25	50	A
测量电流范围 (I <sub>p</sub> ) Measure current range (I <sub>p</sub> )	50	100	A
次级匝数 (N <sub>s</sub> ) Secondary turns (N <sub>s</sub> )	1000±1	2000±2	T
次级阻抗 Secondary resistor	40	45	Ω
额定输出电流 (I <sub>sn</sub> ) Rated output current (I <sub>sn</sub> )	@I <sub>p</sub> =±I <sub>pn</sub>	±25±0.5%	mA
电源电压 Supply voltage		±15±5%	V
功耗电流 Power consumption		≤20+I <sub>p</sub> /N <sub>s</sub>	mA
零点失调电流 Zero offset current	@ I <sub>s</sub> =0	≤±0.2	mA
失调电流漂移 Offset current drift	@ -40~+85℃	≤±0.6	mA
线性度 Linearity	@ I <sub>p</sub> =0-±I <sub>pn</sub>	≤0.1	%FS
总精度 Total precision		≤0.7	%FS
di/dt 跟随精度 di/dt accurately followed		>50	A/μS
响应时间 Response time	@ I <sub>p</sub> =I <sub>pn</sub> , 50 A/μS, 10%-90%	<1	μS
带宽 Bandwidth	@ -1db	DC~100	KHZ
绝缘电压 Galvanic isolation	@ 50HZ, AC, 1min	2.5	KV

## 应用 Applications

- 交流变频驱动器 AC variable speed drives
- 直流电机驱动静态转换器 Static converters for DC motor drives
- 通讯电源 Battery supplied applications
- 不间断电源 Uninterruptible Power Supplies (UPS)
- 开关电源 Switched Mode Power Supplies (SMPS)
- 电焊机 Power supplies for welding applications

## 结构参数 Mechanical dimension(for reference only)

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



## 接线图 Pin connections

匝数	初级额定电流 IPN (A)	额定输出电流 Iout (mA)	初级电阻 [mΩ]	初级电感 [μH]	连接点
1	±25 (±50)	±25	0.18	0.013	
2	±12.5 (±25)	±25	0.81	0.05	
3	±8.3 (±16.6)	±25	1.62	0.12	

## 使用说明 Directions for use

1. 当待测电流从传感器穿过，即可在输出端测得电压大小。(注意：错误的接线可能导致传感器损坏)  
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. 可按用户需求定制不同额定输入电流和输出电流的传感器。  
Custom design in the different rated input current and the output current are available.

## 执行标准 Standards

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

## 总体参数 General date

	数值 Value	单位 Unit	符号 Symbol
工作温度 Operating temperature	-40 to +85	°C	TA
储存温度 Storage temperature	-40 to +125	°C	TS
毛重(约) Mass(approx)	10	g	M