



TBC-SYH 系列高精度闭环型霍尔电流传感器的初、次级之间是绝缘的，具有超强抗干扰能力；用于测量直流、交流和脉动电流。

TBC-SYH series high-precision current sensor is a closed loop device based on the measuring principle of the hall effect, with a galvanic isolation between primary and secondary circuit. It has strong anti-jamming ability and it provides accurate electronic measurement of DC, AC or pulsed currents.

电参数 Electrical data ((Ta=25°C ±5°C, RL=2KΩ, CL=10000PF))

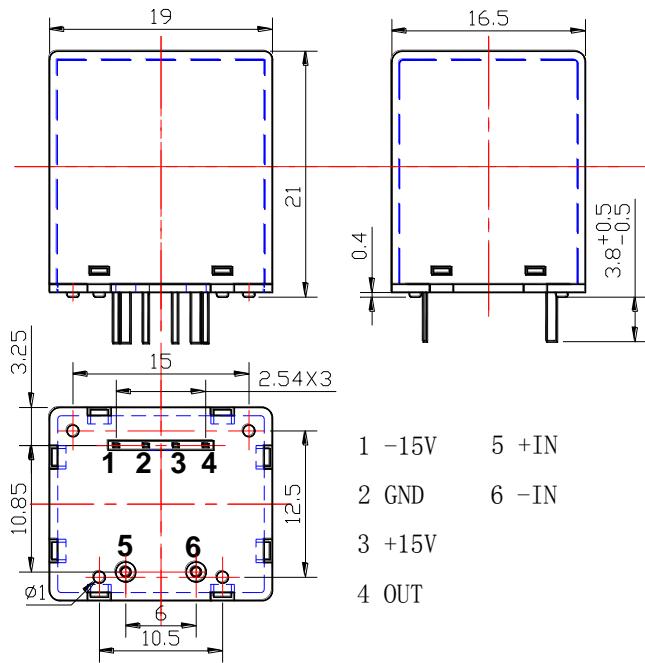
型号 Type	TBC 03SYH	TBC 05SYH	TBC 7.5SYH	TBC 10SYH	TBC 15SYH	TBC 20SYH	TBC 25SYH	TBC 30SYH	TBC 50SYH	单位 Unit
额定输入电流 (Ip _n) Rated input (Ip _n)	3	5	7.5	10	15	20	25	30	50	A
测量电流范围 (Ip) Measuring range (Ip)	9	15	22.5	30	45	60	75	90	150	A
输入脚尺寸 Size of input pins	ø 0.6	ø 0.6	ø 0.8	ø 0.8	ø 1.0	ø 1.4	ø 1.4	ø 1.6	ø 1.6	mm ×1.6 ×1.5 ×2
匝比 (N _p /N _s) Turns ratio(N _p /N _s)	5: 1500	5: 2500	3: 2250	3: 3000	2: 3000	1: 2500	1: 2500	1: 3000	1: 3125	
内接测量电阻 Inside resistance	400 ±0.1%	400 ±0.1%	400 ±0.1%	400 ±0.1%	400 ±0.1%	400 ±0.1%	400 ±0.1%	400 ±0.1%	250 ±0.1%	Ω
额定输出电压 Rated output	@ Ip=±Ip _n ±4±0.5%								V	
电源电压 Supply voltage	±15±5%								V	
功耗电流 Power consumption	20+IpX (N _p /N _s)								mA	
零点失调电压 Zero voltage	≤±30								mV	
失调电压温漂 Offset drift	@ -40~+85°C ≤±0.5								mV/°C	
线性度 Linearity	@ Ip=0-±Ip _n ≤0.1								%FS	
响应时间 Response time	@ Ip=Ip _n , 50 A/μS , 10%-90% <1.0								μ S	
带宽 Bandwidth	@-3dB 0-100								KHz	
绝缘电压 Galvanic isolation	@ 50Hz, AC, 1min 5.0								kV	

应用 Applications

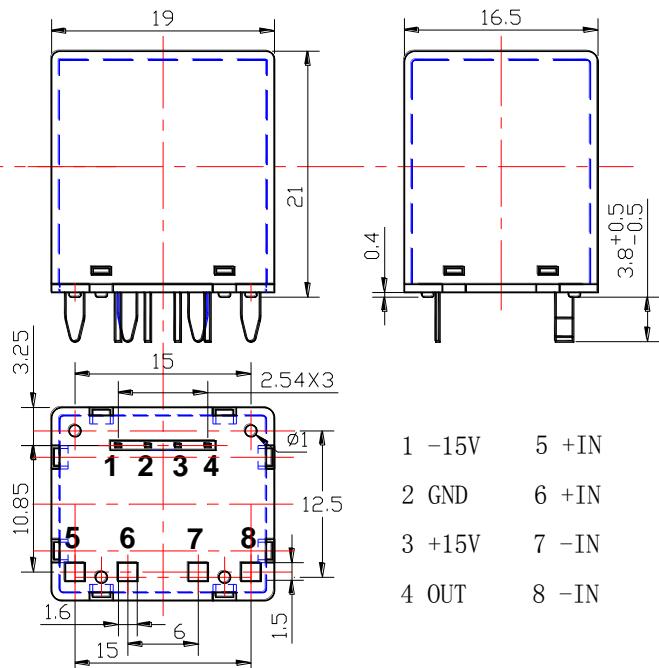
- 开关式电源
Switched Mode Power Supplies (SMPS)
- AC 变速驱动
AC variable speed drives
- 不间断电源 UPS
Uninterruptible Power Supplies (UPS)
- 电气装置
Electrical appliances
- 通信电源
Battery supplied applications
- 直流电动机
DC motor drives

结构参数 Mechanical dimension (for reference only)

TBC05-30SYH



TBC50SYH



Remarks:

1. All dimensions are in mm.
2. Secondary pin size and tolerance: width: 0.5 ± 0.1 mm; thickness: 0.25 ± 0.05 mm
3. General tolerance ±1 mm

使用说明 Directions for use

1. 当待测电流从传感器初级引脚穿过，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 the primary pin of 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压的传感器。
Custom design in the different rated input current and the output voltage are available.

执行标准 Standards

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

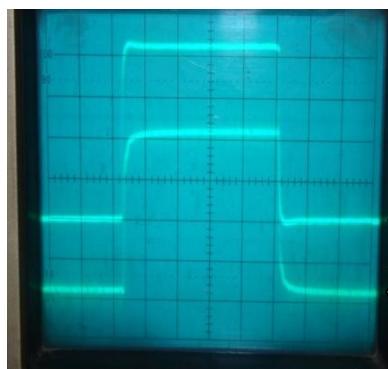
总体参数 General data

	数值 Value	单位 Unit	符号 Symbol
工作温度 Operating temperature	-25 to +85	°C	TA
储存温度 Storage temperature	-40 to +125	°C	TS
毛重(约) Mass (approx)	12	g	M

特性图 Characteristics chart

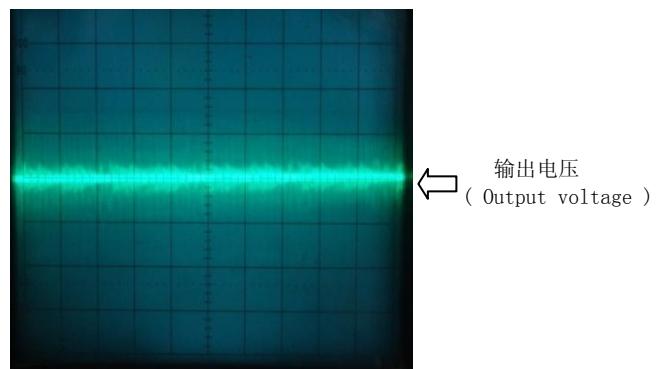
脉冲电流信号响应特性

Pulse current signal response characteristic



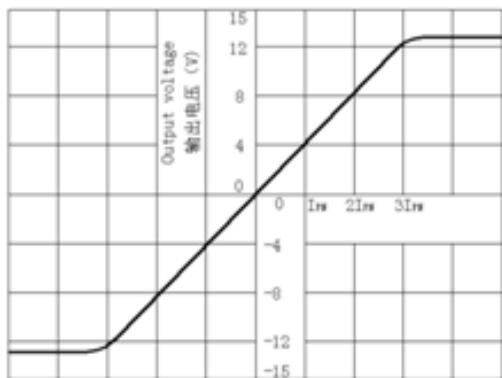
抗脉冲电压干扰特性

Effects of impulse noise



输入电流-输出电压特性

Input current-Output Voltage characteristic



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