



TBC-PS3.3 series current sensor is a two closed 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°C±5°C, RL=2KΩ, CL=1000PF)

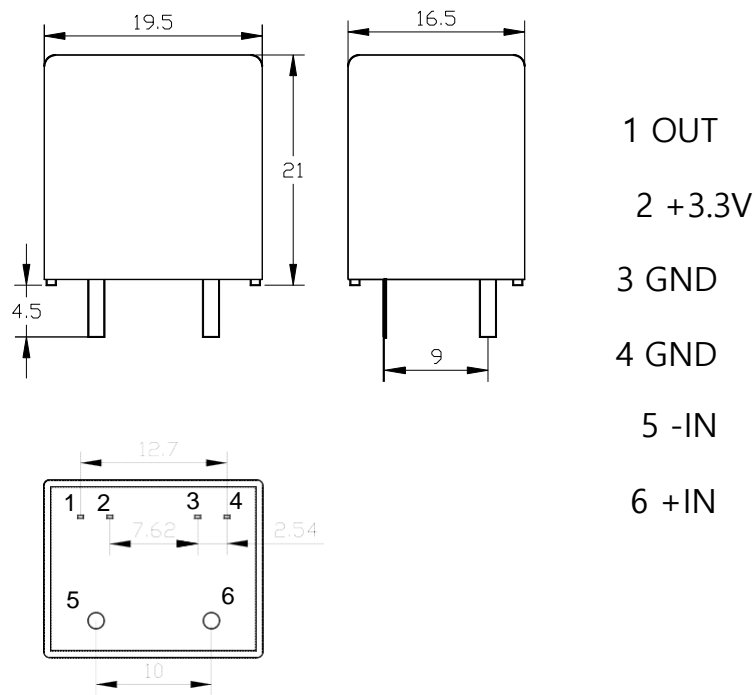
Type Parameter	TBC5PS3.3	TBC10PS3.3	TBC15PS3.3	TBC25PS3.3	TBC30PS3.3	Unit
Rated input (I _{pn})	±5	±10	±15	±25	±30	A
Measuring range (I _p)	±10	±20	±30	±50	±60	A
Turns ratio (N _p /N _s)	3:960	2:960	2:960	1:1200	1:960	T
Inside resistance	10±0.1%	7.5±0.1%	5.0±0.1%	7.5±0.1%	5.0±0.1%	Ω
Rated output	@ I _p =±I _{pn} ±0.625±0.5%					V
Size of input pins	∅ 0.8	∅ 1.0	∅ 1.0	∅ 1.4	∅ 1.6	mm
Supply voltage	+3.3±5%					V
Power consumption	≤20+I _p X (N _p /N _s)					mA
Zero voltage	@ I _s =0 1.65±0.5%					V
Offset drift	≤±0.05					mV/°C
output drift	≤±0.05					mV/°C
Linearity	@ I _p =0-±I _{pn} ≤0.1					%FS
Total precision	≤±0.7					%
di/dt accurately followed	> 50					nS
Response time	@ I _p =I _{pn} , 50 A/μS, 90% < 500					nS
Band-width	@ -3dB DC-200					KHz
Galvanic isolation	@ 50Hz, AC, 1min 2.5					KV

TBC-PS3.3 Series Two-closed Loop Mode Hall Effect Current Sensor

Applications

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

Mechanical dimension (for reference only)



Remarks :

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

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

Standards

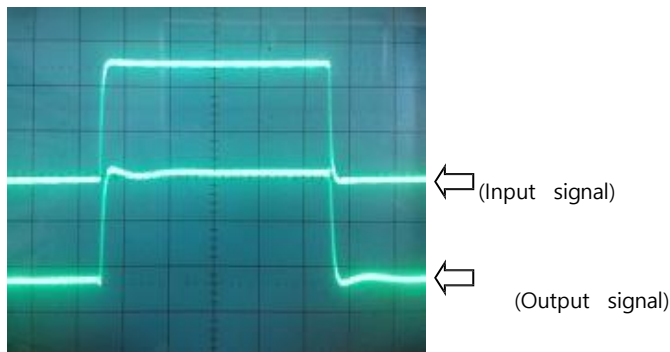
- UL94-V0
- EN60947-1:2004
- IEC60950-1:2001
- EN50178:1998
- SJ 20790-2000

General data

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

Characteristics chart

Pulse current signal response characteristic



Effects of impulse noise

