

TBC-APSR51 Series 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 uses for precision measurement of DC, AC and pulse current.

Electrical data (Ta=25°C±5°C, RL=10KΩ, CL=4700PF)

| Type Parameter | TBC- 50APSR51 | TBC- 75APSR51 | TBC- 100APSR51 | TBC- 150APSR51 | Unit |
|----------------------------|----------------------|---------------|----------------|----------------|-------|
| Rated input (Ipn) | ±50 | ±75 | ±100 | ±150 | А |
| Measure range (lp) | ±100 | ±150 | ±200 | ±300 | А |
| Turns ratio (Np/Ns)) | 1:1500 | 1:1500 | 1:2000 | 1:1800 | Т |
| Internal resister | 7.5±0.1% | 5±0.1% | 5±0.1% | 3±0.1% | Ω |
| Rated output | @lp=±lpn ±1.0±0.5% | | | | |
| Supply voltage | +5.0 ±2% | | | | |
| Power consumption | ≤20+IpX (Np/Ns) | | | | |
| Reference voltage | +2.5±0.2% | | | | |
| Zero voltage | @lp=0 +2.5±0.4% | | | | |
| Zero voltage | ≤±5 | | | | |
| Magnetic Offset voltage | ≤±3.0 | | | | |
| Offset drift | ≤±0.1 | | | | mV/°C |
| output drift | ≤±0.1 | | | | |
| Linearity | @lp=0-±lpn ≤0.1 | | | | %FS |
| Response time | @50A/μS,10%-90% ≤0.5 | | | | μs |
| Band-width | @-3dB DC-200 | | | | KHz |
| Galvanic isolation | @ 50Hz, AC,1min 2.5 | | | | KV |



Applications

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

Mechanical dimension (for reference only)



mounting:M2.5X6.0

| + | +5V |
|---|-----|
| G | GND |
| М | |

Outpu VR

t R...



Remarks :

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



Directions for use

- 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 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 +85 | °C | ТА |
| Storage temperature | -40 to +125 | °C | TS |
| Mass(approx) | 18 | g | М |

Characteristics chart

Pulse current signal response characteristic

Effects of impulse noise

