

Three Phase Current Transformer

The TA and CTT Motor Protection series of toroidal current transformers are designed for applications where a high over-current capability is a desirable feature. Typically used in 380VAC or 660VAC protection circuits, these CTs offer superior step-down transformation to typical microprocessor circuitry levels.

The **TA7761-xxxA/ yyy mV** or **TA7761-xxxA/ yyy mA** is designed for application where the measurement of four(4) circuits simultaneously is a requirement.



Performance:

- Inputs: Four(4), typically 3 phases and neutral.
- Rated Output:
 - 0.333V to 7.070V @ rated current, or
 - mA @ rated current dependent upon the primary to secondary ratio selected.

Specifications:

- Frequency: 50 to 400 Hz.
- Dielectric Resistance: 1,000 M ohms @ 500 Vdc.
- Isolation Voltage: 2500 Vrms for 1 minute, 0.5mA.
- Surge withstand potential: 5000V.
- Secondary burden resistance: $\geq 100k$ Ohms.
- Operating Temperature: -25°C to +55°C
Optional: -40°C to +85° C.

- Construction:
 - PBT or ABS Resin case, UL 94 V-0 rated.
 - Epoxy encapsulated.
- Lead: 26AWG (0.12mm²), RVVP4, 0.6m (2FT)
- RoHS Compliant



Performance Options:

| Rated Input (A) | Ratio | Accuracy Class (IEC 60044-1) | Over Current Multiple | Over Current Persistence Time (seconds) | Opening |
|-----------------|--------|---------------------------------|--------------------------|---|------------------|
| 50 | 1:2000 | 0.5 1.0 | 5 | 2 | 30.mm (1.18") |
| | 1:3000 | | | | |
| | 1:4000 | | | | |
| 100 | 1:2000 | 0.5 1.0 | 5 | 2 | 30.mm (1.18") |
| | 1:3000 | | | | |
| | 1:4000 | | | | |
| 150 | 1:2000 | 0.5 1.0 | 5 | 2 | 30.mm (1.18") |
| | 1:3000 | | | | |
| | 1:4000 | | | | |
| 200 | 1:2000 | 0.5 1.0 | 5 | 2 | 30.mm (1.18") |
| | 1:3000 | | | | |
| | 1:4000 | | | | |

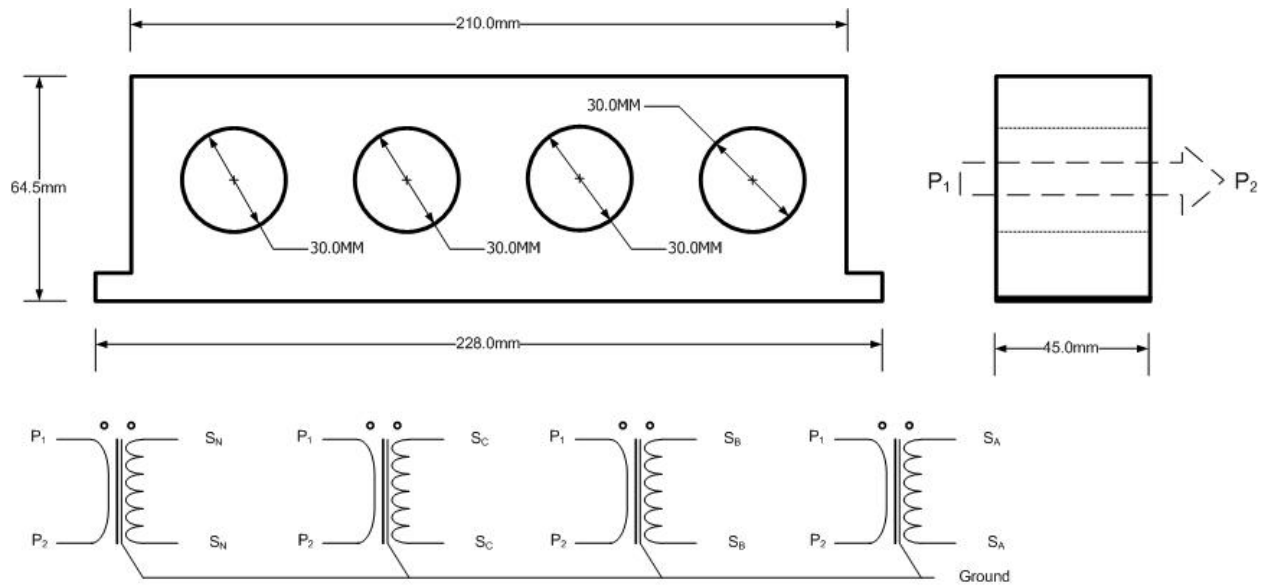
Typical Performance TA7261-100A/ 40mA:

The accuracy of the current transformer is a function of the secondary burden impedance and the operating range. The lower the secondary burden impedance, the better the accuracy performance. The typical performance of the TA7261-100A/ 40mA is;

- Burden resistance ≤ 15 ohms, Accuracy Class = 0.2, from 5% to 800% of Rated Current (e.g.100A)
- Burden resistance ≤ 25 ohms, Accuracy Class = 0.2, from 5% to 700% of Rated Current (e.g.100A)
- Burden resistance ≤ 50 ohms, Accuracy Class = 0.2, from 5% to 600% of Rated Current (e.g.100A)

| Burden Impedance | | % of Rated Current Input | | | | | | | | | | |
|------------------|--------------------|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| | | 5% | 20% | 50% | 80% | 100% | 120% | 200% | 400% | 600% | 700% | 800% |
| 15 Ohms | f(%) | -0.190 | -0.044 | -0.033 | 0.009 | 0.017 | 0.018 | 0.030 | 0.044 | 0.040 | 0.041 | 0.049 |
| | $\delta(^{\circ})$ | 20.8 | 12.8 | 9.09 | 8.9 | 8.5 | 8.1 | 7.3 | 5.4 | 5.1 | 6.7 | 8.7 |
| 25 Ohms | f(%) | -0.212 | -0.057 | -0.027 | -0.013 | -0.004 | -0.002 | 0.010 | 0.017 | 0.024 | 0.031 | |
| | $\delta(^{\circ})$ | 21.0 | 13.2 | 10.7 | 9.4 | 8.9 | 8.5 | 7.3 | 5.1 | 6.2 | 8.4 | |
| 50 Ohms | f(%) | -0.242 | -0.100 | -0.051 | -0.039 | -0.033 | -0.030 | -0.021 | -0.020 | -0.028 | -0.411 | |
| | $\delta(^{\circ})$ | 22.1 | 14.4 | 11.2 | 10.1 | 9.5 | 9.0 | 7.2 | 4.8 | 6.1 | 44.9 | |

Outline Drawing:



Custom current transformer designs are available to meet the specific application requirements. For a no obligation technical evaluation, please provide the specific performance requirements to applicationengineering@tichenassociates.com or the address below.