Type A Current Balancing Autotransformer

Application
These transformers adjust for the difference in ratio between current transformers on the high and low sides of power transformer banks, thus affecting an exact ratio balance between the two currents of the differential system. They are for use in current transformer secondary circuits not exceeding 600 volts.

Construction Features
Terminals
Transformer coil leads are brought out to solderless connectors which are located in shielded recesses on top of the transformer.

Core and Coils
The core and coil assembly is completely enclosed in polyurethane resin.

Mounting Base
The mounting base of the aluminum case has drilled holes for flat surface mounting and slotted fast for pipe frame mounting using U-bolts.

Selector Guide
<table>
<thead>
<tr>
<th>Volt Ampere Rating</th>
<th>Style Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>788IA17G01 (Replaces 7881A16G01)</td>
</tr>
<tr>
<td>100</td>
<td>788IA17G02 (Replaces 7881A16G02)</td>
</tr>
</tbody>
</table>

Further Information
Prices: Price List 42-800
**Nameplates**

**Style Number 7881A16G01, 50 VA**

**TYPE A CURRENT BALANCING AUTO TRANSFORMER**

<table>
<thead>
<tr>
<th>VA</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>STYLE</td>
<td>7881A16G01</td>
</tr>
</tbody>
</table>

**Serial Windings**

- 25 - 60 Hertz
- 55°C Rise
- 2500 Volt Test

**Main Winding**

- Development of Winding
- Giving Number of Turns Between Leads

**Auxiliary Winding**

- Development of Winding
- Giving Number of Turns Between Leads

1. Ratio Required: 7.25 to 5 amps.
2. Connect the 5 amp circuit to leads No. 1 and No. 16 - 180 turns.
4. Connect lead No. 6 to No. 13 and the 7.25 amp circuit to leads No. 1 and No. 9. Effective Turns: 125 + 131.

**The Capacity of the Winding**

- From No. 1 to 8 is 5 amps.
- From No. 9 to No. 16 is 108 amps.

These values must not be exceeded for continuous operation if bushing type transformers are used. The two currents to be balanced by the auto should be calculated from the actual turn ratio of the transformer.

**Style Number 7881A16G02, 100 VA**

**TYPE A CURRENT BALANCING AUTO TRANSFORMER**

<table>
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<tr>
<th>VA</th>
<th>100</th>
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<td>STYLE</td>
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</tr>
</tbody>
</table>

**Serial Windings**

- 25 - 60 Hertz
- 55°C Rise
- 2500 Volt Test

**Main Winding**

- Development of Winding
- Giving Number of Turns Between Leads

**Auxiliary Winding**

- Development of Winding
- Giving Number of Turns Between Leads

1. Ratio Required: 7.25 to 5 amps.
2. Connect the 5 amp circuit to leads No. 1 and No. 16 - 180 turns.
4. Connect lead No. 6 to No. 13 and the 7.25 amp circuit to leads No. 1 and No. 9. Effective Turns: 125 + 131.

**The Capacity of the Winding**

- From No. 1 to 8 is 5 amps.
- From No. 9 to No. 16 is 168 amps.

These values must not be exceeded for continuous operation if bushing type transformers are used. The two currents to be balanced by the auto should be calculated from the actual turn ratio of the transformer.

*ABB Power & T&D Company Inc.*

*Made in U.S.A.*

January 1990
Performance Curves

50 VA Rating, Ratio 10:5 Amperes
Ratio and Phase Angle Curves

100 VA Rating, Ratio 10:5 Amperes
Ratio and Phase Angle Curves

Overcurrent Ratio Curves

Secondary Excitation Characteristics
Type: Current Balancing Auto

January 1999
Dimensions (In Inches) and Weights
This outline can be used for erection or mounting purposes. It is not to be regarded as indicating the exact details of construction.

Style Number | Weight-Lbs. | Net | Shipping
-------------|-------------|-----|---------
7861A17001    | 20          | 23  |
7861A17002    | 24          | 27  |

ABB Power T&D Company Inc.
Low Voltage Instrument Transformer
Pineywoods, North Carolina, U.S.A. 27864

January 1990