PDA6405
Split Core AC Current Transformers

FEATURES
- 100 A, 200 A, 400 A, 600 A, and 1000 A AC Ranges
- 0-5 AAC Output
- Split Core Convenience
- Compact Design
- 1% Accuracy
- UL recognized for US and Canada (E341727)

OVERVIEW
The PDA6405 split core AC current transformers convert the high AC current flowing through a cable or wire to a 0-5 AAC output and are available in ranges of 100, 200, 400, 600, and 1000 AAC. These nonintrusive devices feature split core convenience for easy installation and are a cost-effective solution for monitoring load or proof of operation. These current transformers are ideal for monitoring current loads on pumps, driving fans and blowers, and sensing the status of heating coils and lighting.

SPECIFICATIONS
- **Current Range:** 100 A, 200 A, 400 A, 600 A, and 1000 A AC (based on model)
- **Output:** 0-5 AAC
- **Accuracy:** +/- 1%
- **Burden:** 2 VA
- **Insulation Voltage:** CAT IV 250 or CAT III 600 VAC
- **Maximum Primary Voltage:** 5000 VAC (Insulated Conductor)
- **Phase Angle:** Less than 2 degrees at 50% of rated current
- **Frequency Range:** 50/60 Hz
- **Operating Temperature:** -40 to 55°C
- **Humidity:** 0-95% RH non-condensing, Indoor use only
- **Pollution Degree:** 2
- **Leads:** 18AWG, Length: 39.4" (1.0 m)
- **UL File Number:** UL recognized for US and Canada (E341727)

IMPORTANT: The PDA6405 current transformer is intended to provide an input to equipment under normal operating conditions. Where failure or malfunction of the current transformer could lead to personal injury or property damage to the controlled equipment or other property, additional precautions must be designed into the control system. Incorporate and maintain other devices, such as supervisory or alarm systems or safety or limit controls, intended to warn or protect against failure or malfunction of the current transducer device.
DIMENSIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>Input</th>
<th>Overall Dimensions</th>
<th>Opening Dimensions</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDA6405-100</td>
<td>100 A</td>
<td>2.6&quot; x 1.8&quot; x 1.4&quot; (65 mm x 46 mm x 35 mm)</td>
<td>0.9&quot; X 0.9&quot; (24 mm X 24 mm)</td>
<td>8 oz (227 g)</td>
</tr>
<tr>
<td>PDA6405-200</td>
<td>200 A</td>
<td>2.6&quot; x 1.8&quot; x 1.4&quot; (65 mm x 46 mm x 35 mm)</td>
<td>0.9&quot; X 0.9&quot; (24 mm X 24 mm)</td>
<td>8 oz (227 g)</td>
</tr>
<tr>
<td>PDA6405-400</td>
<td>400 A</td>
<td>3.3&quot; x 2.2&quot; x 1.6&quot; (85 mm x 57 mm x 41 mm)</td>
<td>1.4&quot; X 1.4&quot; (36 mm X 36 mm)</td>
<td>13.6 oz (385 g)</td>
</tr>
<tr>
<td>PDA6405-600</td>
<td>600 A</td>
<td>3.3&quot; x 2.2&quot; x 1.6&quot; (85 mm x 57 mm x 41 mm)</td>
<td>1.4&quot; X 1.4&quot; (36 mm X 36 mm)</td>
<td>15.2 oz (430 g)</td>
</tr>
<tr>
<td>PDA6405-1000</td>
<td>1000 A</td>
<td>4.7&quot; x 3.1&quot; x 2.4&quot; (120 mm x 80 mm x 60 mm)</td>
<td>2.0&quot; X 2.0&quot; (50 mm X 50 mm)</td>
<td>2.2 lb (1 kg)</td>
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INSTALLATION

**WARNING:** Risk of Electrical Shock. Disconnect the power supply before making electrical connections. Contact with components carrying hazardous voltage can cause electric shock and may result in severe personal injury or death.

**WIRING**

1. Disconnect the conductor cable from the power source.
2. Snap the split core around the power conductor cable and close the core until the core snaps shut.
3. Wire the output leads to desired device per Figure 2.
4. Reconnect the power conductor cable. See Figure 3 for a wiring example.

If the measured current is too low to be detected or it is higher than the maximum current rating of the transformer, use the following methods to increase or decrease the current:

**If the measured current is too low to be detected use the following method to increase the current:**

Wrap the conductor (wire) through the sensing hole and around the current transformer body to produce multiple turns to increase the measured current. The measured current is equal to the actual current multiplied by the number of turns. See Figure 1.

**Example:** If the maximum current rating of the CT is 100 A and the number of turns used is 4, then:

Maximum Line Current: 100 A / 4 = 25 A

The new maximum current is equal to the current transformer current rating divided by the number of turns.
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CONNECTIONS

![Diagram of connections](image)

**DIGITAL METERS FOR AC CURRENT**

Precision Digital offers digital meters that will accept the 0-5 Amp AC output from its PDA6405 line of current transformers. These meters feature a dual line display that can show the current on the upper display and the units on the lower display. They can also be equipped with relays for alarm and control purposes and a 4-20 mA output signal. All AC current meters feature:

- (1) 0-300 V and (1) 0-5 A Inputs
- Multiplication for Apparent Power Calculation
- UL Listed
- 4 Relays & 4-20 mA Output
- Free Programming Software

**PD6400 ProVu 1/8 DIN Panel Meter**

- NEMA 4X Front Panel
- 0.6" (15 mm) Digits

**PD2-6400 Helios Large Display Meter**

- NEMA 4X Field Enclosure
- 1.8" (46 mm) Digits

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>PDA6405-100</td>
<td>100 AAC Current Transformer with 0-5 AAC Output</td>
</tr>
<tr>
<td>PDA6405-200</td>
<td>200 AAC Current Transformer with 0-5 AAC Output</td>
</tr>
<tr>
<td>PDA6405-400</td>
<td>400 AAC Current Transformer with 0-5 AAC Output</td>
</tr>
<tr>
<td>PDA6405-600</td>
<td>600 AAC Current Transformer with 0-5 AAC Output</td>
</tr>
<tr>
<td>PDA6405-1000</td>
<td>1000 AAC Current Transformer with 0-5 AAC Output</td>
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