An electric shock may occur. Be sure to use the covered wire with at least 600 V basic insulation for the primary side wire. Do not use it for busbar.

An electric shock or minor injury as well as fire or unit malfunction may occur. Do not attempt to disassemble, repair or modify the product.

PRECAUTIONS FOR SAFE USE

Observe the following precautions to ensure safe operation.

- Do not install the product in the places subject to exposure to water, oil, or chemical splashes.
- Dispose of the product as industrial waste.
- Do not let the product drop or subject it to a shock, which may cause its damage or malfunction. Stop using the product if it has been applied with a strong impact.
- The product cannot be used for measurement of the secondary circuit of an inverter. The applicable voltage is 480 V max. Do not use the product with the covered wire with 480 V or higher.

PRECAUTIONS FOR CORRECT USE

1. Avoiding the product in the following places:
   - Places exceeding the rated ambient temperature
   - Places exposed to extreme temperature changes (where condensation occurs)
   - Places subject to relative humidity exceeding the rated humidity range
   - Places subject to corrosive or flammable gases
   - Places subject to mist, droplets, coarse particles, fiber, salt, metal dust, or large amount of particles
   - Places subject to direct shock or vibration
   - Places subject to direct sunlight
   - Places subject to exposure to water, oil, or chemical splashes
   - Places subject to strong magnetic field or electric field
   - Outdoors

2. Wiring
   - Wire the product cable separately from high-voltage or power lines. Placing them in the same wiring or the same duct may cause induction, resulting in the product malfunction or damage.
   - Make sure that the I/O terminals are inserted or removed with the power turned OFF. Doing this with the power ON may result in a failure.

3. Clamping to measured conductor
   - Check the direction of the power supply side (K) and load side (L) before placing the clamp. Placing the clamp in wrong direction will result in measurement error.
   - Do not remove/insert the sensor head connector with the power supply of the main unit OFF. Doing so may result in failure of the main unit and dedicated clamp sensor.
   - Do not place the clamp on the measured conductor with the power supply of the main unit OFF. Doing so may result in failure of the main unit and dedicated clamp sensor.

4. Others
   - When carrying the CT mounted with the Portable Power Monitor (ZN-CTX21-200A) at the same time to one Portable Power Monitor, doing so may result in measurement error.

   - When performing measurement using multiple CTs, a Portable Power Monitor (ZN-CTX21-200A) and branch cable (ZN-CTM11-C) (sold separately) are required. To check your current version and information on version upgrade, visit the following website:
     http://www.fa.omron.co.jp/member/product/tool/245/zn/index.htm

   - Do not connect clamp-on CT (ZN-CTM51-200A) and split-core CT (ZN-CTM11-C) at the same time to one Portable Power Monitor. Doing so may result in measurement error.

<table>
<thead>
<tr>
<th>Item</th>
<th>ZN-CTM51-200A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary side rated current</td>
<td>200 A</td>
</tr>
<tr>
<td>Secondary winding</td>
<td>3,000 turns</td>
</tr>
<tr>
<td>Applicable frequency</td>
<td>10 Hz to 5 kHz</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>Between output terminal and case: 50 MΩ min. (500 VDC)</td>
</tr>
<tr>
<td>Withstand voltage</td>
<td>Between output terminal and case: 2,000 VAC for 1 minute</td>
</tr>
<tr>
<td>Protection device</td>
<td>7.5 V clamp device</td>
</tr>
<tr>
<td>The number of detach operations allowed</td>
<td>5,000 times</td>
</tr>
<tr>
<td>Internal diameter (mm)</td>
<td>23 dia.</td>
</tr>
<tr>
<td>Operating temperature/humidity</td>
<td>-20 to 60°C 85% max. (no icing or condensation)</td>
</tr>
<tr>
<td>Storage temperature/humidity</td>
<td>-30 to 65°C 85% max. (no icing or condensation)</td>
</tr>
<tr>
<td>Used circuit voltage</td>
<td>480 V max.</td>
</tr>
</tbody>
</table>

Nomenclature

- Details of the connector of the branch cable
- Connector
- Dedicated clamp sensor
- Power supply side (K)
- Load side (L)
- Branch cable connector
- Branch cable (ZN-CTM11-C) (sold separately)
- Sensor head connector
**Procedure of Clamping to Measured Conductor**

1. Connect the CT connector and branch cable connector.*1
2. Connect the Portable Power Monitor (ZN-CTX21-□) and sensor head connector.
3. Turn ON the power of the Portable Power Monitor.
4. Set the Portable Power Monitor CT setting to 200A.
5. Check the direction of the power supply side (K) and load side (L) and then place the clamp. Placing the clamp in wrong direction will result in measurement error.

*1: When using multiple CTs, the type of all the CTs to be used must be the same. Correct measurement is not possible if CTs with different primary side rated currents are used concurrently.

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**Precautions when Detaching CT from Measured Conductor**

- Do not place the clamp on the measured conductor without turning ON the power of the Portable Power Monitor. Be sure to turn OFF the power of the main unit after removing it from the measured conductor.
- Do not insert/remove the connector and sensor head connector of the branch cable when the power of the Portable Power Monitor is ON or CT is clamped to the measured conductor.

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**Dimensions**

![Diagram](image_url)

- **Outer dia.** 47, **Inner dia. 23**
- **Vinyl insulation round cable 4.9 dia. 2-core (conductor cross-sectional area: 0.3 mm²) Standard length 0.2 m**

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**Suitability for Use**

Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer’s application or use of the Product. At Buyer’s request, Omron will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer’s application, product or system. Buyer shall take application responsibility in all cases.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

See also Product catalog for Warranty and Limitation of Liability.