

# TAK006 Series Split Core AC Current Transformer

# 1. Features:

Compact in size with high load capacity; open-close design, easy to install and use, widely applied in power operation, maintenance and reconstruction projects.

# 2. Ambient Conditions:

- (1) Operating temperature:  $-20^{\circ}C \sim +50^{\circ}C$ ;
- (2) Relative humidity:  $\leq 90\%$  at  $40^{\circ}$ C;
- ③ Atmospheric pressure: 860 ~ 1060 mbar (about 650 ~ 800 mmHg).

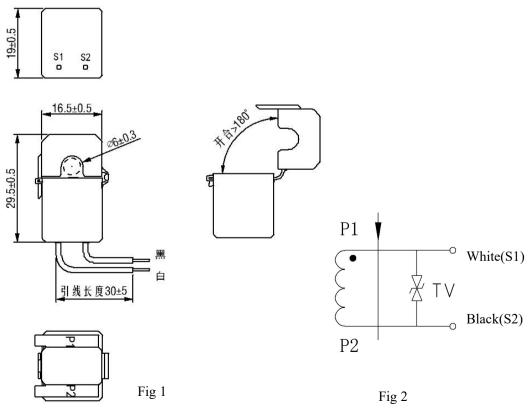
3. Operating Frequency Range: 50Hz~1kHz

# 4. Insulation Thermal Class: Class B (130°C)

## 5. Safety Features:

- (1) Insulation resistance: >100M $\Omega$  in normal condition;
- 2 Insulation withstand voltages: 1KV 50Hz/1 min;
- ③ Fire retardancy: In conformity with UL94-V0;
- (4) Mechanical strength: opening and closing times  $\geq$  1000 times.

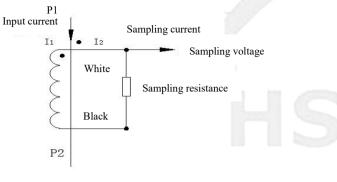
# 6. Outline Drawing, Installation Dimension and Coil Diagram: (Tolerance $\pm 0.5$ mm)



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See the table below for performance parameters when applied as shown in Figure 3.





| Model     | Rated<br>Input<br>Current | Rated<br>Output<br>Current | Rated<br>Sampling<br>Resistance<br>(R <sub>L</sub> ) | Rated<br>Sampling<br>Voltage | Non-linearity | Linear Range                  |
|-----------|---------------------------|----------------------------|--|------------------------------|---------------|-------------------------------|
| TAK006-01 | 1A                        | l mA                       | 10 Ω   | 10mV                         | 2%            | ≥1.2 times of the rated value |
| TAK006-02 | 2A                        | 2.5mA                      | 8 Ω  | 20mV                         | 2%            | ≥1.2 times of the rated value |
| TAK006-03 | 5A                        | 5mA                        | 10 Ω   | 50mV                         | 2%            | ≥1.2 times of the rated value |
| TAK006-04 | 10A                       | 10mA                       | 5Ω   | 50mV                         | 2%            | ≥1.2 times of the rated value |
| TAK006-05 | 20A                       | 25mA                       | 5Ω   | 125mV                        | 2%            | ≥1.2 times of the rated value |

### 8. Attention:

(1) Connect the primary winding of the current transformer in series with the loop of the measured current. Operate the secondary winding in a near short-circuit mode.



# TAK010 Series Split Core AC Current Transformer

### 1. Features:

① Open and close, easy to use;

<sup>(2)</sup>The magnetic core material is ferrite, which is often used for current measurement, monitoring and protection of AC motors, lighting equipment, air compressors, etc. Compatible with similar products at home and abroad.

#### 2. Ambient Conditions:

- (1) Operating temperature:  $-20^{\circ}C \sim +50^{\circ}C$ ;
- ② Relative humidity:  $\leq 90\%$  at  $40^{\circ}$ C;
- ③ Atmospheric pressure: 860 ~ 1060 mbar (about 650 ~ 800 mmHg).

3. Operating Frequency Range: 50Hz~ 200kHz

**4. Insulation Thermal Class:** Class B (130°C)

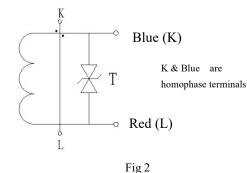
#### 7. Safety Features:

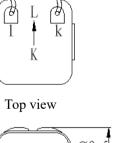
- (1) Insulation resistance: >100M $\Omega$  in normal condition;
- 2 Insulation withstand voltages: 1KV 50Hz/1 min;
- ③ Fire retardancy: In conformity with UL94-V0;
- 4 Mechanical strength: opening and closing

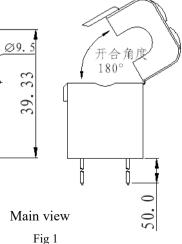
times  $\geq 1000$  times.

## 8. Outline Drawing, Installation Dimension

and Coil Diagram: (Tolerance ± 0.5mm)
① The outline drawing and installation
dimensions are shown in Figure 1:
② The coil diagram is shown in Figure 2:







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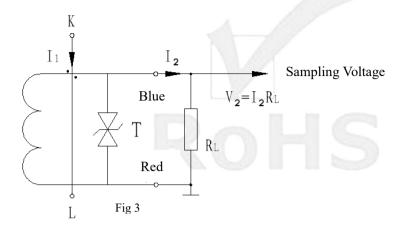
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See the table below for performance parameters when applied as shown in Figure 3.



| Model     | Rated<br>Input<br>Current | Rated<br>Output<br>Current | Rated<br>Sampling<br>Resistance<br>(R <sub>L</sub> ) | Rated<br>Sampling<br>Voltage | Non-linearity | Linear Range                 |
|-----------|---------------------------|----------------------------|--|------------------------------|---------------|------------------------------|
| TAK010-01 | 80A                       | 26.6 mA                    | 115Ω 3V  |                              | ≤2%           | 1.5 times of the rated value |

# 9. Attention:

① Connect the primary winding of the current transformer in series with the loop of the measured current. Operate the secondary winding in a near short-circuit mode.



# **TAK016 Series Split Core AC Current Transformer for**



# measuring alternating current

The TAK016 Series Split Core AC Current Transformer is a type of current transformer used for measuring alternating current. It is designed to be easily installed around a conductor without the need to disconnect the circuit. The output of the transformer is proportional to the current flowing through the conductor and can be used for various monitoring and control applications.

If you have specific questions about the TAK016 Series Split Core AC Current Transformer or need more detailed information, feel free to ask!

# 1. Features:

① Split-core design provides easy installation and use.

② Made of ferrite magnetic core material, commonly used for AC current measurement, monitoring and protection in motors, lighting equipment, air compressors, etc.

# 2. Ambient Conditions:

- (1) Operating temperature:  $-20^{\circ}C \sim +50^{\circ}C$ ;
- (2) Relative humidity:  $\leq 90\%$  at 40°C;
- (3) Atmospheric pressure:  $860 \sim 1060$  mbar (about  $650 \sim 800$  mmHg).

# 3. Operating Frequency Range: 50Hz~ 200kHz



# 4. Insulation Thermal Class: Class B (130°C)

### 9. Safety Features:

- (1) Insulation resistance: >100M $\Omega$  in normal condition;
- ② Insulation withstand voltages: 1KV 50Hz/1 min;
- ③ Fire retardancy: In conformity with UL94-V0.

## 6. Outline Drawing, Installation Dimension and Coil Diagram: (Tolerance $\pm 0.5$ mm)

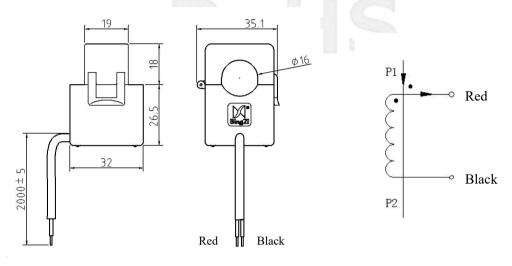


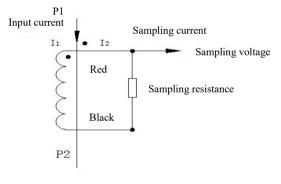
Fig 1

Fig 2





See the table below for performance parameters when applied as shown in Figure 3.





| Model     | Rated<br>Input<br>Current | Rated<br>Output<br>Current | Rated<br>Sampling<br>Resistance<br>(R <sub>L</sub> ) | Rated<br>Sampling<br>Voltage | Non-linearity | Linear<br>Range            | Withstand<br>Voltage<br>(kV) |
|-----------|---------------------------|----------------------------|--|------------------------------|---------------|----------------------------|------------------------------|
| TAK016-01 | 120A                      | 40mA                       | 7.5Ω   | 0.3V                         | ≤0.5%         | 3 times of the rated value | ≥2                           |



# TAK024 Series Split Core AC Current Transformer

#### 1. Features:

Compact in size with high load capacity; split-core design provides easy installation and use. Widely applied in power system maintenance and electrical infrastructure upgrades.

### 2. Ambient Conditions:

- (1) Operating temperature:  $-20^{\circ}C \sim +50^{\circ}C$ ;
- ② Relative humidity:  $\leq 90\%$  at  $40^{\circ}$ C;
- ③ Atmospheric pressure: 860 ~ 1060 mbar (about 650 ~ 800 mmHg).

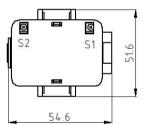
### 3. Operating Frequency Range: 50Hz~ 200kHz

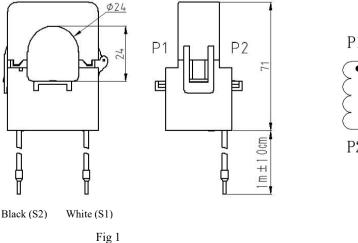
#### 4. Insulation Thermal Class: Class B (130°C)

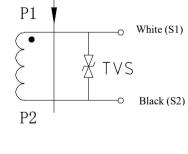
#### 10. Safety Features:

- (1) Insulation resistance: >100M $\Omega$  in normal condition;
- ② Insulation withstand voltages: 2KV 50Hz/1 min;
- ③ Fire retardancy: In conformity with UL94-V0.

#### 11. Outline Drawing, Installation Dimension and Coil Diagram: (Tolerance $\pm 0.5$ mm)



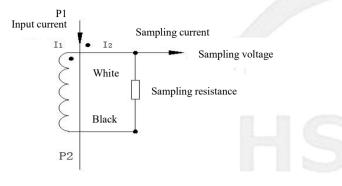








See the table below for performance parameters when applied as shown in Figure 3.





| Model     | Rated<br>Input<br>Current | Rated<br>Output<br>Current | Rated<br>Sampling<br>Resistance<br>(R <sub>L</sub> ) | Rated<br>Sampling<br>Voltage | Phase<br>Shift | Non-linearity | Linear<br>Range                     |
|-----------|---------------------------|----------------------------|--|------------------------------|----------------|---------------|-------------------------------------|
| TAK024-01 | 100A                      | 100mA                      | 5 Ω  | 0.5V                         | ≤50'           | 5‰            | ≥1.2 times of<br>the rated<br>value |
| TAK024-02 | 150A                      | 75 mA                      | 10 Ω   | 0.75 V                       | ≤50'           | 5‰            | ≥1.2 times of<br>the rated<br>value |
| TAK024-03 | 200A                      | 66.7mA                     | 15 Ω   | 1.0 V                        | ≤50'           | 5‰            | ≥1.2 times of<br>the rated<br>value |

# 9. Attention:

① Connect the primary winding of the current transformer in series with the loop of the measured current. Operate the secondary winding in a near short-circuit mode.



# TAK030 Series Split Core AC Current Transformer

## 1. Features:

① Busbar through core, flexible wire lead out, plate installation;

<sup>(2)</sup> Fully-encapsulated, strong mechanical and environmental endurance, and strong voltage isolation.

## 2. Ambient Conditions:

- ① Ambient temperature: -55 °C ~+85 °C ;
- ② Relative humidity:  $\leq$  90% at 40 °C ;
- ③ Atmospheric pressure: 860~1060mbar(about 650~800mmHg).

## 3. Operating Frequency Range : 50Hz~400Hz

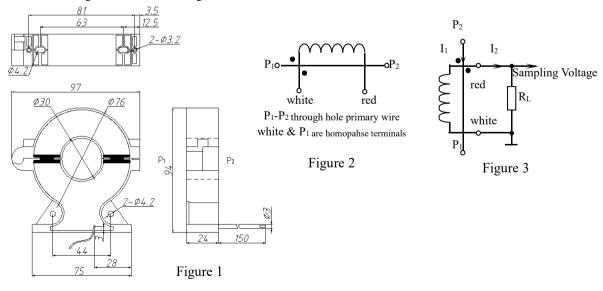
4. Insulation Thermal Class: Class B (130°C)

### 5. Safety Features:

- (1) Insulation resistance:>1000M $\Omega$  in normal condition ;
- 2 Insulation withstand voltages: 6kV 50Hz / 1 min ;
- ③ Fire Retardant: In conformity with UL94-V0.

## 6. Outline Drawing, Installation Dimension and Coil Diagram: ( $Tolerance \pm 0.5mm$ )

- ① The outline drawing and installation dimensions are shown in Figure 1:
- (2) The coil diagram is shown in Figure 2:





When the sampling voltage is directly obtained by the resistance method (as shown in Figure 3 ), the performance parameters are shown in Table 1.

| Model     | Rated<br>Input<br>Current | Rated<br>Output<br>Current | Rated<br>Sampling<br>Resistance | Rated<br>Sampling<br>Voltage | Phase<br>Shift | Non-linea<br>rity | Linear Range                |
|-----------|---------------------------|----------------------------|---------------------------------|------------------------------|----------------|-------------------|-----------------------------|
| TAK030-01 | 100A                      | 0.1A                       | 100Ω                            | 10V                          | ≤50'           | ≤0.5%             | ≥3 times of the rated value |

### 8.Attention:

① Connect the primary winding of the current transformer in series with the loop of the measured current. Operate the secondary winding in a near short-circuit mode.



# **TAK033 Series Split Core AC Current Transformer**

#### 1. Features:

Compact in size with high load capacity; split-core design provides easy installation and use. Widely applied in power system maintenance and electrical infrastructure upgrades.

### 2. Ambient Conditions:

- (1) Operating temperature:  $-20^{\circ}C \sim +50^{\circ}C$ ;
- ② Relative humidity:  $\leq 90\%$  at  $40^{\circ}$ C;
- ③ Atmospheric pressure: 860 ~ 1060 mbar (about 650 ~ 800 mmHg).

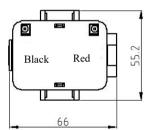
### 3. Operating Frequency Range: 50Hz~ 200kHz

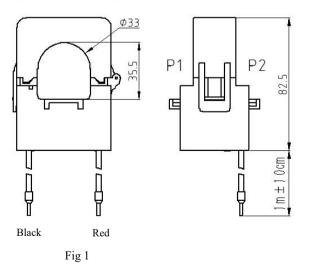
#### 4. Insulation Thermal Class: Class B (130°C)

# 12. Safety Features:

- (1) Insulation resistance: >100M $\Omega$  in normal condition;
- 2 Insulation withstand voltages: 1KV 50Hz/1 min;
- ③ Fire retardancy: In conformity with UL94-V0.

#### 13. Outline Drawing, Installation Dimension and Coil Diagram: (Tolerance $\pm 0.5$ mm)





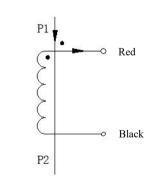
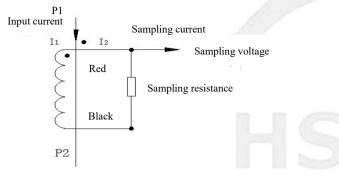


Fig 2

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See the table below for performance parameters when applied as shown in Figure 3.





| Model     | Rated<br>Input Current | Rated<br>Output<br>Current | Rated<br>Power | Precision<br>Grade | Turns Ratio | Withstand<br>Voltage<br>(kV) |
|-----------|------------------------|----------------------------|----------------|--------------------|-------------|------------------------------|
| TAK033-01 | 300A                   | 5A                         | 1VA            | 1                  | 1           | ≥2                           |
| TAK033-02 | 400A                   | 5A                         | 1VA            | 1                  | 1           | ≥2                           |
| TAK033-03 | 500A                   | 5A                         | 1.5VA          | 0.5                | 1           | ≥2                           |
| TAK033-04 | 600A                   | 5A                         | 1.5VA          | 0.5                | 1           | ≥2                           |

#### 10. Attention:

① Connect the primary winding of the current transformer in series with the loop of the measured current. Operate the secondary winding in a near short-circuit mode.



# **TAK60 Series Split Core AC Current Transformer**

# LI063V2/2010

# 1. Features:

(1) Busbar core-through, flexible wire lead-out, panel installation;

<sup>(2)</sup> Fully enclosed, good mechanical and environmental resistance, strong voltage isolation capability.

# 3. Ambient Conditions:

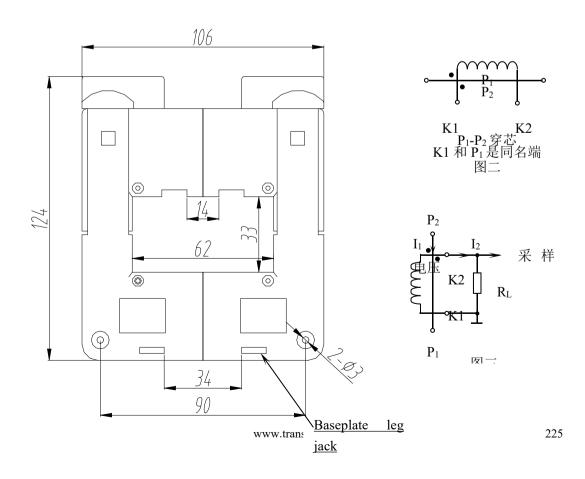
- ① Ambient temperature: -55 °C ~+85 °C ;
- ② Relative humidity:  $\leq$  90% at 40 °C ;
- ③ Atmospheric pressure: 860~1060mbar(about 650~800mmHg).
- 3. Operating Frequency Range : 50Hz~400Hz

# 4. Insulation Thermal Class: Class F (155°C)

# 5. Safety Features:

- (1) Insulation resistance:>1000M $\Omega$  in normal condition ;
- 2 Insulation with stand voltages: 6000V 50Hz / 1 min ;
- ③ Fire Retardant: In conformity with UL94-V0.

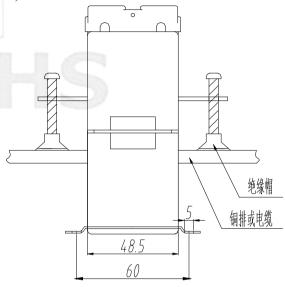
# 6. Outline diagram, installation size and coil diagram are shown in Figure below:





• Instructions; Each product is provided with two base plate feet and one bus foot and fixed bus screw, installation instructions see below;

1. When fixed on the bottom plate; Take two legs (supplied with the product) and insert them into the base plate leg jack as shown in Figure 2. The center distance of mounting holes is  $60 \times 44.7$ ; The foot mounting aperture is  $\Phi 5.0$ ; M5 screws can be used to secure the transformer to the base plate.



2. When fixed on the bus bar; Insert the pins with M5 holes (supplied with the product) into the bus pin slot as shown in the following figure. If the center distance of the M5 holes is 60, M5 screws can be used to fix the transformer to the bus.

## 7. Typical application and performance parameters:

When the sampling voltage is obtained directly by the resistance method (as shown in Figure 3 on the right), the performance parameters are shown in Table 1;

| Model    |      | Rated<br>Output |       | Rated<br>Samplin | Phase<br>Shift | Non-line<br>arity | Linear Range                      | Withstand<br>voltage(kV |
|----------|------|-----------------|-------|------------------|----------------|-------------------|-----------------------------------|-------------------------|
| TAK60-01 | 500A | 5A              | 0.16Ω | 0.8V             | ≤50'           | ≤1.0%             | $\geq$ 3 times of the rated value | ≥6                      |

#### 8. Attention:

1. The current transformer primary should be connected in series in the measured current loop, and the secondary should be approximately in the short-circuit state.

2. The current transformer secondary circuit is not allowed to open, so please do not install a fuse.



# TAK80 Series Split Core AC Current Transformer

LI063V2/2010

# 2. Features:

(1) Busbar core-through, flexible wire lead-out, panel installation;

<sup>(2)</sup> Fully enclosed, good mechanical and environmental resistance, strong voltage isolation capability.

# 4. Ambient Conditions:

- ① Ambient temperature: -55 °C ~+85 °C ;
- ② Relative humidity:  $\leq$  90% at 40 °C;
- ③ Atmospheric pressure: 860~1060mbar(about 650~800mmHg).
- 3. Operating Frequency Range : 50Hz~400Hz

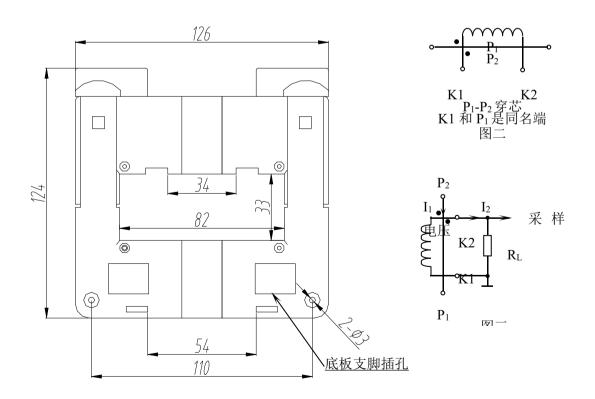
# 4. Insulation Thermal Class: Class F (155°C)

# 9. Safety Features:

- (1) Insulation resistance:>1000M $\Omega$  in normal condition ;
- ② Insulation withstand voltages: 6000V 50Hz / 1 min ;

③ Fire Retardant: In conformity with UL94-V0.

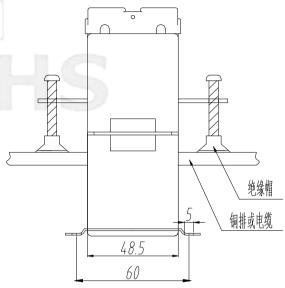
# 10. Outline diagram, installation size and coil diagram are shown in Figure below:





Instructions; Each product is provided with two base plate feet and one bus foot and fixed bus screw, installation instructions see below;

2. When fixed on the bottom plate; Take two legs (supplied with the product) and insert them into the base plate leg jack as shown in Figure 2. The center distance of mounting holes is  $60 \times 44.7$ ; The foot mounting aperture is  $\Phi 5.0$ ; M5 screws can be used to secure the transformer to the base plate.



2. When fixed on the bus bar; Insert the pins with M5 holes (supplied with the product) into the bus pin slot as shown in the following figure. If the center distance of the M5 holes is 60, M5 screws can be used to fix the transformer to the bus.

## 11. Typical application and performance parameters:

When the sampling voltage is obtained directly by the resistance method (as shown in Figure 3 on the right), the performance parameters are shown in Table 1;

| Model    |      |    | Rated<br>Samplin | Rated<br>Samplin | Phase<br>Shift | Non-line<br>arity | Linear Range                | Withstand<br>voltage(kV |
|----------|------|----|------------------|------------------|----------------|-------------------|-----------------------------|-------------------------|
| TAK80-01 | 600A | 5A | 0.2Ω             | 1.0V             | ≤50'           | ≤1.0%             | ≥3 times of the rated value | ≥6                      |

12. Attention:

1. The current transformer primary should be connected in series in the measured current loop, and the secondary should be approximately in the short-circuit state.

2. The current transformer secondary circuit is not allowed to open, so please do not install a fuse.



# **TAK100 Series Split Core AC Current Transformer**

LI185 V1/201 7

# 1. Features:

1) Busbar core-through, flexible wire lead-out, panel installation;

<sup>(2)</sup> Fully enclosed, good mechanical and environmental resistance, strong voltage isolation capability.

# 5. Ambient Conditions:

- ① Ambient temperature: -55 °C ~+85 °C ;
- ② Relative humidity:  $\leq 90\%$  at 40 °C;
- ③ Atmospheric pressure: 860~1060mbar(about 650~800mmHg).
- 3. Operating Frequency Range : 50Hz~400Hz

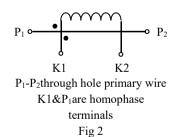
## 4. Insulation Thermal Class: Class B (130°C)

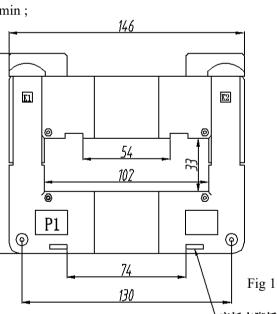
# 6. Safety Features:

- (1) Insulation resistance:>1000M $\Omega$  in normal condition ;
- (2) Insulation withstand voltages: 6000V 50Hz / 1 min ;
- ③ Fire Retardant: In conformity with UL94-V0.

# 6. Outline Drawing, Installation Dimension and Coil Drawing:(tolerance ± 1mm) ① Outline drawing and installation dimensions are shown in Figure 1 :

<sup>(2)</sup>The coil diagram is shown in Figure 2:





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• Description: Each product is supplied with two bottom plate feet, two sets of busbar feet and fixing busbar screws. See below for installation instructions.

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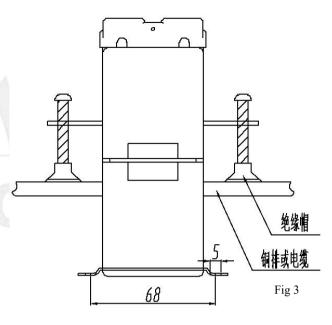


③ Installation instructions :

• When fixing to the bottom plate : Take the two feet (supplied with the product ) and insert them into the foot sockets on the bottom plate as shown in Figure 3 . The center distance of the mounting holes is  $68 \times 84.7$ ; the mounting hole diameter of the feet is  $\Phi 5.0$ ; the transformer can be fixed on the bottom plate with M5 screws.

• When fixing on the busbar :

Insert the two feet with M5 holes (supplied with the product) into the slot of the busbar feet as shown in Figure 3. The center distance of the M5 holes is 59, and the transformer can be fixed on the busbar with M5 screws.



#### 7. Typical Application and Performance Parameters:

When the sampling voltage is obtained directly by the resistance method (as shown in Figure 4), the performance parameters are shown in Table 1.

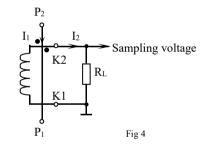


Table 1:

| Model     | Rated<br>Input<br>Current | Rated<br>Output<br>Current | Rated<br>Sampling<br>Resistance | Rated<br>Sampling<br>Voltage | Phase<br>Shift | Non-linearity | Linear Range                      |
|-----------|---------------------------|----------------------------|---------------------------------|------------------------------|----------------|---------------|-----------------------------------|
| TAK100-01 | 10 00A                    | 5A                         | 0. 3Ω                           | 1.5V                         | ≤50'           | ≤ 0.5 %       | $\geq$ 3 times of the rated value |

#### 8.Attention:

(1) Connect the primary winding of the current transformer in series with the loop of the measured current. Operate the secondary winding in a near short-circuit mode.



# **TAK120 Series Split Core AC Current Transformer**

LI192V1/2017

# 1. Features:

1) Busbar core-through, flexible wire lead-out, panel installation;

<sup>(2)</sup> Fully enclosed, good mechanical and environmental resistance, strong voltage isolation capability.

## 6. Ambient Conditions:

- ① Ambient temperature: -55 °C ~+85 °C ;
- ② Relative humidity:  $\leq 90\%$  at 40 °C;
- ③ Atmospheric pressure: 860~1060mbar(about 650~800mmHg).



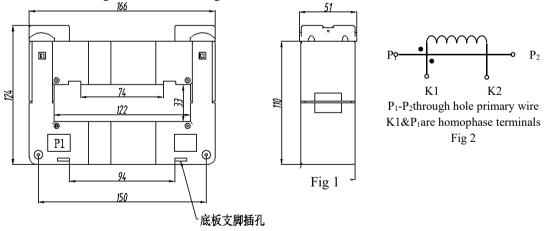
## 4. Insulation Thermal Class: Class B (130°C)

#### 7. Safety Features:

- (1) Insulation resistance:>1000M $\Omega$  in normal condition ;
- ② Insulation withstand voltages: 6000V 50Hz / 1 min ;
- ③ Fire Retardant: In conformity with UL94-V0.

## 6. Outline Drawing, Installation Dimension and Coil Drawing: (tolerance±1mm)

- ① Outline drawing and installation dimensions are shown in Figure 1:
- (2) The coil diagram is shown in Figure 2:



• Description: Each product is supplied with two sets of floor feet, two sets of busbar feet and screws for fixing the busbar. See below for installation instructions.

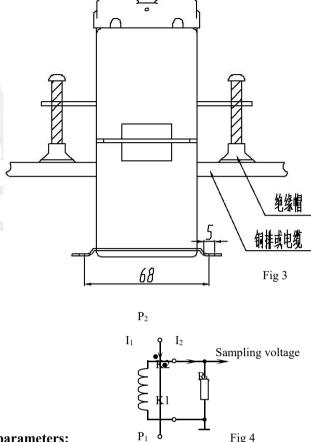


③ Installation instructions :

• When fixing to the bottom plate : Take the two feet ( supplied with the product ) and insert them into the foot sockets on the bottom plate as shown in Figure 3 on the right. The center distance of the installation holes is  $68 \times 104.7$ ; the diameter of the mounting holes of the feet is  $\Phi 5.0$ ; the transformer can be fixed on the bottom plate with M5 screws.

• When fixing on the busbar :

Insert the two feet with M5 holes (supplied with the product ) into the slot of the busbar feet as shown in Figure 3. The center distance of the M5 holes is 59, and the transformer can be fixed on the busbar with M5 screws.



#### 7. Typical application and performance parameters:

When the sampling voltage is obtained directly by the resistance method (as shown in Figure 4), the performance parameters are shown in Table 1.

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| Table        |   | • |
| raute        | 1 | ٠ |

| Model     | Rated<br>Input<br>Current | Rated<br>Output<br>Current | Rated<br>Sampling<br>Resistance | Rated<br>Sampling<br>Voltage | Phase<br>Shift | Non-linearity | Linear Range                      |
|-----------|---------------------------|----------------------------|---------------------------------|------------------------------|----------------|---------------|-----------------------------------|
| TAK120-01 | 2000A                     | 5A                         | 10Ω                             | 50V                          | ≤50'           | ≤ 1.0 %       | $\geq 2$ times of the rated value |

#### 8.Attention:

① Connect the primary winding of the current transformer in series with the loop of the measured current. Operate the secondary winding in a near short-circuit mode.



# TAK3020 Series Split Core AC Current Transformer

# 1. Features:

①Vertical grommet, flexible installation method, can be fixed on the busbar or on the bottom plate;

②Can be equipped with various types of busbars, such as flat row, round busbar or cable;

③The output terminals are screw-fastened and crimped standard terminals, which are convenient for wiring at the project site;

④ Opening and closing structure, closed plastic shell, beautiful appearance.

# 2. Ambient Conditions:

- (1)Ambient temperature: 5 5 °C  $\sim$ + 85 °C;
- ② Relative humidity:  $\leq 90\%$  at 40 °C;

③Atmospheric pressure: 860~1060mbar ( about 650~800mmHg).

# 3. Operating Frequency Range : 50Hz~400Hz

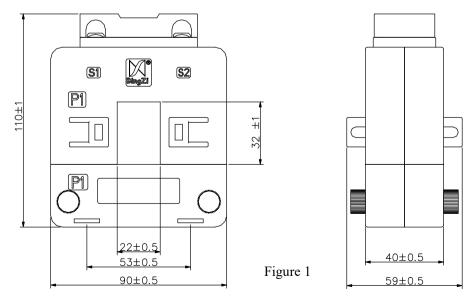
4. Insulation Thermal Class: Class B (130°C)

# 14. Safety Features:

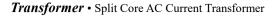
- (1) Insulation resistance: >1000M $\Omega$  in normal condition;
- 2 Insulation withstand voltages: 6KV 50Hz/1 min;
- ③ Fire retardancy: In conformity with UL94-V0

# 6. Outline Drawing, Installation Dimension and Coil diagram:

(1) The outline drawing and installation dimension are shown in Figure 1









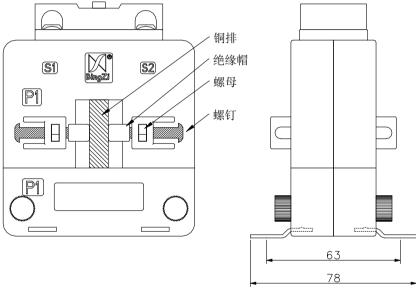
<sup>(2)</sup>The coil diagram is shown in Figure 2 on the right

• Description: Each product is supplied with four fixing busbar screws, four nuts, four insulating caps, and four base plate feet. See the installation instructions below.

③Installation instructions are shown in Figure 3

• Bottom plate fixing: Take four feet ( supplied with the product ) and insert them into the bottom plate support holes as shown in the figure. The center distance of the mounting holes is  $53 \times 63$ ; the mounting hole diameter of the feet is  $\Phi 6.0$ ; M5 screws can be used to fix the transformer on the bottom plate.

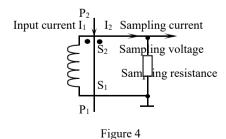
• Busbar fixing: Put the M5 nut ( supplied with the product ) into the groove as shown in the figure below, and fix the transformer on the busbar with M5 screw .

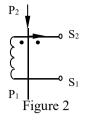




## 7. Typical Applications and Performance Parameters:

When applied as shown in Figure 4, the performance parameters are shown in Table 1:





| Model        | Rated<br>Input<br>Current | Rated<br>Output<br>Current | Rated<br>Sampling<br>Resistance | Rated<br>Sampling<br>Voltage | Phase<br>Shift | Nonlinearity | Linear<br>Range           |
|--------------|---------------------------|----------------------------|---------------------------------|------------------------------|----------------|--------------|---------------------------|
| TAK3020-01   | 100A                      | 5A                         | 0.1Ω                            | 0.5V                         | ≤200′          | ≤1.5 %       |                           |
| TAK3020-02   | 150A                      | 5A                         | 0.1Ω                            | 0.5V                         | ≤200′          | ≤ 1.5 %      | 1.2.0                     |
| TAK3020-03   | 200A                      | 5A                         | 0.1Ω                            | 0.5V                         | $\leq 200'$    | ≤ 1.5 %      | 1.2 times<br>of the rated |
| TAK3020-04   | 250A                      | 5A                         | 0.1Ω                            | 0.5V                         | $\leq 200'$    | ≤ 1.5 %      | value                     |
| TAK3020-05   | 300A                      | 5A                         | 0.1Ω                            | 0.5V                         | ≤ 60′          | ≤ 1.0 %      | value                     |
| TAK3020-06   | 400A                      | 5A                         | 0.1Ω                            | 0.5V                         | $\leq 50'$     | $\leq$ 0.5 % |                           |
| <b>N</b> T ( |                           |                            |                                 |                              |                |              |                           |

Table 1:

• Notes:

a . In practical applications, the sampling resistor should be less than or equal to the Rated value given in the table above, which will improve nonlinearity and phase shift.

b . If the conversion ratio required by the user is different from the above, it can be customized according to the user's requirements.

## 8.Attention:

① Connect the primary winding of the current transformer in series with the loop of the measured current. Operate the secondary winding in a near short-circuit mode.



# **TAK8050 Series Split Core AC Current Transformer**

#### 1. Features

①Vertical grommet, flexible installation;

②Can be equipped with various types of busbars, such as flat row, round busbar or cable;

③The output terminals are screw-fastened and crimped standard terminals, which are convenient for wiring at the project site;

(4)Opening and closing structure, closed plastic shell, beautiful appearance.

#### 2. Ambient Conditions:

- (1) Operating temperature:  $-20^{\circ}C \sim +50^{\circ}C$ ;
- (2) Relative humidity:  $\leq 90\%$  at  $40^{\circ}$ C;
- ③ Atmospheric pressure: 860 ~ 1060 mbar (about 650 ~ 800 mmHg).

3. Operating Frequency Range: 50Hz~ 200kHz

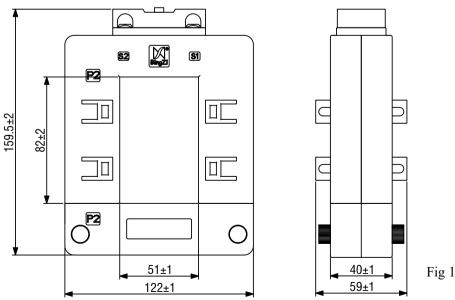
4. Insulation Thermal Class: Class B (130°C)

### 15. Safety Features:

- (1) Insulation resistance: >1000M $\Omega$  in normal condition;
- ② Insulation withstand voltages: 6KV 50Hz/1 min;
- ③ Fire retardancy: In conformity with UL94-V0.

## 6. Outline Drawing, Installation Dimension and Coil Diagram :

(1) The outline drawing and installation dimension are shown in Figure 1





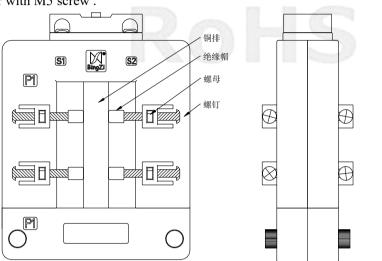


<sup>(2)</sup>The coil diagram is shown in Figure 2 on the right

• Description: Each product is supplied with eight fixing busbar screws, eight nuts, and eight insulating caps. See the installation instructions below.

③ Installation instructions are shown in Figure 3

• Busbar fixing: Put the M5 nut ( supplied with the product ) into the groove as shown in the figure below, and fix the transformer on the busbar with M5 screw .



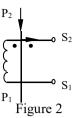


Figure 3

#### 7. Typical Applications and Performance Parameters:

When applied as shown in Figure 4, the performance parameters are shown in Table 1:

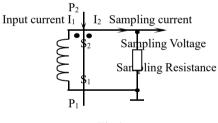




Table 1:

| Model      | Rated<br>Input<br>Current | Rated<br>Output<br>Current | Rated<br>Sampling<br>Resistance | Rated<br>Sampling<br>Voltage | Phase<br>Shift | Non-linearity | Linear<br>Range                     |
|------------|---------------------------|----------------------------|---------------------------------|------------------------------|----------------|---------------|-------------------------------------|
| TAK8050-01 | 250A                      | 5A                         | 0.1Ω                            | 0.5V                         | $\leq 60'$     | $\leq$ 1.0 %  | 1. 2 times<br>of the rated<br>value |
| TAK8050-02 | 300A                      | 5A                         | 0.1Ω                            | 0.5V                         | $\leq 60'$     | $\leq$ 1.0 %  |                                     |
| TAK8050-03 | 400A                      | 5A                         | 0.1Ω                            | 0.5V                         | $\leq 60'$     | $\leq$ 1.0 %  |                                     |
| TAK8050-04 | 500A                      | 5A                         | 0.1Ω                            | 0.5V                         | ≤ 30′          | $\leq$ 0.5 %  |                                     |
| TAK8050-05 | 600A                      | 5A                         | 0.1Ω                            | 0.5V                         | ≤ 30′          | $\leq$ 0.5 %  |                                     |
| TAK8050-06 | 750A                      | 5A                         | 0.1Ω                            | 0.5V                         | ≤ 30′          | $\leq$ 0.5 %  |                                     |
| TAK8050-07 | 800A                      | 5A                         | 0.2Ω                            | 1V                           | ≤ 30′          | $\leq$ 0.5 %  |                                     |
| TAK8050-08 | 1000A                     | 5A                         | 0.4Ω                            | 2V                           | ≤ 30′          | $\leq$ 0.5 %  |                                     |



# • Notes:

a. In practical applications, the sampling resistor should be less than or equal to the Rated value given in the table above, which will improve non-linearity and phase shift.

b. If the conversion ratio required by the user is different from the above, it can be customized according to the user's requirements.

# 8. Attention:

① Connect the primary winding of the current transformer in series with the loop of the measured current. Operate the secondary winding in a near short-circuit mode.



# TA K10050 Split Core AC Current Transformer

## 1. Features

①Vertical grommet, flexible installation;

(2) Can be equipped with various types of busbars, such as flat row, round busbar or cable;

③ The output terminals are screw-fastened and crimped standard terminals, which are convenient for wiring at the project site;

④ Opening and closing structure, closed plastic shell, beautiful appearance.

# 2. Ambient Conditions:

- (1) Operating temperature:  $-20^{\circ}C \sim +50^{\circ}C$ ;
- (2) Relative humidity:  $\leq 90\%$  at  $40^{\circ}$ C;
- (3) Atmospheric pressure:  $860 \sim 1060$  mbar

(about 650 ~ 800 mmHg).

3. Operating Frequency Range: 50Hz~ 200kHz

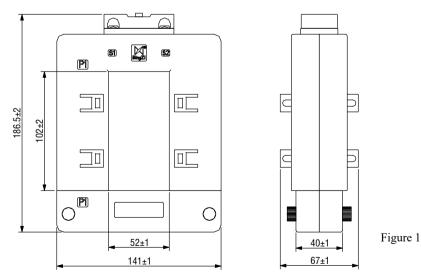
4. Insulation Thermal Class: Class B (130°C)

# 16. Safety Features:

- (1) Insulation resistance: >1000M $\Omega$  in normal condition;
- 2 Insulation withstand voltages: 6KV 50Hz/1 min;
- ③ Fire retardancy: In conformity with UL94-V0.

# 6. Outline Drawing, Installation Dimension and Coil Diagram:

(1) The outline drawing and installation dimension are shown in Figure 1





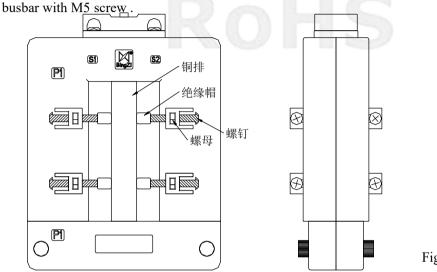


2 The coil diagram is shown in Figure 2 on the right

• Description: Each product is supplied with eight fixing busbar screws, eight nuts, and eight insulating caps. See the installation instructions below.

③ Installation instructions are shown in Figure 3

• Busbar fixing: Put the M5 nut ( supplied with the product ) into the groove as shown in the figure below, and fix the transformer on the



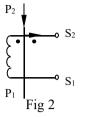
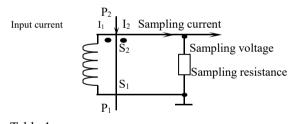


Figure 3

# 7. Typical Applications and Performance Parameters:

When applied as shown in Figure 4, the performance parameters are shown in Table 1:



| Table 1:    |                           |                            | Fig4                           |                              |                |                   |                 |
|-------------|---------------------------|----------------------------|--------------------------------|------------------------------|----------------|-------------------|-----------------|
| Model       | Rated<br>Input<br>Current | Rated<br>Output<br>Current | Rated<br>Sampling<br>Resistanc | Rated<br>Sampling<br>Voltage | Phase<br>Shift | Non-line<br>arity | Linear<br>Range |
| TAK10050-01 | 500A                      | 5A                         | 0.1Ω                           | 0.5V                         | ≤ 30′          | $\leq 0.5$ %      |                 |
| TAK10050-02 | 600A                      | 5A                         | 0.2Ω                           | 1V                           | ≤ 30′          | $\leq 0.5$ %      |                 |
| TAK10050-03 | 750A                      | 5A                         | 0.2Ω                           | 1V                           | ≤ 30′          | $\leq 0.5$ %      | 1. 2 times      |
| TAK10050-04 | 800A                      | 5A                         | 0.2Ω                           | 1.0V                         | $\leq 30'$     | $\leq 0.5$ %      | of the          |
| TAK10050-05 | 1000A                     | 5A                         | $0.4\Omega$                    | 2V                           | ≤ 30′          | $\leq 0.5 \%$     | rated           |
| TAK10050-06 | 1200A                     | 5A                         | 0.6Ω                           | 3V                           | ≤ 30′          | $\leq 0.5$ %      | value           |
| TAK10050-07 | 1250A                     | 5A                         | $0.6\Omega$                    | 3V                           | ≤ 30′          | $\leq 0.5 \%$     |                 |
| TAK10050-08 | 1500A                     | 5A                         | 1Ω                             | 5.0V                         | ≤ 30′          | $\leq 0.5$ %      |                 |



# • Notes:

a. In practical applications, the sampling resistor should be less than or equal to the Rated value given in the table above, which will improve non-linearity and phase shift.

b. If the conversion ratio required by the user is different from the above, it can be customized according to the user's requirements.

# 8. Attention:

① Connect the primary winding of the current transformer in series with the loop of the measured current. Operate the secondary winding in a near short-circuit mode.