

STA1218 Series Three-phase Current Transformer

LI144V2/2016

1. Features:

- ① Fully enclosed, good environmental resistance, strong insulation and isolation capabilities, moisture-proof and shock-proof, and beautiful appearance;
- ② Different colors of the secondary lead wires of the current transformer facilitate the distinction of terminals with the same name;
- ③ The use of combined transformers saves more space in the table than the same number of single transformers .

2. Ambient Conditions:

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

3. Operating Frequency Range : 20Hz~1kHz

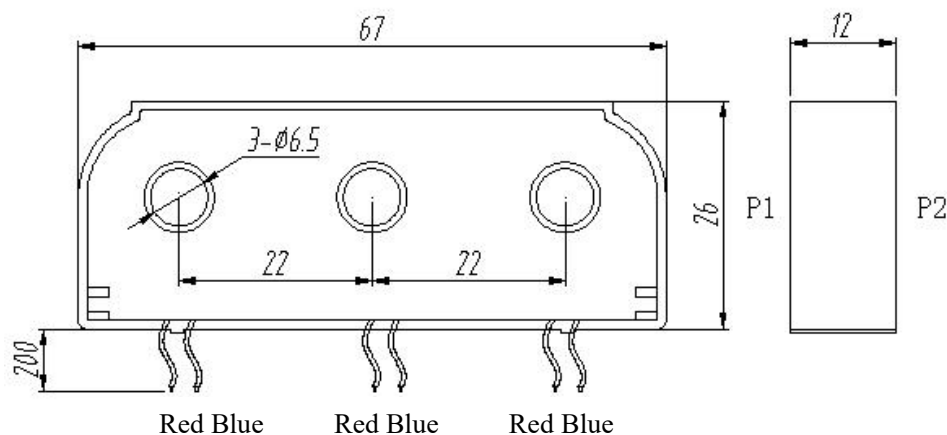
4. Insulation Thermal Class: Class B (130°C)

5. Safety Features:

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

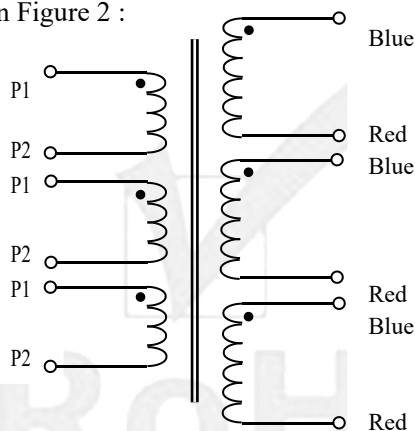
6. Outline Drawing, Installation Dimension and Coil Diagram: (tolerance $\pm 0.5\text{mm}$)

- ① Outline drawing and installation dimensions are shown in Figure 1 :



- Note: The lengths of both the input and output leads can be customized according to customer requirements.

② The coil diagram is shown in Figure 2 :



7. Performance Parameters:

Fig 2

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

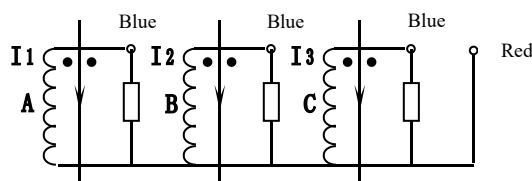


Fig 3

Model	Rated Input Current	Rated Output Current	Rated Sampling Resistance	Rated Sampling Voltage	Phase Shift	Non-linearity	Linear Range
STA1218-01M	10A	10mA	150Ω	1.5V	≤25'	≤0.2%	≥2 times of the rated value
STA1218-02M	20A	10mA	300Ω	3.0V	≤20'	≤0.2%	≥2 times of the rated value
STA1218-03M	30A	10mA	450Ω	4.5V	≤15'	≤0.2%	≥2 times of the rated value

• Notes:

- In practical applications, the sampling resistance should be less than or equal to the rated value given in the above table, which will improve the nonlinearity and phase shift;
- 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:

- Connect the primary winding of the current transformer in series in the circuit under test. Operate the secondary winding approximately in a short-circuit state.
- Do not allow the secondary circuit of the current transformer to be open-circuited. Do not install any fuses in the secondary circuit.

STA1318 Series Three-phase Current Transformer for Watt-hour Meter

LI145V2/2016

1. Features:

- ① Fully enclosed, good environmental resistance, strong insulation and isolation capabilities, moisture-proof and shock-proof, and beautiful appearance;
- ② Different colors of the secondary lead wires of the current transformer facilitate the distinction of terminals with the same name;
- ③ The use of combined transformers saves more space in the table than the same number of single transformers;
- ④ The three-phase three-wire circuit adopts two-in-one, and the three-phase four-wire circuit adopts three-in-one .

2. Ambient Conditions:

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

3. Operating Frequency Range: $20\text{Hz} \sim 1\text{kHz}$

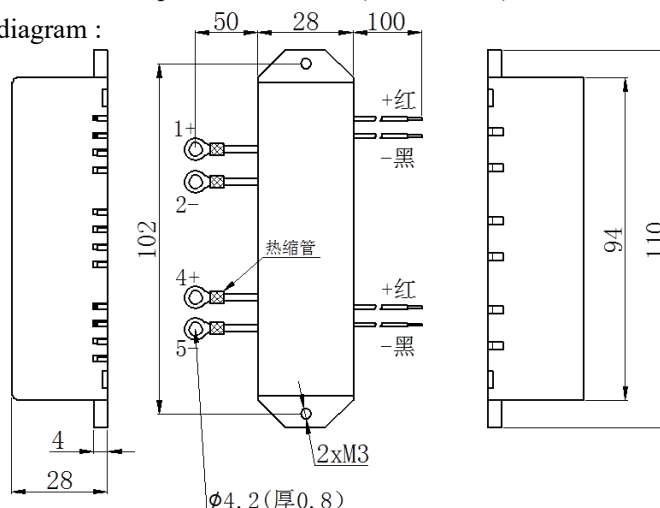
4. Insulation Thermal Class: Class B (130°C)

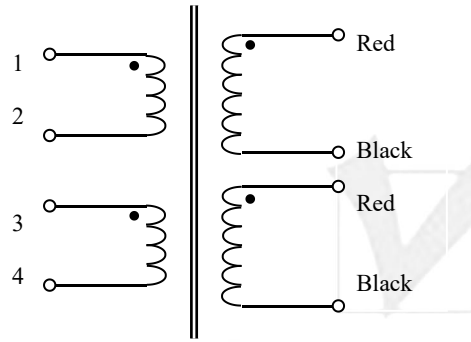
5. Safety Features:

- ① Insulation resistance: $>1000\text{M}\Omega$ in normal condition;
- ② Insulation withstand voltages: 2.5KV $50\text{Hz}/1\text{min}$.
- ③ Fire retardancy: In conformity with UL94-V0.

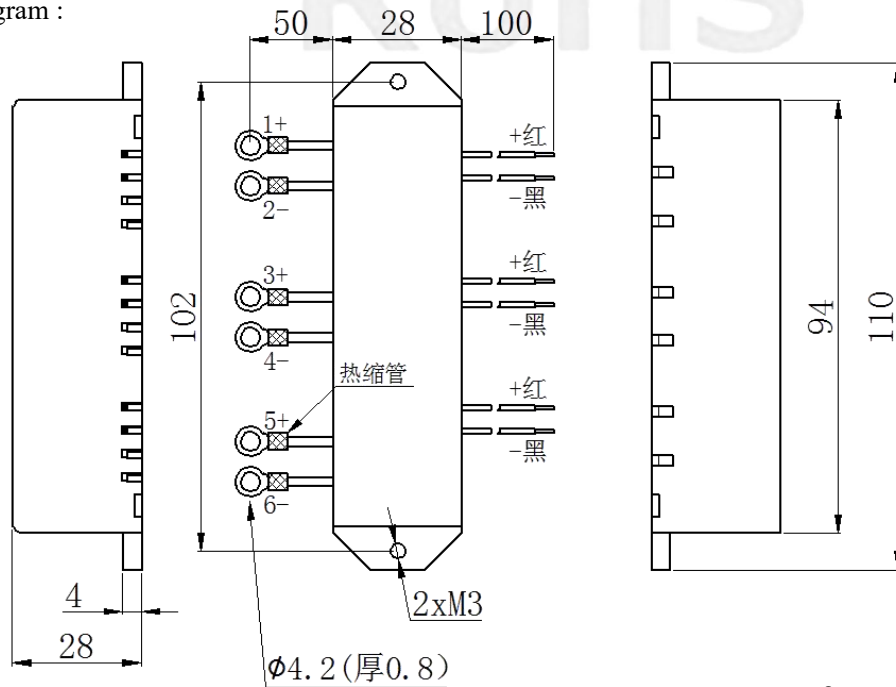
6. Outline Drawing, Installation Dimension and Coil Diagram: (tolerance $\pm 1\text{mm}$)

- ① Applicable to three-phase three-wire (STA 1318A) outline drawing, installation dimension and coil diagram :





② Applicable to three-phase four-wire (STA1318B) outline drawing, installation size and coil diagram :



• Note: The lengths of both the input and output leads can be customized according to customer requirements.

7. Performance Parameters:

Model	Rated Input Current	Rated Output Current	Maximum Input Current	Rated Sampling Resistance	Rated Sampling Voltage	Phase Shift	Non-linearity	Linear Range
STA 1318A-1M (applicable to three-phase three-wire)	0.5A	5mA	2A	5Ω	25mV	≤ 5'	≤ 0.1 %	≥ 3 times of the rated value
				10Ω	50mV	≤ 5'	≤ 0.1 %	
				20Ω	100mV	≤ 10	≤ 0.2 %	
				40Ω	200mV	≤ 10	≤ 0.5 %	
STA 1318A-2M (applicable to three-phase three-wire)	1.5A	5mA	6A	5Ω	25mV	≤ 5'	≤ 0.1 %	≥ 3 times of the rated value
				10Ω	50mV	≤ 5'	≤ 0.1 %	
				20Ω	100mV	≤ 10	≤ 0.2 %	
				40Ω	200mV	≤ 10	≤ 0.5 %	
STA1318B-1M (applicable to three-phase four-wire)	1.5A	7.5 mA	6A	5Ω	37.5mV	≤ 5'	≤ 0.1 %	≥ 3 times of the rated value
				10Ω	70mV	≤ 5'	≤ 0.1 %	
				20Ω	150mV	≤ 10	≤ 0.2 %	
				40Ω	300mV	≤ 10	≤ 0.5 %	
STA1318B-2M (applicable to three-phase four-wire)	5A	5mA	20A	5Ω	25mV	≤ 5'	≤ 0.1 %	≥ 3 times of the rated value
				10Ω	50mV	≤ 5'	≤ 0.1 %	
				20Ω	100mV	≤ 10	≤ 0.2 %	
				40Ω	200mV	≤ 10	≤ 0.5 %	

● Notes:

- In practical applications, the sampling resistance should be less than or equal to the rated value given in the above table, which will improve the nonlinearity and phase shift;
- 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 in the circuit under test. Operate the secondary winding approximately in a short-circuit state.
- ② Do not allow the secondary circuit of the current transformer to be open-circuited. Do not install any fuses in the secondary circuit.

STA1724 Series Vertical Core Type Three-phase Current Transformer

LI060V3/2010

1. Features:

- ① Vertical pass-through design allows flexible installation, can be fixed on busbar or baseplate;
- ② Different secondary lead wire colors for easy identification of same-name terminal and three phases;
- ③ Fully enclosed structure with epoxy potting provides excellent environmental resistance, strong insulation isolation, moisture proofing and vibration resistance, as well as aesthetic appearance.

2. Ambient Conditions:

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

3. Operating Frequency Range: 20Hz~1kHz

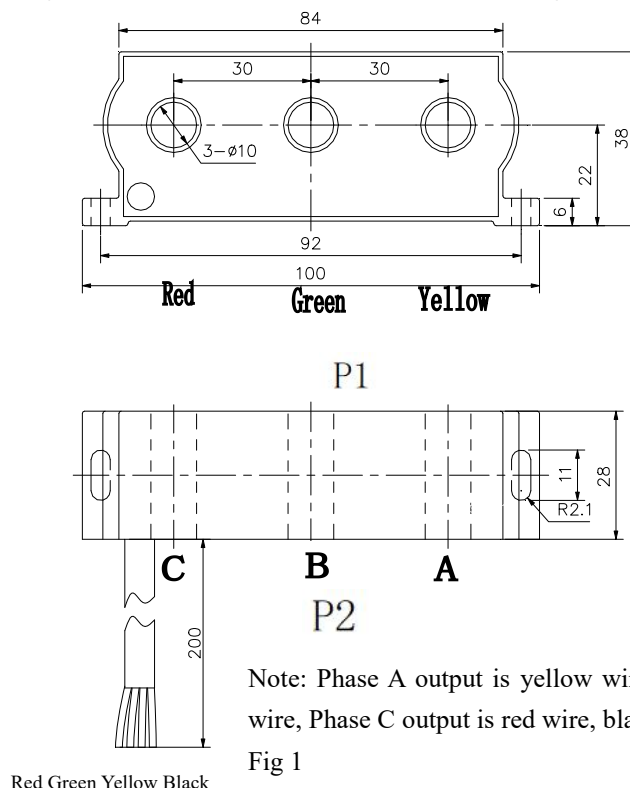
4. Insulation Thermal Class: Class B (130°C)

5. Safety Features:

- ① Insulation resistance: $>1000\text{M}\Omega$ in normal condition;
- ② Insulation withstand voltages: 6KV $50\text{Hz}/1\text{min}$.
- ③ Fire retardancy: In conformity with UL94-V0 .
- ④ Overload characteristics: the transformer can operate continuously at 5 times the rated current; can operate for 10 minutes at 10 times the rated current.

6. Outline Drawing, Installation Dimension and Coil Diagram: (tolerance $\pm 1\text{mm}$)

- ① Outline drawing and installation dimensions are shown in Figure 1:



Note: Phase A output is yellow wire, Phase B output is green wire, Phase C output is red wire, black wire is common wire.

Fig 1

② The coil diagram is shown in Figure2:

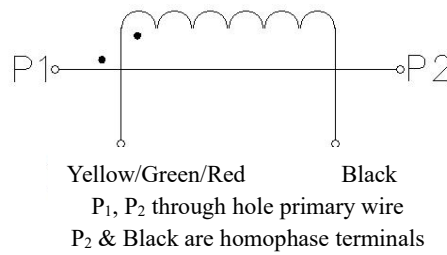


Fig 2

7. Performance Parameters:

Performance parameters when applied as shown in Figure 3 are listed in the table below:

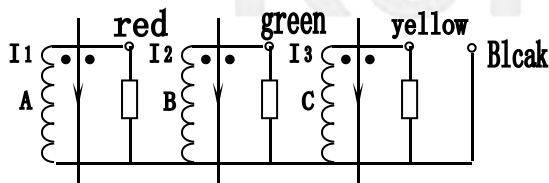


Fig 3

Model	Rated Input Current	Rated Output Current	Rated Sampling Resistance	Rated Sampling Voltage	Non-linearity	Phase Shift	
STA1724-01M	1A	1mA	500 Ω	0.5V	≤0.25%	≤30°	
STA1724-02M	10A	10 mA	50 Ω				
STA1724-03M	20A	20 mA	25 Ω		≤0.5%		
STA1724-04	50A	50 mA	10 Ω				

8. Attention:

- ① Connect the primary winding of the current transformer in series in the circuit under test. Operate the secondary winding approximately in a short-circuit state.
- ② Do not allow the secondary circuit of the current transformer to be open-circuited. Do not install any fuses in the secondary circuit.

STA2328 Series Vertical Core Type Three-phase Current Converter

LI060V3/2010

1. Features:

- ① Vertical pass-through design for easy installation;
- ② Equipped with standard terminal block for convenient wiring;
- ③ Epoxy potting provides strong vibration resistance and aesthetic appearance.

2. Ambient Conditions:

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

3. Operating Frequency Range: 20Hz~1kHz

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

5. Safety Features:

- ① Insulation resistance: $>1000\text{M}\Omega$ in normal condition;
- ② Insulation withstand voltages: 3KV $50\text{Hz}/1\text{min}$.
- ③ Fire retardancy: In conformity with UL94-V0 .
- ④ Overload characteristics: the transformer can operate continuously at 5 times the rated current; can operate for 10 minutes at 10 times the rated current.

6. Outline Drawing, Installation Dimension and Coil Diagram: (tolerance $\pm 1\text{mm}$)

- ① Outline drawing and installation dimensions are shown in Figure 1:

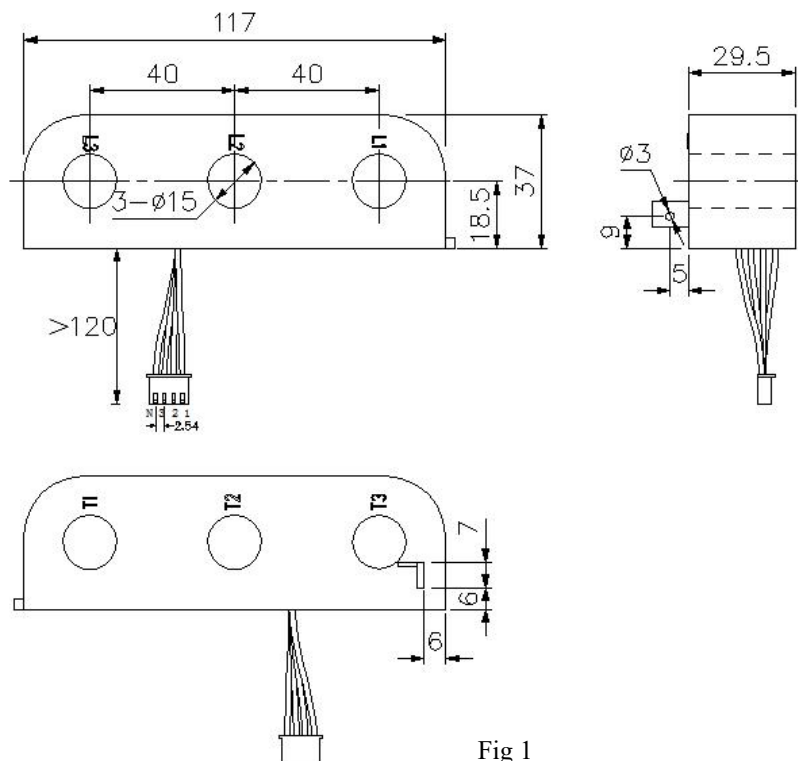
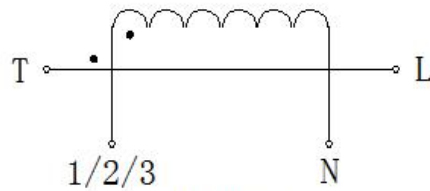


Fig 1

② The coil diagram is shown in Figure2:



T-L through hole primary wire
L& N are homophase terminals

Fig 2

7. Performance Parameters:

Performance parameters when applied as shown in Figure 3 are listed in the table below:

Model	Rated Input Current	Rated Output Current	Non-linearity
STA2328-01	5A	0.707V	≤0.5%
STA2328-02	10A		
STA2328-03	30A		
STA2328-04	50A		

8. Attention:

- ① Connect the primary winding of the current transformer in series in the circuit under test. Operate the secondary winding approximately in a short-circuit state.
- ② Do not allow the secondary circuit of the current transformer to be open-circuited. Do not install any fuses in the secondary circuit.

STA3137 Series Vertical Core Box Type Three-phase Current Transformer

LI 187 V 1/20 16

1. Features:

- ① Vertical core, flexible installation, can be fixed on the busbar or on the bottom plate;
- ② The perforation of the busbar is circular;
- ③ The output terminal is a standard socket, and a matching plug is supplied, which is easy to use.
- ④ Box structure, closed plastic case, beautiful appearance.

2. Ambient Conditions:

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

3. Operating Frequency Range: $20\text{Hz} \sim 1\text{kHz}$

4. Insulation Thermal Class: 80°C

5. Safety Features:

- ① Insulation resistance: $>1000\text{M}\Omega$ in normal condition;
- ② Insulation withstand voltages: $4\text{KV } 50\text{Hz}/1\text{min}$;
- ③ Fire retardancy: In conformity with UL94-V0 .

6. Outline Drawing, Installation Dimension and Coil Diagram: (tolerance $\pm 0.5\text{mm}$)

- ① Outline drawing and installation dimensions are shown in Figure 1 :

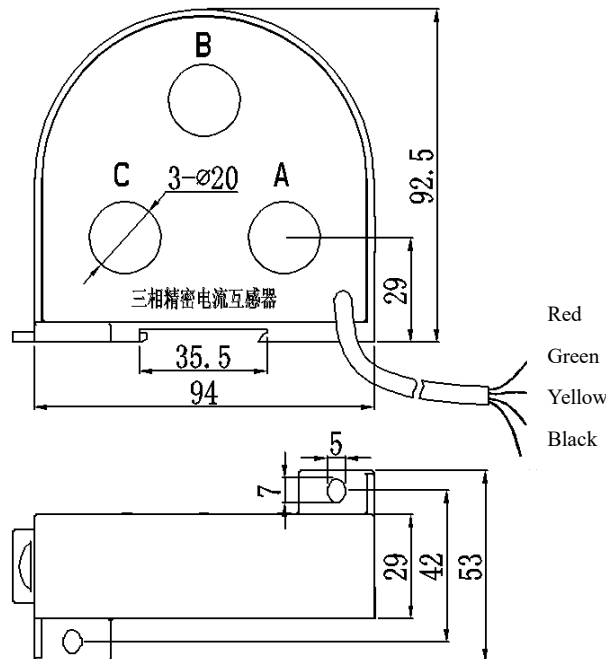


Figure 1

- Note: Each product is provided with a plug, see the installation instructions below.

② The coil diagram is shown in Figure 2:

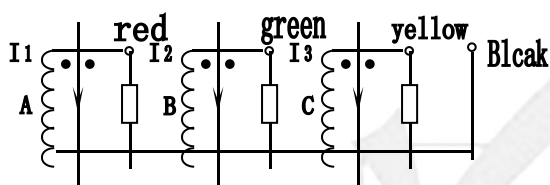


Figure 2

7. Performance Parameters:

See the table below for performance parameters when applied as shown in Figure 2:

Model	Applicable Rated Current	Parameter	Phase Shift	Non-linearity
STA 3137-01	$20A < I_e \leq 80A$	800A/1.1V	$\leq 60'$	$\leq 0.5 \%$
STA 3137-02	$I_e \leq 2A$	20A/1.1V		
STA 3137-03	$2A \leq I_e \leq 5A$	50A/1.1V		
STA 3137-04	$5A \leq I_e \leq 20A$	200A/1.1V		
STA 3137-05	$I_e > 200A$	20A/1.1V		
STA 3137-06	$I_e > 200A$	50A/1.1V		

8. Attention:

- ① Connect the primary winding of the current transformer in series in the circuit under test. Operate the secondary winding approximately in a short-circuit state.
- ② Do not allow the secondary circuit of the current transformer to be open-circuited. Do not install any fuses in the secondary circuit.

STA3340 Series Box-type Three-phase Current Transformers for Protection

LI060V1/2008-EN

1. Features:

- ① Flexible in installation modes: can be fixed on either the primary wire or the bottom board.
- ② Three round through holes for primary wires in a '品' configuration.
- ③ Output terminal is a standard socket with a plug, making it easy to use.
- ④ Box structure, encapsulated by a plastic shell, has a sleek design.

2. Ambient Conditions:

- ① Ambient temperature: $-55^{\circ}\text{C} \sim +55^{\circ}\text{C}$;
- ② Relative humidity: $\leq 90\%$ at 40°C ;
- ③ Atmospheric pressure: $860 \sim 1060\text{mbar}$ (about $650 \sim 800\text{mmHg}$);

3. Operating Frequency Range: $20\text{Hz} \sim 1\text{kHz}$

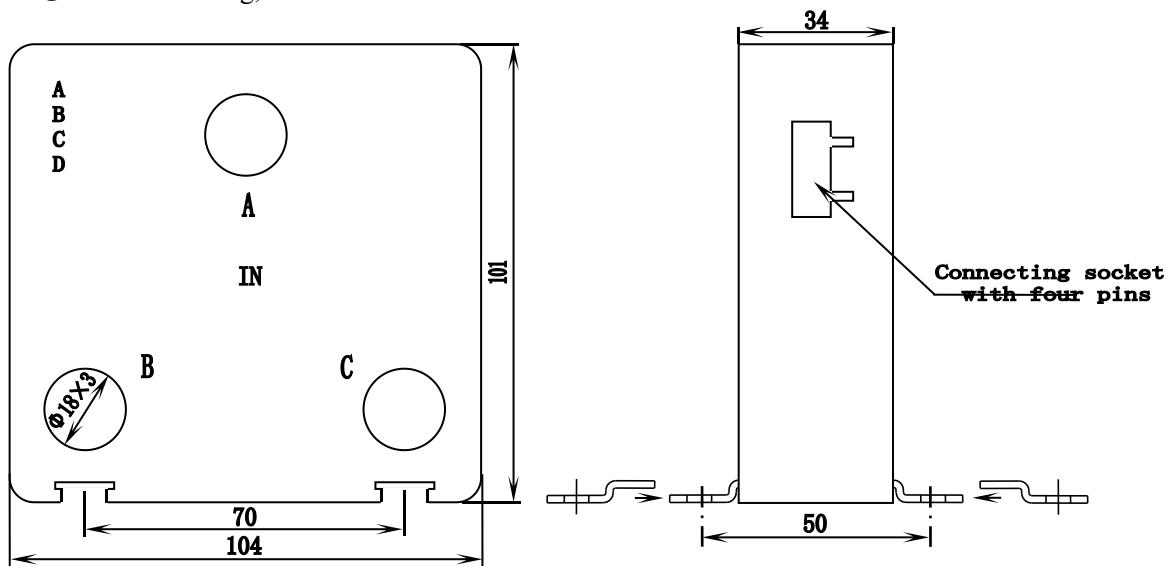
4. Insulation Rating: Class A (80°C)

5. Safety Features:

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

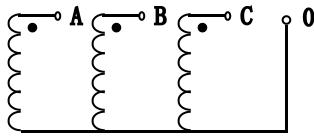
6. Outline Drawing, Installation Dimension and Coil Diagram: (tolerance $\pm 0.5\text{mm}$)

① Outline Drawing, Installation Dimension



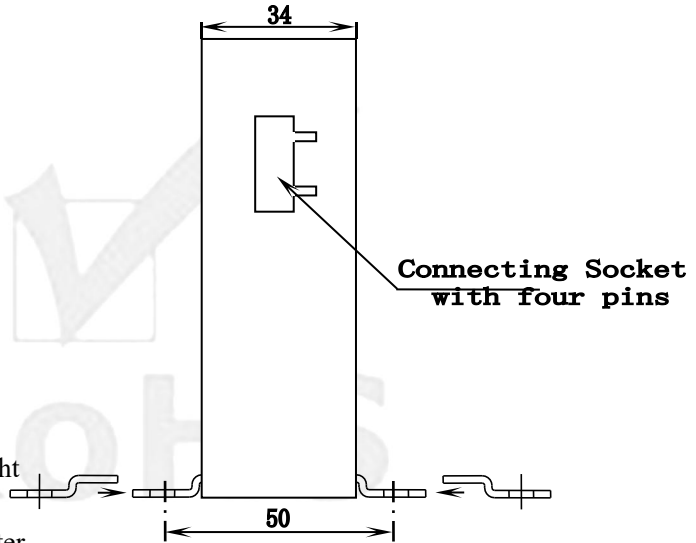
- Remark: Provide with a plug along with each product. As to installation instruction, please see the following page.

② Coil Diagram



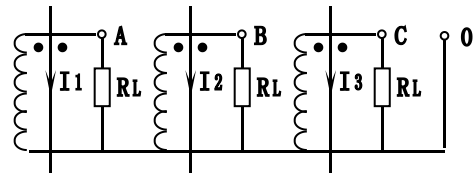
③ Installation instruction:

Take four support legs (included in package along with the product), insert them into the sockets as shown in the right figure. The center distance between the mounting holes is 50.0×71.0; The diameter of the mounting hole for the support leg is $\Phi 5.0$, and then use M4 screw to fix the current transformer on the bottom board.



7. Typical Application and Parameters:

The parameters in the application as shown in the right figure are listed in table below.



Model	Rated Input Current	Rated Output Current	Rated Sampling Resistance	Rated Sampling Voltage	Phase Shift	Non-Linearity	Linear Range	Withstand Voltage
STA3340-01	3 Φ -10A	3 Φ -1mA	3 Φ -200 Ω /Y 0	3 Φ -200mV/p hase	$\leq 60'$	$\leq 1\%$	12.5 times of rated value	$\geq 4KV$
STA3340-02	3 Φ -25A	3 Φ -1mA						
STA3340-03	3 Φ -50A	3 Φ -1mA						
STA3340-04	3 Φ -100A	3 Φ -1mA						

STA4046 Series Vertical Core Box Type Three-phase Current Transformer

LI188 V1/2016

1. Features:

- ① Vertical core, flexible installation, can be fixed on the busbar or on the bottom plate;
- ② The perforation of the busbar is circular and arranged in the shape of "pin";
- ③ The output is a four-core shielded wire, and the length of the lead can be customized ;
- ④ Box structure, closed plastic case, beautiful appearance.

2. Ambient Conditions:

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

3. Operating Frequency Range : 20Hz~1kHz

4. Insulation Thermal Class: 80 °C

5. Safety Features:

- ① Insulation resistance: $>1000\text{M}\Omega$ in normal condition;
- ② Insulation withstand voltages: 4KV $50\text{Hz}/1\text{min}$.
- ③ Fire retardancy: In conformity with UL94-V0 .

6. Outline Drawing, Installation Dimension and

Coil Drawing:(tolerance $\pm 0.5\text{ mm}$)

- ① Outline drawing and installation

Dimensions are shown in Figure 1 :

- Note: Each product is provided with a plug, see the installation instructions below.

- ② The coil diagram is shown in Figure 2 :

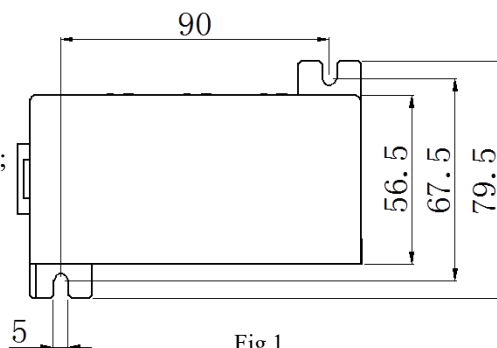
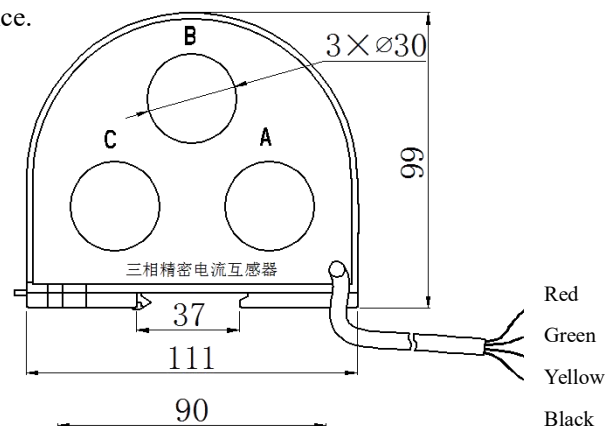


Fig 1

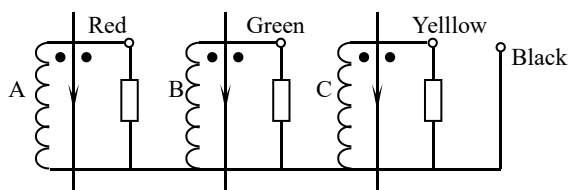


Fig 2

7. Performance Parameters:

See the table below for performance parameters when applied as shown in Figure 2:

Model	Applicable Rated Current	Parameter	Phase Shift	Non-linearity
STA 4046-01	$20\text{A} < I_e \leq 200\text{A}$	$2000\text{A}/1.1\text{V}$	$\leq 60'$	$\leq 0.5\%$

STA4249 Series Vertical Core Type Three-phase Current Transformer

LI060V3/2019

1. Features:

- ① Vertical pass-through design allows flexible installation, can be fixed on busbar or baseplate;
- ② Different secondary lead wire colors for easy identification of same-name terminal and three phases;
- ③ Epoxy potting provides strong vibration resistance and aesthetic appearance.

2. Ambient Conditions:

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

3. Operating Frequency Range: 20Hz~1kHz

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

5. Safety Features:

- ① Insulation resistance: $>1000\text{M}\Omega$ in normal condition;
- ② Insulation withstand voltages: $3\text{KV } 50\text{Hz}/1\text{min}$.
- ③ Fire retardancy: In conformity with UL94-V0.
- ④ Overload characteristics: the transformer can operate continuously at 5 times the rated current; can operate for 10 minutes at 10 times the rated current.

6. Outline Drawing, Installation Dimension and Coil Diagram: (tolerance $\pm 1\text{mm}$)

- ① Outline drawing and installation Dimensions are shown in Figure 1 :

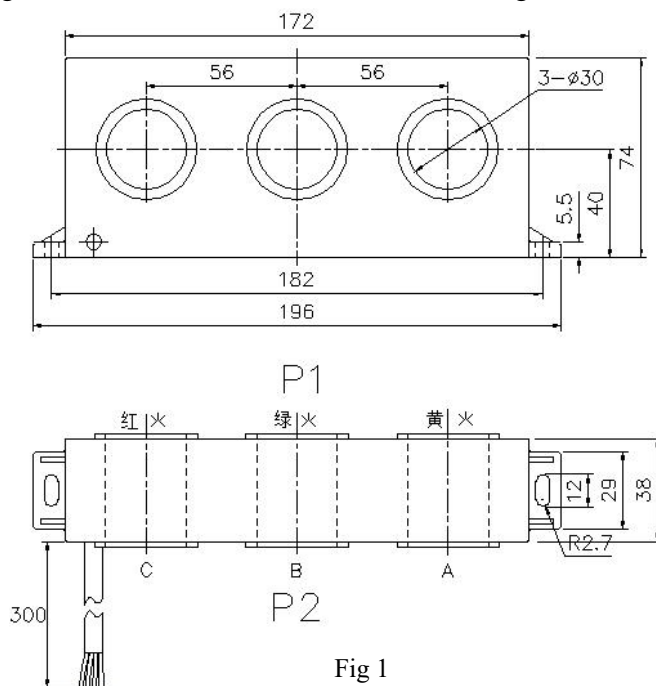
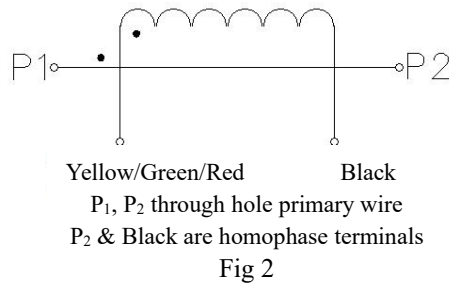


Fig 1

Red Green Yellow Black

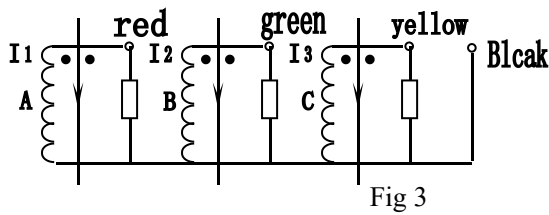
Note: Phase A output is yellow wire, Phase B output is green wire, Phase C output is red wire, black wire is common wire.

② The coil diagram is shown in Figure2:



7. Performance Parameters:

Performance parameters when applied as shown in Figure 3 are listed in the table below:



Model	Rated Input Current	Rated Output Current	Rated Sampling Resistance	Rated Sampling Voltage	Non-linearity	Phase Shift
STA4249-01	100A	100mA	5 Ω	0.5V	≤0.5%	≤30'
STA4249-02	200A	100mA				

8. Attention:

- ① Connect the primary winding of the current transformer in series in the circuit under test. Operate the secondary winding approximately in a short-circuit state.
- ② Do not allow the secondary circuit of the current transformer to be open-circuited. Do not install any fuses in the secondary circuit.