

### LZCG530-10

# HIGH PRECISION 0.2S 100/5A 20KV MEDIUM VOLTAGE CURRENT TRANSFORMER

The Model LZCG530-10 series straight-through ct is a ring type resin casting current transformer. It is suitable for current measurement and microcomputer protection of electrical equipment in 10KV and 35KV AC power system. It is widely used in not only compact fully insulated ring network switchgears such as ABB-Safe Ring/Safe Plus, Unstitch, Schneider RM6, SM6, Siemens 8DJ10/8DH10, Simosec, FBX, Fluokit, Omar Garbo GA, GAE; SEL TPS(Q); VEI Unifluorc; Eaton SVS/12 ring network, but also cable distribution boxes because of its small size, light weight, operable and convenient installation. It is very convenient that the transformer can be directly installed at the inlet and outlet cables.

New magnetic material is taken to be the core of the current transformer, which has high magnetic permeability, low saturation magnetization and good stability. Therefore, the measuring accuracy is higher and the instrument security factor is lower. Since the high quality silicon processed by advanced technology is taken to be the core of the protection windings, which assured the accuracy limit factor is higher. The semicircular ring core and secondary windings are vacuum poured by high quality epoxide resin in the fire retardant plastic casing, which has the characteristic of moisture proof, stable performance and dispensing with maintenance. Small size, light weight, small footprint, fixed in the ring network switchgear cable. The cable can cross the current transformer through its internal poles quickly and uniformly.



The Cast Resin Straight-Through Current Transformer can be divided several kinds according to the various current ratio, accuracy and rated loads. The specific parameters are showed in the corresponding to each model parameter tables.

All of our current transformers are strictly comply IEC60044-1, IEC 61869-2, NTC 2205, GB1208-2006, ANSI/IEEE C57.13.

#### **Appliations**

- 1. Measuring instrument;
- 4. Current load monitoring;
- 7. Low voltage metering system;
- 10. Distribution Power transformer monitor system;
- 2. MV switchgears;
- 6
- Distribution boxes;
- 6. Energy meter;

3. Meter tester:

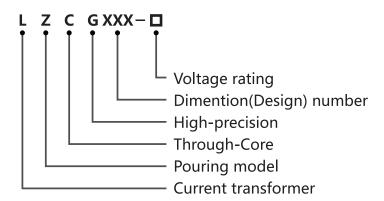
- 8. Power Quality meter;
- 9. Power Meter;
- 11. Ring network cabinet;



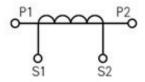
#### **Features**

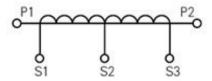
- 1. Measurement range 0-1000A AC;
- 2. Secondary windings are vacuum poured by insulated resin;
- 3. 100/5A, 200/5A, 300/5A, 400/5A, 500/5A, 600/5A, 750/5A, 800/5A, 1000/5A;
- 4. High precision 0.2s, 0.2%, 0.5%;
- 5. Protection class 5P20, 5P10, 10P10, 10P5;
- 6. Holding wire diameter: φ45mm;
- 7. Size: \$\phi45x\phi120x65;\$
- 8. High magnetic conductivity silicon steel material;
- 9. IEC60044-1, IEC 61869-2, , NTC 2205, GB1208-2006, ANSI/IEEE C57.13;
- 10. Using life more than 20 years;
- 11. Easily installation, with mounting bracket;
- 12. Support Dual Ratio;

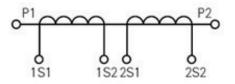
## **Model meaning**



#### **Wiring Diagrams**







Single winding

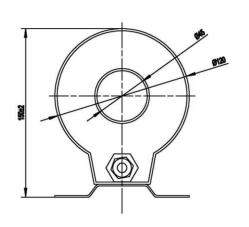
Secondary winding with tap

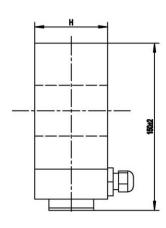
Double winding

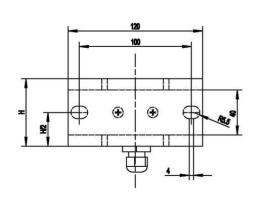
- P1, P2 is primary polarity terminal, S1, S2 is secondary polarity terminal.
- P2, S2 is homonymous terminals (subtractive polarity).



## **Outline drawing**







#### **Parameters**

| Technical parameters                      |   |  |  |
|---|---|--|--|
| Standards                                 | IEC60044-1; IEC 61869-2; NTC 2205; ANSI/IEEE C57.13; GB1206-2006;   |  |  |
| Accuracy Class                            | 0.2S, 0.2, 0.5S, 0.5 (IEC60044-1 standard)  |  |  |
| Rated primary current                     | 30-1000A  |  |  |
| Rated load                                | ≤20VA   |  |  |
| Rated frequency                           | 50Hz or 60Hz  |  |  |
| Rated secondary current                   | 5A or 1A  |  |  |
| Ratio                                     | 100/5A, 150/5A, 200/5A, 300/5A, 400/5A, 500/5A1000/5A   |  |  |
| Rated short-time thermal current          | 40kA, 1S  |  |  |
| Rated continuous thermal current          | 120%I1n   |  |  |
| Secondary winding power-frequency voltage | 3kV, 1min   |  |  |
| Instrument security factor                | FS ≤10  |  |  |
| Insulation Class                          | E   |  |  |
| Material                                  | polyurethane +Silicon steel sheets+Enameled wire+ABS  |  |  |
| Mechanical parameters                     |   |  |  |
| Dimensions (W×D×H) (mm)                   | φ45xφ120x65   |  |  |
| Jaw cable diameter(mm)                    | 45  |  |  |
| Weight (kg)                               | 2.1   |  |  |
| Operating conditions                      |   |  |  |
| Operating temperature                     | -40°C to +70°C  |  |  |
| Daily average temp                        | <+40°C  |  |  |
| Storage temperature                       | -40°C to +70°C  |  |  |
| Altitude                                  | <3500 meters  |  |  |
| Condition                                 | No existence of severely begrimed, erosive and radioactive gas in the air. Permission of long-term operation under rated current. |  |  |



## **Technical Data**

| Туре                        | LZCG530-10                                  |      |       |       |  |  |
|-----------------------------|---|------|-------|-------|--|--|
| Purpose                     | Measuring current transformer               |      |       |       |  |  |
| Rated primary current (AMP) | Accuracy class and rated load(VA)           |      |       |       |  |  |
|                             | 0.2S  | 0.2  | 0.5S  | 0.5   |  |  |
| 50                          | 2.5   | 2.5  | 5     | 5     |  |  |
| 100                         | 2.5   | 5    | 7.5   | 7.5   |  |  |
| 150                         | 5   | 7.5  | 10    | 10    |  |  |
| 200                         | 7.5   | 10   | 15    | 15    |  |  |
| 300                         | 10  | 15   | 15    | 15    |  |  |
| 400                         | 15  | 15   | 15    | 15    |  |  |
| 500                         | 20  | 20   | 20    | 20    |  |  |
| 600                         | 20  | 20   | 20    | 20    |  |  |
| 750                         | 20  | 20   | 20    | 20    |  |  |
| 800                         | 20  | 20   | 20    | 20    |  |  |
| 1000                        | 20  | 20   | 20    | 20    |  |  |
| Purpose                     | Protection current transformer              |      |       |       |  |  |
| Rated primary current       | Accuracy class and rated load(VA)           |      |       |       |  |  |
| (AMP)                       | 5P20  | 5P10 | 10P15 | 10P10 |  |  |
| 30                          | 1   | 1    | 1     | 1     |  |  |
| 40                          | 1   | 1    | 1     | 1     |  |  |
| 50                          | 2   | 2    | 2     | 2     |  |  |
| 75                          | 2   | 2    | 2     | 2     |  |  |
| 100                         | 2.5   | 2.5  | 2.5   | 2.5   |  |  |
| 150                         | 2.5   | 2.5  | 2.5   | 2.5   |  |  |
| 200                         | 5   | 5    | 5     | 5     |  |  |
| 300                         | 5   | 5    | 5     | 5     |  |  |
| 400                         | 7.5   | 7.5  | 7.5   | 7.5   |  |  |
| 500                         | 10  | 10   | 10    | 10    |  |  |
| 600                         | 10  | 15   | 15    | 15    |  |  |
| Purpose                     | Double winding current transformer          |      |       |       |  |  |
| Rated primary current       | Composite accuracy class and rated load(VA) |      |       |       |  |  |
| (AMP)                       | <b>0.2</b> S                                | 0.5  | 10P15 | 10P10 |  |  |
| 100                         | 2.5   | 2.5  | 2     | 2     |  |  |
| 150                         | 2.5   | 3.75 | 2     | 2.5   |  |  |
| 200                         | 5   | 7.5  | 2.5   | 3.75  |  |  |
| 300                         | 7.5   | 10   | 2.5   | 5     |  |  |
| 400                         | 10  | 12.5 | 3.75  | 5     |  |  |
| 500                         | 15  | 15   | 3.75  | 5     |  |  |
| 600                         | 15  | 20   | 3.75  | 7.5   |  |  |





#### **Selection Guide**

| Model       | Primary rated current | Rated load | Aperture (mm)  | Description<br>(mm) | Weight<br>(kg) |
|-------------|-----------------------|------------|----------------|---------------------|----------------|
| LZCK310-10  | 300-1000A             | ≤10VA      | ф50            | ф50 х ф110 х 32     | 1              |
| LZCK322-10  | 30-1000A              | ≤10VA      | ф50            | ф50 х ф110 х 52     | 1.6            |
| LZCK350-10  | 30-1000A              | ≤25VA      | ф50            | ф50 х ф110 х 105    | 3.1            |
| LZCK720-10  | 30-1000A              | ≤25VA      | ф80            | ф80 х ф110 х 50     | 2.1            |
| LZCK2500-10 | 30-3000A              | ≤30VA      | ф120, 140, 160 | ф120 х ф185 х 100   | 7              |
| LZCG530-10  | 30-1000A              | ≤20VA      | ф45            | ф45 х ф120 х 65     | 2.1            |
| LZCG930-10  | 30-1500A              | ≤25VA      | ф60            | ф60 х ф155 х 60     | 3.6            |
| LZCT722-10  | 30-1500A              | ≤10VA      | ф82            | ф82 х ф130 х 55     | 2.3            |
| LZCG2500-10 | 30-3000A              | ≤30VA      | ф120, 140, 160 | ф120 х ф185 х 100   | 7              |