

## FU160

### 100A-6000A RECTANGLE BUSBAR TYPE SPLIT CORE CURRENT TRANSFORMER

The Model FU160 is a bus bar split core current transformer. Busbar Type Split Core Current Transformer also called Split Core Current Transformer or Openable current Transformer. It mainly applies for electric system renovation project with easy installation, no need to remove primary busbar, can also operate when power on without affect clients, normal electricity utilization. It can help clients renovate projects and improve efficiency to save human, material and financial resources. This series can apply with relay tester, measuring and metering devices.

All of our split core current transformers are strictly comply IEC60044-1, IEC 61869-2, ANSI/IEEE C57.13, NTC 2205, GB1208-2006, GB/T 20840.1-2010, GB/T 20840.2-2014, GB/T 22071.1-2018.

### Applications

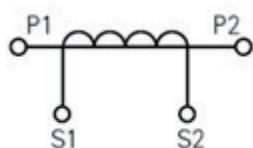
1. Load Center;
2. Energy meter;
3. Power Meter;
4. MV switchgears;
5. Distribution boxes
6. Digital Fault Recorders;
7. Three Phase Balance Control;
8. Power quality analyzer meter;
9. Smart Grid Application Features;
10. Various power monitoring systems;
11. In-Factory Display In-Home Display;
12. Energy meter current measurement;
13. Power Measurement Device For PLC;
14. Sub-Metering Accurate Measurement;
15. Inverters for Solar & Wind Turbine Systems;
16. HEMS (Home Energy Management System);
17. BEMS (Building Energy Management System);
18. Data Loggers to analyze Building & Machinery Performance;



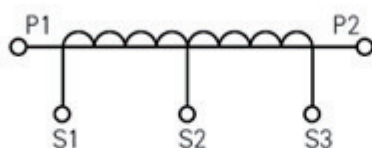
## Features

1. Ratio could be customized;
2. Bus bar type split core design;
3. Measurement range 0-6000A AC;
4. High precision 0.2%, 0.5s, 0.5%,1%;
5. Easy install or remove with electricity;
6. Secondary output 5A, 1A, 333mV, 1V, 2V, 5V....;
7. Various size to meet different busbar installation;
8. Holding wire Size:120×50, 120×80mm, 200×80mm... Can be customized;
9. 300/5A, 400/5A, 500/5A, 600/5A, 1000/5A, 1250/5A, 1500/5A, 2000/5A...5000/5A;
10. IEC60044-1, IEC 61869-2, ANSI/IEEE C57.13 , NTC 2205, GB1208-2006, GB/T 20840.1-2010, GB/T 20840.2-2014 GB/T 22071.1-2018;

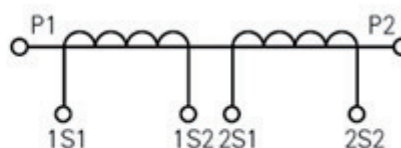
## Wiring Diagrams



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).

## Parameters

| Technical parameters             |                                                                                                                           |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Standards                        | IEC60044-1; IEC 61869-2; NTC 2205; ANSI/IEEE C57.13; GB1208-2006; GB/T 20840.1-2010, GB/T 20840.2-2014, GB/T 22071.1-2018 |
| Accuracy Class                   | 0.2 , 0.5S, 0.5, 1, 3                                                                                                     |
| Range of primary rated current   | 100-6000A                                                                                                                 |
| Range of Rated load              | 2.5VA-25VA                                                                                                                |
| Rated frequency                  | 50/60Hz                                                                                                                   |
| Rated secondary current          | 5A, 1A                                                                                                                    |
| Frequency range                  | 40Hz-2000Hz                                                                                                               |
| Rated short-time thermal current | 40kA, 1S                                                                                                                  |
| Rated continuous thermal current | 120%I <sub>n</sub>                                                                                                        |

| Technical parameters - continued                                         |                                                                                                                                      |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Secondary winding power frequency withstand voltage(Dielectric strength) | 3kV, 1min                                                                                                                            |
| Safety Factor Rating                                                     | (FS) <10                                                                                                                             |
| Safety                                                                   | CAT IV 600V IEC/EN 61010-1                                                                                                           |
| Output                                                                   | K1, K2 or S1, S2                                                                                                                     |
| Protection Level                                                         | 3.0V0-P                                                                                                                              |
| Internal structure                                                       | Busbar type Design                                                                                                                   |
| Max. jaw opening                                                         | 200 x 80mm, 160 x 80mm                                                                                                               |
| Material                                                                 | Silicon steel sheets+Enameled wire+ABS+ 94V-0                                                                                        |
| Mechanical parameters                                                    |                                                                                                                                      |
| Dimensions (W×D×H) (mm)                                                  | 144 x 227 x 54                                                                                                                       |
| Jaw cable diameter(mm)                                                   | 160 x 80, 200 x 80, ...                                                                                                              |
| Weight (kg)                                                              | 2.8                                                                                                                                  |
| Color                                                                    | White and grey, Light green                                                                                                          |
| Working conditions                                                       |                                                                                                                                      |
| Operating temperature                                                    | -25°C to +70°C                                                                                                                       |
| Storage temperature                                                      | -40°C to +70°C                                                                                                                       |
| Environment                                                              | indoors                                                                                                                              |
| Altitude                                                                 | <3000 meters                                                                                                                         |
| Conditions                                                               | No existence of severely begrimed, erosive and radioactive gas in the air.<br>Permission of long-term operation under rated current. |

## Specification

| Type        | FU160                         |     |     |
|-------------|-------------------------------|-----|-----|
| Purpose     | Measuring current transformer |     |     |
| Ratio       | Accuracy class                |     |     |
| $I_1/I_2$   | 0.2                           | 0.5 | 1   |
| 500A/333mV  |                               | YES | YES |
| 1000A/333mV |                               | YES | YES |
| 2000A/333mV |                               | YES | YES |
| 3000A/333mV |                               | YES | YES |
| 4000A/333mV |                               | YES | YES |
| 5000A/333mV |                               | YES | YES |
| 500A/1V     | YES                           | YES | YES |
| 500A/2V     | YES                           | YES | YES |
| 500A/5V     | YES                           | YES | YES |

| Type      | FU160                         |     |     |
|-----------|-------------------------------|-----|-----|
| Purpose   | Measuring current transformer |     |     |
| Ratio     | Accuracy class                |     |     |
| $I_1/I_2$ | 0.2                           | 0.5 | 1   |
| 1000A/1V  | YES                           | YES | YES |
| 1000A/2V  | YES                           | YES | YES |
| 1000A/5V  | YES                           | YES | YES |
| 2000A/1V  | YES                           | YES | YES |
| 2000A/2V  | YES                           | YES | YES |
| 2000A/5V  | YES                           | YES | YES |
| 3000A/1V  | YES                           | YES | YES |
| 3000A/2V  | YES                           | YES | YES |
| 3000A/5V  | YES                           | YES | YES |
| 4000A/1V  | YES                           | YES | YES |
| 4000A/2V  | YES                           | YES | YES |
| 4000A/5V  | YES                           | YES | YES |
| 5000A/1V  | YES                           | YES | YES |
| 5000A/2V  | YES                           | YES | YES |
| 5000A/5V  | YES                           | YES | YES |
| 1000A/1A  | YES                           | YES | YES |
| 2000A/1A  | YES                           | YES | YES |
| 3000A/1A  | YES                           | YES | YES |
| 4000A/1A  | YES                           | YES | YES |
| 5000A/1A  | YES                           | YES | YES |
| 300A/5A   |                               | YES | YES |
| 500A/5A   |                               | YES | YES |
| 600A/5A   |                               | YES | YES |
| 800A/5A   |                               | YES | YES |
| 1000A/5A  |                               | YES | YES |
| 1500A/5A  |                               | YES | YES |
| 2000A/5A  |                               | YES | YES |
| 2500A/5A  |                               | YES | YES |
| 3000A/5A  |                               | YES | YES |
| 4000A/5A  |                               | YES | YES |
| 5000A/5A  |                               | YES | YES |
| 6000A/5A  |                               | YES | YES |

## Selection Guide

| Model  | Primary rated current | Rated load            | Secondary output          | Aperture (mm)                                                    | Description (mm)                                             | Weight (kg)                   |
|--------|-----------------------|-----------------------|---------------------------|------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------|
| FU-16  | 5-200A                | $\leq 10 \text{ Ohm}$ | 333mV, 1V, 5V, 100mA      | $\varnothing 16$                                                 | 38 x 55 x 18                                                 | 0.06                          |
| FU-32  | 100-600A              | $\leq 10 \text{ VA}$  | 333mV, 1V, 5V, 1A, 5A     | $\varnothing 32$                                                 | 110 x 130 x 41                                               | 0.7                           |
| FU-36  | 100-600A              | $\leq 2.5 \text{ VA}$ | 333mV, 1V, 5V, 1A, 5A     | $\varnothing 10, \varnothing 16, \varnothing 24, \varnothing 36$ | 26 x 43 x 27<br>31 x 50 x 30<br>43 x 73 x 39<br>60 x 89 x 43 | 0.1,<br>0.12,<br>0.2,<br>0.35 |
| FU-80  | 100-1200A             | $\leq 5 \text{ VA}$   | 333mV, 1V, 5V, 1A, 5A     | $\varnothing 30, \varnothing 55, \varnothing 80$                 | 88 x 129 x 28<br>108 x 155 x 28<br>138 x 193 x 28            | 0.4, 0.55, 0.7                |
| FU-100 | 300-3000A             | $\leq 10 \text{ VA}$  | 333mV, 1V, 5V, 1A, 5A     | $\varnothing 100$                                                | 170 x 184.5 x 41                                             | 1                             |
| FU120  | 200-4000A             | $\leq 10 \text{ VA}$  | 333mV, 1V, 5V, 1A, 5A     | 120 x 130, 120 x 30                                              | 166 x 110 x 49<br>166 x 208 x 49                             | 1.2, 1.7                      |
| FU160  | 500-5000A             | $\leq 20 \text{ VA}$  | 333mV, 1V, 2V, 5V, 1A, 5A | 160 x 80, 120 x 80                                               | 144 x 227 x 54                                               | 2.8, 2.3                      |

## Ordering Information

Be sure to the type, current ratio, accuracy class, rated load and use of the products when you plan to make a order. Special specifications could be customized. All kinds of different specifications and parameters current transformers can be made according to your needs.