

Split-core current transformer

JSC-02-XXXX-100mA SERIES

JSC series of split-core current transformer offers 100mA at secondary from sensed primary current. Without using secondary CT inside of meter, users directly connect JSC series to a meter for high accuracy metering application. It enables one meter to be adopted for various current rating by only changing primary CT so it makes compact design meter and reduces developing cost. Also, over-voltage protection circuit is included to offer safe, fast and cost effective installation.



CULUS
E344623

CE

RoHS3
COMPLIANT

Applications

- Power meter
- Switchgear
- Distributed measurement systems
- General Sets
- Control panels

Benefits

- Faster installation
- Cost effective
- Long product life

Features

- High quality comprehensive measurement
- Available in a wide range of transformer ratings
- Accuracy up to Class 0.5S

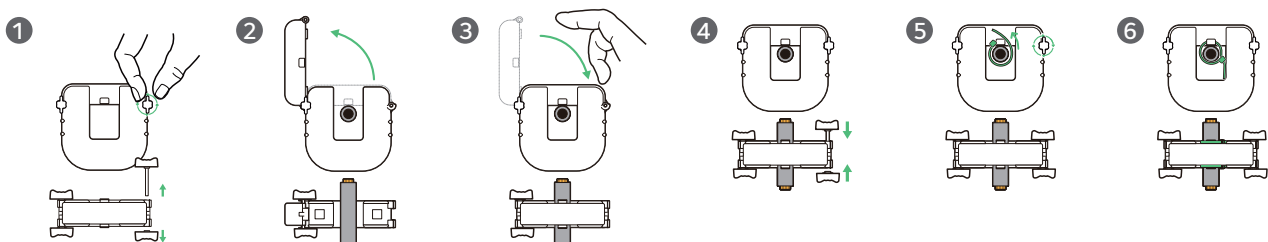
Notice

- Core contact surface is waterproofed, however if it gets rusty, you could reuse after removing rusts with spraying WD-40 or CRC5-56 on the rusted side.
- Do not use any other chemicals except WD-40 or CRC5-56 on housing or any other parts.
- Customizing output lead wire

Model	Rated Amps	Output	Accuracy	Internal Burden (Ohms)
JSC-02-0400-100mA	400A	100mA	0.5%	3.3Ω
JSC-02-0600-100mA	600A	100mA	0.5%	3.3Ω
JSC-02-0800-100mA	800A	100mA	0.5%	3.3Ω
JSC-02-1000-100mA	1000A	100mA	0.5%	3.3Ω
JSC-02-1200-100mA	1200A	100mA	0.5%	3.3Ω

Note: the burden resistor is built into the JSC-02-XXXX-100mA SERIES.

How to Use



1. Specifications

Accuracy	Class 0.5S
Leads	18AWG, 600VAC
System Voltage	720V(0.72kV)
Overload withstand	1.2 times rated current continuously
Compliant with	IEC/EN61869-2 & UL/EN61010-1
Operating Temperature Range	-20°C to 60°C
Relative Humidity	0-90% non-condensing
Test Voltage	3kV for 1minute
Frequency Range	50/60Hz
Protection Level	3.0V0-P
Insulation Category	CATII or CATIII 600VAC

1.1 Accuracy

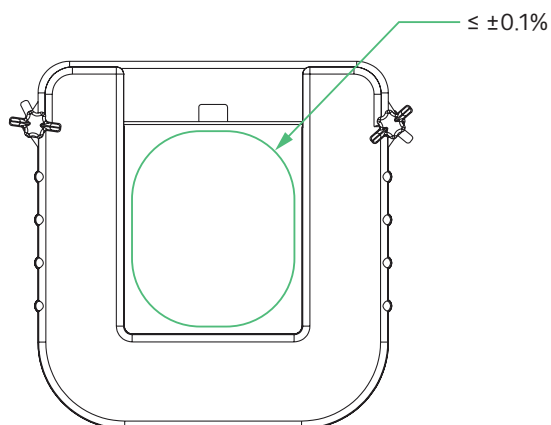
- **Ratio Error:**

Accuracy 0.5% conforms to IEC 61869-2 & IEEE/ANSI C57.13 meets the measuring range from 1% to 120% of I_n

- **Phase Angle:**

50/60 Hz – 0.0 to 2.0 degrees leading from 1% to 120% of rated current

Position Sensitivity



Shock and Air Gap Test

Shock and Vibration Test Report

400A	
Phase error(°)	Linearity Error(%)
0.21	- 0.15
0.23	- 0.16



400A	
Phase error(°)	Linearity Error(%)
0.21	- 0.17
0.22	- 0.18

Core Air Gap Test Report

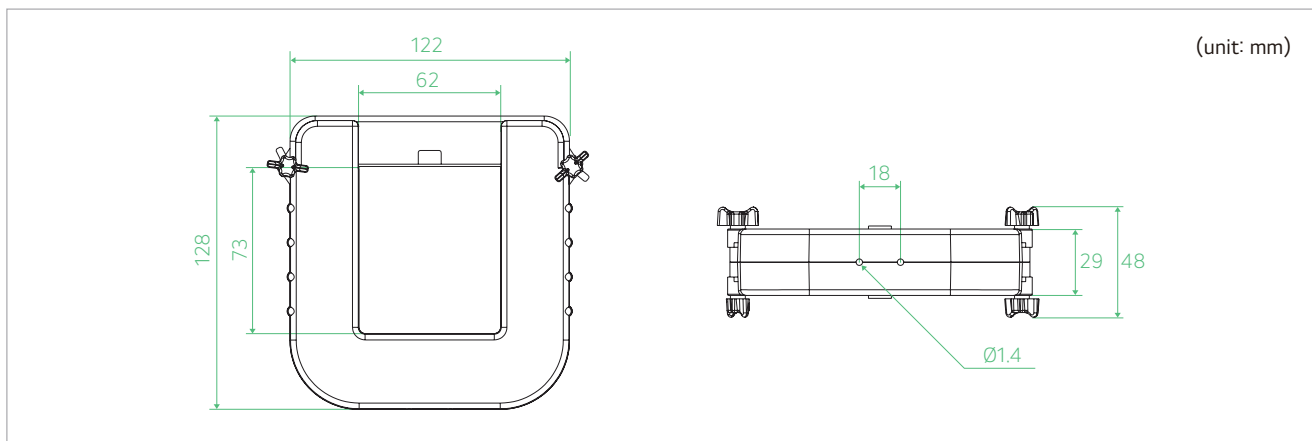
400A	
Air gap : 2microns	
Phase error(°)	Linearity Error(%)
0.21	- 0.15



400A	
Air gap : 2.5microns	
Phase error(°)	Linearity Error(%)
0.21	- 0.17

1.2 Mechanical

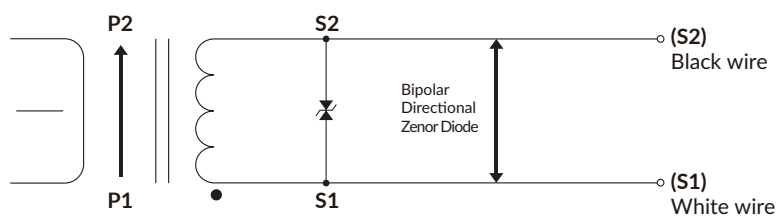
- Width: 122mm
- Height: 128mm
- Thickness: 29mm
- Weight: 700g
- Core Nickel Core: high permeability ferrite
- Standard lead wire: 2.44m, 18AWG



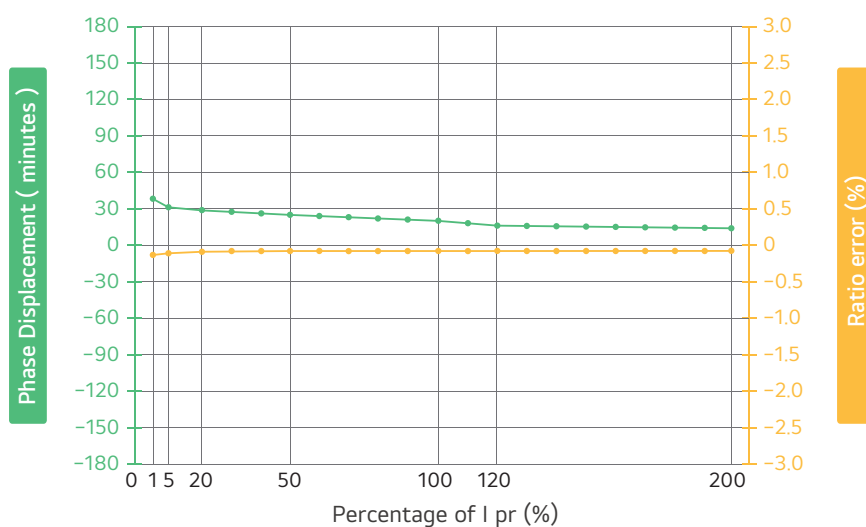
2. Typical Accuracy

- In the following graphs, a positive phase angle error indicates that the output of the CT leads the primary current.
- Graphs show typical performance at 25°C, 60 Hz
- Performance Graphs - The standard CT meets ANSI/IEEE C57.13 class 1.2 standard & IEC 61869-2 class 0.5 standard

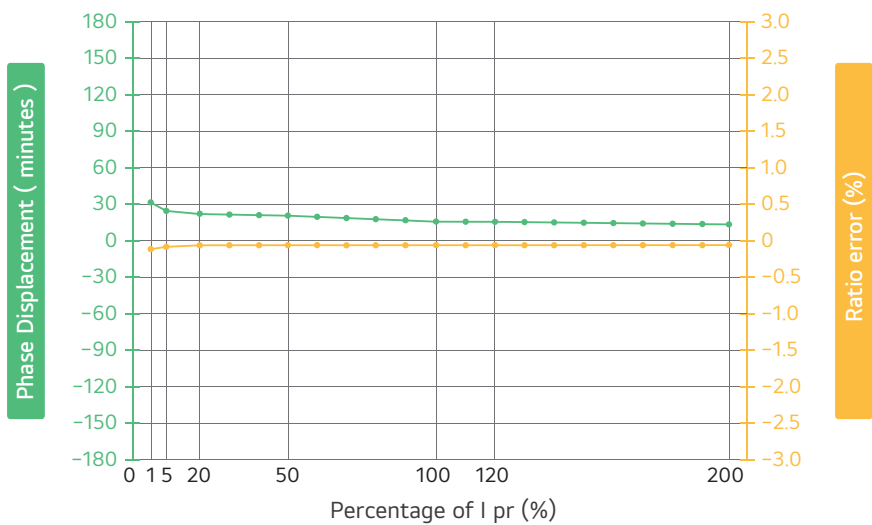
2.1 Schematic Diagram



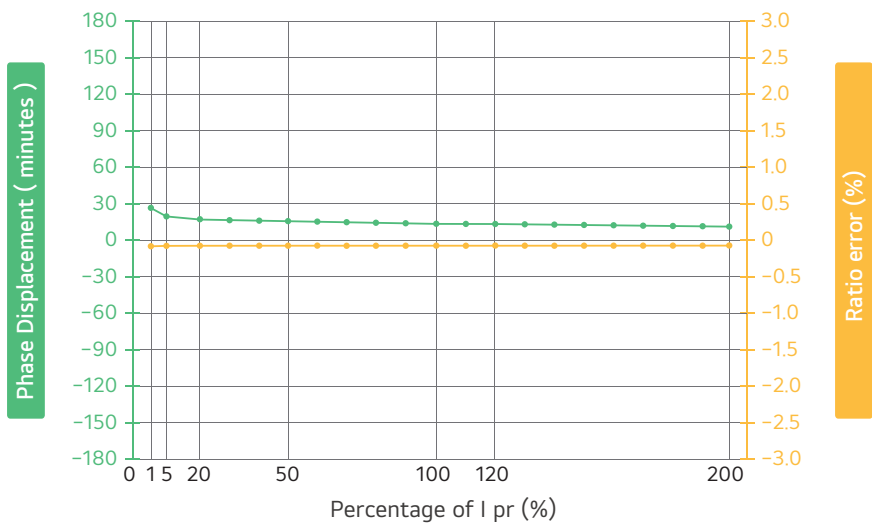
2.2 JSC-02-0400-100mA



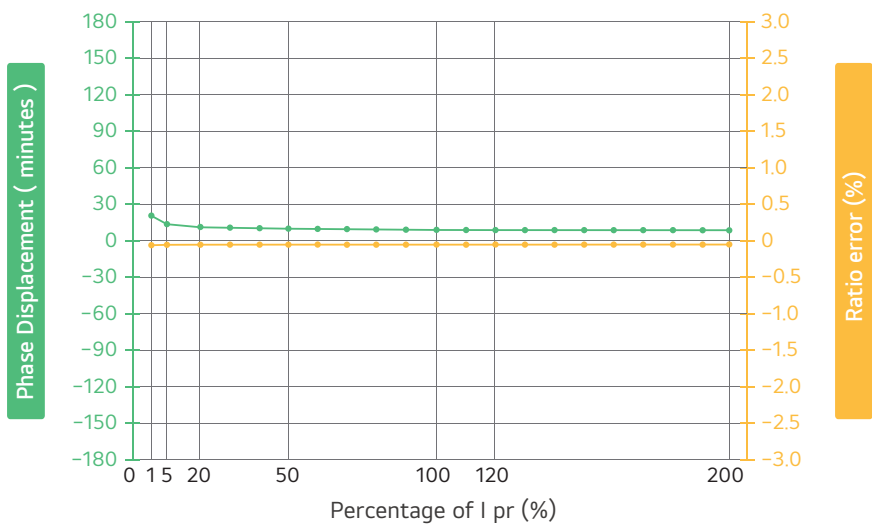
2.3 JSC-02-0600-100mA



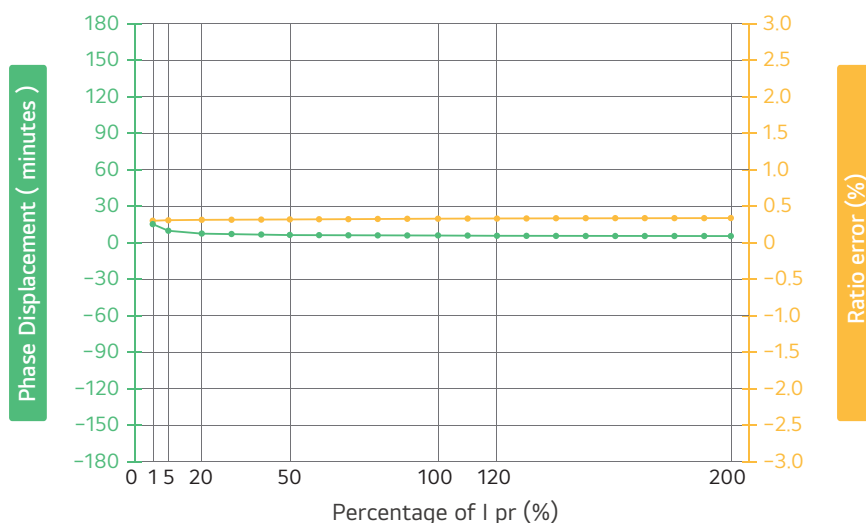
2.4 JSC-02-0800-100mA



2.5 JSC-02-1000-100mA



2.6 JSC-02-1200-100mA



Safety & Danger Notes



Notice

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- In order to guarantee safe operation of the transformer, please read and understand the instructions thoroughly. For your reference, see NFPA 70E in the USA, or applicable local codes.
- Before servicing the CTs, turn off all sources of power and use a properly rated voltage sensing device to check if the power is off.
- Current transformer secondary must be shorted or connected to a burden all times.
- The transformer (split core type) must not be operated when it is not fully closed or the installation is not completed.
- Rearrange all covers and protective devices before powering the equipment.
- A qualified person is the one who is skilled and has knowledge about the construction and operation of this electrical equipment, and has received safety training to recognize and avoid the hazards involved. (NEC2011 Article 100)

- If you impact the core surface, internal core material could be damaged.
- Customizing output lead wire
- This product is not intentionally made for safety applications.
- Make sure not to install this transformer in hazardous or classified areas.
- The installer is responsible for conformance to all applicable codes.
- Ignoring the warnings can lead to serious injury and/or cause damages.
- If this product is used in a way not specified by the manufacturer, the protection offered by the product may be impaired. No responsibility is taken by J&D Electronics for any consequences arising by not following this material properly.

