LOW-VOLTAGE CURRENT TRANSFORMERS FOR REVENUE METERING

Available as *Extended Range Current Transformers*

ROS-A Series

Introduction

Resin-insulated current transformers *ROS-A* Series, designed for billing purposes and suited to 0.72 kV (IEC) or 0.6 kV (IEEE) power systems, offer revenue metering accuracy of Class 0.15 to Class 0.3. Current Ratios available are from 100:5A to 4000:5A, and window diameter options are 38mm, 66mm, 78mm, and 146mm.

ROS-A current transformers are available in two series: ***Standard Series*** and ***ERCT Series*** (Extended Range Current Transformers). The ***Standard Series*** current transformers have a Continuous Thermal Rating Factor of up to 4.0 (see Note 1). The ***ERCT Series*** are able to maintain the rated accuracy and burden while measuring 1% ~ 150% or even 1% ~ 200% of the rated current, surpassing the usual metering-class requirement (5% ~ 100%).

All *ROS-A* current transformers have been type-tested by CIC' s *Advanced Electricity Lab*, a testing facility accredited by a member of ILAC.

Features

- Standards: IEEE C57.13-2016 & IEC 61869-2:2012
- Secondary side equipped with a short-circuiting device
- Terminal cover provided for the secondary side
- Sealable
- Usage Environment: Indoors, or outdoors (See Note 2).
- Rated Voltage: Up to 0.72 kV
- Frequency: 60 Hz
- Metering Class: 0.15 to 0.3
- Type-tested by a laboratory accredited by an ILAC member
- Additional specification or customization may be requested to comply with various electrical standards and client requirements

Notes:

1. The Continuous Thermal Rating Factor, also called Thermal Rating Factor (TRF) or Rating Factor (RF), signifies how much the “actual primary current” can exceed the rated Primary Current and still meet accuracy and temperature guidelines. For example, a Rating Factor of 2.0 means the current transformer can continuously handle double its rated Primary Current without overheating.

2. While the product's water-repellent property and standard secondary cover allow for potential outdoor operation under certain conditions, it's not guaranteed to withstand all weather elements. For full outdoor use, contact CIC for our special outdoor option, providing IP65 protection.

Selection Tables

- *ERCT Series & Standard Series per IEEE C57.13-2016*

Model	Primary Current (A)	Secondary Current (A)	Accuracy, Burden & Rating Factor (30°C Ambient)			Window Diameter (mm)	Approx. Weight (kg)	Figure
			ERCT Series *	Standard Series				
				Class 0.3	Class 0.15			
ROS-38A	100	5	0.3 B-0.2, RF=1.5	0.3 B-0.2, RF=4.0	-	38	6.5	1
ROS-66A	150		0.3 B-0.1, RF=1.5	0.3 B-0.1, RF=4.0		66	5.0	
	200~250		0.3 B-0.5, RF=1.5	0.3 B-0.5, RF=4.0	0.15 B-0.5, RF=2.0			
ROS-78A	300~400		0.3 B-0.5, RF=1.5	0.3 B-0.5, RF=4.0		78	4.0	
	500		0.3 B-0.5, RF=1.5	0.3 B-0.5, RF=3.0				
	600~800		0.3 B-0.5, RF=1.5	0.3 B-0.5, RF=2.0				
ROS-146A	600~800		0.3 B-0.2, RF=1.5	0.3 B-0.5, RF=3.0		146	5.5	2
	1000~1200		0.3 B-0.9, RF=1.5	0.3 B-0.9, RF=2.0				
	1500		0.3 B-0.9, RF=1.5	0.3 B-0.5, RF=3.0				
	2000		0.3 B-1.8, RF=1.5	0.3 B-1.8, RF=2.0				
	2500~4000		0.3 B-1.8, RF=1.5	0.3 B-1.8, RF=1.5				

* ERCT Operating Range for Accuracy: 1% ~ 150% of Rated Current
Note: Other standards and specifications available

- *ERCT Series per IEC 61869-2:2012*

Model	Primary Current (A)	Secondary Current (A)	Accuracy / Burden & Rating Factor (30°C Ambient)	Window Diameter (mm)	Approx. Weight (kg)	Figure
ROS-66A	200~250	5	0.2S / 15VA, RF=2.0 **	66	5.0	1
ROS-78A	300~400			78	4.0	
	500					
	600~800					
ROS-146A	600~800			146	5.5	2
	1000~1200					
	1500					
	2000					
	2500~4000					

** ERCT Operating Range for Accuracy: 1% ~ 200% of Rated Current

Figure 1

Figure 2

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Specifications subject to change without notice.