ABB 7524A63G05

ABB Type CLE Current Transformer Model 7524A63G05 User Manual

Instructions for Installation, Operation, and Maintenance

1. Introduction

This user manual provides essential information for the safe and effective installation, operation, and maintenance of the ABB Type CLE Current Transformer, Model 7524A63G05. This device is designed for accurate current measurement in industrial electrical systems. Please read this manual thoroughly before attempting any procedures to ensure proper handling and to prevent potential hazards.

2. Product Overview

The ABB Type CLE Current Transformer (CT) is a critical component for monitoring and protecting electrical circuits. It safely steps down high primary currents to a measurable level for instruments, meters, and relays. The Model 7524A63G05 features a robust design suitable for demanding industrial environments.

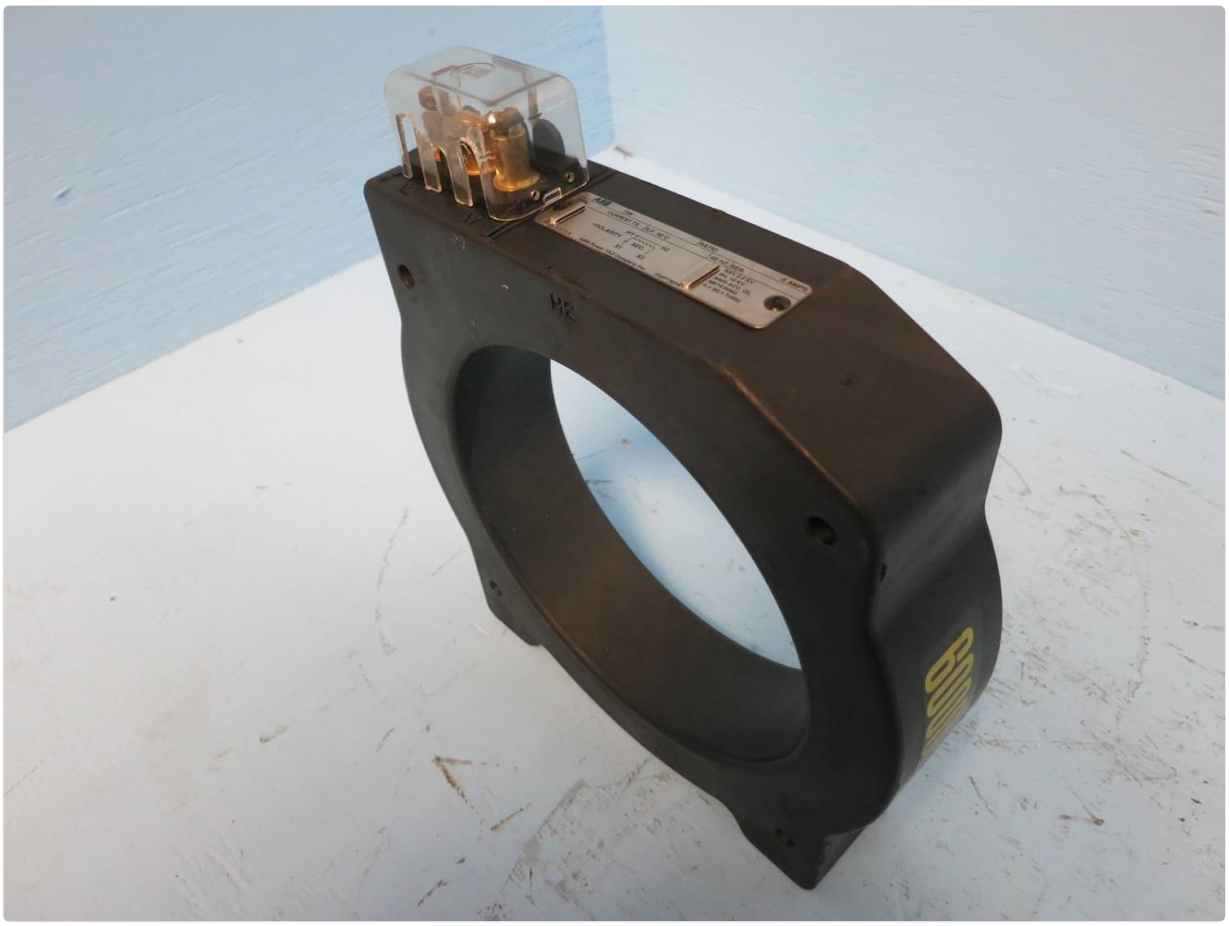


Figure 2.1: An overall view of the ABB Type CLE Current Transformer. This image displays the robust, dark-colored casing and the transparent terminal cover on top, indicating the primary and secondary connections. The toroidal shape allows for easy integration around a primary conductor.

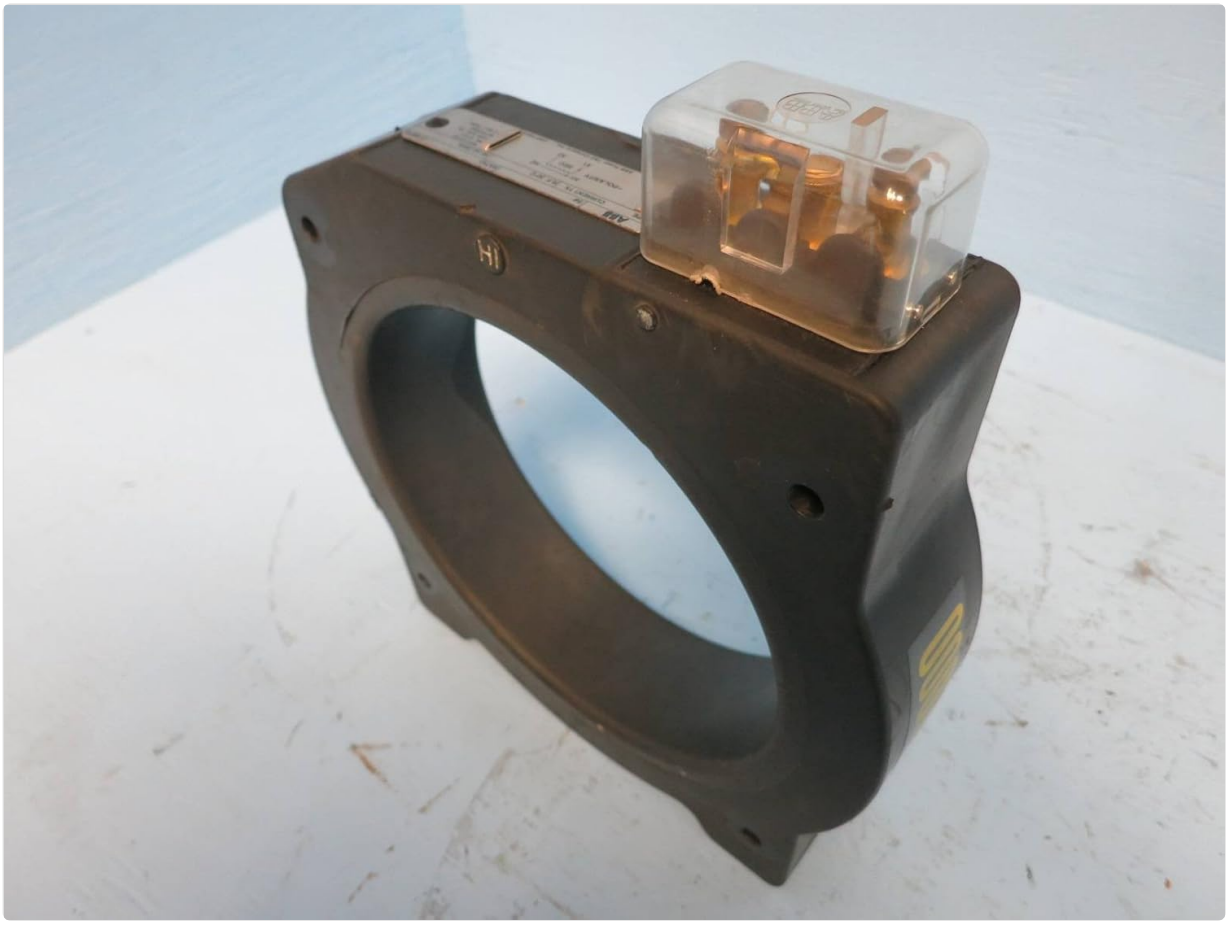


Figure 2.2: Another angled view of the ABB Type CLE Current Transformer, highlighting its compact design and the

mounting points on the base. The nameplate is visible on the side, providing key operational specifications.

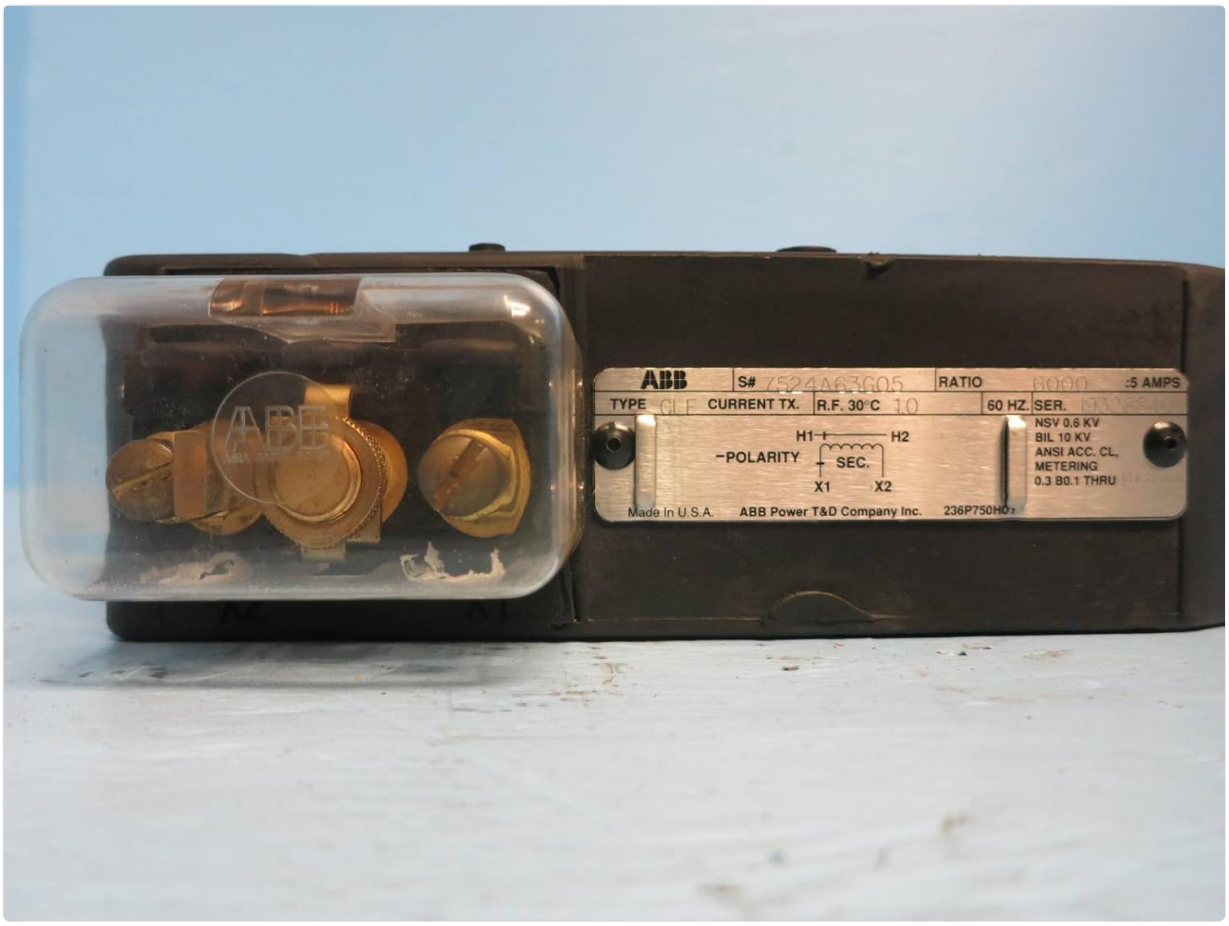


Figure 2.3: A detailed close-up of the terminal block and the product nameplate. The transparent cover protects the secondary terminals (X1, X2) and shows the connection points. The nameplate clearly displays the model number, current ratio, and other electrical specifications.

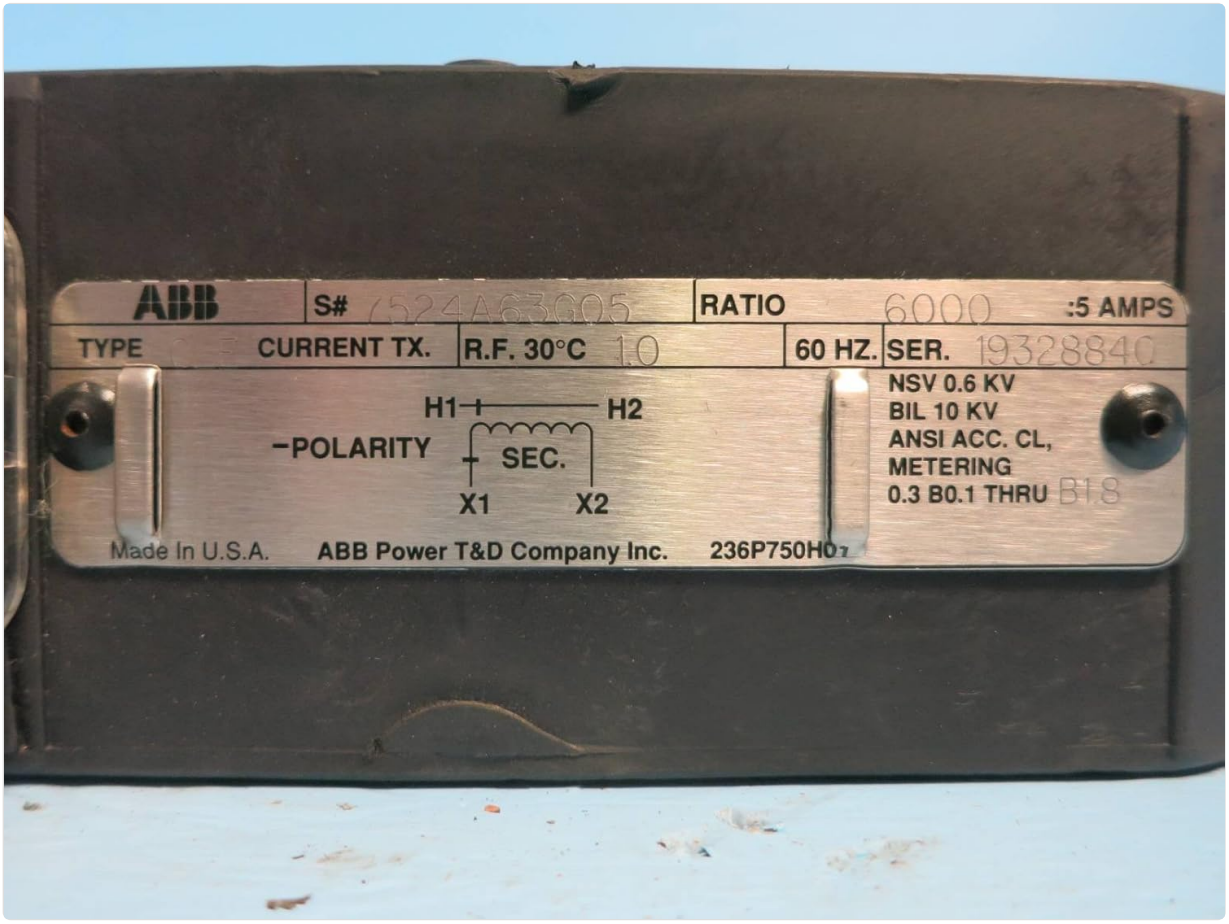


Figure 2.4: An extreme close-up of the ABB Type CLE Current Transformer's nameplate. This view allows for clear reading of critical data such as "TYPE CLE", "CURRENT TX.", "S# 7524A63G05", "RATIO 6000:5 AMPS", "60 HZ", "NSV 0.6 KV", "BIL 10 KV", and "ANSI ACC. CL. METERING 0.3 B0.1 THRU B1.8". It also indicates "Made in U.S.A." and the manufacturer "ABB Power T&D Company Inc."

3. Safety Information

WARNING: Electrical shock hazard. Installation and maintenance should only be performed by qualified personnel.

- Always de-energize the primary circuit before installing or servicing the current transformer.
- Never open the secondary circuit of an energized current transformer. This can lead to dangerously high voltages and potential injury or equipment damage.
- Ensure all connections are secure and properly insulated.
- Verify the correct polarity before connecting the CT to metering or protection devices.
- Wear appropriate personal protective equipment (PPE) when working with electrical systems.

4. Setup and Installation

Installation of the ABB Type CLE Current Transformer requires adherence to local electrical codes and safety standards. It is recommended that a certified electrician or qualified technician perform the installation.

1. **De-energize Circuit:** Ensure the primary circuit where the CT will be installed is completely de-energized and locked out according to safety protocols.
2. **Mounting:** Securely mount the CT using appropriate hardware. The CT is designed to encircle the primary conductor.
3. **Primary Conductor:** Pass the primary conductor through the center opening of the current transformer.
4. **Secondary Connections:** Connect the secondary terminals (X1 and X2) to the metering or protection device. Observe correct polarity as indicated on the nameplate (H1-H2 for primary, X1-X2 for secondary). X1 typically corresponds to H1, and X2 to H2.
5. **Grounding:** Ensure the secondary circuit of the CT is properly grounded at one point, typically at the X2 terminal, to prevent high voltage buildup.
6. **Verify Connections:** Double-check all wiring for correctness and tightness.
7. **Re-energize:** Once installation is complete and verified, the primary circuit can be safely re-energized.

5. Operating Instructions

The ABB Type CLE Current Transformer operates passively by inducing a proportional current in its secondary winding based on the primary current flowing through its core. Once installed, it requires no active user intervention for its primary function.

- **Monitoring:** The output of the CT (typically 5 Amps at rated primary current) is fed into a connected meter, relay, or other monitoring device. Refer to the instruction manual of the connected device for its operation.
- **Load (Burden):** Ensure the connected load (burden) on the secondary circuit does not exceed the CT's rated burden (e.g., B0.1 through B1.8 as indicated on the nameplate). Exceeding the burden can

lead to inaccurate readings and potential damage.

- **Polarity:** Correct polarity is crucial for accurate directional measurements and proper operation of protective relays.

6. Maintenance

The ABB Type CLE Current Transformer is designed for long-term, reliable operation with minimal maintenance. However, periodic inspections are recommended to ensure optimal performance and safety.

- **Visual Inspection:** Periodically inspect the CT for any signs of physical damage, discoloration, or loose connections.
- **Cleaning:** If necessary, gently clean the exterior of the CT with a dry, lint-free cloth. Do not use abrasive cleaners or solvents. Ensure the power is off before cleaning.
- **Terminal Check:** Verify that all secondary terminal connections remain tight and free from corrosion. This should only be done with the primary circuit de-energized and the secondary circuit shorted or connected to a safe load.
- **Environmental Conditions:** Ensure the operating environment remains within the specified temperature and humidity ranges to prevent premature degradation.

7. Troubleshooting

Most issues related to current transformers stem from improper installation or external circuit problems. Always prioritize safety when troubleshooting.

Problem	Possible Cause	Solution
No output from CT / Incorrect readings	• Open secondary circuit • Incorrect wiring/polarity • Primary circuit de-energized • Faulty connected meter/device • CT burden exceeded	• **De-energize primary circuit.** Check secondary connections for continuity and ensure they are properly terminated. • Verify wiring against schematic and nameplate. • Confirm primary circuit is energized and current is flowing. • Test connected device independently. • Reduce secondary load or replace CT with appropriate burden rating.
Overheating of CT	• Overcurrent in primary circuit • Excessive secondary burden • Short circuit in secondary winding	• Check primary circuit load. • Reduce secondary load. • **De-energize primary circuit.** Inspect secondary wiring for shorts.

If troubleshooting steps do not resolve the issue, contact ABB technical support or a qualified service

professional.

8. Specifications

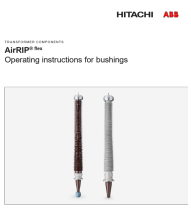
The following specifications apply to the ABB Type CLE Current Transformer, Model 7524A63G05:

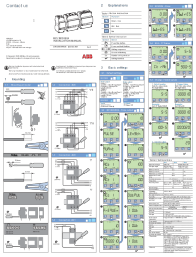
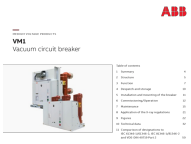
- **Model Number:** 7524A63G05
- **Brand:** ABB (Asea Brown Boveri / ABB Power T&D Company Inc.)
- **Type:** CLE Current Transformer
- **Current Ratio:** 6000:5 Amps
- **Frequency:** 60 Hz
- **Nominal System Voltage (NSV):** 0.6 kV
- **Basic Impulse Level (BIL):** 10 kV
- **ANSI Accuracy Class:** Metering 0.3 B0.1 THRU B1.8
- **Outside Dimensions:** Approximately 12" x 13" x 3" (30.5 cm x 33 cm x 7.6 cm)
- **Inside Dimensions (Window):** Approximately 8" x 8" x 3" (20.3 cm x 20.3 cm x 7.6 cm)
- **Manufacturer Part Number:** 236P750H07
- **UPC:** 782451081325

9. Warranty and Support

For information regarding warranty coverage, technical support, or service for your ABB Type CLE Current Transformer, Model 7524A63G05, please contact ABB directly through their official website or customer service channels. Ensure you have your model number and any purchase details available when contacting support.
You can visit the official ABB website for more information:www.abb.com

Related Documents - 7524A63G05

	AirRIP® flex Operating Instructions for Bushings | Hitachi ABB Power Grids Comprehensive operating instructions for Hitachi ABB Power Grids' AirRIP® flex transformer bushings, detailing installation, assembly, maintenance, storage, and disposal. Includes technical specifications and safety guidelines for high-voltage power systems.

	[ABB RET650 Transformer Protection Relay - Product Guide] Explore the ABB RET650, a versatile transformer protection relay offering advanced differential, impedance, current, voltage, and frequency protection for power systems. This product guide details its features, applications, and technical specifications for reliable substation automation.
	[ABB PSE Softstarters: Features, Specifications, and Benefits for Industrial Motor Control] Explore the ABB PSE Softstarters, a series of compact digital soft starters offering advanced motor control, protection, and automation integration. This document details their technical specifications, key features like integrated motor protection and torque control, and real-world application benefits for various industries.
	[ABB B21/B23/B24 Installation Manual] This installation manual from ABB provides detailed instructions for the B21, B23, and B24 series energy meters. It covers essential aspects such as mounting procedures, electrical connections for different models, basic settings configuration, and comprehensive technical specifications.
	[ABB VM1 Vacuum Circuit Breaker Instruction Manual] Comprehensive instruction manual for the ABB VM1 vacuum circuit breaker, detailing its structure, function, installation, operation, maintenance, and technical specifications for medium voltage electrical systems.
	[VFDs Tripping GFCI Breakers: Causes, Ground Faults, and Solutions | Precision Electric] Explore the causes, diagnostics, and solutions for Variable Frequency Drives (VFDs) tripping GFCI breakers. This technical guide from Precision Electric covers leakage currents, insulation faults, and best practices for industrial applications.

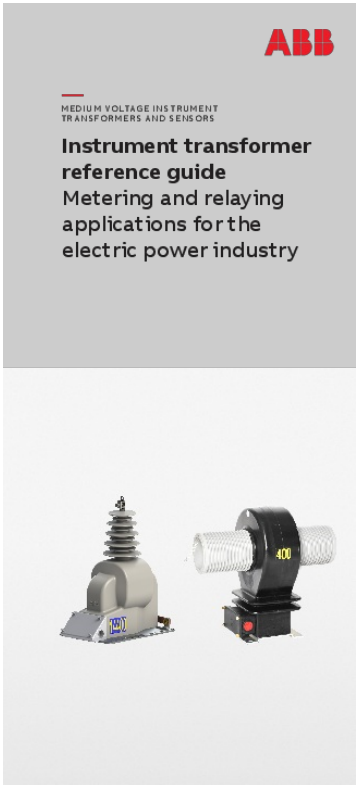
Documents - ABB – 7524A63G05

[pdf] Reference Guide Guide

ABB OEM Instrument Transformer Reference Guide April 2014 Natalie W Peiffer 1VAP420002 TG IT Ref April2014 www05 abb 80 global scot scot235 nsf veritydisplay 7d8dbff6a12e1bba83257ce6004485ac $file

OEM Instrument Transformer Reference Guide Meter and Relay Applications General Index Guide 600 V ... Factor 30C 55C 7524A63G01 2.0 1.5 7524A63G02 2.0 1.5 7524A63G03 1.5 1.2 7524A63G04 1.33 1.0 **7524A63G05** 1.0 0.75 1000/2000 7524A63G06 3.0/2.0 2.2/1.5 1500/3000 7524A63G07 3.0/2.0 2.2/1.5 200...

lang:en score:21 filesize: 6.46 M page_count: 110 document date: 2014-05-28

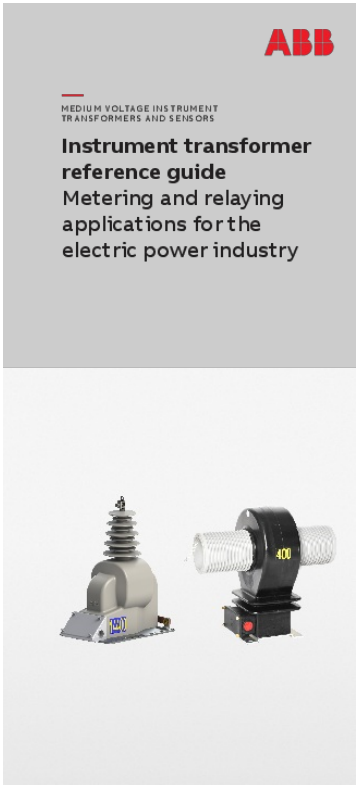


[pdf] Reference Guide Guide

— Instrument transformer reference guide Metering and 17 янв 2025 г Sensors are vacuum cast in HCEP while instrument transformers using the automatic pressure gelation APG process shortens manufacturing 1VAP420001 TG RevR Utility Transformer Reference Guide DGT x sign QNC2iRZMHkTMNjKR4cRrO6dMZEwJtKO5 KaN X9i6DlNLyD library e abb public 773fbfa89597474eba8fee0ba05f81ac X9i6DlNLyDmp92MlJuunTVg4Weo |||

-- MEDIUM VOLTAGE INSTRUMENT TRANSFORMERS AND SENSORS Instrument transformer reference guide Meterin ... -- 7524A63G02 0.3 0.3 0.3 0.3 0.3 7524A63G03 0.3 0.3 0.3 0.3 0.3 7524A63G04 0.3 0.3 0.3 0.3 0.3 **7524A63G05** 0.3 0.3 0.3 0.3 0.3 7524A63G06 0.3 0.3 0.3 -- -- 0.3 0.3 0.3 0.3 -- 7524A63G07 0.3 0.3 ...

lang:nl score:21 filesize: 27.58 M page_count: 264 document date: 2025-01-13

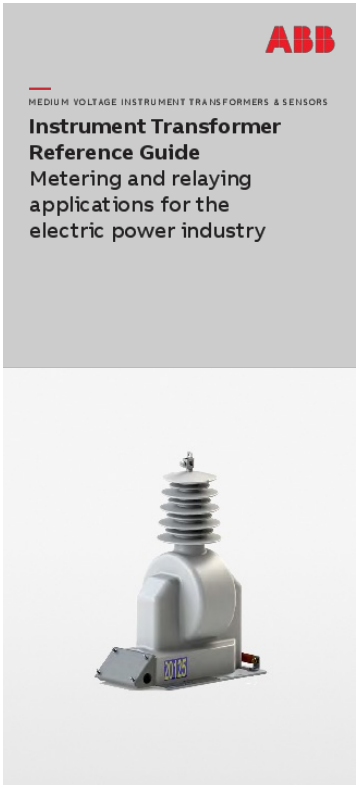


[pdf] Reference Guide Guide

— Instrument transformer reference guide Metering and 30 thg 3 2023 LG 34 879 146 147 5 kV outdoor LGX 148 149 KOTD HEX HEAD MACHINE BOLT S COVER FROM THIS END Product bulletin 1VAP701301 1VAP420001 TG Utility Transformer Reference Guide Rev P 012623 library e abb public a701ec0b9390425095e50fddbfee0ca9 |||

-- MEDIUM VOLTAGE INSTRUMENT TRANSFORMERS AND SENSORS Instrument transformer reference guide Meterin ... -- 7524A63G02 0.3 0.3 0.3 0.3 0.3 7524A63G03 0.3 0.3 0.3 0.3 0.3 7524A63G04 0.3 0.3 0.3 0.3 0.3 **7524A63G05** 0.3 0.3 0.3 0.3 0.3 7524A63G06 0.3 0.3 0.3 -- -- 0.3 0.3 0.3 0.3 -- 7524A63G07 0.3 0.3 ...

lang:nl score:21 filesize: 27.28 M page_count: 131 document date: 2023-03-30



[pdf] Reference Guide Guide

ABB Utility Instrument Transformer Reference Guide 2019 Definition Ampere I Unit of current or rate flow electricity GIFD 25 03 KOTD 250 JKW 5 36 kV Voltage Transformers 1VAP420001 TG IT Ref library e abb public fe4f527247144f62842ee4828eb9deef

-- MEDIUM VOLTAGE INSTRUMENT TR ANSFORMERS SENSORS Instrument Transformer Reference Guide Metering ... 7524A63G02 0.3 0.3 0.3 0.3 0.3 7524A63G03 0.3 0.3 0.3 0.3 0.3 7524A63G04 0.3 0.3 0.3 0.3 0.3 **7524A63G05** 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 7524A63G06 0.3 0.3 0.3 0.3 0.3 0.3 0.3 752...

lang:fr score:19 filesize: 9.39 M page_count: 137 document date: 2020-04-03