GCB Commissioning & Diagnostics Level 3 Field Service Engineer Training

TRAINING CENTER SWITZERLAND – COURSE DESCRIPTION

PREPARED BY Nina Rathke	STATUS Approved	SECURITY LEVEL Internal		
APPROVED BY Zsofia Fodor	APPROVAL DATE 2022-11-11			
OWNER Head of Training	DOCUMENT KIND Agenda			
TITLE GCB-L3-applicable for all GCB products-Training Agenda				
OWNING ORGANIZATION CH-Zurich-2657-Field Service	DOCUMENT ID 2GHE001940	REV. A	LANG. en	PAGE 1/3

Hitachi Energy

Course goal:

The participants acquire in-depth knowledge to execute the commissioning of a Generator Circuit Breaker and commissioning of Generator Circuit-Breaker Monitoring System (GMS600). The goal is to understand the process and execution of a complete commissioning as well as the procedure of Diagnostics Tests (DRM Dynamic Resistance Measurement). Addition-ally the trainee will learn how to use the special tools and how to prepare himself for the field intervention. He will also obtain important insights for an effective on-site work management.

Main learning objectives:

- Understand how a GCB System and its components work
- Understand the electrical theory behind
- Learn how to perform the measurements and how to use the tools
- Learn to handle the DILO machine (no EU SF_6-gas certification)
- Get used to handling of GMS600 unit
- Learn how to execute Inspections and Diagnostics Tests

Prerequisites:

- Good English skills (written and spoken)
- Ability to read wiring diagrams is required
- On-site experience on Installation and/or Commissioning
- Attended the local required Health & Safety Training
- First aid course with certificate

Topics:

- GCB Products and Systems
- Commissioning Process
- Documentation
- SF_6-gas handling (no EU SF_6-gas certification)
- Measurements on a GCB
- Timing Test
- GMS600 Commissioning
- GCB Diagnostic Tests
- Dynamic Resistance Measurement (DRM) incl. Practical Tests

This is a theoretical and practical training course.

Certification:

A confirmation will be issued after successful participation in this course, as part of the certification process.

Within a 12 months period, an on-site assessment must be carried out along with a final review to complete certification.

Duration:

20 days

Enrolments:

Send your request to

GIS-GCB_Training@hitachienergy.com

	Day 1	Day 2	Day 3	Day 4	Day 5
Topics	❖ Welcome ❖ System Over-view ❖ Products ❖ Architecture ❖ Applications	❖ Drives ❖ Auxiliaries ❖ Instrumentation	❖ Operation ❖ Maintenance ❖ Basic Electrical Theory	❖ Commissioning Step by Step (Part 1)	❖ Documentation ❖ Reporting of Field Activities

	Day 6	Day 7	Day 8	Day 9	Day 10
Topics	❖ Commissioning Step by Step (Part 2)	❖ Measurements	❖ SF_6 Handling	❖ Timing Test (Part 1)	❖ Timing Test (Part 2)

	Day 11	Day 12	Day 13	Day 14	Day 15
Topics	❖ Commissioning Step by Step (Part 3)	❖ General Commissioning ❖ HVR & HVS Commissioning ❖ HEC9 & HEC10 Commissioning	❖ GMS600 Commissioning	❖ Analysis (Step by Step)	❖ GMS600 Commissioning

	Day 16	Day 17	Day 18	Day 19	Day 20
Topics	❖ Commissioning ❖ Examination ❖ Certification Process	❖ DRM Theory ❖ DRM Measurements	❖ DRM Measurements	❖ DRM Analysis ❖ DRM Test	❖ Test Results ❖ Feedback and Questions