

# GCB HE & HEC 3-6 Maintenance Training Level 4

**COURSE DESCRIPTION** 



# Course goal:

The participants acquire in-depth knowledge to overhaul Generator Circuit Breakers from the HE and HEC 3-6 series. The goal is to understand the process and execution of a complete overhaul, including all the parts and components. Additionally, 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 effective on-site work management.

#### Main learning objectives:

- Understand the functions of all components inside a HEI/HEK/HEF/HECK/HECF and HEC 3-6/HECI/HECPS breaker system
- Handling of the components with the crane
- Perform a complete overhaul on the arcing chamber, SHADE drive, and compressor unit

# Participant profile

Field service engineer for Hitachi Energy, preferably on high

voltage products or high current systems. Willingness to travel and work for the global service network.

### 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
- Must have passed GCB certification level 3 (commissioning & diagnostic)
- First aid course with a certificate

#### Topics:

- Removing the SF6 gas from the arcing chambers
- Disassembling and assembling the arcing chamber
- Disassembling and assembling the SHADE drive
- Disassembling and assembling the compressor unit
- Adjustment and measurement of limit switches
- Preparation of assembly drawings

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

### **Duration:**

5 days

#### **Enrolments:**

Send your request to

GIS-GCB\_Training@hitachienergy.com

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2024-07-26	Manuel Engler	Approved	Public	Public				
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CH-Zurich-2657-Field Service		2GHE004405	В	en	2/3			

# Course agenda:

	Day 1	Day 2	Day 3	Day 4	Day 5
Subject	Preparation for overhaul	Arcing chamber overhaul	Overhaul drive	Overhaul compressor unit	Installation and functional check
Topics	<ul> <li>Health &amp; Safety Introduction</li> <li>Removing SF<sub>6</sub>-gas</li> <li>Lifting out the arcing chambers from the breaker system</li> </ul>	<ul> <li>Overhaul arcing chamber and install it back into the breaker system</li> <li>Filling SF<sub>6</sub>-gas</li> </ul>	❖ Overhaul SHADE drive	<ul> <li>Overhaul compressor unit</li> </ul>	<ul> <li>Installing         SHADE drive         and compressor unit</li> <li>Functional         check of the         breaker system</li> </ul>
Time	8:00 – 17:00	8:00 – 17:00	8:00 – 17:00	8:00 – 17:00	8:00 – 17:00

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