

GIS installation Compact Level 3 Field Service Engineer Training

TRAINING CENTER SWITZERLAND – COURSE DESCRIPTION

PREPARED BY	STATUS	SECURITY LEVEL		
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APPROVED BY	APPROVAL DATE			
Zsofia Fodor	2022-10-20			
OWNER	DOCUMENT KIND			
Head of Training Center	Agenda			
TITLE				
GIS-L3-ELK14_245C-Training Agenda				
OWNING ORGANIZATION	DOCUMENT ID	REV.	LANG.	PAGE
CH-Zurich-2657-Field Service	2GHE004270	A	en	1/5
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Course goal:

The course conveys profound knowledge on the assembly of GIS type ELK-14 / 245C (RXS).

Main learning objectives:

- Understand the functions of all GIS components of ELK-14 / 245C
- Known about all relevant documents (drawings, instructions, protocols) to perform an installation
- Perform a complete GIS ELK-14 / 245C coupling

Prerequisites:

- SF₆-Gas-handling course with certificate
- Heavy load course with certificate
- Good English skills (written and spoken)
- Ability to read wiring diagrams is required
- On-site experience on GIS Installation and/or Commissioning
- Attended the local required Health & Safety Training
- First aid course with certificate
- Own PSE
- Computer with admin rights

Topics:

- Circuit-breaker and breaker operating mechanism
- Disconnecter, earthing switch, fast acting earthing switch
- Statically components like connecting elements, busbars
- Lateral dismantling elements, compensators
- SF₆-gas to-air bushing
- Surge arrester
- Site assembly instructions
- Civil work requirements and building conditions

Assembly steps and procedures:

- Overview and detailed drawings of assembly units, packing list and layouts
- Positioning and alignment of Bays
- Coupling and alignment of bays
- Secondary systems commissioning
- Coupling and adjustment of a separable connector VQ
- Protocols and Reports

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:

15 days

Enrolments:

Send your request to

GIS-GCB_Training@hitachienergy.com

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Day	Subject	Location
1	Welcome / Introduction to Hitachi Energy Switzerland	Classroom
	<ul style="list-style-type: none"> ❖ Training Introduction / Presentation ❖ Safety Induction ❖ Certification Process ❖ Hitachi Energy GIS-Product Portfolio 	
2	Product overview and components	Classroom
	<ul style="list-style-type: none"> ❖ Circuit breaker SP14 / HMC Operating Mechanism ❖ Disconnecter/ earthing switch TK and BAC drive ❖ Fast acting earthing switch BAE ❖ Connecting elements and components ❖ Interfaces HK, HT, HB/HD 	
3	Product overview and components continuation	Classroom
	<ul style="list-style-type: none"> ❖ Manual operation and locking device for disconnectors, earthing switches and fast acting earthing switches ❖ Gas monitoring system ❖ Density Monitor ❖ Factory tour to respective assembly line 	
4	Preparation of installation	Classroom Training field
	<ul style="list-style-type: none"> ❖ How to set up a construction site (site office and GIS building) ❖ First needed documents to start the installation ❖ Packing list ❖ GIS drawings ❖ GIS layouts 	
5	Installation Manual	Classroom Training field
	<ul style="list-style-type: none"> ❖ Installation Manual "Installation and Commissioning Procedure" ❖ Installation Manual "Instructions" ❖ Installation Manual "Protocols" 	
5	Gas, diagrams, and earthing	Classroom Training field
	<ul style="list-style-type: none"> ❖ Measurements (Gas-quality, primary resistance) ❖ Schematic Diagram, cable list, cable glands, cable tray arrangement ❖ Earthing details 	
	Week Review	
	Q and A session	

6	De-Installation VQ	Training field
	<ul style="list-style-type: none"> ❖ Establish safe work conditions ❖ Start with the de-installation of VQ 	
7	De-Installation VQ	Training field
	<ul style="list-style-type: none"> ❖ Continuation with the de-installation of VQ 	
8	De-Installation VQ	Training field
	<ul style="list-style-type: none"> ❖ Continuation with the de-installation of VQ 	
9	Disconnect elements	Training field
	<ul style="list-style-type: none"> ❖ Disconnect Cables of Interlocking, VT and FAES ❖ Disassemble of Voltage Transformer (VT) ❖ Disassemble of Fast-Acting Earthing-Switch 	
10	Place and level the Bay	Classroom Training field
	<ul style="list-style-type: none"> ❖ Measuring of the ground floor ❖ Marking of 'X' and 'Y' axes ❖ Setting and adjusting of the Bay ❖ Alignment of the Bay at determined 'X' and 'Y' axes 	
	Week Review	
	Q and A session	

Connect single delivered components		Training field
11	<ul style="list-style-type: none"> ❖ Installation of Voltage Transformer (VT) ❖ Installation of Fast-Acting Earthing-Switch ❖ Connect Cables of Interlocking, VT and FAES 	
12	Installation VQ <ul style="list-style-type: none"> ❖ Start with installation of VQ 	Training field
13	Installation VQ <ul style="list-style-type: none"> ❖ Continuation with the installation of VQ 	Training field
14	Installation VQ <ul style="list-style-type: none"> ❖ Continuation with the installation of VQ Cleaning up the site	Training field
15	Reporting <ul style="list-style-type: none"> ❖ Reporting (Field service report, Daily site report, Manpower list) ❖ Red marks, VP, HK, HT, shares of supplies ❖ TA Update, new and updated Instructions ❖ Overview of handed out documents on the memory stick Final Examination Final Q and A session	Classroom