

# PASS\_M0S\_L3\_420kV-Training Agenda

PASS PSC- Technical Training

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## Course goal:

This training's primary objective is to ensure a safe and effective operating process that focuses primarily upon the Installation and commissioning (I&C) aspects of Hybrid PASS (Plug and Switch System).

## Main learning objectives:

- Understanding of Detailed component assembly
- How to carryout Minor repairs
- Theoretical and practical knowledge of circuit-breaker's Relevant drive control
- Thorough understanding of the functioning mechanism for the relevant disconnector's Drive.
- comprehensive understanding of handling SF<sub>6</sub> gas.
- Foundational knowledge about Maintenance inspection aspects
- Understanding of how to conduct on-site testing, maintaining H&S aspects, and reporting to the PSC (Product Service center).
- Practical Part of Functionality, Setting and Troubleshooting of Circuit breaker and disconnector drive mechanism.
- Functionality & 3 step for setting Disconnectors and relevant drive mechanism Theoretical Part
- Functionality & 3 step for setting Disconnectors and relevant drive mechanism Practical Part
- Maintenance concept
- Installation of the module On-site activity: Theoretical Part
- Commissioning of the module On-site activity: Theoretical Part
- Installation and Commissioning PASS Installation (simulated) – Practical Part
- Commissioning & Reporting – Practical Part

## Prerequisites:

- PASS M0X L3 Certification
- Training in electrical and mechanical subjects
- Professional experience
- A certification that allows to perform an activity where it is necessary to work on electrical system, both dead and live working at LV or to work in the vicinity of HV systems.
- SF6 certification (relevant in EU)
- Sufficient English language skills
- PPE (Personal Protective Equipment)
- HSE (Health Safety and Environment) and PICW (Person in charge of work) training done
- Heavy loads training
- First aid/emergency

## Topics:

- Training and Certification Process
- Hybrid PASS M0S 420kV
- Theoretical Part of Functionality, Setting and Troubleshooting of Circuit breaker and disconnector drive mechanism.

**This is a theoretical and practical training.**

## Certification:

This is a certification course. A certificate will be issued after the successful completion of the On-site I&C activity which will be conducted by the Training Center.

## Duration:

One Week

## Enrolments:

- FSE's can fill the details in the form given in the below link for enrolment

[https://forms.office.com/Pages/ResponsePage.aspx?id=2eYxe-Gzc0Uyexh3CtBMxlepgS\\_A8TdVFjOFVnAownc-tUMFJHWEpJSEJOODVOTExCVjhDM1dWRkNQNS4u](https://forms.office.com/Pages/ResponsePage.aspx?id=2eYxe-Gzc0Uyexh3CtBMxlepgS_A8TdVFjOFVnAownc-tUMFJHWEpJSEJOODVOTExCVjhDM1dWRkNQNS4u)

And send your request to

[it-training-psc\\_lodi@hitachienergy.com](mailto:it-training-psc_lodi@hitachienergy.com)

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Day	Subject	Location
1	<b>Hybrid PASS M0S 420 kV - Presentation</b>	Lodi Factory
	<ul style="list-style-type: none"> <li>• Introduction to Hybrid high voltage switchgear</li> <li>• Product Description</li> <li>• PASS Types and Families</li> <li>• Additional Features</li> <li>• Commitment</li> </ul>	
	<b>Hybrid PASS M0S 420 kV - Major components</b>	
	<ul style="list-style-type: none"> <li>• Bushings</li> <li>• Current Transformer</li> <li>• Voltage Transformer</li> <li>• Circuit Breakers</li> <li>• Disconnecter</li> </ul>	
	<b>Factory Visit</b>	
2	<b>Circuit Breaker and relevant drive mechanism</b>	Lodi Factory
	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Technical Description of the equipment</li> <li>• Functionality of the equipment</li> <li>• Setting and Troubleshooting of the equipment- Theoretical Part</li> <li>• Setting and Troubleshooting of the equipment- Practical Part</li> </ul>	
3	<b>Disconnectors and relevant drive mechanism</b>	Lodi Factory
	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Technical Description of the equipment</li> <li>• Functionality of the equipment</li> <li>• Functionality &amp; 3 step for setting the equipment – Theoretical Part</li> <li>• Functionality &amp; 3 step for setting the equipment –Practical Part</li> </ul>	

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Day	Subject	Location
4	<b>Installation of the module: On-site (Theoretical Part)</b> <ul style="list-style-type: none"> <li>• General Information</li> <li>• Specifying the Technical referral documents</li> <li>• Service Document requirement for I&amp;C Activity</li> <li>• On-site Installation: Introduction</li> <li>• Fixing of Vertical Support</li> <li>• Installation of the main shipping unit</li> <li>• Bushing's rotation</li> <li>• Earth cables connection</li> </ul>	Lodi Factory
	<b>Maintenance Concept</b> <ul style="list-style-type: none"> <li>• Concept clarification</li> <li>• Maintenance Inspections</li> <li>• Maintenance Plan</li> <li>• Overhaul - Theoretical Part</li> <li>• Certification requirement</li> </ul>	
5	<b>Conclusion</b>	Lodi Factory
	<b>Factory On-site Assessment for Participants</b> <ul style="list-style-type: none"> <li>• Installation and Commissioning</li> <li>• Light Troubleshooting</li> <li>• Review of I&amp;C action &amp; reporting</li> <li>• Evaluation done by the Technical Trainer</li> <li>• Sharing the full-filled supervision Report</li> <li>• Sharing confirmation of attendance along with the current status of Authorization to perform on-site activity (Supervised by Level 3/Above Assessor)</li> </ul>	

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