

# ABB Marine Academy course description

## H880 - Azipod® C technical training

### Course goal

The goal of this course is to train the participants to start-up, operate, maintain and troubleshoot the ABB drive system for Azipod C vessels.

### Learning objectives

Upon completion of this course, the participants will have advanced knowledge of Azipod C system, will understand the functioning of the propulsion and drive control, and will be able to operate and maintain ACS800 Azipod C drive system. The participants will also be able to perform basic troubleshooting of the system. Theory and exercises on the PC tool programs are included.

### Contents

#### General topics

- Introduction to the Azipod C system
- Safety procedures while working on the Azipod
- Azipod C structure and maintenance
- General presentation of ACS800 drives
- Summary of Azipod C control

#### Hardware Description

- ACS800 propulsion and steering drives
- Construction and function of diode supply units
- Construction and function of liquid cooling units
- Construction and function of inverter units
- Construction and function of braking units
- AC800M control system

#### Operation

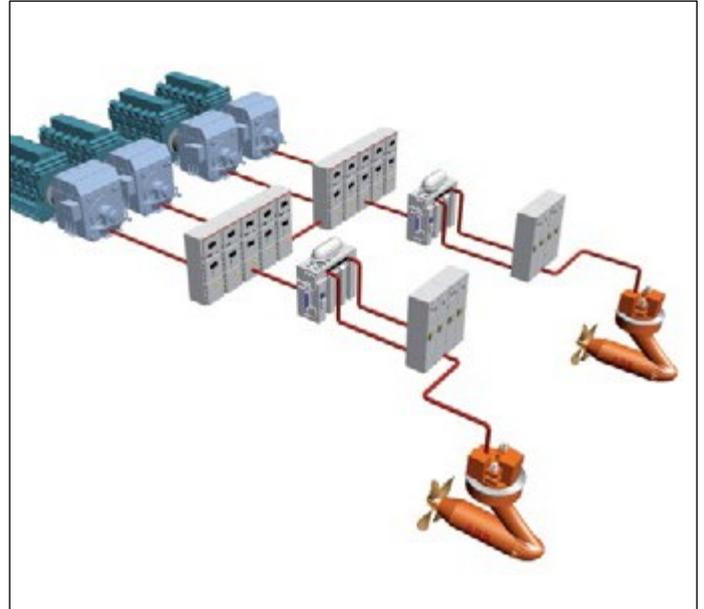
- Removal and installation of Diode Supply Unit (DSU) and Inverter Unit (INU)
- Filling of Liquid Cooling Unit (LCU)
- Change the Fans
- Control Drive Panel (CDP) operation
- Propulsion and steering control
- Operating with Azipod C
- AC800M system recover with CF card

#### Software Introduction

- DriveWindow
- Download/save parameters to and from drive units with DriveWindow
- Compact Control Builder and CF card

#### Fault-tracing and troubleshooting

- Interpret alarms and fault messages of CDP panel and DriveWindow
- LED status of AC800M
- Maintenance and module replacements



### Methods

Classroom lectures  
Demonstration and practical lessons on training ACS800LC and steering simulator

### Student profile

Marine engineers and electro-technical personnel at operational and management level

### Prerequisites

Marine power plant basic for technical staff in ABB propulsion

### Duration

5 days

### Venue

Helsinki  
Houston

### Additional information

Minimum 5, maximum 6 participants

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## Course outline

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Azipod® is the registered trademark of ABB Oy.

#### Day 1

- Introduction to the course
- Introduction to Azipod C system
- Azipod C system structure and overview of maintenance
- Operation of Azipod C
- Azipod C marine software (propulsion and steering control)
- Azipod factory tour

#### Day 2

- Summary of Azipod C control
- Hands-on training with steering simulator
- AC800M control system structure
- AC800M system fault tracing and recovery

#### Day 3

- ACS800 single drive and ACS800LC drive presentation
- Diode Supply Unit (DSU)
- Inverter Unit (INU)
- Liquid Cooling Unit (LCU)
- Brake unit
- Commissioning procedures

#### Day 4

- DriveWindow software
- CDP control panel
- Exercise: DSU module replacement
- Exercises: LCU water filling

#### Day 5

- Drive window software
- Exercise: INU module replacement
- Exercise: start-up
- Fault tracing