

# H870 – LV Power Distribution System

The goal of this course is to train the participants in safe operation, control, configuration and maintenance of ABB LV switchgear MNS, air circuit breakers, molded-case circuit breakers and soft-starters.

**Learning objectives:**

Upon completion of this course, students will be able to locate hardware components, to understand and verify switchgear parts, breaker internal components and components inside cubicles. Students will also be able to perform maintenance, and identify low voltage electrical safety hazards.

**Contents:**

- General topics
  - Safety procedures while working on the switchboard
  - Introduction to ABB Marine Service
  - General marine power plant
  - Power plant regulation principles
- Hardware description
  - LV switchboard MNS compartments
  - Generators, motors and transformers
  - Air circuit breakers, protection releases and accessories
  - Molded-case circuit breakers, protection releases and accessories
  - Introduction to soft-starters
- Operation
  - Removal and installation of air circuit breaker
  - Manual charging of breaker spring and operation
  - Demonstration of use of protection relays
  - Racking of module drawers and identification of various positions of rotary handles on the modules

**Methods:**

Classroom lectures.  
Demonstration and practical lessons on our training switchgears.

**Duration:** 2-4 days

**Student profile:**

Marine engineers and electro-technical personnel at the support, operational and management level.

**Prerequisites and recommendations:**

None

**Venue:**

- Rotterdam, Netherlands
- Houston, USA

**Additional information:**

Minimum 6, maximum 8 participants;  
On-site training is available on request.