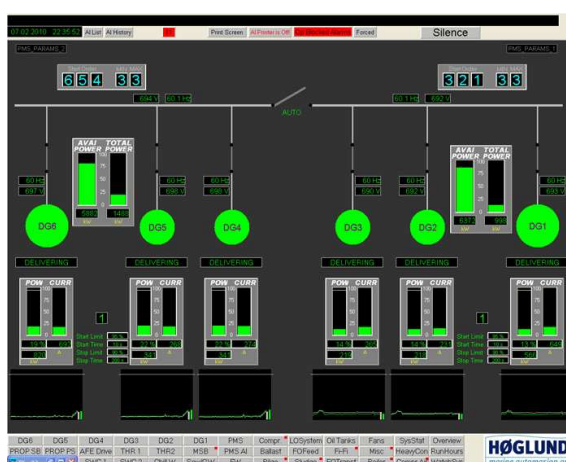
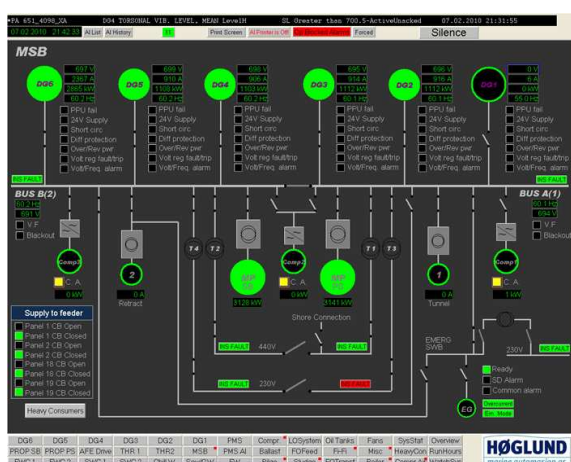


# HMA CONCEPT 800

## Integrated Marine Automation

Introducing the new ABB AC800 Process Controller operated via the HMA OS800 Operator Station



*In the OS800, the displays are easily created and presented using standardized display components. For special needs, customised display components can be created.*

Based upon well proven marine solutions from the previous generation ABB controllers, HMA have now implemented the whole range of marine specific solutions for the new generation ABB Control IT. The new AC800 is utilizes standard profibus I/O and is communicating via a standard IP network.

- Integrated Power Management System
- Integrated logging system with graphical presentation. (all signals)
- Very competitive, not only because of the low price but also with respect of a lot of sophisticated functions for the demanding engineer.
- Standard HW modules with world wide support.

#### ABB AC800M process controller

The HMA Concept 800 is using the new ABB AC800M Process Controller together with the ABB S800 I/O system. The AC800 is modular and scaleable in order to fit into any system from small systems with some hundreds I/O up to larger systems with several thousands of signals.



The controller is using a redundant IP network with communication up to the HMA OS 800 Operator Station. For I/O communication it is using Profibus, and a lot of other standard protocols.

#### System high lights

- Well proven standard hardware with world wide support
- High speed redundant communication network, based upon IP standard technology
- Low space and low power requirements
- Standard programming languages based upon the IEC 61131-3 standard
- Supports standard solutions for all commonly used marine components
- Extremely short application generation time – from database to running system in minutes
- Easy picture design and modification with standard tools and libraries
- Easy definable customer solutions for control logic and display design
- Open Interface for input/output data access from/to third party software
  - Integrated logging system and playback facilities, both local/remote and online/offline

#### Functions overview

- Power Management System
- Cargo Control
- Ballast Handling
- HVAC Control and Monitoring
- Alarm and monitoring
- Information Management System

#### Concept solutions

The major building blocks of the HMA Concept 800 is based upon standard solution libraries. The HMA Solution libraries is based upon a large number of earlier delivered projects with necessary expansions and adoptions for every new type of marine components. Each Solution is divided in two parts: Process Controller-logic block where the signal interface and program logic is defined Operator Station display element, object display and dialogs.



#### System generation method

As 99% of the logic for a marine system is based upon standard solutions, the HMA Concept 800 program blocks are automatically generated from the customer database. In the HMA solution library, the system designer will find a solution suitable for each control object, and insert each control object into the DB tool. When the DB is created, the controller logic is generated by a simple mouse click.

#### Programming method for project specific logic

The process AC800 process controller is programmed with the ABB Control Builder tool. This tool is used to insert project specific logic into the controllers. Any logic may be generated with the powerful ABB SW programming languages supported with the controller. The programming of the AC800 may be performed from any operator station or PC in the network.

#### Customer design project

The customer may design and generate the total system without any engagement from HMA at all. HMA will provide the customer with all necessary generation tools to build a total project. If the project requires special solutions not in the library, this can be added by HMA, or by the customer.

#### ABB S800 I/O module

The I/O modules are very compact and easy to install and expand. Up to 12 units may be installed in each cabinet, where any combination of signals may be installed.



*I/O cabinet with 12 units installed*