Universal Motor Controller UMC100.3

Features and benefits

Safes & Reliable
• Protection at all times, even if your communication system breaks down
• Potential problems are logged and therefore plant availability
• Easy expansion for higher functionality

Integrated and future-ready
• Wide range of communication protocols available
• The UMC100.3 is compatible with more communication protocols than any other motor controller. Serial communication reduces wiring and installation and provides much more data. This allows you to have software that enables predictive maintenance and acts as an intelligent data hub. And the more data you have, the quicker you can identify errors.

Simple configuration
• Wired range of communication modules available
• Embedded into distributed control systems (DCS)
• The only universal motor controller that follows the Field Device Integration (FDI) standard

Safe & Reliable
• Protection at all times, even if your communication system breaks down
• Detect problems early and increase plant availability
• Easy expansion for higher functionality

Easy expansion for higher functionality
On module design means that the UMC meets all control and management requirements, greatly simplifying planning, construction, and inventory. Easy to install modules such as digital expansion modules, analog and temperature modules, and voltage modules – give you complete flexibility and cover a wide range of applications.

Integrated and future-ready solution

Wide range of communication protocols available
• For the UMC100.3 to be compatible with more communication protocols than any other motor controller. Serial communication reduces wiring and installation and provides much more data. This allows you to have software that enables predictive maintenance and acts as an intelligent data hub. And the more data you have, the quicker you can identify errors.

Easy expansion for higher functionality
This modular design means that the UMC meets all control and management requirements, greatly simplifying planning, construction, and inventory. Easy to install modules such as digital expansion modules, analog and temperature modules, and voltage modules – give you complete flexibility and cover a wide range of applications.

Example set up

EXPANSION MODULES

COMMUNICATION MODULES

Example set up

Types of applications

Explosive atmosphere - Robust and compact design - Ground fault monitoring

Water supply and treatment - Pump controls as required - Output control logic for pump checking

Mining - Rated motor voltage of up to 1000 V - Can be used at altitudes of up to 5000 m - Ground fault monitoring

Others
• Steel plants
• Ships
Universal Motor Controller UMC100.3
Intelligent data hub for predictive applications

**Features and benefits**

- **Safe & Reliable**
  - Protection at all times, even if your communication system breaks down
  - Detect problems early and increase plant availability
  - Easy expansion for higher functionality

- **Integrated and future-ready**
  - Multi-language control panel configuration
  - Configuration from the control system by an integrated fieldbus or network configurator
  - Software tool FIM UMC edition

- **Simple configuration**
  - Widest range of communication modules available
  - Integrated into distributed control systems (DCS)
  - The only universal motor controller that follows the Field Device Integration (FDI) standard

- **Wide range of communication protocols available**
  - Serial communication reduces wiring and installation and provides much more data.
  - This allows you to have software that enables predictive maintenance and acts as an intelligent data hub. And the more data you have, the quicker you can identify errors.

- **Easy expansion for higher functionality**
  - Its modular design means that the UMC meets all motor management requirements, greatly simplifying planning, construction, and inventory.
  - Easy-to-attach modules – such as digital expansion modules, analog and temperature modules, and voltage modules – give you complete flexibility and cover a wide range of applications.

**Types of applications**

- **Cement factories**
  - Robust and compact design
  - Several inputs, e.g. for querying the position of the damper limit switches

- **The oil and gas industry, chemical industry**
  - Programmability
  - Ground fault monitoring and configurable restart following voltage drops
  - Protection of motors in hazardous environments (ATEX)
  - Use in IT networks

- **Pulp and paper plants**
  - Modular design
  - Flexible communication
  - Versions with conformal coating available

- **Mining**
  - Rated motor voltage of up to 1000 V
  - Can be used at altitudes of up to 5000 m
  - Ground fault monitoring

- **Water supply and treatment**
  - Pump controls as required
  - Underload detection with 2 x detection
  - Own control logic e.g. for pump cleaning

- **Others**
  - Steel plants
  - Ships

**Example setup**

- Connection to DCS, 800xA and gateway for ABB Ability™

**Components**

- Universal Motor Controller UMC100.3
- Manual motor starter
- Voltage module
- Digital module
- AF contactors
- Analog / temperature module
- Communication modules
  - Industrial Ethernet
    - Ethercat™/IP™
    - Profinet™
    - Modbus TCP
  - DeviceNet™
  - Profibus DP
- Expansion modules
  - Connection to DCS, 800xA and gateway for ABB Ability™