MICROMASTER 411/COMBIMASTER 411 distributed drive solutions

MICROMASTER 411/COMBIMASTER 411 is included in the DA 51.3 Catalog that includes the entire product range with ordering data, technical specifications and explanations.

Application

MICROMASTER 411 and COMBIMASTER 411 are the ideal solution for distributed drive applications that require a high degree of protection for the converter. The devices are designed for a wide drive range – for simple individual applications for pumps and fans through to multiple drives for conveyor systems in networked control systems. The ECOFAST versions of the MICROMASTER 411/COMBIMASTER 411 frequency converter series contain plug-in cables for the power supply, communications interface and motor connections. They support fast and problem-free replacement in time-critical applications and are completely compatible with the ECOFAST technology systems. They are based on the universal MICROMASTER 420 converter series and are characterized by customer-oriented performance and ease of use.

Structure

The modular structure allows MICROMASTER 411/ COMBIMASTER 411 products and their accessories to be individually selected, e.g. electromechanical brake control module or PROFIBUS module.

Main features:

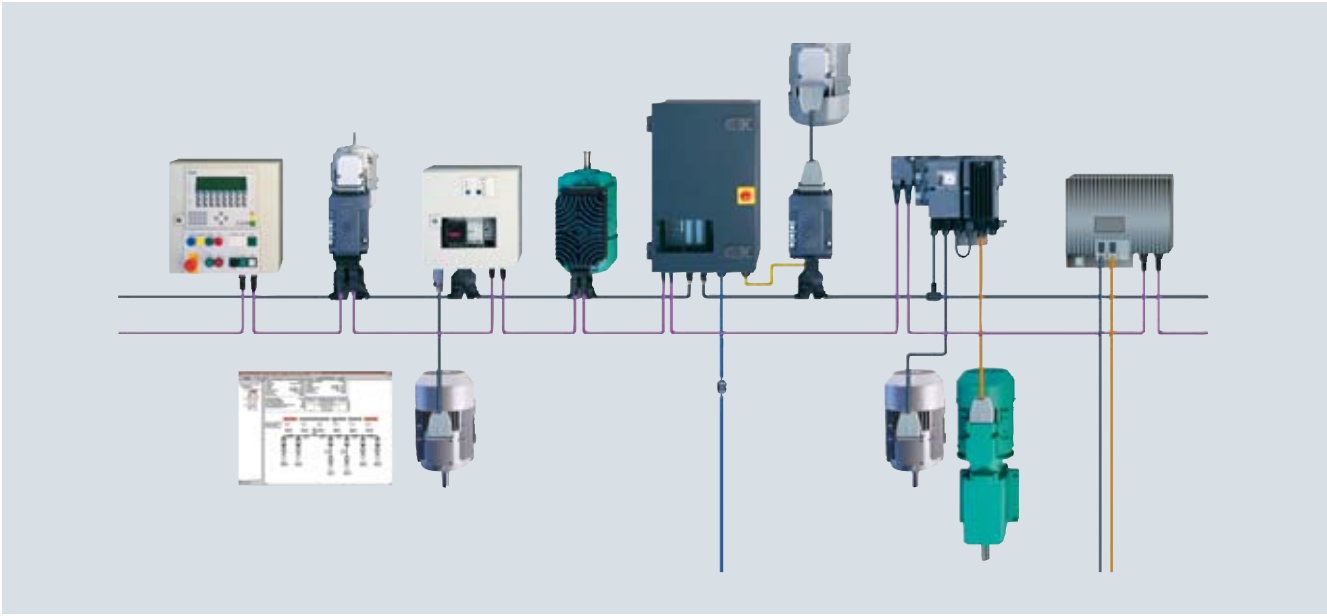
- Output range: 0.37 to 3.0 kW, 400 V, 3AC
- IP66 degree of protection (MICROMASTER 411), self-cooling
- Electrical isolation between the electronics and the connection terminals
- Parameter sets for fast startup and cost savings
- Modular structure with numerous accessories
- Operation without operator panel possible (using jumpers and/or control potentiometer)
- Integrated control potentiometer accessible from outside.

Accessories (overview):

- Basic Operator Panel (BOP) for parameterizing the converter
- Plain text Advanced Operator Panel (AOP) for MICROMASTER 411 and COMBIMASTER 411 with multiple-language display
- PROFIBUS module
- AS-Interface module
- DeviceNet module
- REM module (dynamic brake and control module for electromechanical brake)
- EM module (electromechanical brake control module)
- PC connection kit
- Mounting kits for installing the operator panels
- PC startup programs.

Note:
The application guidelines or guidelines for the design and operating performance of induction motors with squirrel-cage rotor defined in standards DIN IEC 60034-17 and DIN IEC 60034-25 must be observed for converter-fed induction motors with squirrel-cage rotor.

ECOFAST system



ECOFAST is a system which permits extensive decentralization and a modular structure for installation elements on the component level.

Benefits

The main advantages of the ECOFAST motor connector over a terminal strip are as follows:

- Fast assembly of I/O devices (e.g. motor starters) from the ECOFAST system.
- Reduction of assembly and repair times at the end user
- No wiring errors due to connector technology
- Replacement of motor without intervention in the electronics.

Main features of the ECOFAST motor connector

The motor connector is mounted in the factory and replaces the connection box with terminal board. The connector is mounted towards the non-drive end (NDE). It comprises an angled motor connection casing that can be rotated by 4 x 90°. A 10-pole (+ earth) male insert is used in the housing. In the plug-in connector, the winding connections are connected and optionally the power supply for the brake and the signal leads for the temperature sensors.

The ECOFAST motor connector is compatible with the products of the ECOFAST field device system. Further information can be found in Catalog IK PI.

The mounting dimensions of this housing match those of standard industrial connectors, so it is possible to use a complete series of different standard inserts (such as Han E, ES, ESS from Harting). The motor circuit (star or delta connection) is selected in the mating connector for motor connection. The relevant jumpers are inserted by the customer in the mating connector. As a housing for the mating connector, all standard sleeve housing with lengthwise locking, frame size 10B (e.g. from Harting) can be used.

Only one sensor (temperature sensor or PTC thermistor) can be connected.

Maximum admissible mains voltage on motor connector: ≤500 V

Availability of the ECOFAST motor connector

The ECOFAST motor connector can be supplied for the following motor versions with the exception of the explosion-proof motors:

- Frame sizes 56 M to 132 M
- Output range 0.06 to 5.5 kW (7.5 kW on request)
- The rated current of the ECOFAST motor connector is limited to ≤16 A.
- Direct on-line starting: Voltage code **1** for 230 VΔ/400 VY, 50 Hz
- Star-delta starting: Voltage code **9** with order code **L1U** for 400 VΔ, 50 Hz

More information

Further information is available in Catalog IK PI and in Catalog DA 51.3 “MICROMASTER 411/COMBIMASTER 411 distributed drive solutions” as well as on the Internet at: http://www.siemens.com/ecofast