

Variant Independent Options

Software and operator control

Basic Operator Panel (BOP)

With the BOP, individual parameter settings can be made. Values and units are shown on a 5-digit display.

A BOP can be used for several inverters. It is mounted in the operator panel mounting kit, for connection to the external communication interface of the inverter.

Advanced Operator Panel (AOP) for MICROMASTER 411/ COMBIMASTER 411

This AOP is used specifically for the MICROMASTER 411/ COMBIMASTER 411 products.

The AOP enables parameter sets to be read out of the inverter or to be written into the inverter (upload/download). Several different parameter sets can be stored in the AOP. It has a plain-text display with the possibility of switching between several languages.

It is mounted in the operator panel mounting kit, for connection to the external communication interface of the inverter.



Basic Operator Panel (BOP) and Advanced Operator Panel (AOP)

Commissioning Tools

- **STARTER**
is start-up software for guided commissioning of the MICROMASTER 4 series under Windows NT/2000/XP Professional¹⁾. Parameter lists can be read out, altered, stored, entered and printed.
- **DriveMonitor**
is start-up software for list-oriented parameterization of frequency inverters. This program can run under Windows 95/98/NT/2000/XP Professional. Both programs are part of the Docu-CD supplied with each unit.

Communication modules

PROFIBUS Module

For a complete PROFIBUS connection with ≤ 12 Mbaud. The PROFIBUS module can be powered from an internal or external 24 V DC supply so that the bus is active when the power is removed from the inverter.

The PROFIBUS module in the form of a separate module can be screwed onto the case of the MICROMASTER 411/ COMBIMASTER 411.

AS-Interface Module

This module enables the COMBIMASTER 411/ MICROMASTER 411 inverter to communicate as a slave in an AS-Interface (actuator-sensor interface) communications network. In a standard AS-Interface system, up to 31 slaves can be connected, whereby each slave has up to 4 inputs and up to 4 outputs.

The module uses an external housing.



AS-Interface module and PROFIBUS module

DeviceNet Module

This module enables the COMBIMASTER 411/ MICROMASTER 411 inverters to communicate as nodes in a DeviceNet communications network.

The DeviceNet module allows transmission speeds of 125, 250 and 500 kbps.

The module uses an external housing.



DeviceNet module

1) STARTER Version 3.0 and higher

Variant Independent Options (continued)

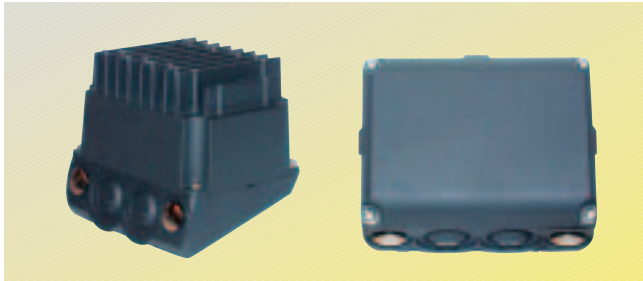
Brake function module

EM Module (electromechanical brake control module)

This module controls an electromechanical brake mounted on the motor. The module is for mounting on the casing of the MICROMASTER 411/COMBIMASTER 411. For more information on the motor brake, see Catalog M11 "Technical Information", "Brakes".

REM Module (resistor and electromechanical brake control module)

This module contains a brake chopper with brake resistor and controls an external electromechanical motor brake. The module is enclosed in an external housing with the same degree of protection as the product series.



REM module and EM module

Additional options

Operator Panel Mounting Kit

The mounting kit is used to mount the operator panel BOP/AOP for connection to the inverter.

Interface Link Cable, serial

This cable is for connecting the serial interfaces of a MICROMASTER 411/COMBIMASTER 411 (M12 connector) to a PC (9-pin, D-type).

Connection Set for PC to Inverter

This kit allows the inverter to be controlled directly from a PC with installed software (eg. STARTER). Includes an isolated RS232 adapter board for reliable point-to-point connection to a PC. It is used in conjunction with an operator panel mounting kit.

Connection Set for PC to AOP

This kit allows a PC to be connected to an AOP. Offline programming of inverters and archiving of parameter sets are possible. Includes a desktop attachment kit for an AOP, an RS232 standard cable (3 m) with Sub-D connectors and a universal power supply unit.

Operator Panel Door Mounting Kit for Single Inverter

This mounting kit is for fixing an operator panel in the door of a control cabinet. Degree of protection IP56. The mounting kit contains a cable adapter module with screwless terminals for a 5 m cable assembly.

5 m Cable Assembly for Door Mounting Kit

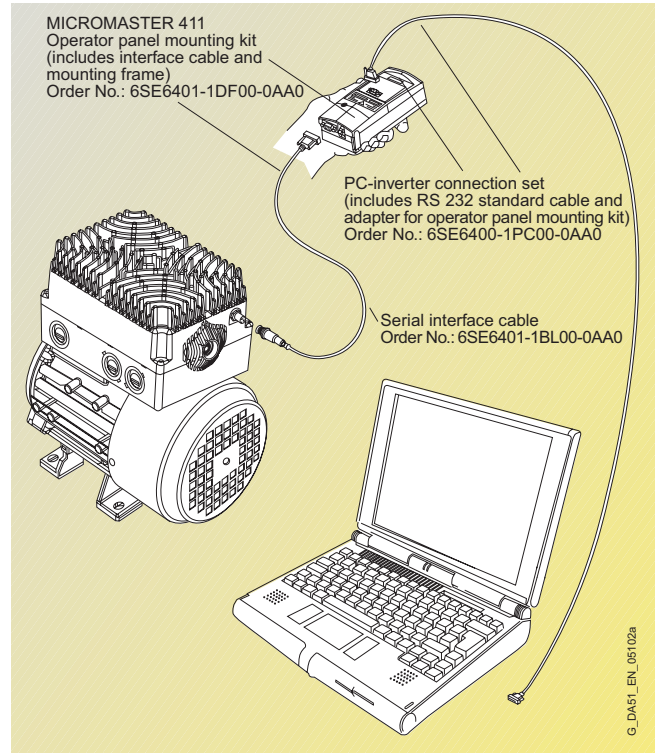
This 5 m cable acts as the serial connection between COMBIMASTER 411/MICROMASTER 411 inverters and a door-mounted operator panel.

Wall Mounting Kit for MICROMASTER 411

This option enables the MICROMASTER 411 to be mounted near the motor (max. motor cable length: 5 m).

Motor Adaptation Gasket for non-Siemens Motor

This gasket enables a MICROMASTER 411 inverter to be mounted on a flat surface or on non-Siemens motors.



Parameterization with operator panel mounting kit or PC-inverter connection kit (see also section "Key to programming options").

Variant Independent Options (continued)

Key to Programming Options

	Operator Panel Programming	PC Programming	PC Programming (with Isolation)	PC Programming of AOP, loading data in inverter	Operator Panel Door Mounting Kit Programming
Operator Panel Mounting Kit (includes: Desktop Frame + Interface Link Cable)	●		●		
Interface Link Cable, serial		●		●	
Connection Set for PC to Inverter			●		
Operator Panel Door Mounting Kit					●
Operator Panel BOP	● ¹⁾				● ¹⁾
Operator Panel AOP	● ¹⁾			●	● ¹⁾
5 m Cable Assembly (M12)					●

1) Either BOP or AOP required.