

# ABB motion control drives ACSM1-04

ACSM1-04 drives provide speed, torque and position control for demanding applications. They can control induction, synchronous and asynchronous servo and high torque motors with various feedback devices. The compact hardware, different variants and programming flexibility ensure optimum system solutions.



## Highlights

- Wide power range up to 355 kW
- Compact design for single and multidrive systems
- Regenerative supply for applications with high braking power duty cycles
- Functionality can be easily extended using a block programming tool
- Functional safety as standard

## Applications

- Plastics and rubber
- Material handling
- Woodworking
- Printing
- Food and beverage
- Extruders
- Label printing
- Coaters
- Winders
- Automatic storage

## Designed for machine builders

The proven motor control platform, direct torque control (DTC), provides high performance across all applications. The drives with various mounting options give flexibility for a variety of cabinet designs. Control and communication options can be added via three slots. A series of drive tools support commissioning, tuning and programming.

## Machine safety

The drives feature a built-in safe torque-off (STO) function as standard which disables the power semiconductors. As such, the drive cannot power the motor making it torque-free. More safety functions, such as safe stop 1, safe brake control, safely limited speed, safe speed monitor and safe direction, can be implemented with external safety system options.

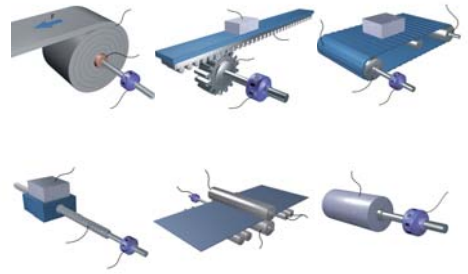
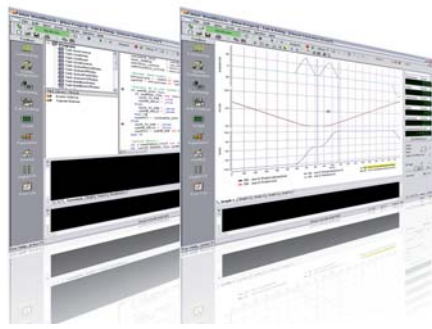
## Modular and compact design

- Seven compact frame sizes with several with several mounting and cooling options
- Function block programming capability according to IEC61131
- Scalability with internal and external options
- Global compatibility with machinery environment and standards

## System offering

ABB offers a broad motion control automation system comprising controllers, drives, motors and accessories that are designed to work seamlessly together. The services offered to support the integrated system span the entire value chain, from the moment a customer makes the first inquiry to disposal and recycling of the various components. All of this is supported by one of the most extensive global sales and service networks.





### Real-time control of multi-axis system with EtherCAT®

EtherCAT® connectivity offers a realtime drive control interface for advanced multi-axis systems. The drive is an ideal partner to the ABB AC500 PLC product line, providing an industry standard solution with IEC 61131 programming and PLCopen motion functions.

### Drive tools

The control panel offers quick access to simple settings and changes. DriveStudio is an advanced PC tool for more complicated applications.

DriveSPC tool further extends the functionality having a function block interface with drive firmware functions. The extensive standard function block library covers most needs for custom

modifications. The application control programs have dedicated function block libraries, such as those for the CAM profiler. The desired CAM profile is programmed with the DriveCAM tool.

The DriveSize selection tool helps to choose the optimum motor and drive combination. The ready-made sizing examples, within the tool, cover the most typical linear and rotary movements.

### ACSM1-04 drive

- AC supply: 200 (400) to 500 V AC 50/60 Hz
- DC supply: 270 (540) to 675 V DC
- Output: 3 to 635 A rms in seven frame sizes

### I/O extension

Interface options for analog and digital I/O extension

### Speed/position feedback

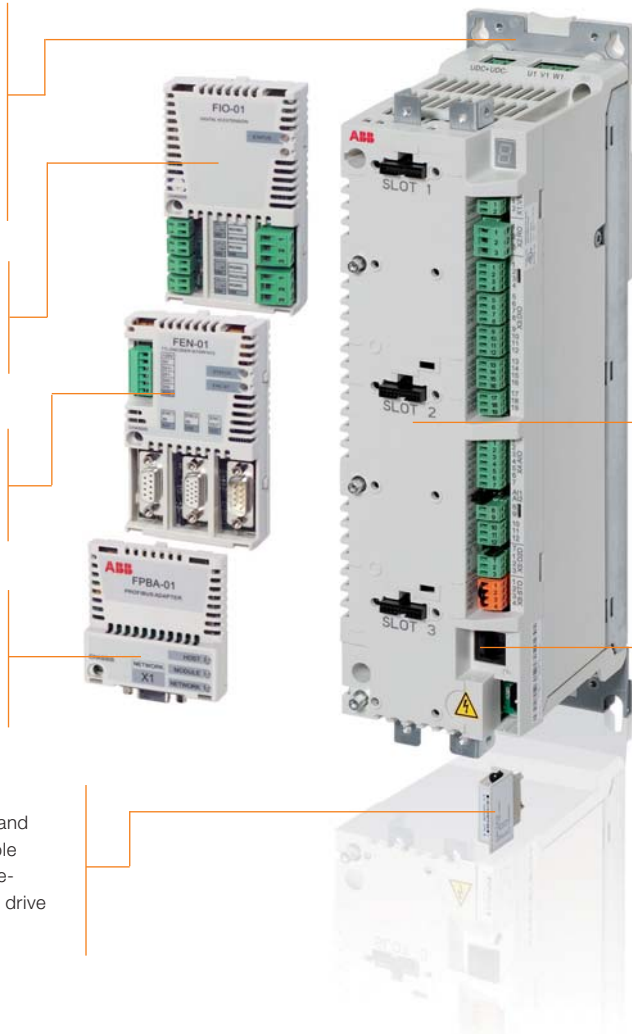
Interface options with two inputs and one output

### Communication

Interface options for most common fieldbuses and real-time synchronous communication

### Memory unit

The complete drive configuration and settings are stored in the removable memory unit, making it easy to pre-configure, update and replace the drive



### Control interface

- Internal or external 24 V supply
- 7-segment status display
- Digital I/O: 6 x DI, 3 x DI/O, 1 x RO
- Analog I/O: 2 x AI, 2 x AO
- Thermistor input: PTC, KTY
- Safe torque-off
- Option slots: Three slots for analog and digital I/O, feedback and communication plug-in options

### User interface

- DriveStudio
- DriveSPC
- Control panel

For more information please contact your local ABB representative or visit:

[www.abbmotion.com](http://www.abbmotion.com)  
[www.abb.com/drives](http://www.abb.com/drives)  
[www.abb.com/drivespartners](http://www.abb.com/drivespartners)

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