

## **1 Module = Control unit plus 6 power amplifiers**



The MACS5-AMP product line combines a fully featured motion control unit and up to six power amplifiers for brush-type and brushless motors. The very compact module can be used for multi-axis drive positioning, drive synchronization and CAM profiling. License free motion control features, free programmability, different kinds of encoder interfaces, plus modern bus interfaces are the basis for the easy integration of the MACS5 into PLC and PC systems. The very modular and flexible hardware design is the key to adapting the MACS5 even to cost-sensitive, high-volume OEM requirements of small but powerful standalone controls.

All modules of the MACS5 product line can be used as autonomous "intelligent" operating slave devices focused on motion control tasks. Modern bus interfaces like EtherCAT, CAN, Powerlink, Profinet, Ethernet, and USB allow fast data exchange with any kind of PLC and PC system.

Fully featured DS402 "multi-axis slave state machine" functionality offers a standardized software interface to integrate the MACS5 easily into PLC systems of different suppliers. The free programmability feature enables the user to add custom-specific operating modes to the DS402 functionality as well. It is also possible to integrate subprocess tasks into the MACS5 or even to use it as a standalone device control without the additional need of a PLC or PC.

The integrated servo amplifiers of the MACS5-AMP fit all kinds of low-voltage brush-type and brushless motors (typ. 12-48V, 1-1000W) with up to 10A continuous and 30A peak current each. Incremental encoders, glass scales with 1Vpp SinCos signals, SSI absolute encoders, CANopen or EtherCAT devices, or even analog potentiometer signals can be connected directly to provide the feedback information necessary for drive positioning, drive synchronization and CAM profiling.

The MACS5-AMP modules combine multi-axis motion control features and power amplifiers in a unique, optimized way. The MACS5 product line is designed for machines and devices that demand precise and efficient motion control solutions.

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