

CANopen module for Integrated AC Servo Motors

JVL Industri Elektronik A/S, a Danish company, announces a new expansion, CANopen, module for their MAC, Integrated AC Servo motor

The CAN module offers:

- Control and setup
- Logic I/O for high speed start/stop
- CANbus/CANopen DS 301
- CANopen DSP 402 and DeviceNet under development

The module can be delivered with integrated cable with watertight connections for use in harsh environments or be delivered with M12 connectors

The modular built-up of the JVL Integrated MAC motors makes them extremely versatile for very many applications.

The MAC motor is an AC servo motor and controller combined in a single unit, offering previously unseen low pricing for the OEM market. Integrating electronics in a motor has been achieved previously, but never in such a compact unit with *true AC servo performance*. In the MAC motor, the servo motor, hall sensors, encoder and control circuitry have been especially designed by JVL to provide a self-contained, integrated unit in which the driver and controller are mounted behind the motor in a sealed housing.

System intelligence is thereby decentralized by off-loading control functions to the device level. This makes the MAC motor well suited for distributed control architectures which are prevalent in factory automation processes today.

The MAC motor is available in 5 models: 50, 95, 140W and 400 and 750W. Motor parameters are set-up via an RS232 port using Windows software MacTalk.

Numerous Advantages

There are many benefits achieved from having the intelligence at the device level.

- **Reduced material costs**
Because the drive and controller are in the motor *most cabling to a control panel is eliminated*
- **Reduced labor costs**
With cabling eliminated, assembly time is greatly reduced
- **Better quality & reliability**
Fewer connections, less wiring
- **Ease of serviceability**
Because all electronics are self contained you simply change out the motor
- **Better noise immunity, less noise transmission**
I/O is integral eliminating noise induced from external wiring issues
Switching noise from the drive due to commutation is contained in the motor

- **Reduced setup time**

- 4th order digital filter requires only one tuning parameter for load or reflected inertia

- **OEM cost savings**

- Modular approach means you only pay for the functionality required

Modular Approach

JVL has adopted a modular approach to system functionality. The MAC line starts with a base model that includes the hall-effects, encoder, drive and controller with basic motion profiling.

Application specific requirements for I/O, connectors, network and PC/PLC options are handled through the use of add on modules which piggy back the main board within the motor. In this manner the customer only pays for the functionality necessary for the specific application.