

SERVO AND STEPPER

Motor and drive bundled

Servotronics (Israel) introduced a solution comprising the Pro2 motor and the CDHD/DDHD drive. Additionally, the company launched the SoftMC-3 motion controller and the StepIM stepper motor family.



The Perfectly Matched Servo bundle

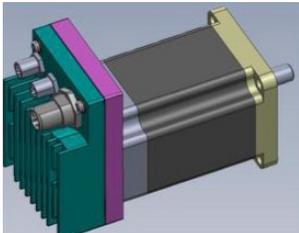
The servo drive and motor bundle
(Photo: Servotronics)

AT SPS IPC DRIVES, SERVOTRONIX WILL PRESENT its servo and stepper solutions featuring CANopen connectivity. The servo drive and motor bundle covers a performance range from 50 kW to 7 kW. The frame sizes vary from 40 mm to 180 mm. Adding the range of torque ratings and rotor inertias, the bundle can be optimized for performance and for energy efficiency. The product features a safe torque-off function (STO), which is provided as a remote function accessible via CANopen. Other local functions include I/O interfaces. To simplify commissioning, the product provides an integrated auto-tuning capability. It also comprises the company's proprietary SensAR 20-bit magnetic absolute encoder.

4-axis motion controller

Servotronics has also introduced the SoftMC3 controlling 1 to 4 servo or stepper axis. According to the provider, the product has a small footprint. It is intended for applications such as mechanical stages, gantry tables as well as Delta and Scara robots. The motion controller continues to use the Linux operating system with real-time extensions to ensure precise coordinated motion. Interface to servo drives and I/Os is via CANopen. An Ethernet port provides TCP/IP interface to a host computer, and Modbus-TCP software enables connection to HMIs and operator panels.

The StepIM stepper motor family is available since some time with an IP20 rating. In Nuremberg at the SPS IPC Drives, the company will present an IP65-rated integrated stepper motor. It has the same electrical and speed/torque performance as the IP20 models, with a number of enhancements to achieve IP65. An oil seal has been added to the motor shaft, and rubber seals have been added to the motor stacks and heat sink. The LED indicator has also been insulated. Moreover, the three connectors for bus power, CAN communication and for I/Os have been changed, respectively, to M12/5, M8/5 and M8/8 connectors that provide IP65 sealed connectivity.



The StepIM (Photo: Servotronics)

The IP65 model provides three inputs, one output, and one analog input, while the s IP20 models have four inputs, two outputs and one analog input. The new family members are currently available in three NEMA 23 lengths. The operating voltage ranges from 14 to V_{DC} 48 V_{DC} , with torque ranging from 1 Nm to 3,25 Nm depending on motor length. The stepper module controls the axis via CANopen according to the CiA 402 profile. It supports six CiA 402 modes of operation: profile position, profile velocity, torque profile, homing, and cyclic synchronous position as internationally standardized in IEC 61800-7-201/301. According to the provider, the integrated design of motor, control and power electronics minimizes the effort and expense associated with machine installation, since wiring and cable routing are reduced.



The SoftMC3 (Photo: Servotronics)