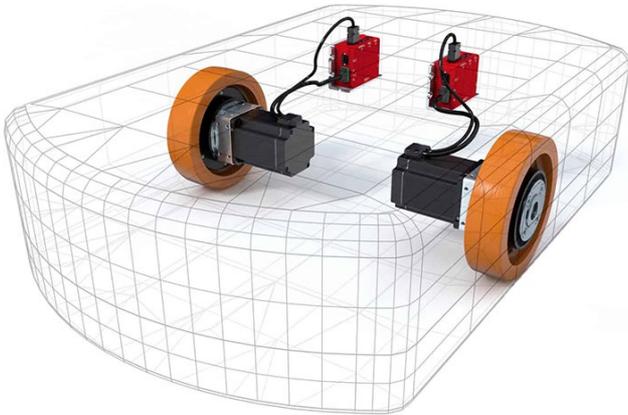


Wheel drive system for automated-guided vehicles and robots

STXI Motion introduced its MobiMS mobile motion system. It is a complete wheel drive system for automated-guided vehicles (AGV) and autonomous mobile robots (AMR) in intralogistics and warehouse applications.



The mobile motion system MobiMS is from STXI Motion which is a global motion control and servo solution company (Source: STXI Motion)

The used servo drive is CANopen-capable. Optimized for AGV and AMR requirements, the system features the MobiGM high-torque density brushless servo motor, planetary gearbox, brake, encoder, and ServSD servo drive. The servo drive is ready-to-connect and comes with an output current of up to 30 A. It communicates via CANopen. The servo drive is suited to stationary and mobile low-voltage applications in the following industries: Intralogistics incl. AGV, AMR, medical equipment, laboratory automation, printing machines, electronic assembly, as well as semiconductor equipment.

As an integrated system, the mobile motion system saves space for other components and simplifies the cabling and mechanical design of the mobile vehicle, explained the company. "Designed for durability, the MobiMS system offers shock and vibration resistance, making it suitable for use on rough surface conditions in demanding warehouse environments," said Alex Lee, General Manager of STXI Motion, North America. Available with a 200-

mm wheel, 165-mm wheel, or without a wheel at all, the system has a motor frame size of 80 mm, 1:22,5 gear ratio in the gearbox, IP40-rated motor, and a maximum wheel load of 900 kg at 1,1 m/sec and 600 kg at 2,8 m/sec.

The product can connect to a commander motion PLC (programmable logic controller) or a modular safety controller and offers a safe torque off (STO) electronic signal function for operation. A low-current servo system also minimizes recharging cycles and increases range, the company added. Additionally, the device also controls the AGV over a range of speeds, allowing it to run even at low speeds. "This mobile motion system was designed specifically to make AGV building an easier process by incorporating all necessary components in a compact, easy-to-use solution," said Lee.

The company recently received a CANopen vendor-ID from CAN in Automation (CiA). The [CANopen vendor-ID](#) is used to identify the manufacturer of a CANopen product. It is required since CANopen version 4 and by EN 50325-4. All vendor-IDs are assigned by CiA.

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