Press Release

Lenze at SPS 2025: Efficiency and flexibility for the next generation of machines

Hamelin/Nuremberg, 14.10.2025. At SPS 2025 in Nuremberg (25-27 November), drive and automation specialist Lenze will be presenting a comprehensive portfolio for modern mechanical engineering in Hall 7, Stand 391. The focus will be on solutions that help machine manufacturers to sustainably increase productivity and energy efficiency while at the same time meeting the challenges of a shortage of skilled workers, cost pressure and the need for innovation. Visitors will experience practical innovations for greater efficiency, flexibility and sustainability in mechanical engineering. With a MotoGP motorcycle simulator from sevensim, Lenze demonstrates its comprehensive motion expertise with a realistic and exciting five-axis application. It ranges from the mechanical and electrical design to the application.

MF motor m650-F - A powerful package: motor + gearbox + drive

One of the Highlights of this year's trade fair appearance will be the MF motor m650, which Lenze will be presenting for the first time at the fair. Based on Lenze's new m500 motor platform, the m650-F offers efficiency class IE3 instead of IE2. A comprehensive range of options, consisting of spring-applied brakes (also for emergency stops from high speeds) and space-saving incremental encoders integrated into the end shield, completes the range. The m650-F saves space and weight as it is two sizes smaller than a conventional three-phase motor. With a low moment of inertia and high overload capacity, it is dynamic and energy-efficient and is not affected by any efficiency directives worldwide.

With the appropriate gearboxes and VFDs from Lenze, the m650-F forms a powerful, reliable and particularly compact drive system.

The direct gearbox mounting with central thread supports the compactness and reduces the installation space. The space-saving and powerful decentralized i550 and i650 motec VFDs can be mounted directly on the motor terminal base.

i950 multi drive: The next evolutionary stage for modular drive systems

With the i950 multi drive Lenze is presenting an evolutionary expansion of its portfolio that offers maximum freedom in the implementation of complex multi-axis applications thanks to its high level of modularity and openness.

A tried-and-tested DC rail system has been integrated into the proven functional scope of the i950 servo drive platform, which significantly simplifies cabling and creates noticeable time and cost benefits. The integrated DC-Link functionality contributes to further optimization of the system design. With a power range from 0.55 to 30 kW and increased overload capacity, the i950 multi drive impresses with its compact design, without compromising on modularity and flexibility.

This makes it ideal for demanding motion tasks that require precise, dynamic and synchronized processes. Typical applications include printing and forming systems with multiple axes, automated packaging lines, high-precision cutting and forming machines as well as storage and retrieval machines. The i950 can be operated both centrally via a higher-level control system and with its own logic in the drive.

Lenze Motor Drive System IE5/IE6 with i650 motec: Decentralized intelligence and energy efficiency

The decentralized i650 motec VFD expands the Lenze portfolio with an intelligent solution for wall and motor mounting. It enables self-sufficient machine modules thanks to integrated Logic PLC and table positioning.

The IO-Link master functionality provides high-quality operating data directly from the drive technology, which forms the basis for IIoT applications and predictive maintenance. The integrated regenerative module ensures that braking energy is fed back into the mains, which significantly increases energy efficiency. The high performance is also impressive: the i650 motec achieves 300 percent overload torque from a standstill. It can be started from standstill to full load without any problems and without motor feedback. This means that the system can be designed more precisely for continuous operation, as it is not oversized, and then immediately delivers the required power. In combination with IE5/IE6 synchronous motors, the result is a highly efficient motor drive system that saves space and reduces the carbon footprint.

Modular machine concepts and open interfaces

With the Lenze FAST Application Software and the PLC Designer 4.1 (based on CODESYS), Lenze offers a powerful toolset for the simple and efficient creation of modular software architectures. Machine variants can be configured flexibly - regardless of the hardware used. This shortens the time to market and reduces sources of error in the engineering process.

Commissioning is quick and straightforward thanks to guided routines, auto-tuning and pre-configured applications. Automated engineering workflows reduce manual work steps and shorten set-up times, so that even small batch sizes can be produced economically and flexibly.

Thanks to the support of open market standards such as EtherCAT, PROFINET and OPC UA, Lenze enables seamless and flexible integration into existing industrial system environments. End-to-end data access from the drive to the cloud creates transparency and opens up new potential for digital services.

MotoGP motorcycle simulator demonstrates motion expertise

With a motorcycle simulator from sevensim, Lenze is demonstrating its motion expertise in a realistic and exciting way. It demonstrates end-to-end solution expertise from mechanical and electrical design through to application - including Motion Controller c520, integrated position control, Safety STO,

gearmotors with integrated encoder, Direct Drive and the EASY System Designer for system design. Customers benefit from motion technology from a single source, ideal for coordinated multi-axis applications.

This can be seen and felt perfectly in the five-axis application for front and rear wheel drive, track gradient, drift and lean angle. The SNR axis from Lenze Selection is responsible for the drift. The innovative SNR linear axes enable realistic drift simulations in the motorcycle simulation.

About Lenze

Lenze is a leading drive specialist for machine and plant engineering. For more than 75 years, the company has been a pacemaker and strong partner at its customers' side. With the help of the triad of electromechanics, electronics and software, Lenze accompanies its customers and helps them to optimize production and logistics processes, cut costs and reduce their energy consumption.

The Lenze Group, based in Aerzen, employs more than 3,600 people worldwide and is represented in 45 countries. Group-wide, the company generated a turnover of 828 million euros in the 2023/2024 financial year.

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