

Innovative Drive and Automation Solutions for Solar Tracking Systems



Movement for Regenerative Energy Systems

Even renewable energy systems require a mechanical, electromechanical or mechatronic drive. The key to attaining a real competitive advantage lies in creating innovative, safe and energy-efficient concepts. Starting from a comprehensive modular system for drive components all the way to customized solutions with worldwide services, SEW-EURODRIVE has the right modules for every task.



SEW-EURODRIVE is an international familyowned business with roughly 15,000 employees worldwide and global sales of more than EUR 2.5 billion. With 76 Drive Technology Centers and 15 production plants in 45 countries, we make sure that the world keeps moving.



Increase Your Cost Transparency, Profitability and Availability. Reduce Your Overall Costs with SEW-EURODRIVE

SEW-EURODRIVE is a pioneer in decentralized drive technology. We realized early that modern system architectures and their particular design traits require customized drive solutions. SEW-EURODRIVE reacted to this market demand by developing autonomous, efficient

systems that do not require a control cabinet. Today, our solutions set the standards for decentralized drive technology. Modularity, flexibility and profitability allow them to fulfill the crucial requirements of modern automation technology.





Durable Drive and Control Technology for Heliostat Solar Towers and Line-Focus CSP Plants

Solar tracking systems must provide a high level of operational safety, reliability and durability each and every day — even under adverse environmental conditions. Decision makers who are responsible for purchasing equipment for CO₂-neutral power stations look at more than the pure cost of the investment. The follow-up costs that accompany purchase, use and disposal also have a considerable influence on their decision. In addition, aspects such as

investment security, environmental protection, process optimization and worldwide spare parts availability are becoming increasingly important in terms of global competitiveness. Considerations with regard to total cost of ownership (TCO) are gaining more importance from an economic point of view. With drive solutions "made by SEW-EURODRIVE", you can increase cost transparency, improve the efficiency of your processes and reduce lifecycle costs.

For Your Solar Tracking Systems: Our Mechatronic Drive Systems in IE4

Follow us on the new and innovative path for solar thermal tracking systems. With MOVIGEAR® mechatronic drive systems or the DRC.. electronic motor, we offer you two components for your solar thermal power plant that stand for high levels of energy efficiency and flexible drive functionality.

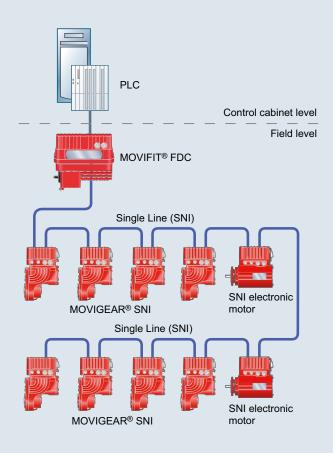


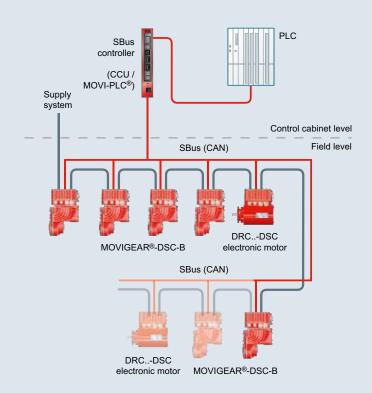
MOVIGEAR® combines motor, gear unit and electronics in a compact mechatronic unit and is best equipped for use under adverse environmental conditions with its degree of protection, IP65/66. The DRC.. electronic motor provides new momentum in decentralized installations. With its large number of areas of application thanks to the gear-side open design and the optional mechanical brake, it also represents

innovative drive technology and extremely high standards of product quality "made by SEW-EURODRIVE".

The IE4 super premium efficiency of the mechatronic drive system emphasizes our standards for a sustainable, energy-efficient drive solution. Thanks to the SNI principle, which involves using only one cable to transfer energy and

information, we make system planning, design and startup simple and easy. Our MOVITOOLS® MotionStudio software package is available for startup, diagnostics and worldwide remote maintenance via Ethernet.





SNI concept SBus concept

As a result of the simplified installation, system costs and total cost of ownership can be greatly reduced. By combining permanent-field synchronous motors and gear units and by using highly efficient gearing components, new electronic components and innovative open-loop and closed-loop control processes, the system presents a solution for an extremely wide range of future applications.

One thing is certain – With MOVIGEAR® and DRC.., SEW-EURODRIVE has optimally applied the central requirements and expertise of leading OEMs in the field of general system construction.

Tell Us About Your Application – We Have the Right Solution for You

Flexible and high-performance control of solar tracking systems

Decentralized drive controller MOVIFIT® FC



- Solid aluminum die cast housing
- Integrated power distribution
- Innovative connection technology
- Configurable (open loop) frequency inverter:
 0.37 to 4 kW (in two sizes)/voltage range 3x 380 to 500 V with integrated switching between two drives
- ETHERNET connection for networking with the central PLC controller
- Parameters can be set for the application module for solar tracking, free programming option in accordance with IEC 61131-3
- Diagnostic LEDs
- Degree of protection IP65
- Ambient temperature -25°C to +60°C
- Worldwide norm conformance with IEC and (UL)

MOVI-PLC® Motion and Logic Controller



- Takes over central control and monitoring tasks
- Application module for PV solar tracking
- Can be used as date and time-based or astronomical controller
- Free programming in accordance with IEC 61131-3
- $-\,$ ETHERNET for connecting to the control level and for networking the solar tracker controller using MOVIFIT® FC
- Simple connection of operating terminals and I/Os
- Real-time clock and readable memory card
- Wide range of interfaces
- With MOVI-PLC®, visualization can be performed in Windows operating systems running in parallel

Can be selected and combined individually for a wide range of areas of application

CMS electric cylinder

This durable and reliable linear electric cylinder is perfect for tracking units for photovoltaic systems.



- Maximum stroke length 800 mm
- Dynamic feed thrust 25 kN
- Static holding force 60 kN
- Maintenance-free oil bath lubrication
- Degree of protection IP65
- Hermetically sealed
- High-quality sealing and wiper system, adopted from the hydraulic technology industry
- Hard chrome-plated piston rod
- Integrated limit switch
- Can move to end positions if system jams

Gearmotors

The comprehensive modular system allows for millions of combinations for various requirements and application ranges.



- Compact design
- High overload capacity
- Reliable and durable
- Easy to service
- Optionally dust-proof, corrosion-resistant or jet-proof
- Modular system for brakes
- Built-in encoder
- safetyDRIVE integrated functional safety
- Available worldwide
- Short delivery times

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