

“Plug and play” with Lexium Stepper Motor Drives SD3

The package is ready for operation within a very short period of time. Plug and play with Lexium Stepper Motor Drives SD3 is simple: Connect the stepper motor to the drive, set the current and step resolution – ready!



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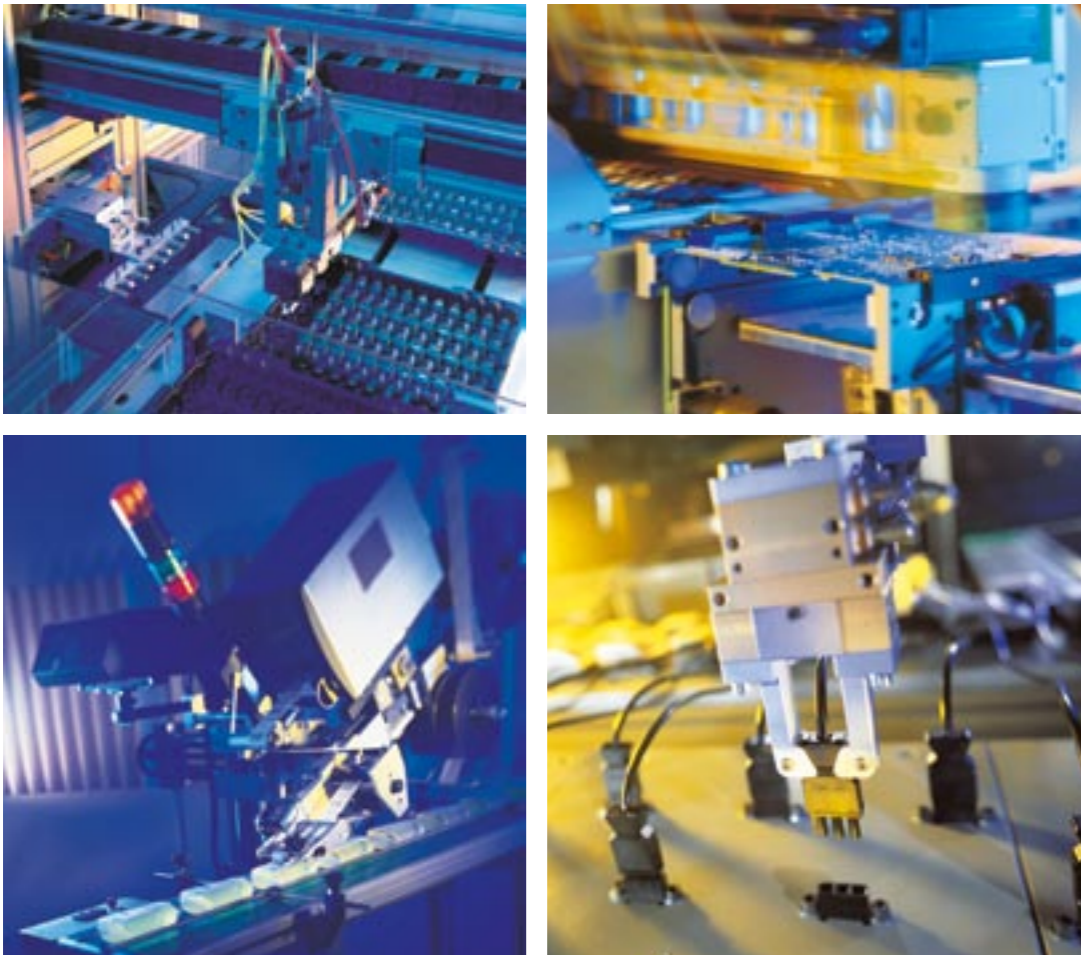
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Lexium Stepper Motor Drives SD3 – For a Wide Range of Applications



Lexium Stepper Motor Drives SD3 – Automation Made Easy

- Truly simple**
Forget about encoder systems and commissioning software. Just plug and play!
- Extremely compact**
With its small dimensions, the Lexium Stepper Motor Drives SD3 require very little space in the control cabinet.
- High flexibility**
You have the choice of two different power classes, different interfaces and numerous other options and accessories.
- Integrated safety**
by integrated safety function „Safe Torque Off“ (“STO”) as per IEC/EN 61800-5-2.



Printing, paper, packaging



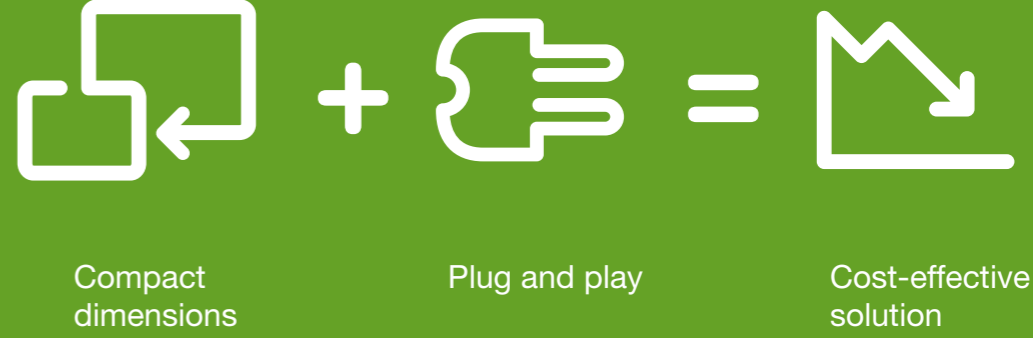
Handling, labelling



Textile industry



Food & beverages





Truly Simple

Forget about encoder systems and commissioning software. Just plug and play!



Lexium Stepper Motor Drives SD3 offer quality in a package: a compact drive plus a high-accuracy motor. Just connect, switch on – runs!

The SD3 is a universally applicable stepper motor drive. Reference values are typically preset and monitored by a higher-level PLC or a Schneider Electric motion controller. Together with the Schneider Electric BRS3 3-phase stepper motors, SD3 is used to implement extremely compact, high-performance drive systems.



3-phase stepper motors stand for precision, power and sturdiness and excel with a high power density. In most cases, a gearbox is not required due to the high torque. The SD3 drive and the sinusoidal commutation of the motors enable almost completely resonance-free operation.



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Extremely Compact and Highly Flexible

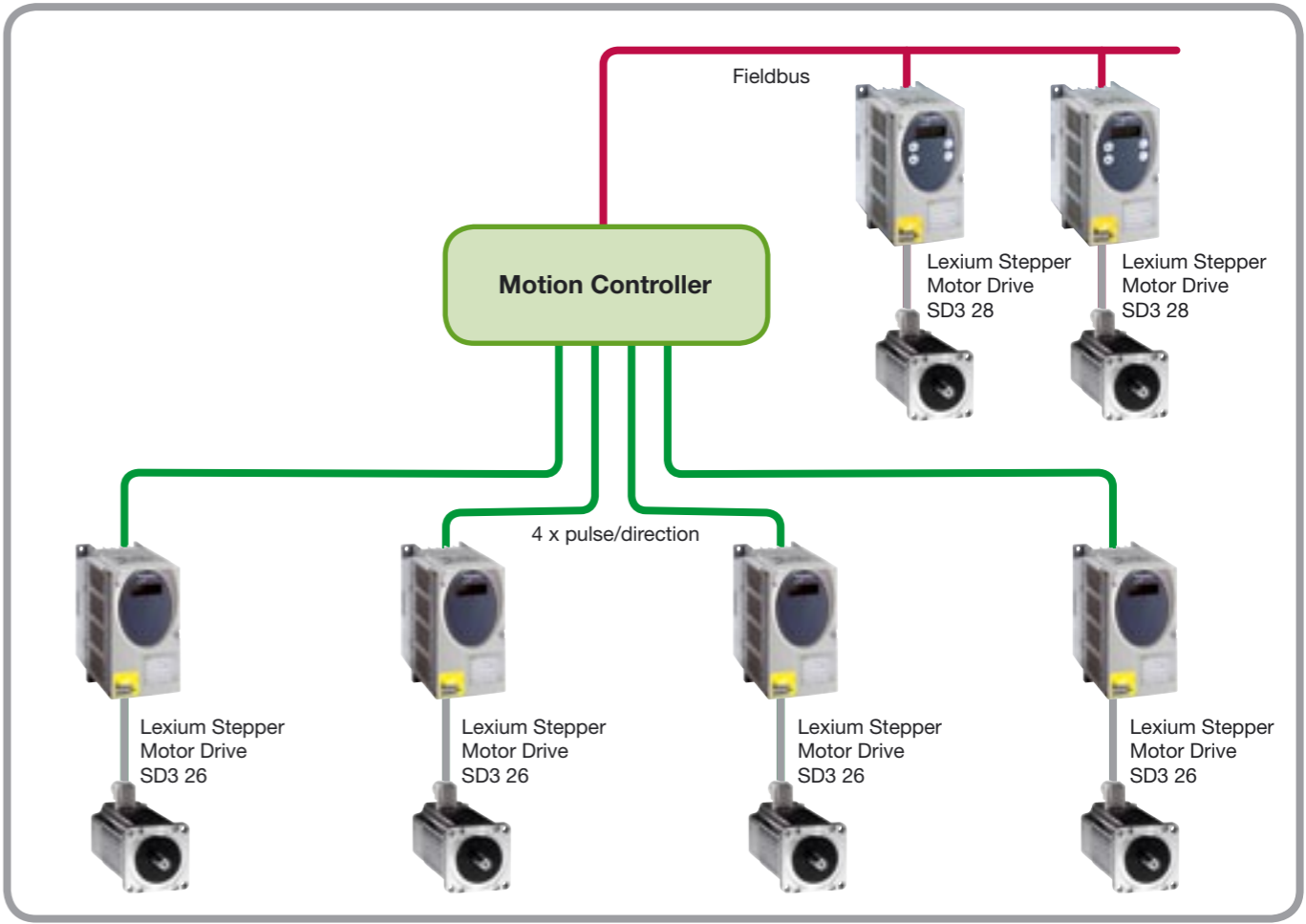
Just select and automate



72 mm wide,
145 mm high and
140 mm deep

With its small footprint, SD3 requires very little space in the control cabinet. And its price is just as compact as its dimensions.

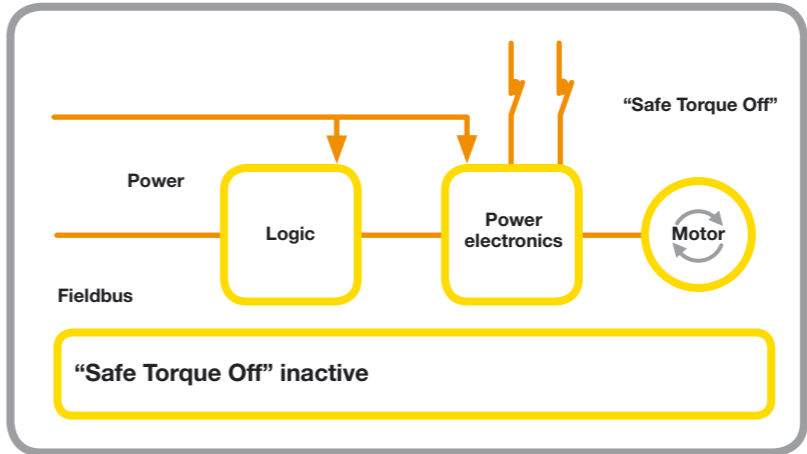
The drives are available up to 6.8 A. SD3 are suitable for mains supply with 1~115 VAC and 230 VAC (50/60 Hz) and feature a 5 V and a 24 V pulse/direction interface or fieldbus interfaces (CANopen, CANopen Motionbus and Modbus or Profibus DP). The mains filter is integrated and current at standstill is reduced automatically. Upon request, SD3 is also available with rotation monitoring (SD3 28 has it on board).



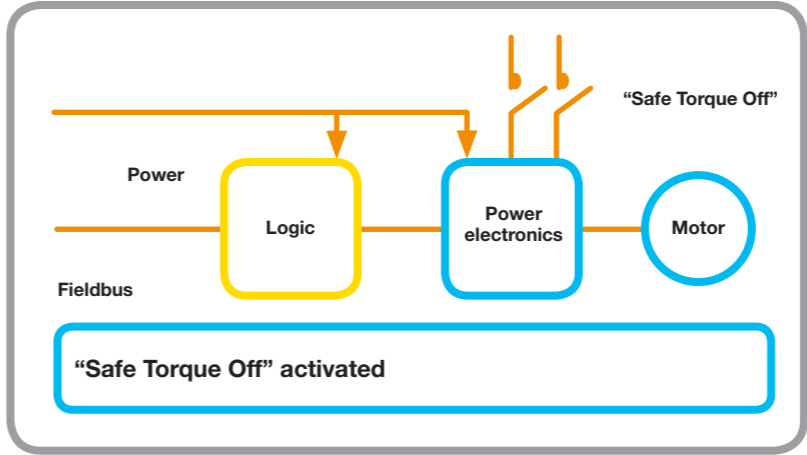


Integrated Safety

“Safe Torque Off” as per IEC/EN 61800-5-2 prevents unintended machine starts for operator safety



The “Safe Torque Off” functionality integrated in the drives results in additional savings in terms of wiring, sensor systems and reduced idle times. The connection to the positioning electronics and, by implication, control of the electronics, is retained even when the “Safe Torque Off” function is active. Re-homing is not necessary.



“Safe Torque Off” enables a stop by immediate removal of power to the machine actuators (stop category 0 as per IEC/EN 60204-1). With an external safety module such as Preventa XPS-AV, the motor can be stopped according to category 1 as per IEC/EN 60204-1 (controlled stop maintaining the power on the actuators until the machine stops, then removal of the power when the actuators stop when the machine stops). The units comply with the standard for functional safety IEC/EN 61508, SIL 2 capability and performance level “d” (PLd) according to ISO 13849-1.

“Safe Torque Off” inactive
During normal operation, the controller of the Lexium Stepper Motor Drives controls the motor position and powers the motor.

“Safe Torque Off” activated
When “Safe Torque Off” is activated, the controller remains ON and motor power is switched OFF for safety according to the specified SIL.



Product Overview



3-phase stepper motors	SD3 26xU25	SD3 26xU68	SD3 28xU25	SD3 28xU68
	115 V/230 V, 2.5 A, including mains filter	115 V/230 V, 6.8 A, including mains filter and fan	115 V/230 V, 2.5 A, including mains filter	115 V/230 V, 6.8 A, including mains filter and fan
BRS368/50 LWx	1.7 Nm / 1.5 Nm		1.7 Nm / 1.5 Nm	
BRS397/50 LWx	2.3 Nm / 2.0 Nm		2.3 Nm / 2.0 Nm	
BRS39A/50 LWx	4.5 Nm / 4.0 Nm		4.5 Nm / 4.0 Nm	
BRS39B/50 LWx	6.8 Nm / 6.0 Nm		6.8 Nm / 6.0 Nm	
BRS3AC/50 LWx	13.5 Nm / 12.0 Nm		13.5 Nm / 12.0 Nm	
BRS3AD/50 LWx	19.7 Nm / 16.5 Nm		19.7 Nm / 16.5 Nm	

The 1st value is the holding torque of the motor when it is idle and current is on; the 2nd value is the maximum torque of the motor.



The Lexium Stepper Motor Drive SD3 with its excellent constant velocity characteristics is ideal for applications such as scanning. High torque is available even at low speeds. Therefore, the stepper motor is particularly suitable for short-distance positioning such as labelling. It also provides a high holding torque, yet another advantage that makes it an optimum solution in applications such pick and place, feed, etc.