High-precision motion control

Lexium stepper drives and motors

For motion control
- Lexium SD2 - two-phase range up to 9.2 Nm
- Lexium SD3 - three-phase range up to 19.7 Nm
Make the most of your energy

Simpler
More precise
More compact
More flexible
A compact drive combined with a stepper motor

Lexium stepper drives and motors: performance and efficiency
- Excellent speed stability, designed for applications such as scanning, pick & place, etc.
- High torque at low rotation speeds: the stepper motor is particularly suitable for positioning over short distances (labelling).
- High holding torque: optimum solution for material handling applications.

A choice of 2 Lexium Stepper ranges
- Lexium SD2: A two-phase range for small machines:
  - Small labelling machine
  - Medical and laboratory machines
  - Electronic card assembly machines
  - Spinning machines, etc.
- Lexium SD3: A three-phase range for higher power machines:
  - Printing machines
  - Material handling machines
  - Milling machines, turning machines, etc.
  - Scanners
  - Packaging machines, etc.

Labelling  Printing  Material handling

High precision
of positioning over short distances
- No vibration when the step is activated
- Withstands significant variations in the load
Simplicity of use, and greater efficiency

**Simplicity**
Plug in, start up, everything you need is included:
- Encoderless control
- Instant start-up without a software interface
- High torque avoiding the need to use a gearbox in the majority of applications
- Easy configuration: customisable menu
- Automatic current reduction

**High performance**
- High-precision positioning (0.036° to 1.8°)
- Better motor efficiency: with Lexium stepper drives and motor sinusoidal switching, operation is free of any resonance
- Optimised applications: a wide range of motors (torque from 0.07 to 16.5 Nm) to meet your installation requirements as closely as possible
- Synchronised positioning via CANmotion (on the Lexium SD3 28A)
Enhanced communication and ease of integration

More flexibility and dialogue
- Enhanced communication
- Different types of links possible with control products
- Very easy to mount: less wiring, easily integrated in an enclosure, etc.

• For two-phase applications: Lexium SD2
  - Numerous communication interfaces for programming or control:
    RS 485, CANopen, Pulse/Direction
  - Compatible with the Lexium BRS2 range of two-phase stepper motors (up to 9.2 Nm)

• For three-phase applications: Lexium SD3
  - More powerful for working with large machines
  - More openness to networks: CANopen, Modbus, PROFIBUS DP and CANmotion
    (on Lexium SD3 28)
  - Integrated EMC filter to protect the installation and generate savings
  - “Safe Torque Off” function integrated in the Lexium SD3 28 for greater safety
  - Compatible with the Lexium BRS3 range of three-phase stepper motors (up to 19.7 Nm)
Selection guide

**Ranges**
- Lexium SD21..U20C
- Lexium SD21..U50C
- Lexium BRS2 two-phase stepper motors for the Lexium SD2 range
- Lexium SD3 15
- Lexium BRS3 three-phase stepper motors for Lexium SD3 15

**Machines**
- Two-phase stepper drive with pulse/direction interface (Lexium SD215D), CANopen (Lexium SD218A) or programmable via RS485 (Lexium SD218P).
- Medical and laboratory equipment, printed circuit board assembly machines, spinning machines, small labelling machines.
- Format adjustment, pick and place, labelling.
- Two-phase stepper motors with 4 different flange sizes.
- Three-phase stepper drive with pulse/direction interface for rack mounting.
- Three-phase stepper motors with 2 different flange sizes.
- Three-phase stepper motors (3 flange sizes).
- Printing, material handling, material working and packaging machines.
- Sewing machine, embroidery machines, small numerical control machines, folding or finishing machines.

**Applications**
- Compact dimensions
- Low-cost ready-to-use solution
- Constant speed
- High torque even at low speed

**Advantages**
- Medical and laboratory equipment, printed circuit board assembly machines, spinning machines, small labelling machines.
- Format adjustment, pick and place, labelling.
- Compact dimensions
- Low-cost ready-to-use solution
- Constant speed
- High torque even at low speed

**Technical information**
- Voltage range: 24 to 48 VDC
- Power range: up to 120 W
- Speed: up to 1000 rpm
- Torque: up to 9.2 Nm
- Nominal voltage: 24...48 VDC
- Angle per step: 1.8°

**Motor/drive combinations**

<table>
<thead>
<tr>
<th>Voltage range</th>
<th>Motor torque</th>
<th>Motor type</th>
<th>Type of motor with F winding</th>
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<tbody>
<tr>
<td>24...48 VDC</td>
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<td>BRS257</td>
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<tr>
<td></td>
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<td>BRS285</td>
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<td>BRS 397F</td>
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<tr>
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<td></td>
<td></td>
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<td>BRS 39AF</td>
</tr>
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<tr>
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<td></td>
<td>BRS 39AH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6.50 Nm</td>
<td></td>
<td>BRS 39BH</td>
<td></td>
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**Software**
- Lexium CT
- None

**Accessories**
- Cables
- Sets of connectors
- Gearboxes

**Ranges**
- Lexium CT 24…48 VDC; 3 A
- Lexium CT 24…48 VDC; 5 A
- Motors compatible with Lexium SD2
- 24…48 VDC; 10 A max.
- Motors compatible with Lexium SD3 15

**Motor torque**
- BRS236
- BRS242
- BRS257
- BRS285

**Type of motor with F winding**
- BRS364F
- BRS366F
- BRS368F
- BRS397F
- BRS39AF
- BRS39BF
- BRS 364H
- BRS 366H
- BRS 368F
- BRS 397H
- BRS 39AH
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**Technical information**
- Voltage range: 24 to 48 VDC
- Power range: up to 120 W
- Speed: up to 1000 rpm
- Torque: up to 9.2 Nm

**Software**
- Lexium CT
- None

**Accessories**
- Cables
- Sets of connectors
- Gearboxes
Three-phase stepper drive with pulse/direction interface.

Three-phase stepper drive with fieldbus interface (CANopen, CANmotion, Profibus DP, Modbus).

Three-phase stepper motors (3 flange sizes).

Medical and laboratory equipment, printed circuit board assembly machines, spinning machines, small labelling machines.

Format adjustment, pick and place, labelling.

Two-phase stepper motors with 4 different flange sizes.

Printing, material handling, material working and packaging machines.

Pick and place, labelling, engraving.

- Compact dimensions
- Low-cost ready-to-use solution
- Constant speed
- High torque even at low speed
- Integrated STO (Safe Torque Off) safety function - for Lexium SD3 28 only

<table>
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<tr>
<th>Voltage range: 115 to 240 VAC</th>
<th>115 V/230 V; 6.8 A, including mains filter and fan</th>
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<tbody>
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<td>115 VAC/230 V; 2.5 A, including mains filter and fan</td>
<td>Motor torque</td>
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<td>Type of motor with W winding</td>
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<tr>
<td>1.7 Nm</td>
<td>1.7 Nm</td>
<td>BRS368 W</td>
<td></td>
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<td>2.3 Nm</td>
<td>2.3 Nm</td>
<td>BRS397...W</td>
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<td>4.5 Nm</td>
<td>4.5 Nm</td>
<td>BRS39A...W</td>
<td></td>
</tr>
<tr>
<td>6.8 Nm</td>
<td>6.8 Nm</td>
<td>BRS39B...W</td>
<td></td>
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13.5 Nm 13.5 Nm BRS3AC...W

19.7 Nm 19.7 Nm BRS3AD...W

Voltage range: 24 to 48 VDC
Power range: up to 120 W

Speed: up to 1000 rpm
Torque: up to 9.2 Nm

- Compact dimensions
- Low-cost ready-to-use solution
- Constant speed
- High torque even at low speed

Gearboxes
Cables
Sets of connectors

Nominal voltage: 325 VDC
Angle per step: 1.8/0.9/0.72/0.36/0.18/0.09/0.072/0.036°

Thermal class: 155 (F)
Degree of protection: IP 56 excluding shaft end (IP 41)

None

Motors compatible with Lexium SD2 range
Lexium SD21..U20C
Lexium SD21..U50C
Lexium BRS2 two-phase stepper motors for the Lexium SD2 range
Lexium SD3 15
Lexium BRS3 three-phase stepper motors for Lexium SD3 15
Lexium SD3 26xU25
Lexium SD3 26xU68
Lexium SD3 28xU25
Lexium SD3 28xU68
Lexium BRS3 three-phase stepper motors for Lexium SD3 26 and Lexium SD3 28
Lexium CT
None

Gearboxes