Lexium™ 32i
Integrated drives
Motion control

Catalog

2013

Schneider Electric™

Contents

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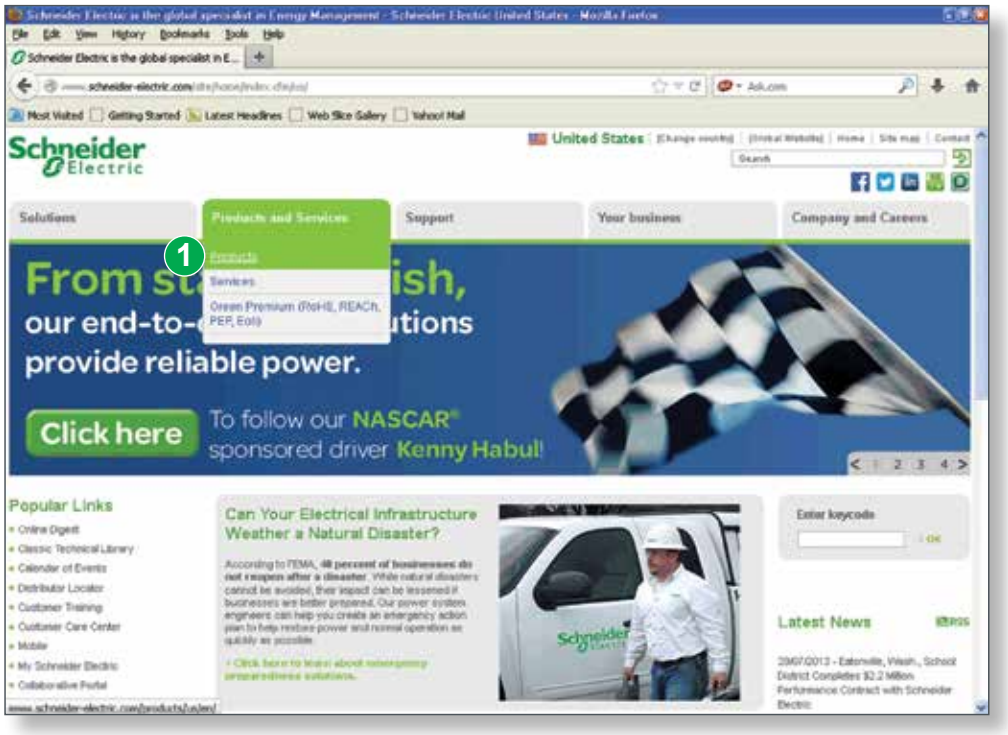
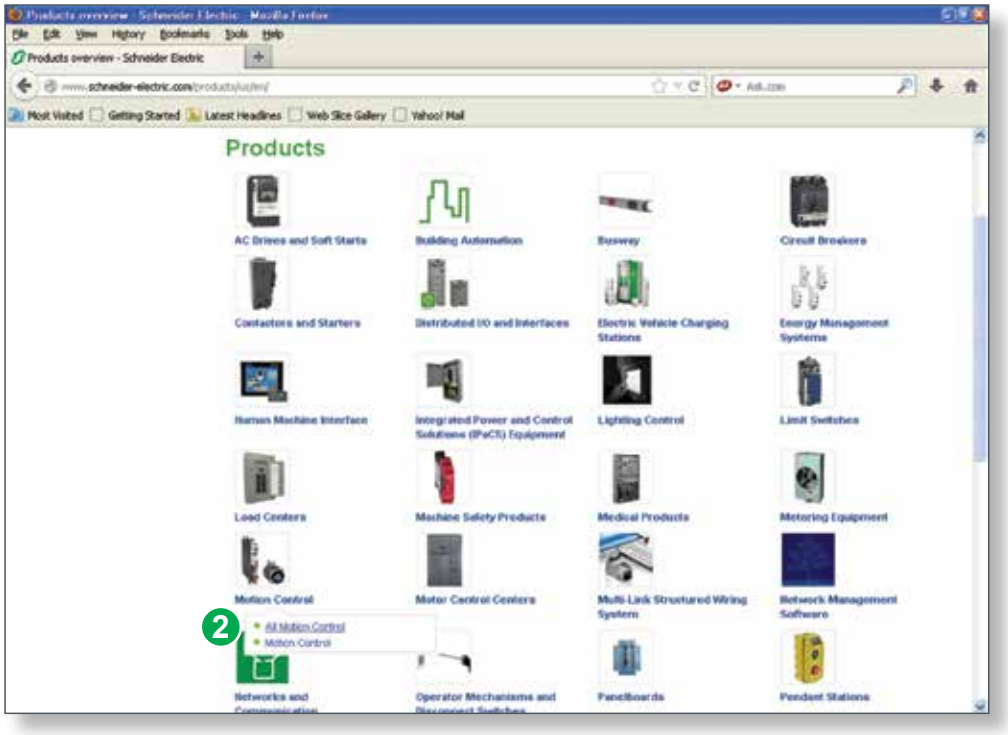
Go online to www.schneider-electric.com for information about Lexium™ products listed in this catalog, including:

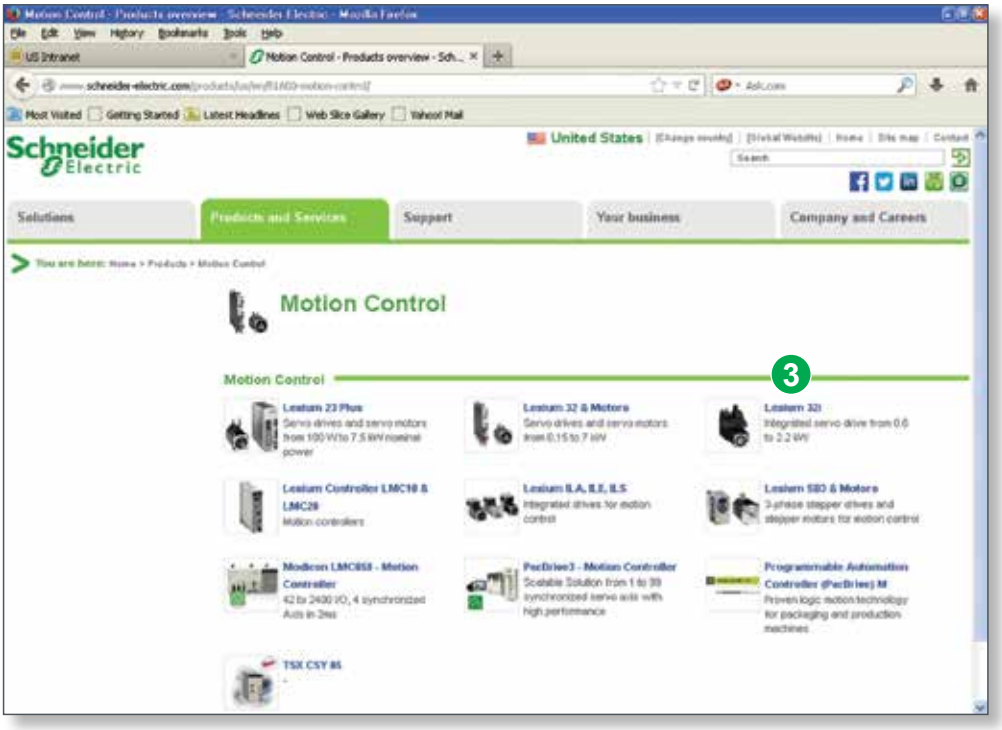
1 Go to: www.schneider-electric.com and select "Products" on the "Products and Services" tab.



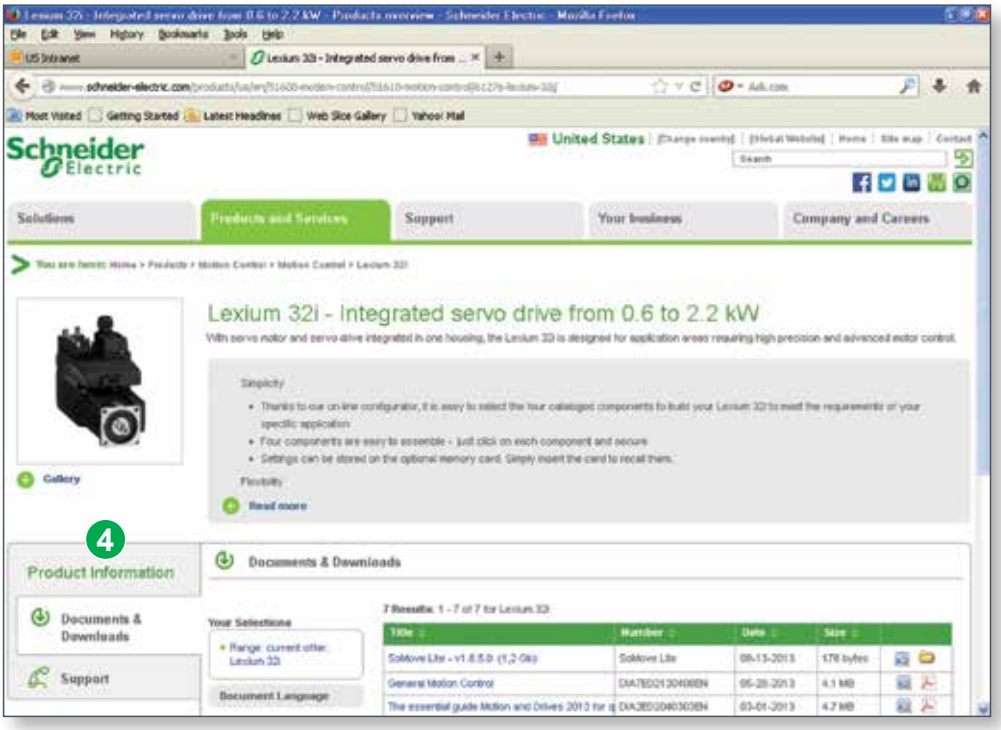
2 On the "Products" page, find the "Motion Control" icon and select "All Motion Control".



3 **On the “Motion Control” page, select “Lexium 32i”.**



4 **Explore the Lexium 32i product page, including the “Product Information” tabs: “Documents & Downloads” and “Support”.**



Lexium™ 32i integrated drives
Motion control

Lexium 32i integrated drive controlling a packaging line

Lexium 32i integrated drive controlling a printing line

Lexium 32i integrated drive controlling a materials processing machine

Introduction

The modular product range: Lexium™ 32i integrated drives, features two communication interfaces for controlling Lexium BMI servo motors. These servo motors help to integrate the power stage that provides a direct power supply from either a single-phase or three-phase AC supply.
This allows Lexium 32i integrated drives to provide optimum functionality adapted to specific performance, power, and simplicity-of-use requirements of motion control applications.
It covers power ratings between 0.4 and 2.1 kW.

The Lexium 32i product range of integrated drives is designed to simplify the life cycle of machines. SoMove™ setup software simplifies initial startup. The modular design speeds installation by reducing assembly time to as little as three minutes. And, it makes maintenance easier, faster, and at lower costs, thanks to the new duplication and backup tools, like the memory card.

Performance is improved through optimized motor control. This is achieved via reduced vibration with automatic parameter calculation, a speed observer, and an additional band-stop filter, all helping to increase machine productivity.

The compact size of the Lexium 32i provides maximum power in minimum space, reducing the size of the enclosure required by up to 60%, and reducing the direct and indirect costs by up to 30%.

Two communication interfaces – CANopen™/CANmotion™ and EtherCAT – allow adaptation to numerous industrial control system architectures.

An integrated “Safe-Torque-Off” function reduces system design times and makes it easier to comply with safety standards.

Applications for industrial machines

The Lexium 32i integrated drive incorporates functions that are suitable for multiple applications, including:
- Printing (cutting, position-controlled machinery)
- Packaging and wrapping (cutting to length, rotary knife, bottling, capsuling, labeling)
- Textiles (winding, spinning, weaving, embroidery)
- Material handling (conveying, palletizing, warehousing, pick-and-place)
- Transfer machines (gantries, hoists)
- Clamping
- Flying shear operations (cutting, printing, marking)
- Materials processing

The product offer

The Lexium 32i product range of integrated drives covers motor power ratings between 0.4 kW and 2.1 kW with three types of power supply:
- 110…120 V single-phase, from 0.4 kW to 0.75 kW (**BMI●●●T●●●**)
- 200…240 V single-phase, from 0.7 kW to 1.3 kW (**BMI●●●T●●●**)
- 208…480 V three-phase, from 0.4 kW to 2.1 kW (**BMI●●●P●●●**)

Compliance with international standards and certifications

The entire product range conforms to international standards IEC/EN 61800-5-1 and IEC/EN 61800-3. It is UL (1) and CSA certified, and has been developed to meet the requirements of directives regarding protection of the environment (RoHS), as well as European directives required to obtain the CE mark.

Compliance with electromagnetic compatibility (EMC) requirements

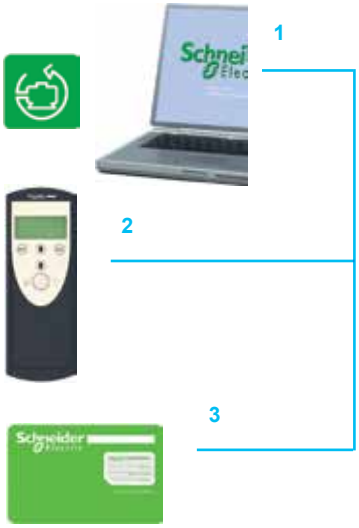
The integration of category C2 EMC filters in Lexium 32i drives and compliance with EMC simplify installation and make it very inexpensive to bring the device into conformity to obtain the CE mark.
These filters comply with standard IEC/EN 61800-3, environment 1, category C2.

Accessories and options

External accessories and options, such as braking resistors and planetary gearboxes, enhance the Lexium 32i product offer.

(1) Certification pending

Simplicity, from installation to maintenance



SoMove™ setup software 1	SoMove setup software is used in the same way as it is on other Schneider Electric drives and starters, including: configuring and optimizing control loops in automatic or manual mode using the Oscilloscope function, and for maintenance of the Lexium™ 32i integrated drive. See page 18.
Multi-Loader tool 2	The Multi-Loader tool is used to copy configurations from a PC or Lexium 32i drive and to load them onto another Lexium 32i. Power to the Lexium 32i drives can be on or off. See page 18.
Memory card 3	The Memory Card stores the communication interface parameters. When replacing a Lexium 32i, this function helps to ensure immediate startup by removing the need to program the drive. This decreases maintenance time and reduces costs. See page 19.
Auto-tuning	Adapted to each user, the three auto-tuning levels – automatic, semi-automatic, and expert – allow you to achieve a high level of machine performance, whatever the application.
Mounting and maintenance	The modular design together with the memory card for storing configurations, help to streamline mounting and maintenance procedures.

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Example of control system architecture with CANopen and CANmotion machine bus

High performance

The Lexium™ 32i integrated drives product offer helps increase machine performance with:
- Overload capacity: High peak current (up to 4 times the direct current) increases the range of movement.
- Power density: Compact size of the drives offers maximum efficiency in a small space.
- High bandwidth: Better speed stability and faster acceleration improve the quality of control.
- Motor control: Less vibration, a speed observer, and an additional band-stop filter enhance the quality of control.

Design suitable for different control system structures

The versatility of the Lexium 32i product range offers excellent flexibility for integration into different control system structures.

Depending on the model, the Lexium 32i has logic inputs and outputs, which can be configured according to application requirements.
It also has communication interfaces for control via:
- CANopen™/CANmotion™ machine bus
- EtherCAT machine bus

Dedicated safety functions

The Lexium 32i product range is an integral part of a control system's safety system, featuring: an integrated “Safe-Torque-Off” (STO) function, which helps to prevent unintended servo motor operation.
This function complies with standard IEC/EN 61508 level SIL3, governing electrical installations, and the power drive systems standard IEC/EN 61800-1.
This simplifies the setup of installations requiring complex safety equipment and improves performance during maintenance operations by reducing the time required for servicing. The bus connection module with STO option is required to access this function (see page 14).

Lexium BMI servo motors - dynamic and powerful

Lexium BMI servo motors are synchronous three-phase motors. They feature a SinCos Hiperface® for automatic transmission of data from the servo motor to the communication interface, and are available with or without a holding brake.

Lexium BMI servo motors provide high power density values in a compact size. Available with two flange sizes and two different lengths for each flange size, they are suitable for most applications, covering a continuous torque range from 1.7 to 7.2 Nm for speeds up to 4700 rpm. They cover the power range 0.4 to 2.1 kW.

BMI servo motors have a medium inertia motor, which means they are particularly suitable for high-load applications. They help to simplify installation and adjustment through a more robust adjustment of the movement.

Lexium BMI servo motors are UL Recognized and conform to standard UL1004 *(1)* as well as to European directives (CE marking).

They are available with the following variants:
- 2 flange sizes: 70 and 100 mm/*2.76 and 3.94 in.*
- 2 degrees of protection for the shaft end: IP 54 or IP 65 in accordance with standard IEC/EN 60529 (the degree of protection of the casing is IP 65)
- with or without holding brake
- integrated single-turn or multi-turn SinCos Hiperface® encoder (standard or high resolution)
- smooth or keyed shaft end

(1) Certification pending

Introduction: page 6 | Lexium 32i integrated drive: page 12 | Configuration tools: page 18 | Options: page 20

Lexium BMI servo motor with power stage

Lexium BMI servo motors - dynamics and power (continued)

Specific features

Lexium™ BMI servo motors have been developed to comply with the following main specifications:

- Ambient operating temperature is - 0...+ 50°C/+ *32...+ 122°F*.
- Maximum operating altitude is 1000 m/*3281 ft* without derating; 2000 m/*6562 ft* with a maximum ambient temperature of 45°C/*113°F* and a continuous power reduction of 1% for every 100 m/*328 ft* above 1000 m/*3281 ft;* and 3000 m/*9842 ft* with a maximum ambient temperature of 40°C/*104°F* and a continuous power reduction of 1% for every 100 m/*328 ft* above 1000 m/*3281 ft.*
- Servo motor can withstand 5...95% relative humidity (non-condensing).
- Windings are insulation class F in accordance with standard IEC 60034-1 (maximum temperature for windings is 155°C/*311°F*).
- Thermal protection is provided and controlled by the Lexium 32i integrated drive via the motor temperature control algorithm.
- All mounting positions are permitted:
  - horizontal mounting (IMB5)
  - vertical mounting (IMV1 with shaft end at the top and IMV3 with shaft end at the bottom) in accordance with standard IEC 60034-7

Holding brake

Lexium BMI servo motors can be equipped with an electromagnetic holding brake.

⚠ **Do not use the holding brake as a dynamic brake for deceleration, as this will quickly damage the brake.**

Integrated encoder

Lexium BMI servo motors are equipped with an absolute encoder.

This encoder performs the following functions:

- Gives the absolute position of the motor so that flows can be synchronized.
- Measures the servo motor speed via the associated Lexium 32i integrated drive (this information is used by the drive's speed controller).
- Measures the position information for the Lexium 32i position controller.
- Sends data from the servo motor to the control unit, which provides automatic motor identification when the Lexium 32i starts.

Four encoder models are available:

- High resolution SinCos Hiperface® encoder:
  - single-turn (131,072 points/turn) *(1)*
  - multi-turn (131,072 points/turn x 4096 turns) *(1)*

These encoders give an angular shaft position precise to less than ± 1.3 arc minutes.

- Standard resolution SinCos Hiperface® encoder:
  - single-turn (32,768 points/turn) *(1)*
  - multi-turn (32,768 points/turn x 4096 turns) *(1)*

These encoders give an angular shaft position precise to less than ± 4.8 arc minutes.

(1) Encoder resolution given for a Lexium 32i integrated drive.

Main functions *(3)*

Communication interface		LXM32ICAN	LXM32IECT
Communication interface	Integrated	Integrated Modbus™ link CANopen™/CANmotion™ machine bus	Integrated Modbus link EtherCAT bus
	Operating mode	Homing Manual mode (JOG) Speed control Current control Position control	
	Functions	Auto-tuning, monitoring, stopping, stop window, conversion, rapid entry of position values	
24 V ⎓ logic inputs *(1)*		4 max., reassignable	
24 V ⎓ capture inputs *(1) (2)*		2, reassignable	
24 V ⎓ logic outputs *(1)*		2, reassignable For use with the following models: VW3M9105, VW3M9110	
Integrated safety function		Safe Torque Off (STO) For use with the following models: VW3M9101, VW3M9103, VW3M9201, VW3M9203, VW3M9105,VW3M9106, VW3M9108, VW3M9206, VW3M9208, VW3M9110	
Architecture		Control via: Schneider Electric or third-party PLCs via communication bus	
Drive		**BMI**	
Application		High load	
		With robust adjustment of the movement	
Flange size		70 or 100 mm/*2.76 or 3.94 in.*	
Continuous torque		1.7 to 7.2 Nm	
Encoder	Single-turn SinCos Hiperface®	32,768 points/turn 131,072 points/turn	
	Multi-turn SinCos Hiperface®	32,768 points/turn x 4096 turns 131,072 points/turn x 4096 turns	
Degree of protection	Casing	IP 65	
	Shaft end	IP 54 for horizontal mounting (IMB5) or vertical mounting with shaft end at the top (IMV1) or IP 65	

(1) Unless otherwise stated, the logic I/O can be used in positive logic (Sink inputs, Source outputs) or negative logic (Source inputs, Sink outputs).
(2) Two standard logic inputs can be used as capture inputs.
(3) Functions depend on the selected configuration (see page 13).

Lexium™ 32i integrated drives
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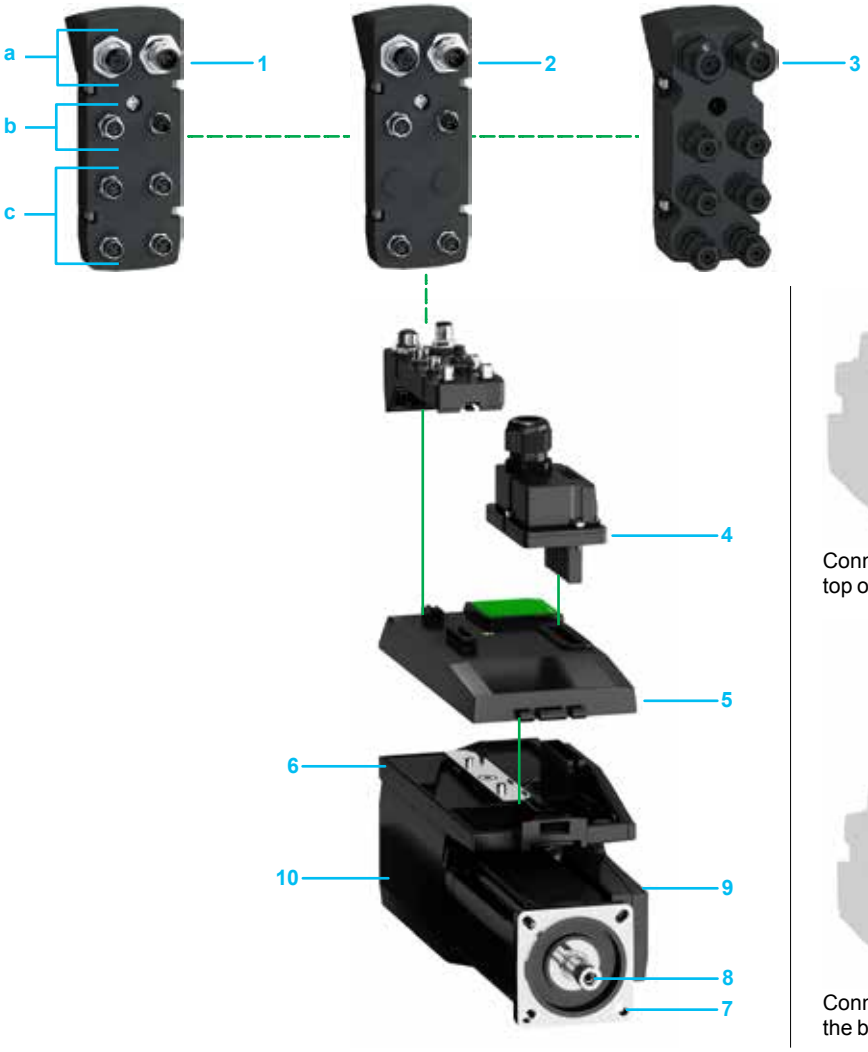
Description

Lexium™ 32i integrated drives include control electronics with an interface for a CANopen™ DS402/CANmotion™ or EtherCAT communication bus and a Lexium BMI synchronous servo motor.
They can be equipped with a single-turn or multi-turn encoder and an integrated holding brake as required.
Two types of connection are possible:
- Industrial connectors (1 and 2)
- Internal terminals (3)



Connection module (1, 2, 3) mounted on top of the Lexium 32i

Connection module (1, 2, 3) mounted on the back of the Lexium 32i

1 Connection module for CANopen or EtherCAT bus (depending on the model) with 4 logic inputs, M8 connectors, and STO function
  a 2 x M12 connectors for CANopen or EtherCAT bus
  b 2 x M8 connectors for STO function
  c 2 or 4 x M8 connectors for logic inputs
2 Connection module for CANopen or EtherCAT bus (depending on the model) with 2 logic inputs, M8 connectors, and STO function (connection modules with industrial connectors are also available without the STO function)
3 Connection module with internal terminals with 8 cable glands (6 x M12 and 2 x M16), 4 logic inputs, and 2 logic outputs (cable glands to be ordered separately, see page 15)
4 Power supply module available in 2 versions (for single-phase or three-phase power supply)
5 Communication interface card available in 2 versions:
- for CANopen DS402/CANmotion bus
- for EtherCAT bus

Motor section with power stage including:
6 Casing with RAL 9005 opaque black paint protective coating
7 4-point axial mounting flange available in the following sizes:
- 70 mm/*2.76 in.*
- 100 mm/*3.94 in.*

8 Smooth or keyed shaft end (depending on the model)
9 Lexium BMI servo motor including a three-phase stator and a 10-pole rotor with Neodymium Iron Boron (NdFeB) magnets
10 Power stage

Lexium™ 32i integrated drives
Motion control
Drive communication and accessories

Lexium™ BMI servo motor according to supply voltage					
Drive	**Rotor inertia without brake**	**Nominal operating point**			**Stall torque M0/Mmax** *(1)*
		Nominal torque	**Nominal speed**	**Nominal power**	
	kgcm²	**Nm**	**rpm**	**kW**	**Nm/Nm**
115 V ∿ single-phase supply voltage					
BMI0702T	1.13	2.2	1700	0.4	2.3/6.6
BMI0703T	1.67	2.9	1400	0.4	3/8.6
BMI1002T	6.28	5.4	1400	0.75	5.4/14.5
230 V ∿ single-phase supply voltage					
BMI0702T	1.13	1.7	4000	0.7	2.3/6.6
BMI0703T	1.67	2.2	3200	0.7	3/8.6
BMI1002T	6.28	4.4	3000	1.3	5.4/14.5
208 V ∿ three-phase supply voltage					
BMI0702P	1.13	2.4	1800	0.4	2.5/6.8
BMI0703P	1.67	2.9	1600	0.45	3/8.6
BMI1002P	6.28	5.4	1900	1	5.4/14
BMI1003P	9.37	7.2	1500	1	7.2/19.2
400 V ∿ three-phase supply voltage					
BMI0702P	1.13	2.2	3600	0.8	2.5/6.8
BMI0703P	1.67	2.7	3300	0.9	3/8.6
BMI1002P	6.28	5.1	3800	1.9	5.4/14
BMI1003P	9.37	6.8	3000	2	7.2/19.2
480 V ∿ three-phase supply voltage					
BMI0702P	1.13	2	4400	0.9	2.5/6.8
BMI0703P	1.67	2.3	3900	0.9	3/8.6
BMI1002P	6.28	4.1	4700	1.9	5.4/14
BMI1003P	9.37	5.6	3700	2.1	7.2/19.2

(1) - M0: Continuous stall torque.
- Mmax: Peak stall torque.

Lexium™ 32i integrated drives
Motion control
Drive communication and accessories

Lexium 32i:
1: Connection module
2: Power supply module
3: Communication interface
4: BMI drive

References

To order a Lexium™ 32i, replace the "●" with the values given in the table below.

Example: BMI0702P06A + LXM32ICAN + VW3M9108

BMI drive (Lexium BMI servo motor + power stage)				●	●	●	●	●	●	●	●
Flange size	70 mm/*2.76 in.*			0	7	0					
	100 mm/*3.94 in.*			1	0	0					
Number of stages	2 stages						2				
	3 stages						3				
Power supply	Single-phase *(1) (2)*							T			
	Three-phase *(3)*							P			
Motor shaft and degree of protection	IP54 for shaft *(4)* and IP65 for casing	Smooth							0		
		Keyed							1		
	IP65 for the unit	Smooth							2		
		Keyed							3		
Encoder type	Single-turn SinCos Hiperface® 131,072 points/turn 128 sine/cosine periods per turn									1	
	Multi-turn SinCos Hiperface® 131,072 points/turn x 4096 turns 128 sine/cosine periods per turn									2	
	Single-turn SinCos Hiperface® 32,768 points/turn 16 sine/cosine periods per turn									6	
	Multi-turn SinCos Hiperface® 32,768 points/turn x 4096 turns 16 sine/cosine periods per turn									7	
Brake	With brake										F
	Without brake										A

(1) Requires a single-phase power supply module for Lexium 32i, reference VW3M9001.
(2) Lexium BMI1003●●●● servo motors are only available with a three-phase power supply.
(3) Requires a three-phase power supply module for Lexium 32i, reference VW3M9002.
(4) Requires horizontal mounting (IMB5) or vertical mounting with shaft end at the top (IMV1).

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Power supply modules: page 14
Communication interfaces: page 14

Lexium™ 32i integrated drives
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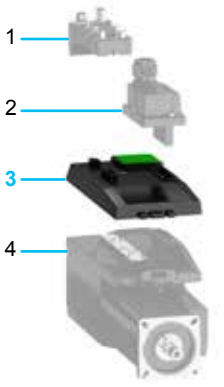
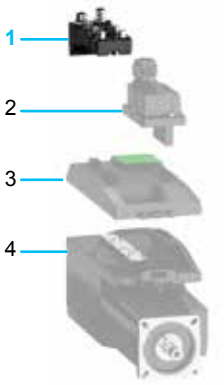
Drive communication and accessories



Lexium™ 32i:
1: Connection module
2: Power supply module
3: Communication interface
4: BMI drive

Communication interface and connection modules for CANopen™ DS402/ CANmotion™ machine bus *(1)*

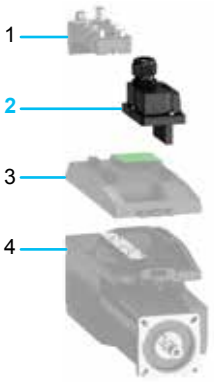
Description	Bus connector	Number of I/O	STO function	Reference	Weight kg/*lb*
Communication interface		CANopen DS402/CANmotion bus		**LXM32ICAN**	–
Connection module for connection via industrial connectors Positive logic inputs (Source)	2 x M12 connectors	4 logic inputs with M8 connectors	Yes *(2)*	**VW3M9101**	–
			–	**VW3M9102**	–
		2 logic inputs with M8 connectors	Yes *(2)*	**VW3M9103**	–
			–	**VW3M9104**	–
Connection module for connection via industrial connectors Negative logic inputs (Sink)	2 x M12 connectors	4 logic inputs with M8 connectors	Yes *(2)*	**VW3M9201**	–
			–	**VW3M9202**	–
		2 logic inputs with M8 connectors	Yes *(2)*	**VW3M9203**	–
			–	**VW3M9204**	–
Connection via internal terminals Top section with 8 cut-outs for cable glands *(3)*: 6 x M12 and 2 x M16	–	4 logic inputs 2 logic outputs	Yes	**VW3M9105**	–



Lexium 32i:
1: Connection module
2: Power supply module
3: Communication interface
4: BMI drive

Communication interface and connection modules for EtherCAT bus *(1)*

Description	Bus connector	Number of I/O	STO function	Reference	Weight kg/*lb*
Communication interface		EtherCAT bus		**LXM32IECT**	–
Connection module for connection via industrial connectors Positive logic inputs (Source)	2 x M12 connectors	4 logic inputs with M8 industrial connectors	Yes *(2)*	**VW3M9106**	–
			–	**VW3M9107**	–
		2 logic inputs with M8 industrial connectors	Yes *(2)*	**VW3M9108**	–
			–	**VW3M9109**	–
Connection module for connection via industrial connectors Negative logic inputs (Sink)	2 x M12 connectors	4 logic inputs with M8 industrial connectors	Yes *(2)*	**VW3M9206**	–
			–	**VW3M9207**	–
		2 logic inputs with M8 industrial connectors	Yes *(2)*	**VW3M9208**	–
			–	**VW3M9209**	–
Connection via internal terminals Top section with 8 cut-outs for cable glands *(3)*: 6 x M12 and 2 x M16	–	4 logic inputs 2 logic outputs	Yes	**VW3M9110**	–



Lexium 32i:
1: Connection module
2: Power supply module
3: Communication interface
4: BMI drive

Power supply

Description	Reference	Weight kg/*lb*
Single-phase power supply module for Lexium 32i	**VW3M9001**	–
Three-phase power supply module for Lexium 32i	**VW3M9002**	–

(1) For more information on connector sets, see table on page 15.
(2) Requires a cordset for the STO function (for more information, see table on page 15).
(3) To be ordered separately (see table on page 15).

BMI drives:
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Lexium™ 32i integrated drives
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Drive communication and accessories

VW3L5F000

Industrial connectors for communication bus and logic I/O

Description	Components	Reference	Weight kg/*lb*
Set of industrial connectors for CANopen™ bus	1 round A-coded male M12 connector 1 round A-coded female M12 connector 1 M12 blanking plug	**VW3L5F000**	–
Set of industrial connectors for EtherCAT bus	2 round D-coded 4-way male M12 connectors 1 M12 blanking plug	**VW3L5E000**	–
Set of industrial connectors for logic I/O	2 round 3-way M8 connectors	**VW3L50200**	–
	3 round 3-way M8 connectors	**VW3L50300**	–

VW3M9403

Connection components for STO function

Description	Length m/*ft*	Reference	Weight kg/*lb*
Cordsets for Lexium™ 32i with STO function with one 4-way female M8 industrial connector at one end and flying leads at the other For use with the following models: VW3M9101, VW3M9103, VW3M9201, VW3M9203, VW3M9105, VW3M9106, VW3M9108, VW3M9206, VW3M9208, VW3M9110	3/ *9.84*	**VW3M9403**	–
	5/ *16.4*	**VW3M9405**	–
	10/ *32.81*	**VW3M9410**	–
	15/ *49.21*	**VW3M9415**	–
	20/ *65.62*	**VW3M9420**	–
Cordsets for Lexium 32i with STO function with one 4-way male M8 industrial connector and one 4-way female M8 industrial connector For use with the following models: VW3M9101, VW3M9103, VW3M9201, VW3M9203, VW3M9105, VW3M9106, VW3M9108, VW3M9206, VW3M9208, VW3M9110	3/ *9.84*	**VW3M94CR03** ▲	–
	5/ *16.4*	**VW3M94CR05** ▲	–
	10/ *32.81*	**VW3M94CR10** ▲	–
	15/ *49.21*	**VW3M94CR15** ▲	–
	20/ *65.62*	**VW3M94CR20** ▲	–
Round 4-way male M8 connector for cordsets for STO signals	–	**VW3L50010**	–

VW3M9508

Separate parts

Description	Sold in lots of	Reference	Weight kg/*lb*
M12 cable gland for Lexium 32i for I/O and STO function	12	**VW3M9508**	–
M16 cable gland for Lexium 32i for fieldbus	10	**VW3M9512**	–

▲ Available Q4 2013

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CANopen™ machine bus connection components

Connection accessories

Description	Reference	Weight kg/*lb*
Line terminator with 5-way male M12 connector	**TM7ACTLA**	–
CANopen connector 9-way female SUB-D connector with line termination switch	**VW3M3802**	–

Cordsets

Description	Length m/*ft*	Reference	Weight kg/*lb*
CANopen cordsets with 1 female M12 connector and 1 male M12 connector (straight, A-coded)	0.3/*0.98*	**TCSCCN1M1F03**	–
	1/*3.28*	**TCSCCN1M1F1**	–
	2/*6.56*	**TCSCCN1M1F2**	–
	5/*16.4*	**TCSCCN1M1F5**	–
	10/*32.81*	**TCSCCN1M1F10**	–
	15/*49.21*	**TCSCCN1M1F15**	–
CANopen cordsets with 1 female M12 connector and 1 male M12 connector (elbow, A-coded)	0.3/*0.98*	**TCSCCN2M2F03**	–
	1/*3.28*	**TCSCCN2M2F1**	–
	2/*6.56*	**TCSCCN2M2F2**	–
	5/*16.4*	**TCSCCN2M2F5**	–
	10/*32.81*	**TCSCCN2M2F10**	–
	15/*49.21*	**TCSCCN2M2F15**	–
CANopen cordsets with 1 straight A-coded female M12 connector at one end and flying leads at the other	1/*3.28*	**TCSCCN1FNX1SA**	–
	3/9.84	**TCSCCN1FNX3SA**	–
	10/32.81	**TCSCCN1FNX10SA**	–
	25/*82.02*	**TCSCCN1FNX25SA**	–
CANopen cordsets with 1 elbow A-coded female M12 connector at one end and flying leads at the other	1/*3.28*	**TCSCCN2FNX1SA**	–
	3/*9.84*	**TCSCCN2FNX3SA**	–
	10/*32.81*	**TCSCCN2FNX10SA**	–
	25/*82.02*	**TCSCCN2FNX25SA**	–
CANopen cordsets with 1 straight A-coded female M12 connector and 1 male RJ45 connector	3/*9.84*	**VW3M94CAN45R03** ▲	–
	5/*16.4*	**VW3M94CAN45R05** ▲	–
	10/*32.81*	**VW3M94CAN45R10** ▲	–
	15/*49.21*	**VW3M94CAN45R15** ▲	–
	20/*65.62*	**VW3M94CAN45R20** ▲	
CANopen cordsets with 1 straight A-coded female M12 connector and 1 x 9-way female SUB-D connector	3/*9.843*	**VW3M94CANS9R03** ▲	–
	5/*16.404*	**VW3M94CANS9R05** ▲	–
	10/*32.808*	**VW3M94CANS9R10** ▲	–
	15/*49.213*	**VW3M94CANS9R15** ▲	–
	20/*65.617*	**VW3M94CANS9R20** ▲	–

▲ Available Q4 2013

BMI drives: page 13
Connection modules: page 14
Power supply modules: page 14
Communication interfaces: page 14

CANopen™ machine bus connection components

Connection cables

Description	Length m/*ft*	Reference	Weight kg/*lb*
CANopen cables Standard cables, CE marking Low smoke zero halogen Flame-retardant (IEC 60332-1)	50/ *164.04*	**TSXCANCA50**	4.930/ *10.869*
	100/ *328.08*	**TSXCANCA100**	8.800/ *19.401*
	300/ *984.25*	**TSXCANCA300**	24.560/ *54.145*
CANopen cables UL certification, CE marking Flame-retardant (IEC 60332-2)	50/ *164.04*	**TSXCANCB50**	3.580/ *7.893*
	100/ *328.08*	**TSXCANCB100**	7.840/ *17.284*
	300/ *984.25*	**TSXCANCB300**	21.870/ *48.215*
CANopen cables Cables for harsh environment *(1)* or mobile installation, CE marking Low smoke zero halogen Flame-retardant (IEC 60332-1)	50/ *164.04*	**TSXCANCD50**	3.510/ *7.738*
	100/ *328.08*	**TSXCANCD100**	7.770/ *17.130*
	300/ *984.25*	**TSXCANCD300**	21.700/ *47.840*

EtherCAT fieldbus connection components

Cordsets

Description	Length m/*ft*	Reference	Weight kg/*lb*
EtherCAT cordsets with 2 straight D-coded male M12 connectors	1/ *3.28*	**TCSECL1M1M1S2**	–
	10/ *32.81*	**TCSECL1M1M10S2**	–
EtherCAT cordsets with 1 straight D-coded male M12 connector and 1 male RJ45 connector	1/ *3.28*	**TCSECL1M3M1S2**	–
	3/ *9.84*	**TCSECL1M3M3S2**	–
	10/ *32.81*	**TCSECL1M3M10S2**	–
	25/ *82.02*	**TCSECL1M3M25S2**	–
	40/ *131.23*	**TCSECL1M3M40S2**	–

Note: *Pre-wired connectors and M8 connectors are available under the Telemecanique Sensors brand.*
For more information, refer to the "OsiSense XZ Cabling Accessories" catalog available to download at www.tesensors.com.

(1) Harsh environment:
- resistance to hydrocarbons, industrial oils, detergents, solder splashes
- relative humidity up to 100%
- saline atmosphere
- significant temperature variations
- operating temperature between -10°C/+14°F and +70°C/+158°F

Lexium™ 32i integrated drives Motion control

Documentation and configuration tools

Documentation

Description	Reference	Weight kg/*lb*
"Description of the Motion & Drives Offer" DVD-ROM *(1)* Includes: technical documentation (programming manuals, installation manuals, instruction sheets) catalogs brochures	**VW3A8200**	0.100/ *0.220*
Lexium™ 32i Simplified User Manual	Available on our website www.schneider-electric.com	

SoMove™ setup software

SoMove setup software is used to configure, adjust, debug, and maintain the Lexium 32i integrated drive the same way it is used for other Schneider Electric drives and starters.

It can be downloaded from our website www.schneider-electric.com or viewed on the "Description of the Motion & Drives Offer" DVD ROM (VW3A8200).

For introduction, description, and references, see page 22.

VW3A8121

Multi-Loader configuration tool

The Multi-Loader tool enables several configurations to be copied from a PC or a Lexium 32i integrated drive and loaded onto another integrated drive. Power to the Lexium 32i drives can be on or off.

References

Description	Reference	Weight kg/*lb*
Multi-Loader configuration tool Includes: 1 cordset with 2 RJ45 connectors 1 cordset with 1 type A USB connector and 1 mini B USB connector 1 x 2 GB SD memory card 1 female/female RJ45 adapter 4 AA 1.5 V LR6 round batteries	**VW3A8121**	–

(1) The documentation is available on our website www.schneider-electric.com.

Lexium™ 32i integrated drives
Motion control
Memory card

Duplicating an application using the VW3M8705 memory card

Memory card

Description	Reference	Weight kg/*lb*
Memory card This 128 KB SIM card is used to store the Lexium™ 32i integrated drive parameters. This means that another Lexium 32i integrated drive can be set up immediately in the event of maintenance or if the application needs to be duplicated. Refer to the User Manual for information on how to use the memory card.	**VW3M8705**	–
Pack of 25 memory cards 128 KB SIM cards	**VW3M8704**	–

Lexium™ 32i integrated drives
Motion control
Option: braking resistors

Connection module for external braking resistor mounted on the Lexium 32i

Introduction

Internal braking resistor

A braking resistor is built into the Lexium™ 32i to absorb the braking energy. If the internal DC bus voltage exceeds a specified value, this braking resistor is activated. The restored energy is then converted to heat by the braking resistor, enabling maximum braking torque.

External braking resistor

If the Lexium BMI servo motor has to be braked frequently, an external braking resistor is required to dissipate the excess braking energy. In this case, the internal braking resistor must be deactivated.

Several external braking resistors can be connected in parallel. The Lexium 32i monitors the power dissipated in the braking resistor.

The degree of protection of the casing is IP 65 for VW3A7601R●● to VW3A7608R●● braking resistors and IP 20 for VW3A770● braking resistors.
The operating temperature around the unit can be between 0 and + 50°C *(+ 32 and + 122°F)*.

An external braking resistor connection module VW3M9010 is required to use an external braking resistor with a Lexium 32i.

Applications

- High-inertia machines
- Driving loads
- Machines with fast operating cycles

Introduction: page 6
Lexium 32i integrated drive: page 12
Configuration tools: page 18

Lexium™ 32i integrated drives
Motion control
Option: braking resistors

VW3A760●R●●

VW3A770●

VW3M9010

References

Braking resistors

Ohmic value	Continuous power PPr	Peak energy EPk				Length of connection cable	Reference *(1)*	Weight
		115 V	230 V	380 V	480 V			
Ω	W	Ws	Ws	Ws	Ws	m/*ft*		kg/*lb*
10	400	18,800	13,300	7300	7700	0.75/ *2.46*	**VW3A7601R07**	1.420/ *3.131*
						2/ *6.56*	**VW3A7601R20**	1.470/ *3.241*
						3/ 9.84	**VW3A7601R30**	1.620/ *3.571*
	1000	36,500	36,500	22,500	22,500	–	**VW3A7705**	11.000/ *24.251*
15	1000	43,100	43,100	26,500	26,500	–	**VW3A7704**	11.000/ *24.251*
27	100	4200	3800	1900	1700	0.75/ *2.46*	**VW3A7602R07**	0.630/ *1.389*
						2/ *6.56*	**VW3A7602R20**	0.780/ *1.720*
						3/ 9.84	**VW3A7602R30**	0.900/ *1.984*
	200	9700	7400	4900	4300	0.75/ *2.46*	**VW3A7603R07**	0.930/ *2.050*
						2/ *6.56*	**VW3A7603R20**	1.080/ *2.381*
						3/ 9.84	**VW3A7603R30**	1.200/ *2.646*
	400	25,500	18,100	11,400	10,500	0.75/ *2.46*	**VW3A7604R07**	1.420/ *3.131*
						2/ *6.56*	**VW3A7604R20**	1.470/ *3.241*
						3/ 9.84	**VW3A7604R30**	1.620/ *3.571*
72	100	5500	3700	2500	2300	0.75/ *2.46*	**VW3A7605R07**	0.620/ *1.367*
						2/ *6.56*	**VW3A7605R20**	0.750/ *1.653*
						3/ 9.84	**VW3A7605R30**	0.850/ *1.874*
	200	14,600	9600	6600	6000	0.75/ *2.46*	**VW3A7606R07**	0.930/ *2.050*
						2/ *6.56*	**VW3A7606R20**	1.080/ *2.381*
						3/ 9.84	**VW3A7606R30**	1.200/ *2.646*
	400	36,600	24,700	16,200	15,500	0.75/ *2.46*	**VW3A7607R07**	1.420/ *3.131*
						2/ *6.56*	**VW3A7607R20**	1.470/ *3.241*
						3/ 9.84	**VW3A7607R30**	1.620/ *3.571*
100	100	4400	4400	2900	2900	0.75/ *2.46*	**VW3A7608R07**	0.410/ *0.065*
						2/ *6.56*	**VW3A7608R20**	0.560/ *1.235*
						3/ 9.84	**VW3A7608R30**	0.760/ *1.676*

Accessories

Description	Reference	Weight kg/*lb*
Connection module for braking resistor *(1)*	**VW3M9010**	–

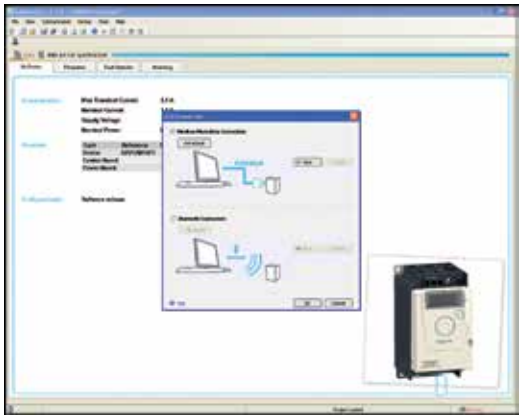
(1) An external braking resistor connection module VW3M9010 is required to connect an external braking resistor to a Lexium™ 32i.

***Note**: The total continuous power dissipated in the external braking resistor(s) must be less than or equal to the nominal power of the Lexium 32i integrated drive (see page 12).*

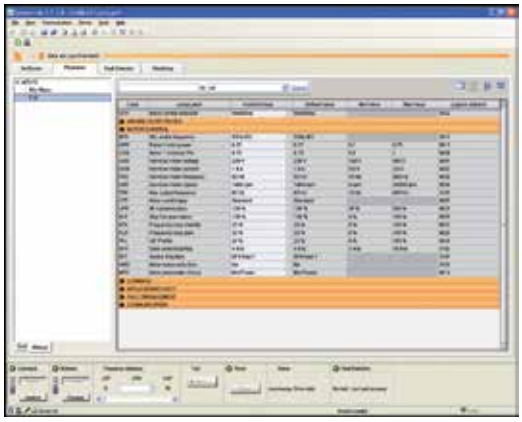
Lexium™ 32i integrated drives Motion control

SoMove™ setup software

SoMove start page



Example of connecting SoMove software to an ATV 12 drive



SoMove control panel

Introduction

SoMove™ is user-friendly setup software for PCs, designed for configuring the following Schneider Electric motor control devices:

- ATV 12, ATV 312, ATV 31, ATV 32, ATV 61 and ATV 71 drives
- ATS 22 and ATS 48 soft starters
- TeSys™ U starter-controllers
- TeSys T motor management system
- Lexium 32 servo drives
- Lexium 32i integrated servo drives

SoMove software incorporates various functions for the device setup phases, such as:

- Configuration preparation
- Start-up
- Maintenance

To facilitate setup and maintenance, SoMove software can use a direct USB/RJ45 cable link or a Bluetooth® wireless link.
SoMove software is also compatible with the Multi-Loader configuration tool and SoMove Mobile software for mobile phones.
These tools can save a significant amount of time when loading, duplicating or editing configurations on a device.

SoMove software and the DTMs (Device Type Managers) associated with the devices can be downloaded from our website www.schneider-electric.com.

Functions

Configuration preparation in disconnected mode

SoMove software has a genuine disconnected mode which provides access to the device parameters. This mode can be used to generate the device configuration. This configuration can be saved, printed and exported to office automation software.

SoMove software also checks the consistency of the parameters, validating the configurations created in disconnected mode.

A large number of functions are available in disconnected mode, in particular:

- Device configuration software wizard
- Configuration comparison function
- Saving, copying, printing and creating configuration files for export to Multi-Loader, SoMove Mobile or Microsoft Excel® tools, and sending configurations by e-mail

Setup

When the PC is connected directly to the device or to the communication bus *(1)*, SoMove software can be used for:

- Transferring the generated configuration onto the device
- Adjustment and monitoring, which includes such functions as:
  - Oscilloscope
  - Display of communication parameters
- Easy control via the control panel user interface
- Saving the final configuration

Maintenance

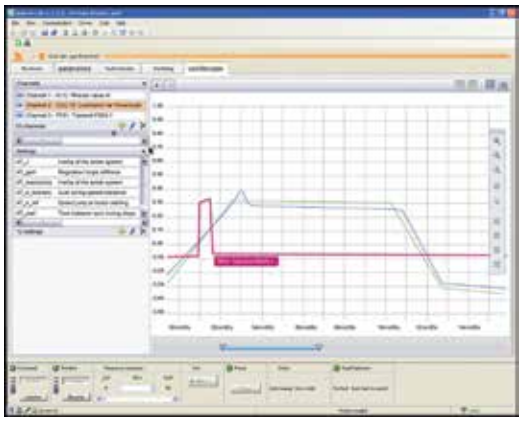
In order to simplify maintenance operations, SoMove software can be used to:

- Compare the configuration of a device currently being used with a configuration saved on the PC
- Transfer a configuration to a device
- Compare oscilloscope curves
- Save oscilloscope curves and faults

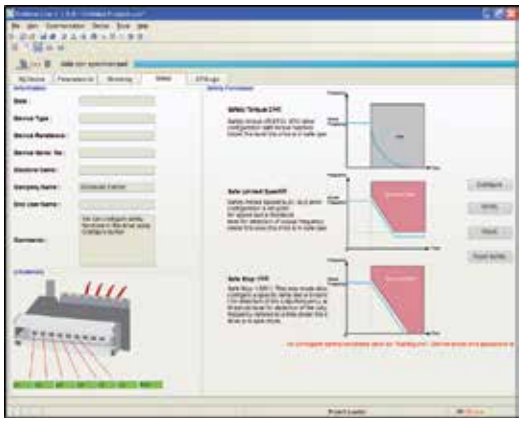
(1) Requires a specific connection accessory. For further information, please consult our Customer Care Center.

References: page 24
Compatibility: page 25

Lexium™ 32i integrated drives
Motion control
SoMove™ setup software



SoMove oscilloscope function



SoMove Safety function

Functions (continued)

User interface

SoMove™ software provides fast, direct access to information on the device via five tabs:

- My Device: Displays the device information (type, reference, software versions, option cards)
- Parameters: Displays the device adjustment parameters, shown in a table or in the form of diagrams
- Faults: Displays a list of the faults that may be encountered with the device, the fault log and any current faults or alarms
- Monitoring: Provides a realtime display of the device status, its I/O and the monitoring parameters. It is possible to create your own control panel by selecting your parameters and how they are to be represented.
- Oscilloscope: Provides a high-speed oscilloscope (for recording traces in the device) or low-speed oscilloscope (for recording traces in the software for devices that do not have an integrated oscilloscope)

SoMove's user interface automatically adapts to the specific configured device by offering additional tabs:

- Safety: for configuring the Safety functions on ATV 32 variable speed drives and Lexium™ 32 servo drives. It can also be used to:
  - Display the I/O
  - Compile and print a report
- ATVLogic: for accessing the ATV 32 drive's programmable function blocks. It can also be used to:
  - Develop a program and transfer it to the drive
  - Display and debug the program already on the drive
- Auto-tuning: for accessing the servo control settings for the three different operating modes of the Lexium 32 servo drive's auto-tuning function:
  - Automatic mode for quick setup, designed for simple applications
  - Semi-automatic mode for quick setup, with the option of optimizing the servo drive/servo motor combination (access to the mechanical and dynamic behavior parameters)
  - Expert mode for optimizing the adjustment parameters, designed for complex applications

Connections

Modbus serial link

The PC running SoMove software can be connected directly via the RJ45 connector on the device and the USB port on the PC using the USB/RJ45 cable.

See the product references on page 24.

Bluetooth® wireless link

SoMove software can communicate via Bluetooth® wireless link with any Bluetooth® enabled device.

If the device is not Bluetooth® enabled, use the Modbus-Bluetooth® adaptor *(1)*. This adaptor is connected to the terminal port or the Modbus network port on the device. It has a 20 m/*65 ft* range (class 2).

If the PC does not have Bluetooth® technology, use the USB-Bluetooth® adaptor.

(1) See the list of the available devices on page 24.

Lexium™ 32i integrated drives
Motion control
SoMove™ setup software

SoMove setup software

TCSWAAC13FB: Bluetooth® adaptor

References

Description	Reference	Weight kg/*lb*
SoMove™ Lite setup software Includes: SoMove setup software for PC in English, French, German, Italian, Spanish and Chinese DTMs (Device Type Managers) and technical documentation for variable speed drives, starters and servo motors	*(1)*	–
USB/RJ45 cable Used to connect a PC to the device. This cable is 2.5 m long and has a USB connector (PC end) and an RJ45 connector (device end).	**TCSMCNAM3M002P**	–
Modbus™/Uni-Telway™-Bluetooth® adaptor Used to enable any non-Bluetooth® device to communicate via Bluetooth® wireless link *(2)*. Includes: 1 Bluetooth® adaptor (range 20 m, class 2) with an RJ45 connector For SoMove: 1 x 0.1 m cordset with 2 x RJ45 connectors For TwidoSuite™: 1 x 0.1 m cordset with 1 RJ45 connector and 1 mini DIN connector	**TCSWAAC13FB**	0.032/ *0.071*
USB-Bluetooth® adaptor for PC Used to enable any non-Bluetooth® PC to communicate via Bluetooth® wireless link *(3)*. It connects to a USB port on the PC. Range 10 m, class 2	**VW3A8115**	0.290/ *0.639*

(1) Available on our website www.schneider-electric.com.
(2) Available only for the following devices:
- ATV 12, ATV 312, ATV 31, ATV 61 and ATV 71 drives
- ATS 22 and ATS 48 soft starters
- TeSys™ U starter-controllers
- TeSys T motor management system
- Lexium™ 32 servo drives
(3) Check the manufacturer's specification.

Introduction: page 22
Compatibility: page 25

Lexium™ 32i integrated drives
Motion control
SoMove™ setup software

Compatibility of SoMove™ software with specific devices

Device	Range	Version of software on the device
Variable speed drive	ATV 12, ATV 312, ATV 32	≥ 1.0
	ATV 31	≥ 1.1
	ATV 61, ATV 71	≥ 1.6
Soft starter	ATS 22	≥ 1.0
	ATS 48	≥ 1.5
Starter-controller	TeSys™ U	≥ 1.0
Motor management system	TeSys T	≥ 1.0
Servo drive	Lexium™ 32	≥ 1.0
Integrated servo drive	Lexium 32i	≥ 1.0

Environments

SoMove operates in the following PC environments and configurations:
- Microsoft Windows® 7 Professional
- Microsoft Windows® XP Professional SP3
- Microsoft Windows® Vista Business SP2
- Pentium IV (or equivalent), 1 GHz, hard disk with 1 GB available space, 1 GB of RAM (minimum configuration)

Introduction: page 22
References: page 24

Lexium™ 32i integrated drives
Motion control
Motor starters

+

LC1D18●●
+
BMI1002T●●●

Applications

The combinations listed below can be used to create a complete motor starter unit which includes a contactor and a Lexium™ 32i integrated drive.

The contactor turns on and manages any protection functions, as well as isolating the servo motor on stopping.
The Lexium 32i provides protection against short-circuits and overloads. Overload protection is provided by the integrated drive's motor thermal protection function.

Motor starters for Lexium 32i integrated drives

Lexium BMI servo motor		Max. prospective line Isc	Contactor
Reference	Nominal power		Reference *(1) (2)*
	kW	kA	
Single-phase supply voltage: 100…120 V ∿ 50/60 Hz			
BMI0702T	0.4	1	**LC1D09●●**
BMI0703T	0.4	1	**LC1D09●●**
BMI1002T	0.75	1	**LC1D18●●**
Single-phase supply voltage: 200…240 V ∿ 50/60 Hz			
BMI0702T	0.7	1	**LC1D09●●**
BMI0703T	0.7	1	**LC1D09●●**
BMI1002T	1.3	1	**LC1D18●●**
Three-phase supply voltage: 400 V ∿ 50/60 Hz			
BMI0702P	0.8	1	**LC1D09●●**
BMI0703P	0.9	1	**LC1D09●●**
BMI1002P	1.9	1	**LC1D09●●**
BMI1003P	2	1	**LC1D09●●**
Three-phase supply voltage: 480 V ∿ 50/60 Hz			
BMI0702P	0.9	1	**LC1D09●●**
BMI0703P	0.9	1	**LC1D09●●**
BMI1002P	1.9	1	**LC1D09●●**
BMI1003P	2.1	1	**LC1D09●●**

(1) Composition of contactors:
LC1D●●: 3 poles + 1 NO auxiliary contact and 1 NC auxiliary contact.
In certain situations, it is possible to use an LC1K contactor with 1 NO auxiliary contact.
Please refer to the "Control and Protection Components" catalog.
(2) Replace ●● with the control circuit voltage reference given in the table below:

	Volts ∿	110	115	220	230	240
LC1D09...D150	50/60 Hz	**F7**	**FE7**	**M7**	**P7**	**U7**

For other available voltages between 24 V and 660 V, or for a DC control circuit, please contact our Customer Care Center.

Lexium™ 32i integrated drives
Motion control
Motor starters
Protection using fuses

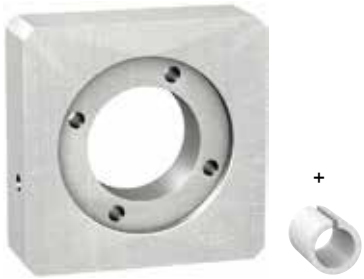
Protection using class J fuses (UL certification)

Lexium™ BMI servo motor		Fuse to be placed upstream
Reference	Nominal power	
	kW	A
Single-phase supply voltage: 100…120 V ∼ 50/60 Hz		
BMI0702T	0.4	8
BMI0703T	0.4	8
BMI1002T	0.75	15
Single-phase supply voltage: 200…240 V ∼ 50/60 Hz		
BMI0702T	0.7	8
BMI0703T	0.7	8
BMI1002T	1.3	15
Three-phase supply voltage: 400 V ∼ 50/60 Hz		
BMI0702P	0.8	4
BMI0703P	0.9	4
BMI1002P	1.9	8
BMI1003P	2	8
Three-phase supply voltage: 480 V ∼ 50/60 Hz		
BMI0702P	0.9	4
BMI0703P	0.9	4
BMI1002P	1.9	8
BMI1003P	2.1	8

Lexium™ 32i integrated drives
Motion control
Lexium BMI servo motors
Option: GB● planetary gearboxes

GBX planetary gearboxes

GBY angular planetary gearbox



GBK adapter kit

GBX160 planetary gearbox (with integrated adapter kit)

Introduction

In many cases, motion control requires the use of planetary gearboxes to adapt speeds and torques, while providing the precision demanded by the application.

Schneider Electric has chosen to use GBX planetary gearboxes and GBY angular planetary gearboxes (made by Neugart) with the Lexium™ BMI range of servo motors.
The combination of Lexium BMI servo motors with the most suitable planetary gearboxes makes them very easy to mount and setup.

The gearboxes are designed for applications that are not susceptible to mechanical backlash. They have a keyed shaft, are lubricated for life, and conform to IP 54 degree of protection.

Available in 3 sizes (GBX80...GBX160), planetary gearboxes are offered with 15 reduction ratios (3:1...100:1).
GBY angular planetary gearboxes are available in 2 sizes (GBY80…GBY120) with 7 reduction ratios (3:1...40:1).

The tables on pages 29 and 30 show the most suitable combinations of servo motor and GBX or GBY planetary gearbox.
For other combinations or any additional information about planetary gearbox characteristics, refer to the servo motor data sheets or visit our website www.schneider-electric.com.

A GBK adapter kit is also available for mounting Lexium BMI servo motors with GBX80…GBX120 or GBY80…GBY120 planetary gearboxes (see page 31).
The GBX160 planetary gearbox is equipped as standard with an integrated adapter kit.

The adapter kit includes:
- Adapter plate
- Shaft end adapter, depending on the model (depends on the servo motor/ planetary gearbox combination)
- Accessories for mounting the plate on the planetary gearbox
- Accessories for mounting the servo motor

Lexium™ 32i integrated drives
Motion control
Lexium BMI servo motors
Option: GBX planetary gearboxes

References

GBX●●●●●●K planetary gearbox

Size	Reduction ratio	Reference	Weight kg/*lb*
GBX80	3:1, 4:1, 5:1, and 8:1	**GBX080●●●K**	2.100/ *4.630*
	9:1, 12:1, 15:1, 16:1, 20:1	**GBX080●●●K**	2.600/ *5.732*
GBX120	3:1, 4:1, 5:1, and 8:1	**GBX120●●●K**	6.000/ *13.228*
	9:1, 12:1, 15:1, 16:1, 20:1, 25:1, 32:1, and 40:1	**GBX120●●●K**	8.000/ *17.637*
	60:1, 80:1, and 100:1	**GBX120●●●K**	10.000/ *22.046*
GBX160	25:1, 32:1, and 40:1	**GBX160●●●100●F**	22.000/ *48.502*

To order a GBX080…GBX120 planetary gearbox, complete each reference above as follows:

			GBX	●●●	●●●	❑
Size	Casing diameter	80 mm/*3.15 in.*		**080**		
		120 mm/*4.72 in.*		**120**		
Reduction ratio		3:1			**003**	
		4:1			**004**	
		5:1			**005**	
		8:1			**008**	
		9:1			**009**	
		12:1			**012**	
		15:1			**015**	
		16:1			**016**	
		20:1			**020**	
		25:1			**025**	
		32:1			**032**	
		40:1			**040**	
		60:1			**060**	
		80:1			**080**	
		100:1			**100**	
Mounting with GBK adapter kit (see page 31)						**K**

To order a GBX160 planetary gearbox, complete each reference above as follows:

			GBX	160	●●●	100	●	F
Size	Casing diameter	160 mm/*6.30 in.*		**160**				
Reduction ratio		25:1			**025**			
		32:1			**032**			
		40:1			**040**			
Associated Lexium™ BMI servo motor	Type					**100**		
	Motor						**2**	
							3	
Lexium BMI servo motor adapter								**F**

Lexium BMI servo motor/GBX gearbox combinations

Reduction ratios from 3:1 to 100:1

Servo motor	Reduction ratio												
	3:1 4:1	5:1	8:1	9:1	12:1	15:1 16:1	20:1	25:1	32:1	40:1	60:1	80:1	100:1
BMI0702	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120
BMI0703	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX080	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120
BMI1002	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX160	GBX160	GBX160	–	–	–
BMI1003	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX120	GBX160	GBX160	GBX160	–	–	–

GBX120

For these combinations, you must check that the application will not exceed the maximum gearbox output torque; refer to the values on our website: www.schneider-electric.com.

Lexium™ 32i integrated drives
Motion control
Lexium BMI servo motors
Option: GBY angular planetary gearboxes

References

GBY●●●●●●K angular planetary gearbox

Size	Reduction ratio	Reference	Weight kg/*lb*
GBY80	3:1, 4:1, 5:1, and 8:1	**GBY080●●●K**	4.400/ *9.700*
	12:1, 20:1	**GBY080●●●K**	5.000/ *11.023*
GBY120	3:1, 4:1, 5:1, and 8:1	**GBY120●●●K**	12.000/ *26.455*
	12:1, 20:1, and 40:1	**GBY120●●●K**	14.000/ *30.865*

To order a GBY angular planetary gearbox, complete each reference as follows:

			GBY	●●●	●●●	K
Size	Casing diameter	80 mm/*3.15 in.*		**080**		
		120 mm/*4.72 in.*		**120**		
Reduction ratio		3:1			**003**	
		4:1			**004**	
		5:1			**005**	
		8:1			**008**	
		12:1			**012**	
		20:1			**020**	
		40:1			**040**	
Mounting with GBK adapter kit (see page 31)						**K**

Lexium™ BMI servo motor/GBY gearbox combinations

Reduction ratios from 3:1 to 40:1

Servo motor	Reduction ratio						
	3:1	**4:1**	**5:1**	**8:1**	**12:1**	**20:1**	**40:1**
BMI0702	**GBY080**	**GBY080**	**GBY080**	**GBY080**	**GBY080**	**GBY080**	**GBY120**
BMI0703	**GBY080**	**GBY080**	**GBY080**	**GBY080**	**GBY080**	**GBY080**	**GBY120**
BMI1002	**GBY120**	**GBY120**	**GBY120**	**GBY120**	**GBY120**	**GBY120**	**–**
BMI1003	**GBY120**	**GBY120**	**GBY120**	**GBY120**	**GBY120**	**GBY120**	**–**

GBY080

For these combinations, you must check that the application will not exceed the maximum gearbox output torque; refer to the values on our website www.schneider-electric.com.

Motion control
Lexium 32i integrated drives
Lexium BMI servo motors
Option: adapter kit for GB● planetary gearboxes

References

To order a GBK adapter kit, complete each reference as follows:

			GBK	●●●	●●●	●	F
Size of GBX or GBY planetary gearbox	Casing diameter	80 mm/*3.15 in.*		**080**			
		120 mm/*4.72 in.*		**120**			
Associated Lexium™ BMI servo motor		BMI070			**070**		
		BMI100			**100**		
		2 stage motor				**2**	
		3 stage motor				**3**	
Lexium BMI servo motor adapter							**F**

GBK adapter kit/Lexium BMI servo motor combinations

Gearbox	Lexium BMI servo motor			
	0702●	**0703●**	**1002●**	**1003●**
GBK0800702F				
GBK0800703F				
GBK1200702F				
GBK1200703F				
GBK1201003F				

Compatible
Not compatible

(1) Weight of adapter kit:
GBK080●●●F: 0.450 kg/0.992 lb
GBK120●●●F: 0.650 kg/1.433 lb

Product reference index

www.schneider-electric.com/us

Schneider Electric USA
Motion Competency Center
1300 S. Wolf Road
Des Plaines, IL 60018-1300 USA
Tel: 847-789-5424

USA Customer Care Center
Tel: 888-778-2733

Schneider Electric Canada
5985 McLaughlin Rd.
Missassauga, Ontario, Canada L5R 1B8

Canada Customer Care Center
Tel: 800-565-6699

Design: Schneider Electric
Photos: Schneider Electric

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