

Lexium® - Motion Control Servo Drives

The Lexium is ideal for OEMs seeking a compact, intelligent motor control solution. The Lexium® 05 and Lexium® 15 servo drives simplify architecture without compromising the control and precision capability that ensure optimal machine performance. Combining essential motion control function with easy-to-use control and command interfaces, the Lexium® 05 servo drive is feature rich, reliable and cost effective. The servo drive provides flexibility with an extensive power range (0.4 kW to 6 kW) and voltage range (115 V to 480 V). In addition, the current loop sampling time is a quick 62.5 µs. To control torque, speed and position of Lexium BDH™ and BSH™ servo motors, the full-featured Lexium® 15 servo drive is designed for high-performance applications that require strong dynamics and high precision monitoring. The servo drive provides a power range from 0.9 kW to 42.5 kW and a voltage range from 200 V to 480 V.

Lexium® 05 Benefits:

Accurate Control

- Customized control modes for specific applications: torque or speed regulation; electronic shaft and manual mode
- Point-to-point positioning via the communication network allows for relative or absolute movement; target position and parameters

Open Communication

- CANopen™, Profibus™ DP, Modbus Plus™, FIPIO® and Sercos capabilities
- High-speed data exchange and direct communication to industrial control systems available

Total Safety

- Integrated EMC filter
- “Power Removal” safety function prevents unintended machine starts, conforming to machinery standard EN 954-1 and IEC EN61508-1 SIL2
- High level of safety incorporated, EN 954-1 category 1 or 3



Lexium® 15 Benefits:

Adaptability

- Integrated position indexer provides single axis control with no add-on
- Meet the performance requirement of complex applications (up to 16 axes per module) with the Sercos card option connected to a Modicon® Premium™ PLC
- Synchronize several axes through electronic gearing mode operation
- Motion controller axis card extends operating possibilities for applications requiring complex synchronization of axes

Robust features

- Four configurable logic inputs and two logic outputs, extendable with option cards; two analog inputs
- Integrated position indexer, EMC filter and braking resistors
- Eight standard operating modes
- Up to 200 programmable motion tasks

Lexium® Applications:

Industrial Machinery including:

Material Handling, Packaging, Robotics, Converting, Automated Inspection, Web Lines, Cut-to-Length, Positioning, Winding, Automated Assembly, Metal Working

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Lexium® 05 Servo Drive Ordering Information:

Output current Continuous (RMS)		Transient		Nominal power	Line current		Max. prospective line Isc	Reference (1)	Weight
at 4 kHz	at 8 kHz	at 4kHz	at 8 kHz	at 4kHz	at U1	at U2			
A	A	A	A	kW	A	A	kA		Kg
Single phase supply voltage: ~110...120 V (2) 50/60 Hz, with integrated EMC filter									
4	3.2	10	8.5	0.4	7.6	7	1	LXM 05AD10F1	1.100
8	7	17	15.5	0.65	11.5	10.5	1	LXM 05AD17F1	1.400
15	13	28	28	1.4	22.6	20.7	1	LXM 05AD28F1	2.000
Single phase supply voltage: ~200...240 V (2) 50/60 Hz, with integrated EMC filter									
4	3.2	10	8.5	0.75	8.1	6.7	1	LXM 05AD10M2	1.100
8	7	17	15.5	1.2	12.7	10.5	1	LXM 05AD17M2	1.400
15	13	28	28	2.5	23	19.2	1	LXM 05AD28M2	2.000
3-phase supply voltage: ~200...240 V (2) 50/60 Hz, without integrated EMC filter									
4	3.2	10	8.5	0.75	5.2	4.3	5	LXM 05AD10M3X	1.100
8	7	17	15.5	1.4	9	7.5	5	LXM 05AD17M3X	1.300
17	15	42	42	3.2	19	15.8	5	LXM 05AD42M3X	1.900
3-phase supply voltage: ~380...480 V (2) 50/60 Hz, with integrated EMC filter									
6	5	14	10.6	1.4	4.2	3.3	5	LXM 05AD14N4	1.400
9	7	22	19.8	2	6.3	5	5	LXM 05AD22N4	2.000
15	11	34	25.5	3	9.7	7.7	5	LXM 05AD34N4	2.000
25	20	57	42	6	17.7	14	22	LXM 05AD57N4	6.500

(1) Profibus DP communication model references: replace LXM 05A with LXM 05B at the beginning of the reference.

(2) Nominal power supply voltage, min. U1, max. U2 (110...120 V, 200...240 V, 380...480 V).

Lexium® 15 Servo Drive Ordering Information:

Output currents (1)			Nominal power (1)	Line currents		Apparent power	Reference	Weight
Permanent (RMS)	Transient (RMS for 2 s)	Transient (peak current)		at U1 (2)	at U2 (2)			
A	A	A	kW	A	A	kVA		kg
Lexium 15 LP servo drives								
Single phase supply voltage: 200...240 V ~ (2) 50/60 Hz, with integrated EMC filter								
3	9	13	0.9	7.7	7.6	1.1	LXM 15LD13M3	2.600
4	9	13	1.2	10.1	9.9	2.4	LXM 15LD21M3	2.600
4	9	13	1.2	10.4	10.1	4	LXM 15LD28M3	2.600
3-phase supply voltage: 200...240 V ~ (2) 50/60 Hz, with integrated EMC filter								
3	9	13	1	4.7	4.6	1.1	LXM 15LD13M3	2.600
6	15	21	2.1	8.8	8.6	2.4	LXM 15LD21M3	2.600
10	20	28	3.4	14	13.7	4	LXM 15LD28M3	2.600
3-phase supply voltage: 208...480 V ~ (2) 50/60 Hz, with integrated EMC filter								
1.5	4.5	6	1.1	2.8	2.5	1.2	LXM 15LU60N4	2.700
3	7.5	10	2.1	3.9	4.5	2.5	LXM 15LD10N4	2.700
6	12	17	4.3	6.9	8.2	5	LXM 15LD17N4	2.700
Lexium 15 MP servo drives								
3-phase supply voltage: 208...480 V ~ (2) 50/60 Hz, with integrated EMC filter								
10	20	28	5.7	9.7	12.6	7	LXM 15MD28N4	4.000
14	28	40	7.9	15.4	17.7	10	LXM 15MD40N4	5.000
20	40	56	11.4	19.9	24.5	14	LXM 15MD56N4	7.500
Lexium 15 HP servo drives								
3-phase supply voltage: 208...480 V ~ (2) 50/60 Hz, without integrated EMC filter (4) (5)								
40	80	112	22.3	35	36.6	30	LXM 15HC11N4X	19.500
70	140	198	42.5	60.6	60.9	50	LXM 15HC20N4X	21.000

(1) These values are given for a nominal switching frequency of 8 kHz.

(2) Nominal supply voltage, min. U1, max. U2: 200 (U1)...240 V (U2) or 208 (U1)...480 V (U2).

(3) The line currents are given for a connection with the line choke.

(4) EMC filters available as an option.

(5) When the line supply has a TT or TN load system, a line choke must be used.



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