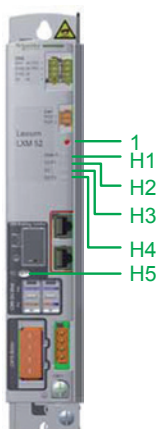


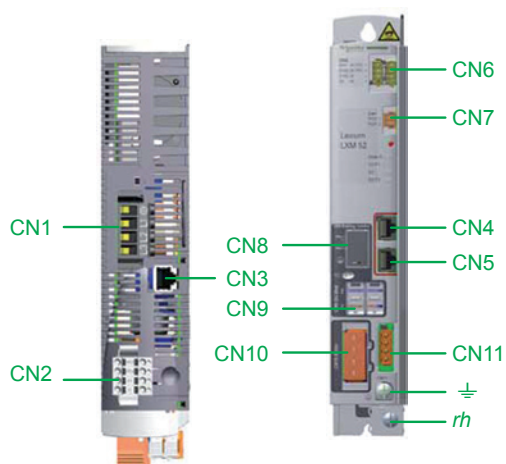
Lexium 52 servo drives – range presentation

Servo drive type	LXM52DU60C41000	LXM52DD12C41000	LXM52DD18C41000	LXM52DD30C41000	LXM52DD72C41000
Rated current (8 kHz)	1.5	3	6	10	24
Peak current (8 kHz) A	6	12	18	30	72
Continuous output kW/hp	0.4/0.536	0.9/1.206	1.8/2.412	3/4.021	7/9.383
Supply voltage VAC	3-phase nominal 208 / 200 (-15%)...240 (+10%) 3-phase nominal 400 / 380 (-15%)...480 (+10%)				
Supply frequency Hz	48...62				
Control voltage VDC	24 (-20%...+25%)				
Motion bus	Sercos				
Inverter Enable	1 input for STO function (Safe Torque Off) (two channels)				
Encoder	Hiperface® or SinCos				
Digital input	2				
Touchprobe input	2				
Digital input or output	2				
Housing dimensions DxWxH	220x 48 x 270 mm (8.661x 1.890x 10.630 in.)		220x 68x 230 mm (8.661x 2.677x 9.055 in.)		220x 108x 230 mm (8.661x 4.252 x 9.055 in.)
Protection rating	IP20				
Certifications	CE, Ulus, CSA, and TÜV				



Lexium 52 stand-alone servo drive interfaces

Item	Function
1	Reset button
H1	Status LED A
H2	S3 Port 1 LED
H3	S3 LED
H4	S3 Port 2 LED
H5	DC bus LED



Connector	Function
CN1	Mains connection
CN2	24 VDC control supply and Inverter Enable 2-channel
CN3	Motor encoder
CN4, CN5	Sercos communication ports
CN6	Digital input/output
CN7	Ready relay output
CN8	External braking resistor
CN9	DC bus connection for parallel operation
CN10	Motor phases
CN11	Holding brake/motor temperature
rh	Shielded connector

Lexium 52 servo drives – type code

LXM	52	D	U60	C	4	1	0	00
Customer 00= Standard Internal 0= Internal production Hardware Release 1 Options 4= 3 phases 208/400/480 VAC Variants C= Single Drive HW-STO SIL 3 PLe Current Output (Peak) U60= 6 A D12= 12 A D18= 18 A D30= 30 A D72= 72 A Type D= Drive Size 52= Lexium 52 Family LXM= Lexium								



LXM52DU60C41000,
LXM52DD12C41000,
LXM52DD18C41000



LXM52DD30C41000



LXM52DD72C41000



VW3M7101R01

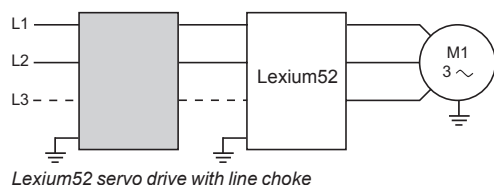
Lexium 52 servo drives – references (1)

Designation	Continuous output	Continuous current	Peak current	Reference	Weight kg/lb
Single drives	0.4 kW (0.536 hp)	1.5 A @ 8 kHz	6 A	LXM52DU60C41000	1.800/ 3.97
	0.9 kW (1.206 hp)	3 A @ 8 kHz	12 A	LXM52DD12C41000	1.800/ 3.97
	1.8 kW (2.412 hp)	6 A @ 8 kHz	18 A	LXM52DD18C41000	1.900/ 4.19
	3 kW (4.021 hp)	10 A @ 8 kHz	30 A	LXM52DD30C41000	2.700/ 5.95
	7 kW (9.383 hp)	24 A @ 8 kHz	72 A	LXM52DD72C41000	5.000/ 11.02

Accessories – references

Designation	Description	Reference	Weight kg/lb
Single drive connector kit	Spare part	VW3E6018	0.055 0.12
Daisy chain bus cordset	Length 0.18 m (0.59 ft.) Equipped with 2 connectors	VW3M7101R01	0.144/ 0.32

(1) The Lexium 52 stand-alone servo drive includes a Sercos cable for connection on Sercos bus.



Presentation

A line choke can be used to provide improved protection against overvoltages on the line supply and to reduce harmonic distortion of the current produced by the servo drive.

The recommended chokes limit the line current.

They have been developed in line with IEC 61800-5-1 (VDE 0160 level 1 high-energy overvoltages on the line supply). The inductance values are defined for a voltage drop of between 3% and 5% of the nominal line voltage. Values higher than this will cause loss of torque. It is recommended that these chokes be installed upstream of the servo drive.

One line choke can be connected to a number of servo drives. In such cases, the current consumption of the servo drives at nominal voltage is greater than or equal to the nominal current of the line choke.

Applications

The use of line chokes is particularly recommended under the following circumstances:

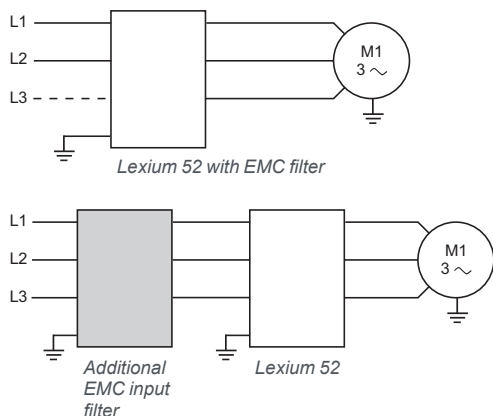
- Close connection of several servo drives in parallel
- Line supply with significant disturbance from other equipment (interference, overvoltages)
- Line supply with voltage imbalance between phases greater than 1.8% of the nominal voltage
- Servo drive supplied by a line with very low impedance (in the vicinity of a power transformer 10 times more powerful than the servo drive rating)
- Installation of a large number of servo drives on the same line
- Reduction of overloads on the cosφ correction capacitors, if the installation includes a power factor correction unit

Line chokes – references

Designation	For use with servo drives	Line current and THD				Reference	Weight	
		Without choke		With choke			kg	lb
		A	%	A	%			
3-phase supply voltage: 380 V 50/60 Hz								
Line chokes	LXM52DU60C41000	1.4	187	1.9	106	VW3A4553	3.5	7.716
	LXM52DD12C41000	3	174	3.5	88			
	LXM52DD18C41000	5.5	159	7.2	88	VW3A4554	6	13.228
	LXM52DD30C41000	8.7	146	11.6	74			
	LXM52DD72C41000	18.1	124	23.5	43			
3-phase supply voltage: 480 V 50/60 Hz								
Line chokes	LXM52DU60C41000	1.2	201	1.6	116	VW3A4553	3.5	7.716
	LXM52DD12C41000	2.4	182	2.9	98			
	LXM52DD18C41000	4.5	165	6	98	VW3A4554	6	13.228
	LXM52DD30C41000	7	152	9.6	85			
	LXM52DD72C41000	14.6	129	19.5	55			



VW3A4553



Presentation

> Integrated EMC filter

Lexium 52 servo drives have integrated radio interference input filters to comply with the EMC standard for variable speed electrical power drive "products" IEC/EN 61800-3, edition 2, category C3 in environment 2, and to comply with the European directive on EMC (electromagnetic compatibility).

> Additional EMC input filters

Additional EMC input filters can be used with Lexium 52 servo drives to meet more stringent requirements, and are designed to reduce conducted emissions on the line supply below the limits of IEC/EN 61800-3 edition 2, category C2 or C3. Additional EMC filters are mounted on the side of the device. They have tapped holes for mounting within an enclosure.

Use according to the type of line supply

Integrated or additional EMC filters can be used only in TN (neutral connection) or TT (neutral to ground) systems. Lexium 52 servo drives cannot be used in IT (impedance grounded or isolated neutral) systems. IEC/EN 61800-3, appendix D2.1, states that in IT systems, filters can cause permanent insulation monitors to operate in a random manner.

If a machine must be installed in an IT system, it is recommended that an isolation transformer be inserted in order to re-create a TT system on the secondary side.

EMC filters – references

Designation	Rated current	For use with servo drives	Maximum servo motor shielded cable length (m) conforming to		Reference	Weight
			EN55011, class A Gr1 IEC/EN 61800-3 cat. C2 in environment 1 Switching frequency: 8 kHz	EN55011, class A Gr2 IEC/EN 61800-3 cat. C3 in environment 2 Switching frequency: 8 kHz		kg/ lb
3-phase supply voltage						
EMC filters	15 A	LXM52DU60C41000 LXM52DD12C41000 LXM52DD18C41000 LXM52DD30C41000	50	100	VW3A4422	0.90 / 1.984
	25 A	LXM52DD72C41000	50	100	VW3A4423	1.35 / 2.976



VW3A4422●