

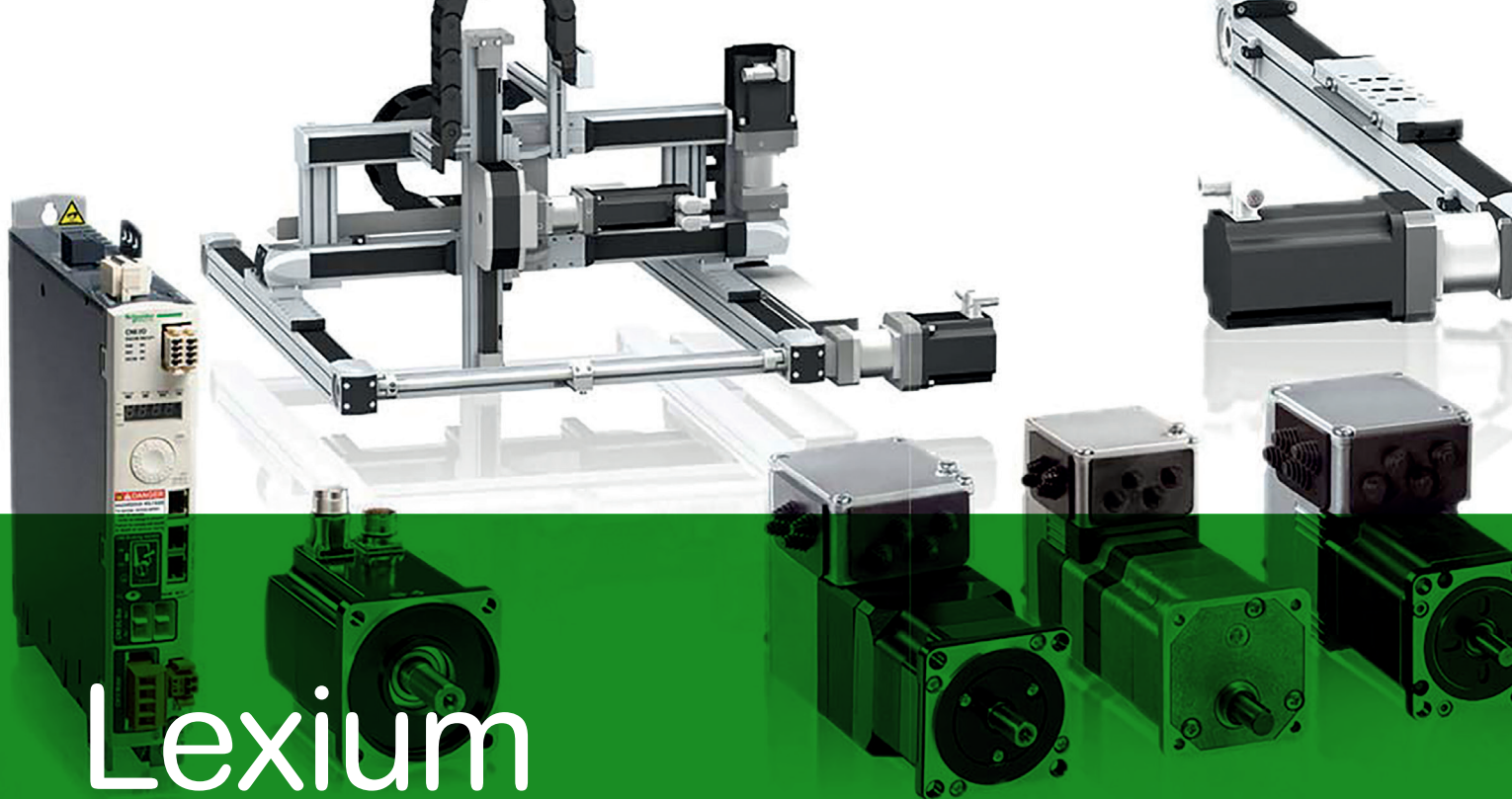
PacDrive 3 automation solution

Lexium 62 ILD detached servo drives

Catalog

February 2017





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References

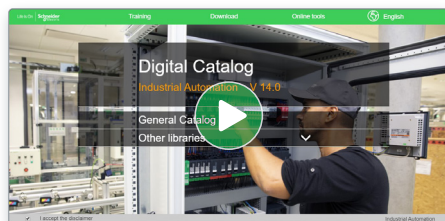
Modicon TM3
I/O expansion modules for Modicon controllers
Analog I/O modules

Number and type of channels	Input range	Output range	Resolution	Aperture time (typical)	Reference	Weight (kg)
2 voltage/current inputs	-15...+15 VDC 0...25 mA A, 25 mA	15 000 of 15 000 + sign	15 000 of 15 000 + sign	100 ns	TM3AI2H	0.110
4 voltage/current inputs	-15...+15 VDC 0...25 mA A, 25 mA	15 000 of 15 000 + sign	15 000 of 15 000 + sign	100 ns	TM3AI2H	0.110
4 voltage/current or temperature inputs	-15...+15 VDC 0...25 mA A, 25 mA	15 000 of 15 000 + sign	15 000 of 15 000 + sign	100 ns	TM3AI2H	0.110
4 differential temperature inputs	-15...+15 VDC 0...25 mA A, 25 mA	15 000 of 15 000 + sign	15 000 of 15 000 + sign	100 ns	TM3AI2H	0.110

Each commercial reference presented in a catalog contains a hyperlink. Click on it to obtain the technical information of the product:

- Characteristics, Dimensions and drawings, Mounting and clearance, Connections and schemas, Performance curves
- Product image, Instruction sheet, User guide, Product certifications, End of life manual

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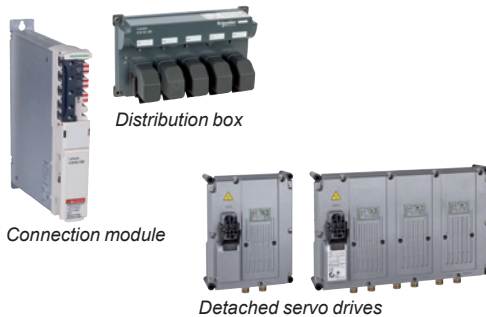


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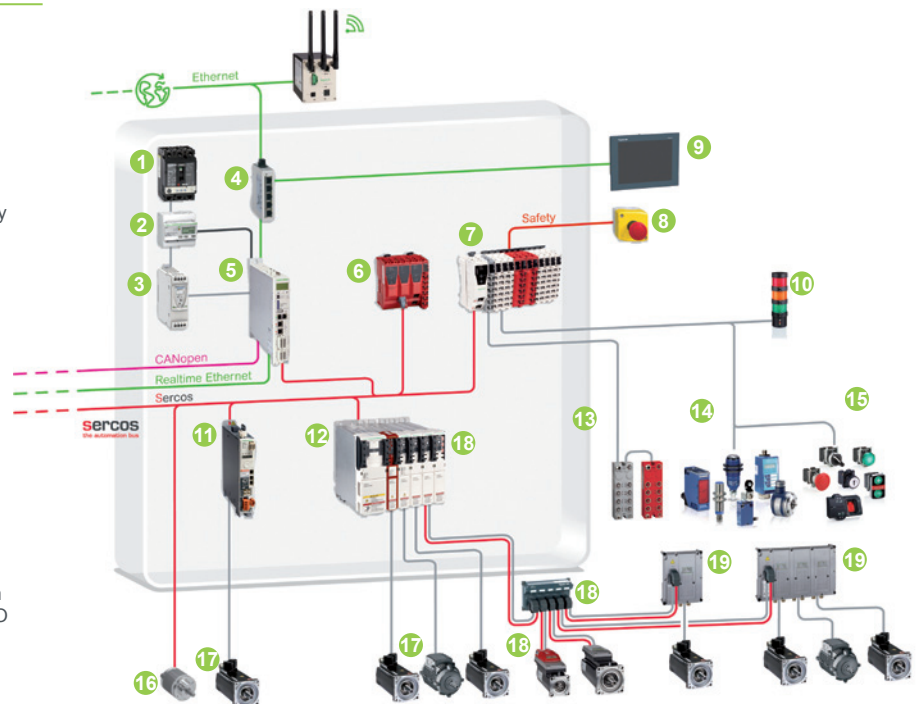
Presentation

The Lexium 62 ILD detached servo drives are part of the Lexium 62 Multi-axis servo solution.

- They are supplementing the Lexium 62 cabinet based drives and the Lexium 62 ILM integrated drives.
- They are fully integrated in the Lexium 62 ILM network infrastructure, support as well the strategy of cabinetless automation.
- They give an IP65 degree of protection.
- The Lexium 62 ILD detached servo drives can be combined like Lexium 62 cabinet drives with Lexium SH3 and MH3 motors (up to a rated current of 6 A) and they can operate as well with other AC motors, even with the smallest one with 40 mm flange size.
- Compared with 62 ILM integrated drives this opens up additional degrees of freedom for flexible creation of servo solutions.
- Two types of Lexium 62 ILD detached servo drives are available:
 - Lexium 62 ILD single servo drive, for the control of one axis
 - Lexium 62 ILD triple servo drive, for the control of three axis
- The only components that remain in the control cabinet are:
 - The PacDrive LMC Motion controller,
 - The shared power supply,
 - The connection module with the possibility of connecting up to 45 servo modules. The connection module feeds 24 V power for controls and brakes, Inverter Enable and Sercos to the Lexium 62 ILD detached servo drive from the same DC bus power supplies as the Lexium 62 Multi-axis servo drives.

Solution breakdown

- 1 Compact NSX Circuit breaker
- 2 IEM32 Energy meter
- 3 Phaseo Switch mode power supply
- 4 ConneXium Switch Ethernet
- 5 PacDrive LMC216 Motion controller
- 6 Modicon TM5CSLC Safety logic controller
- 7 Modicon TM5 (IP 20): Sercos interface module, Safety expansion module, Expansion module
- 8 Harmony XALK Emergency stop
- 9 Magelis HMI Small Panels
- 10 Harmony XV Signaling units
- 11 Lexium 52 single axis servo drive
- 12 Lexium 62 Multi-axis servo solution cabinet based: Power supply, Servo drives, Servo drives with embedded safety
- 13 Modicon TM7: IP 67 Expansion module, IP 67 Safety expansion module
- 14 Sensors: Proximity and Photoelectric sensors, Limit and Pressure switches, Encoder
- 15 Harmony XB4/XB5 Control units, Harmony XB5S Biometric switches
- 16 3rd party product: encoder
- 17 Lexium SH/MH Servo motors series
- 18 Lexium 62 ILM Integrated servo modules: Connection module, Distribution boxes, Integrated servo drives, I/O and Safety optional modules
- 19 Lexium 62 ILD detached servo drives: single drive, triple drive

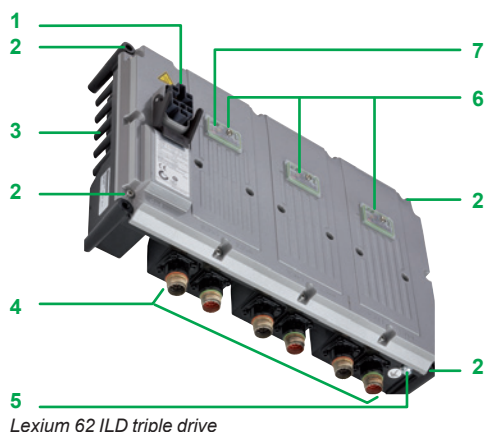
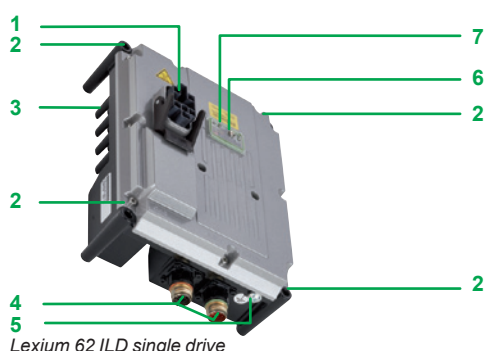


> Lexium 62 ILD detached servo drive benefits

By moving the servo drives out of the control cabinet and into the field, Lexium 62 ILD detached servo drives offer is reducing significant the efforts for the servo solution:

- Plug & Play technology with pre-assembled hybrid cables
- Up to 90% less wiring time
- Up to 70% less cabling
- No cabinets necessary for Lexium 62 ILD detached servo drives
- More flexibility in the selection of motors
- Less wiring and cabling requirements in the control cabinet by up to 90%
- Detached IP65 servo drive electronics unit, in comparison to Lexium 62 ILM more flexibility in the selection of motors
- Quick interconnects and hybrid cables for signal and power level
- Automatic network configuration
- Diagnostic functions

Lexium 62 ILD detached servo drives – Range presentation					
Type		Lexium 62 ILD detached single servo drive		Lexium 62 ILD detached triple servo drive	
Reference		ILM62DDD24A1000	ILM62DDD24C1000	ILM62DDD24B1000	ILM62DDD24D1000
Number of controlled axis		1		3	
Power Supply	Supply voltage	250...700 Vdc			
	Control voltage (without holding brake)	24 Vdc (-20%... +25%)			
	Max. current consumption (without holding brake)	0.7 A			
	Control voltage (with holding brake)	24 Vdc (-10 % ... +6 %)			
	Max. current consumption (with holding brake)	4.9 A			
Motor connection	Switching frequency	8 kHz			
	Rated current at 40 °C (104 °F) (vertical)	Mounted on backplate: 5 Aeff (at 400 Vac)	For cold plate, passive cooling: 6.0 Aeff (at 400 Vac) For cold plate, active cooling (water cooling): 6.0 Aeff (at 400 Vac)	Mounted on backplate: 2.7 Aeff (at 400 Vac)	For cold plate, passive cooling: 4.4 Aeff (at 400 Vac) For cold plate, active cooling (water cooling): 6.0 Aeff (at 400 Vac)
	Peak current (acceleration) at 40 °C (104 °F)	24.0 Aeff (RMS)			
	Peak current for 100 ms (signal frequency = 0 Hz) at 40 °C (104 °F)	34.0 A			
Housing dimensions (D x W x H)		86 x 169 x 237 mm (3.39 x 6.65 x 9.33 in.)		86 x 348 x 237 mm (3.39 x 13.7 x 9.33 in.)	
Interfaces	Sercos	Integrated			
Encoder interface	Analog encoder	SICK Hiperface			
Cooling		Backplate, natural convection (only heat sink)	Cold plate, passive cooling Cold plate, active cooling (water cooling)	Backplate, natural convection (only heat sink)	Cold plate, passive cooling Cold plate, active cooling (water cooling)
Certifications		cULus / C€	cURus / C€	cULus / C€	cURus / C€
Protection rating		IP 65			
Safe Motion function management, via Sercos bus		Safe Torque Off (STO) without optional module DIS1 (1)			
Associated Motor	Type	Asynchronous motors: only voltage - frequenz controll U/f			
	Range	Lexium SH3 and Lexium MH3 servo motors up to 6A rated current Please consult our catalog "PacDrive 3 automation solution, Lexium SH3/MH3/SHS servo motors"			



Lexium 62 ILD detached servo drives – description

item	Function
1	Hybrid socket connector and locking latch for hybrid cable (Sercos and power)
2	4 x M6 Mounting holes
3	Passive cooling system / Active cooling system for cold plate
4	M17 motor cable Connector / M17 encoder cable Connector
5	Protective ground (earth)
6	LED display (function status, Port 1 and 2, Sercos III)
7	Connector for optional module DIS1 (1)

(1) More technical information on optional module DIS1 in the User manual, and on our website www.schneider-electric.com

Lexium 62 ILD detached servo drive – Type code

ILM	62	DD	D24	•	1	0	00	
								Customer 00 = Standard
								Internal 0 = Serial production
								Hardware - Release 1
								Variants A = Lexium 62 ILD detached single servo drive, 5 A continuous current per axis C = Lexium 62 ILD detached single servo drive, 6 A continuous current per axis for cold plate (passive / active) B = Lexium 62 ILD detached triple servo drive, 2.7 A continuous current per axis D = Lexium 62 ILD detached triple servo drive, 6 A continuous current per axis for cold plate (passive / active)
								Current Output (Peak rms) D24 = 24 A
								Type DD = Detached Drive (ILD)
								Size 62 = Lexium 62
								Family ILM = Integrated Lexium drive



Lexium 62 ILD single drive



Lexium 62 ILD triple drive



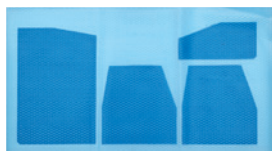
VW3E6056



VW3E6057



VW3E6058



VW3E6059

Lexium 62 ILD detached servo drives – References

Designation	Description	Reference	Weight kg / lb
Lexium 62 ILD detached single servo drives	☐ For one axis ☐ 5 A continuous current per axis	ILM62DDD24A1000	2.500/ 5.511
	☐ For one axis ☐ 6 A continuous current for cold plate with passive / active cooling	ILM62DDD24C1000	2.500/ 5.511
Lexium 62 ILD detached triple servo drives	☐ For three axes ☐ 2.7 A continuous current per axes	ILM62DDD24B1000	7.000/ 15.432
	☐ For three axes ☐ 6 A continuous current per axes for cold plate with passive / active cooling	ILM62DDD24D1000	7.000/ 15.432

Accessories – References

Protection caps Necessary for unused connectors	Kit blind cover for motor/encoder connectors	VW3E6056	0.130/ 0.286
	Kit blind cover for encoder connectors	VW3E6057	0.650/ 1.433
Thermal-conduction Kits Necessary for cold plate	For Lexium 62 ILD detached single servo drives	VW3E6058	0.150/ 0.330
	For Lexium 62 ILD detached triple servo drives	VW3E6059	0.200/ 0.440



FCE310●●●A200



FCE322●●●A200



FCE312●●●A200



FCE311●●●A200



FCE313●●●A200

Lexium 62 ILD cable – References

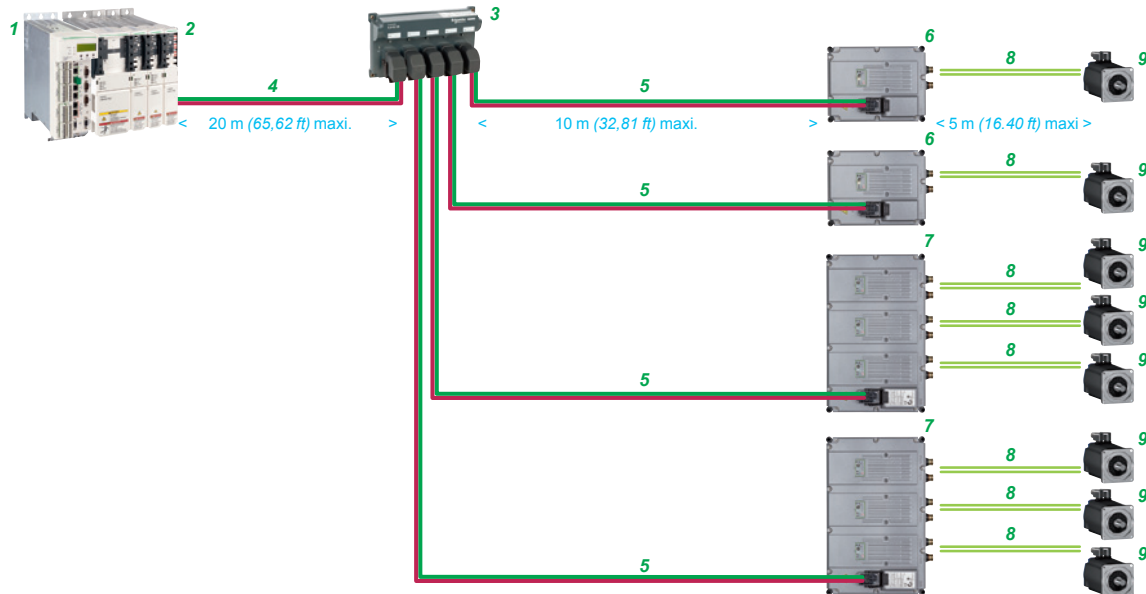
Cables		Length		Reference	Weight
between	and	m	ft.		kg / lb
Motor cables					
Lexium 62 ILD detached servo drives (M17 connector) <i>item no 8, see page 5</i>	Lexium SH3 and Lexium MH3 motors (M23 connector)	1.0	3.28	FCE310010A200	0.370/ 0.815
		1.5	4.92	FCE310015A200	0.460/ 1.014
		2.0	6.56	FCE310020A200	0.560/ 1.234
		2.5	8.20	FCE310025A200	0.660/ 1.455
		3.0	9.84	FCE310030A200	0.750/ 1.653
		3.5	11.48	FCE310035A200	0.850/ 1.873
		4.0	13.12	FCE310040A200	0.950/ 2.094
		4.5	14.76	FCE310045A200	1.050/ 2.314
		5.0	16.40	FCE310050A200	1.150/ 2.535
		Asynchronous motors (open end)	1.0	3.28	FCE322010A200
	1.5	4.92	FCE322015A200	0.350/ 0.771	
	2.0	6.56	FCE322020A200	0.450/ 0.992	
	2.5	8.20	FCE322025A200	0.550/ 1.212	
	3.0	9.84	FCE322030A200	0.650/ 1.433	
	3.5	11.48	FCE322035A200	0.740/ 1.631	
	4.0	13.12	FCE322040A200	0.840/ 1.851	
	4.5	14.76	FCE322045A200	0.940/ 2.072	
	5.0	16.40	FCE322050A200	1.040/ 2.292	
	Lexium SH304 motors, HMP04 (40 mm flange) motors with S915 connector	1.0	3.28	FCE312010A200	0.370/ 0.815
		1.2	3.93	FCE312012A200	0.400/ 0.881
		1.5	4.92	FCE312015A200	0.460/ 1.014
		2.0	6.56	FCE312020A200	0.560/ 1.234
		2.5	8.20	FCE312025A200	0.660/ 1.455
		3.0	9.84	FCE312030A200	0.750/ 1.653
		3.5	11.48	FCE312035A200	0.850/ 1.873
		4.0	13.12	FCE312040A200	0.950/ 2.094
		4.5	14.76	FCE312045A200	1.050/ 2.314
		5.0	16.40	FCE312050A200	1.150/ 2.535

Encoder cables

Lexium 62 ILD detached servo drives (M17 connector) <i>item no 8, see page 5</i>	Lexium SH3 and Lexium MH3 motors (M23 connector)	1.0	3.28	FCE311010A200	0.190/ 0.418
		1.5	4.92	FCE311015A200	0.230/ 0.507
		2.0	6.56	FCE311020A200	0.250/ 0.551
		2.5	8.20	FCE311025A200	0.290/ 0.639
		3.0	9.84	FCE311030A200	0.330/ 0.727
		3.5	11.48	FCE311035A200	0.350/ 0.771
		4.0	13.12	FCE311040A200	0.390/ 0.859
		4.5	14.76	FCE311045A200	0.430/ 0.947
		5.0	16.40	FCE311050A200	0.450/ 0.992
		Lexium SH304 motors, HMP04 (40 mm flange) motors with S915 connector	1.0	3.28	FCE313010A200
1.2	3.93		FCE313012A200	1.200/ 2.645	
1.5	4.92		FCE313015A200	0.230/ 0.507	
2.0	6.56		FCE313020A200	0.250/ 0.551	
2.5	8.20		FCE313025A200	0.290/ 0.639	
3.0	9.84		FCE313030A200	0.330/ 0.727	
3.5	11.48		FCE313035A200	0.350/ 0.771	
4.0	13.12		FCE313040A200	0.390/ 0.859	
4.5	14.76		FCE313045A200	0.430/ 0.947	
5.0	16.40		FCE313050A200	0.450/ 0.992	

Hybrid cabling examples

Example



1 PacDrive 3 Logic Motion Controller

2 Connection module ILM62CM, see page 6

3 Distribution box ILM62DB, see page 7

4 Hybrid cable between Connection module ILM62CM and Distribution box ILM62DB, see below

5 Hybrid cable between Distribution box ILM62DB and Lexium 62 ILD detached servo drives or between two Distribution boxes ILM62DB (1), see below

6 Lexium 62 ILD single drive, see page 3

7 Lexium 62 ILD triple drive, see page 3

8 Motor cable, encoder cable, see page 5

9 Motors, please consult on our web site www.schneider-electric.com

Cable length	Max. (m / ft)
Between Connection module and Distribution box ILM62DB	20 / 65.62
Between Distribution box, and Lexium 62 ILD detached servo drives	10 / 32.81
Between Lexium 62 ILD detached servo drives and Motors	5 / 16.40
Total of cable lengths	35 / 114.82

(1) Any unused Distribution box connections must be terminated with a Sercos bridge.

Hybrid cables – References

Hybrid cables includes cables for: DC bus, Sercos, 24 V, Inverter Enable signal.

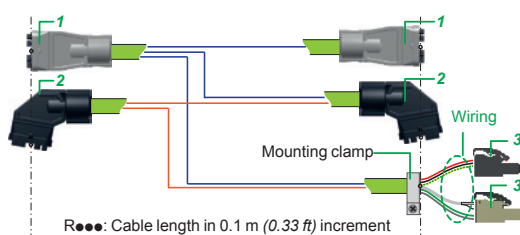
Hybrid cables	item n°	Connector (1)	Connector (2)	Standard length m / ft	Reference (●●● x 0.1 m / 0.33 ft)
between (1) and (2)					
Connection module ILM62CM	4	–	D0 (straight)	5 / 16.40	VW3E1147R●●●
		–	D1 (left)	5 / 16.40	VW3E1141R●●●
		–	D2 (right)	5 / 16.40	VW3E1146R●●●
Distribution box ILM62DB	5	D1 (left)	D0 (straight)	2 / 32.81	VW3E1149R●●●
		D1 (left)	D1 (left)	2 / 32.81	VW3E1142R●●●
		D1 (left)	D2 (right)	2 / 32.81	VW3E1148R●●●
		D0 (straight)	D2 (right)	2 / 32.81	VW3E1150R●●●
		D0 (straight)	D0 (straight)	2 / 32.81	VW3E1151R●●●
		D2 (right)	D2 (right)	2 / 32.81	VW3E1152R●●●

Note

Item n° 4: available in the following lengths: 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, and 20 m (16.40, 19.69, 22.97, 26.25, 29.53, 32.81, 36.09, 39.37, 42.65, 45.93, 49.21, 52.49, 55.77, 59.06, 62.34, and 65.62 ft).

Item n° 5: available in the following lengths: 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 m (3.28, 6.56, 9.84, 13.12, 16.40, 19.69, 22.97, 26.25, 29.53, and 32.81 ft).

Connectors – description

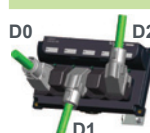


- 1 HyCon3 D0 connector
- 2 HyCon3 D1/D2 connector
- 3 RJ45 connector

Cable outlet

On ILM62DB Distribution box

On Lexium 62 ILD detached servo drive

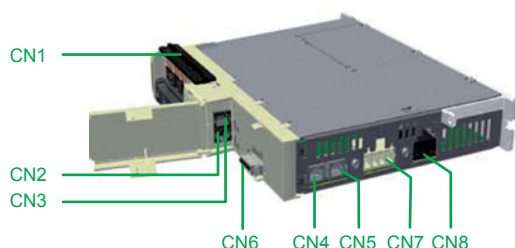


PacDrive 3 automation solution

Lexium 62 ILD detached servo drives

Lexium 62 ILM Connection module

Lexium 62 ILM Distribution box



Lexium 62 ILM Connection module – presentation

type	ILM62CMD20A000
Input current	20 A
Output current	20 A
Continuous output	0.95 kW / 1.273 hp
DC bus input voltage	250...700 Vdc
DC bus output voltage	250...700 Vdc
Control voltage	24 Vdc (-20%... +25%)
Inverter Enable input voltage	24 Vdc (-20%... +25%)
Inverter Enable output voltage	40 Vac
Inverter Enable output current	2 A
Cooling	Passive
Housing dimensions (D x W x H)	270 x 44.5 x 310 mm (10.630 x 1.752 x 12.205 in.)
Protection rating	IP 20

Lexium 62 ILM Connection module – description

Connector	Function
CN1	Busbar module
CN2/CN3	Sercos communication to power supply and additional Connection modules
CN4	Inverter Enable 24 Vdc
CN5, CN6	Sercos communication to Lexium 62 ILD detached drive and Distribution boxes
CN7	Inverter Enable signal output / 24 Vdc output
CN8	DC bus output

Lexium 62 ILM Connection module – Reference

Designation	Use	Reference	Weight kg/lb
Lexium 62 ILM Connection module <i>item no 2, see page 5</i>	To connect the Lexium 62 ILD with Sercos and DC bus	ILM62CMD20A000	3.000/ 6.61

Lexium 62 ILM Distribution box – Presentation

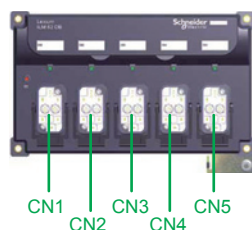
type	ILM62DB4A000
Input current	20 A
Output current	20 A
DC bus input voltage	250...700 Vdc
DC bus output voltage	250...700 Vdc
Control voltage	24 Vdc (-20%... +25%) / Max. 20 A
Inverter Enable input voltage	24 Vdc (-20%... +25%)
Inverter Enable output voltage	40 Vac
Inverter Enable output current	2 A
Housing dimensions (D x W x H)	151.4 x 230 x 94 mm (5.961 x 9.055 x 3.701 in.)
Protection rating	IP 65
Sercos speed rate	100 Mbps

Lexium 62 ILM Distribution box – description

Connector	Function
CN1	Input (Connection module or Distribution box)
CN2, CN3, CN4, CN5	Output (Distribution box or Lexium 62 ILD detached servo drive)

Lexium 62 ILM Distribution box – References

Designation	Use	Reference	Weight kg/lb
Lexium 62 ILM Distribution box <i>item no 3, see page 5</i>	To connect several Lexium 62 ILD with Sercos and DC bus	ILM62DB4A000	0.850/ 1.88
Sercos bridge plug <i>item no 7, see page 5</i>	For Distribution box (to be ordered separately: not included in ILM62DB4A000)	VW3E6023	0.784/ 1.73



ILM62DB4A000 with 5 x VW3E6023

F	
FCE310010A200	5
FCE310015A200	5
FCE310020A200	5
FCE310025A200	5
FCE310030A200	5
FCE310035A200	5
FCE310040A200	5
FCE310045A200	5
FCE310050A200	5
FCE311010A200	5
FCE311015A200	5
FCE311020A200	5
FCE311025A200	5
FCE311030A200	5
FCE311035A200	5
FCE311040A200	5
FCE311045A200	5
FCE311050A200	5
FCE312010A200	5
FCE312012A200	5
FCE312015A200	5
FCE312020A200	5
FCE312025A200	5
FCE312030A200	5
FCE312035A200	5
FCE312040A200	5
FCE312045A200	5
FCE312050A200	5
FCE313010A200	5
FCE313012A200	5
FCE313015A200	5
FCE313020A200	5
FCE313025A200	5
FCE313030A200	5
FCE313035A200	5
FCE313040A200	5
FCE313045A200	5
FCE313050A200	5
FCE322010A200	5
FCE322015A200	5
FCE322020A200	5
FCE322025A200	5
FCE322030A200	5
FCE322035A200	5
FCE322040A200	5
FCE322045A200	5
FCE322050A200	5

I	
ILM62CMD20A000	7
ILM62DB4A000	7
ILM62DDD24A1000	4
ILM62DDD24B1000	4
ILM62DDD24C1000	4
ILM62DDD24D1000	4

V	
VW3E6023	7
VW3E6056	4
VW3E6057	4
VW3E6058	4
VW3E6059	4

The Next Generation



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