Lexium SHS servo motor – references

Technical datas

Nominal servo motor output power		Continuous stall torque		Rated torque		Peak stall torque		Rated speed		Rotor moment of inertia (without holding brake)	Reference	Weight	
Pn		M0		Mn		Mmax		Nn	Nmax	Jm			
kW	*hp*	Nm	*/ft-lbf*	Nm	*/ft-lbf*	Nm	*/ft-lbf*	rpm	rpm	kgcm²		kg	*lb*
0.3	*0.4*	0.9	*0.66*	0.79	*0.58*	3.2	*2.4*	4000	9000	0.13	**FCE200519B200** *(1)*	2.200	*4.85*
0.9	*1.2*	2.0	*1.47*	1.4	*1.03*	7.6	*5.6*	6000	8000	0.41	**FCE200520B200** *(1)*	6.400	*14.11*
1.0	*1.3*	2.5	*1.84*	1.55	*1.14*	10.3	*7.6*	6000	8000	0.81	**FCE200521B200** *(2)*	7.200	18.87
0.8	*1.1*	4.65	*3.42*	3.85	*2.83*	18.3	*13.5*	2000	8000	2.93	**FCE200522B200** *(2)*	8.800	*19.40*
1.3	*1.7*	6.75	*4.97*	3.0	*2.21*	28.3	*20.9*	4000	6000	3.22	**FCE200523B200** *(2)*	10.000	*22.05*
1.0	*1.3*	2.5	*1.84*	1.55	*1.14*	10.3	*7.6*	6000	6000	0.58	**FCE200524B200** *(1)*	7.100	*15.65*
0.8	*1.1*	4.65	*3.42*	4.0	*2.95*	18.3	*13.5*	2000	6000	2.31	**FCE200525B200** *(1)*	8.700	*19.18*

(1) Motor without holding brake.
(2) Motor with holding brake.

Lexium SHS servo motor and Lexium 52 servo drive – combination

Lexium 52 Servo drives	Servo motors	Motor			Servo drive
Reference	Reference				Standard
		Io	Inom	Ipeak	Inom
		A	A	A	A @ 8 kHz
LXM52DD12C41000	**FCE200519B200**	0.8	1.35	3.4	3
	FCE200520B200	2.9	2.6	11.8	3
	FCE200521B200	3.6	1.9	15.2	3
	FCE200522B200	2.2	2.3	9.0	3
LXM52DD18C41000	**FCE200523B200**	5.7	3	28.3	6
	FCE200524B200	3.6	3.8	15.2	6
	FCE200525B200	2.2	3.1	9.0	6

Lexium SHS servo motor and Lexium 62 servo drive – combination

Lexium 62 Servo Drives	Servo motors	Motor				Servo drive			
Reference x = C: Single drive x = D: Double drive	Reference					Standard			
		Io	Inom	Ipeak		Inom			Ipeak
		A	A	A		A @ 4 kHz	A @ 8 kHz	A @ 16 kHz	A
LXM62DU60x21000	**FCE200519B200**	0.8	1.35	3.4	*(1)*	2	2	1.2	6
LXM62DD15x21000	**FCE200520B200**	2.9	2.6	11.8		5	5	1.2	15
LXM62DU60x21000	**FCE200521B200**	3.6	1.9	15.2	*(1)+(2)*	2	2	1.2	6
LXM62DD15x21000	**FCE200522B200**	2.2	2.3	9.0		5	5	3.5	15
LXM62DD15x21000	**FCE200523B200**	5.7	3	28.3	*(1)*	5	5	3.5	15
LXM62DD15x21000	**FCE200524B200**	3.6	3.8	15.2	*(1)*	5	5	3.5	15
LXM62DD15x21000	**FCE200525B200**	2.2	3.1	9.0		5	5	3.5	15

(1) Drive peak current lower than motor peak current
(2) Continuous torque limited by nominal drive current

Lexium SHS servo motors – dimensions

Dimensions (overall)

Servo motors	Flange		W x H x D *(1)*	
	mm	*in.*	mm	*in.*
FCE200519B200	58 x 58	*2.3 x 2.3*	58 x 64 x 225.1	*2.3 x 2.5 x 8.9*
FCE200520B200	71 x 71	*2.8 x 2.8*	71 x 112 x 216.7	*2.8 x 4.4 x 8.5*
FCE200524B200	71 x 71	*2.8 x 2.8*	71 x 112 x 284	*2.8 x 4.4 x 11.2*
FCE200521B200	71 x 71	*2.8 x 2.8*	71 x 112 x 284	*2.8 x 4.4 x 11.2*
FCE200525B200	100 x 100	*3.94 x 3.94*	100 x 138 x 270.7	*3.94 x 5.4 x 10.7*
FCE200522B200	100 x 100	*3.94 x 3.94*	100 x 138 x 270.7	*3.94 x 5.4 x 10.7*
FCE200523B200	100 x 100	*3.94 x 3.94*	100 x 138 x 306.7	*3.94 x 5.4 x 12.1*

(1) D = motor length (excluding shaft end).

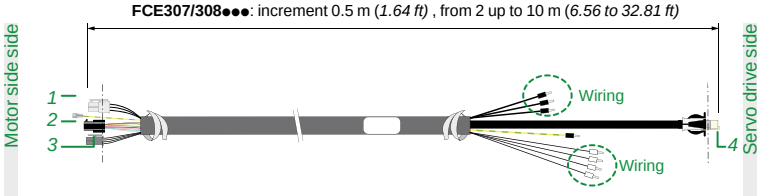
Connection elements

Designation	Composition	Connector		Length		Reference	Weight	
		Motor side	Servo drive side	m	*ft*		kg	*lb*
Motor cable for Lexium SHS stainless steel servo motors and Lexium 62 servo drives								
Hybrid cables (shielded motor and encoder cable)	(4 x 1.5 mm²/ *0.002 in²*) + 2 x (2 x 0.75 mm² / *0.001 in²*) + 2 x 0.34 mm² / *0.0005 in²*) + 3 x (2 x 0.15 mm² / *0.001 in²*)	Molex connectors	RJ45 (PD-3) connector for Encoder signal Wires for motor and holding brake connector	2	*6.56*	**FCE307020A200**	0.743	*1.64*
				2.5	*8.20*	**FCE307025A200**	0.909	*2.0*
				3	*9.84*	**FCE307030A200**	1.074	*2.37*
				3.5	*11.48*	**FCE307035A200**	1.240	*2.73*
				4	*13.12*	**FCE307040A200**	1.405	*3.10*
				4.5	*14.76*	**FCE307045A200**	1.571	*3.46*
				5	*16.40*	**FCE307050A200**	1.736	*3.83*
				5.5	*18.04*	**FCE307055A200**	1.902	*4.19*
				6	*19.69*	**FCE307060A200**	2.067	*4.56*
				6.5	*21.33*	**FCE307065A200**	2.233	*4.92*
				7	*22.97*	**FCE307070A200**	2.398	*5.29*
				7.5	*24.61*	**FCE307075A200**	2.564	*5.65*
				8	*26.25*	**FCE307080A200**	2.729	*6.02*
				8.5	*27.89*	**FCE307085A200**	2.895	*6.38*
				9	*29.53*	**FCE307090A200**	3.060	*6.75*
				9.5	*31.17*	**FCE307095A200**	3.226	*7.11*
				10.0	*32.81*	**FCE307100A200**	3.391	*7.48*
Motor cable for Lexium SHS stainless steel servo motors and Lexium 52 servo drives								
Hybrid cables (shielded motor and encoder cable)	(4 x 1.5 mm²/ *0.002 in²*) + 2 x (2 x 0.75 mm² / *0.001 in²*) + 2 x 0.34 mm² / *0.0005 in²*) + 3 x (2 x 0.15 mm² / *0.001 in²*)	Molex connectors	RJ45 (PD-3) connector for Encoder signal Wires for motor and holding brake connector	2	*6.56*	**FCE308020A200**	0.743	*1.64*
				2.5	*8.20*	**FCE308025A200**	0.909	*2.0*
				3	*9.84*	**FCE308030A200**	1.074	*2.37*
				3.5	*11.48*	**FCE308035A200**	1.240	*2.73*
				4	*13.12*	**FCE308040A200**	1.405	*3.10*
				4.5	*14.76*	**FCE308045A200**	1.571	*3.46*
				5	*16.40*	**FCE308050A200**	1.736	*3.83*
				5.5	*18.04*	**FCE308055A200**	1.902	*4.19*
				6	*19.69*	**FCE308060A200**	2.067	*4.56*
				6.5	*21.33*	**FCE308065A200**	2.233	*4.92*
				7	*22.97*	**FCE308070A200**	2.398	*5.29*
				7.5	*24.61*	**FCE308075A200**	2.564	*5.65*
				8	*26.25*	**FCE308080A200**	2.729	*6.02*
				8.5	*27.89*	**FCE308085A200**	2.895	*6.38*
				9	*29.53*	**FCE308090A200**	3.060	*6.75*
				9.5	*31.17*	**FCE308095A200**	3.226	*7.11*
				10.0	*32.81*	**FCE308100A200**	3.391	*7.48*

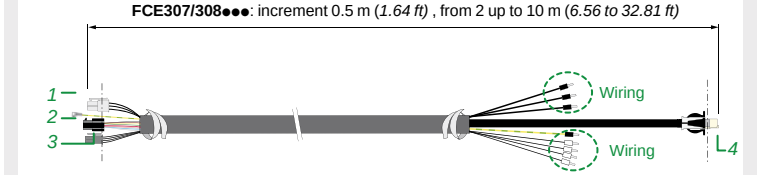
Connection description

Hybrid cables

FCE307/308●●●: increment 0.5 m (*1.64 ft*) , from 2 up to 10 m (*6.56 to 32.81 ft*)

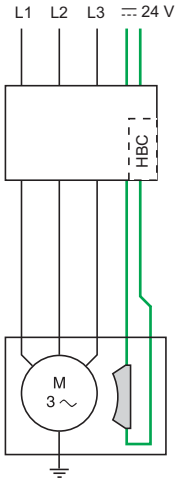


FCE307/308●●●: increment 0.5 m (*1.64 ft*) , from 2 up to 10 m (*6.56 to 32.81 ft*)



1 Socket strip MINIFIT JR 2x2 with clip
2 Molex plug MICROFIT 8-pin
3 Socket strip MINIFIT JR 2x2 with clip
4 RJ45 cable plug

PacDrive 3 automation solution
Lexium servo motors
Options: Holding brake, Encoder, Planetary gearboxes



Servo drive with integrated holding brake controller (HBC)

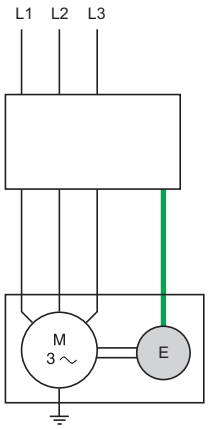
Servo motor with integrated holding brake

Holding Brake for Lexium servo motors

The holding brake integrated in the servo motor is an electromagnetic pressure spring brake that blocks the servo motor axis once the output current has been switched off.
The standard configuration of the servo drive integrates a holding brake controller, which amplifies the braking control signal to quickly deactivate the brake.

> Applications

In the event of an emergency, such as a power outage or operation of an emergency stop button, the drive is immobilized, thus significantly increasing safety.
The servo motor axis must also be blocked in the event of torque overload, such as vertical axis movement.



Servo motor with SinCos Hiperface® encoder

Encoder for Lexium servo motors

The standard measurement device is the SinCos Hiperface® single-turn or multi-turn encoder integrated in Lexium servo motors.
Depending on the model, single-turn and multi-turn SinCos encoders are available with medium resolution and capacitive sensing, or high resolution and optical sensing.
To select the type of SinCos Hiperface® encoder integrated in the Lexium servo motors (single-turn or multi-turn), see Servo motor references.
For additional information on integrated encoder characteristics, please contact your local sales office.

> Applications

This interface can be used for:

- Automatic identification of Lexium servo motor data by the servo drive
- Automatic initialization of the servo drive's control loops, to simplify installation of the motion control device

Planetary gearboxes

GBX and GBY optionnal planetary gearboxes for Lexium SH3 and MH3 servo motors: see page PD308/2.
Schneider electric can supply stainless steel gearboxes for Lexium SHS servo motors: please contact your local sales office.