



AC Servo Motors

ELM2 Series

Feature:

- Power rating: 2900W - 750W
- Voltage: 400VAC
- Encoder: 23-bit encoder
- Optional accessory: brake
- Frame size: 180mm.

ELM2 Series

23-Bit optical encoder
Power: 30W-7500W

Part Numbers

ELM2 H - 0850 L D 130 E T - H

(1) (2) (3) (4) (5) (6) (7) (8) (9)

(1) Series Num

ELM1	ELM1 Series servo motor
ELM2	ELM2 Series servo motor

(2) Inertia

L	Low
M	Medium
H	High

(3) Rated Output Power

0030	30W	2000	2000W
0050	50W	2900	2900W
0100	100W	3000	3000W
0200	200W	3800	3800W
0400	400W	4000	4000W
0750	750W	4400	4400W
0850	850W	5000	5000W
1300	1300W	7000	7000W
1800	1800W	7500	7500W
1500	1500W		

(4) Encoder Type

L	23-bit optical multi-turn
M	23-bit magnetic multi-turn
N	26-bit optical multi-turn
F	17-bit magnetic
D	17-bit optical

(9) Connector type

Blank	Direct connector
H	Aviation connector-H

(8) Voltage

Blank	220VAC
T	400VAC

(7) Torque Type

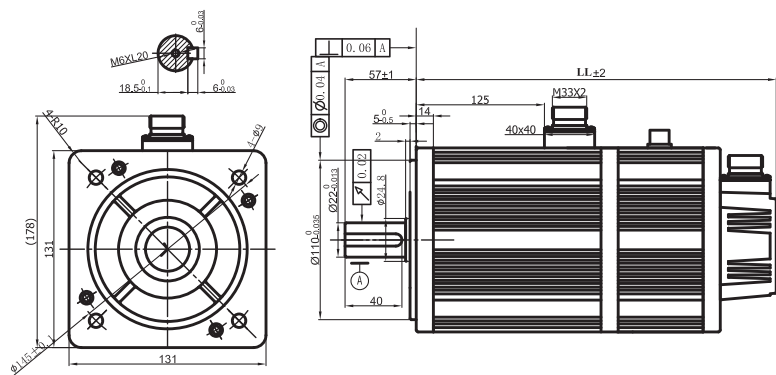
E	With brake, oil seal
F	No brake, oil seal

(6) Frame Size

25	25mm
40	40mm
60	60mm
80	80mm
100	100mm
130	130mm
180	180mm

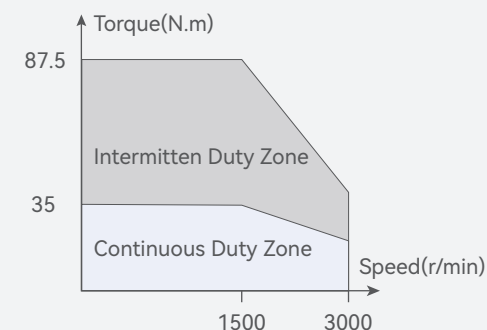
(5) Rated Speed

A	3000rpm	B	2500rpm
C	2000rpm	D	1500rpm
E	1000rpm		

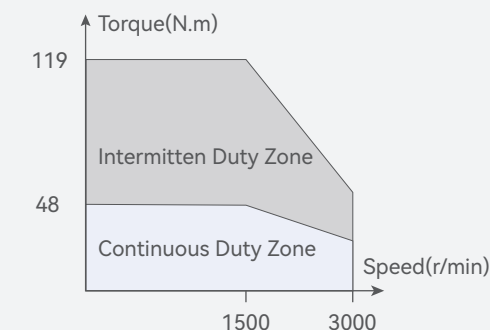


Motor model	LL
ELM2M-3800LB130ET-H	312
ELM2M-3800LB130FT-H	231

5500W Motor



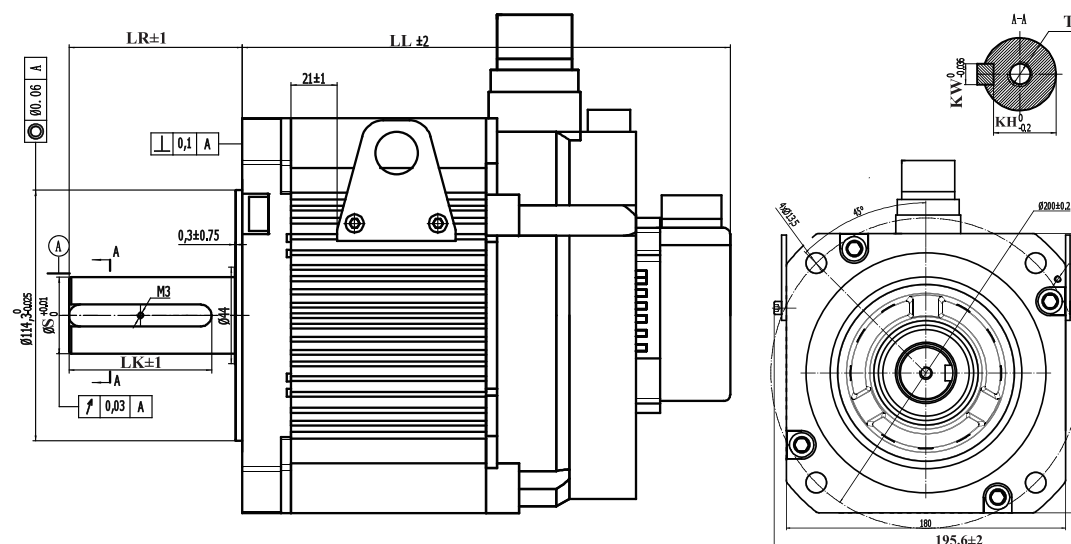
7500W Motor



180mm Frame size & 2900W~7500W

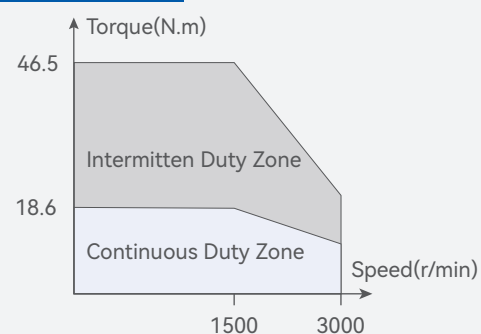
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Arms)		Permissible load to shaft (N)		Encoder	Inertia (kgm ² *10 ⁻⁴)	Weight (kg)	Motor Length (mm)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial				
ELM2M-2900LD180ET-H	180	√	400	2900	1500	3000	18.6	46.5	11.9	30	1470	490	23-bit optical encoder	40.27	20.5	241
ELM2M-2900LD180FT-H		×														
ELM2M-4400LD180ET-H		√		4400	1500	3000	28.4	71	16.3	41	1764	588		60.41	25.4	271
ELM2M-4400LD180FT-H		×														
ELM2M-5500LD180ET-H		√		5500	1500	3000	35	87.5	20.5	51	1764	588		73.84	30.9	291
ELM2M-5500LD180FT-H		×														
ELM2M-7500LD180ET-H		√		7500	1500	3000	48	119	25.7	64	1764	588		100.7	37	331
ELM2M-7500LD180FT-H		×														

Dimensions

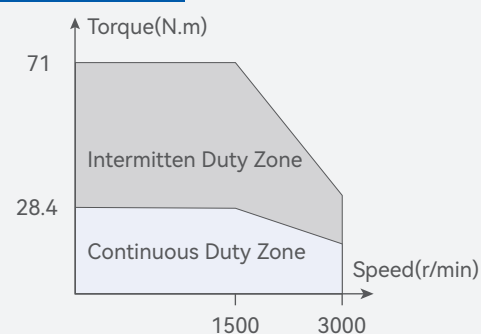


Speed-Torque characteristics

2900W Motor



4400W Motor



Motor model	LL	LR	LK	S	KW	TP	KH
ELM2M-2900LD180ET-H	241						
ELM2M-2900LD180FT-H	193						
ELM2M-4400LD180ET-H	271						
ELM2M-4400LD180FT-H	223						

Motor model	LL	LR	LK	S	KW	TP	KH
ELM2M-5500LD180ET-H	291						
ELM2M-5500LD180FT-H	243						
ELM2M-7500LD180ET-H	331						
ELM2M-7500LD180FT-H	283						

ELM2M Series - 180mm

- Frame size:180mm
- Power rating:2900W-7500W



Cable Type	Diagram	Pin																								
Motor power	<p>CABLE-RZA*M*-H-180(V1.0)</p>	<table border="1"> <tr> <td>A</td> <td>Blue</td> <td>U</td> </tr> <tr> <td>B</td> <td>Black</td> <td>V</td> </tr> <tr> <td>C</td> <td>Red</td> <td>W</td> </tr> <tr> <td>D</td> <td>Yellow Green</td> <td>PE</td> </tr> </table>	A	Blue	U	B	Black	V	C	Red	W	D	Yellow Green	PE												
	A	Blue	U																							
B	Black	V																								
C	Red	W																								
D	Yellow Green	PE																								
4400W-7500W	<p>CABLE-RZB*M*-H-180(V1.0)</p>	<table border="1"> <tr> <td>A</td> <td>White</td> <td>U</td> </tr> <tr> <td>B</td> <td>Black</td> <td>V</td> </tr> <tr> <td>C</td> <td>Red</td> <td>W</td> </tr> <tr> <td>D</td> <td>Yellow Green</td> <td>PE</td> </tr> </table>	A	White	U	B	Black	V	C	Red	W	D	Yellow Green	PE												
A	White	U																								
B	Black	V																								
C	Red	W																								
D	Yellow Green	PE																								
Motor brake	<p>CABLE-SC-H-180(V1.0)</p>	<table border="1"> <tr> <td>1</td> <td>Black</td> <td>0V</td> </tr> <tr> <td>2</td> <td>Red</td> <td>24V</td> </tr> </table>	1	Black	0V	2	Red	24V																		
1	Black	0V																								
2	Red	24V																								
Motor encoder	<p>CABLE-7BM-HZ-180(V1.0)</p>																									
	Absolute	<p>CABLE-7BMA-HZ-180(V1.0)</p>	<table border="1"> <tr> <td>A</td> <td>Terminal</td> <td>B</td> </tr> <tr> <td>10</td> <td>PE</td> <td>-</td> </tr> <tr> <td>2</td> <td>5V</td> <td>1</td> </tr> <tr> <td>3</td> <td>0V</td> <td>2</td> </tr> <tr> <td>4</td> <td>SD+</td> <td>5</td> </tr> <tr> <td>5</td> <td>SD-</td> <td>6</td> </tr> <tr> <td>6*</td> <td>BAT+</td> <td>-</td> </tr> <tr> <td>7*</td> <td>BAT-</td> <td>-</td> </tr> </table> <p>*Terminal 6 & 7 is to be connected to battery kit for absolute encoder</p>	A	Terminal	B	10	PE	-	2	5V	1	3	0V	2	4	SD+	5	5	SD-	6	6*	BAT+	-	7*	BAT-
A	Terminal	B																								
10	PE	-																								
2	5V	1																								
3	0V	2																								
4	SD+	5																								
5	SD-	6																								
6*	BAT+	-																								
7*	BAT-	-																								

EL7 Series

Frame Size (mm)	Rated Power (W)	Motor Model	Matching Drive	Motor Length (mm)	Rated Torque (Nm)	Rated/Max Speed(rpm)	Inertia (kgm ² *10 ⁻⁴)	Motor Cable	Encoder cable	Brake Cable
40	50W (220V)	ELM2H-0050LA40F	EL7-RS400P EL7-EC400F EL7-EC400N EL7-PN400F	56.7	0.16	3000/5000	0.036	CABLE-RZH*M*-114-TS- (R) 【without brake】 CABLE-RZSH*M*-114-TS- (R) 【with brake】 (Add "R" after the model for back facing motor wiring)	CABLE-BMH*M*-114-TS- (R) 【Incremental】 CABLE-BMH*M*-124-TS- (R) 【Absolute】 +ER14505 BOX-G (Battery Kit) (Add "R" after the model for back facing motor wiring)	If you need brake cable, please select power cable with brake in the power cable column.
		ELM2H-0050LA40E		84			0.046			
	100W (220V)	ELM2H-0100LA40F		67.7	0.32	3000/5000	0.062			
		ELM2H-0100LA40E		95			0.072			
60	200W (220V)	ELM2H-0200LA60F	EL7-RS750P EL7-EC750F EL7-EC750N EL7-PN750F	71.6	0.64	3000/5000	0.28	CABLE-RZH*M*-114-TS- (R) 【without brake】 CABLE-RZSH*M*-114-TS- (R) 【with brake】 (Add "R" after the model for back facing motor wiring)	CABLE-BMH*M*-114-TS- (R) 【Incremental】 CABLE-BMH*M*-124-TS- (R) 【Absolute】 +ER14505 BOX-G (Battery Kit) (Add "R" after the model for back facing motor wiring)	If you need brake cable, please select power cable with brake in the power cable column.
		ELM2H-0200LA60E		101.1			0.3			
	400W (220V)	ELM2H-0400LA60F		88.8	1.27	3000/5000	0.6			
		ELM2H-0400LA60E		118.1			0.62			
80	750W (220V)	ELM2H-0750LA80F	EL7-RS1000P EL7-EC1000F EL7-EC1000N EL7-PN1000F	90.9	2.39	3000/5000	1.8	CABLE-RZH*M*-114-TS- (R) 【without brake】 CABLE-RZSH*M*-114-TS- (R) 【with brake】 (Add "R" after the model for back facing motor wiring)	CABLE-BMH*M*-114-TS- (R) 【Incremental】 CABLE-BMH*M*-124-TS- (R) 【Absolute】 +ER14505 BOX-G (Battery Kit) (Add "R" after the model for back facing motor wiring)	If you need brake cable, please select power cable with brake in the power cable column.
		ELM2H-0750LA80E		121.9			1.95			
	1000W (220V)	ELM2H-1000LA80F		103.9	3.2	3000/5000	2			
		ELM2H-1000LA80E		134.9			2.15			
	750W (380V)	ELM2H-0750LA80FT		90.9	2.39	3000/5000	2.12			
		ELM2H-0750LA80ET		121.9			2.7			
100	1000W (220V)	ELM2L-1000LA100F-H	EL7-RS1000P EL7-EC1000F EL7-EC1000N EL7-PN1000F	154	3.2	3000/6000	2.43	CABLE-RZ*M*-H (V1.1) 【Fixed cable】 CABLE-RZ*M*-H (V2.0) 【Flexible cable】 CABLE-7BM*M*-HZ (V3.0) 【Incremental】 CABLE-7BMA*M*-HZ (V3.0) 【Absolute】	CABLE-SC*M*-H (V3.0)	
		ELM2L-1000LA100E-H		194			2.63			
	1500W (220V)	ELM2L-1500LA100F-H		178	4.9	3000/5000	3.503			
		ELM2L-1500LA100E-H		218			3.803			

Frame Size (mm)	Rated Power (W)	Motor Model	Matching Drive	Motor Length (mm)	Rated Torque (Nm)	Rated/Max Speed(rpm)	Inertia (kgm ² *10 ⁻⁴)	Motor Cable	Encoder cable	Brake Cable
130	850W (220V)	ELM2H-0850LD130F-H	EL7-RS1000P EL7-EC1000F EL7-EC1000N EL7-PN1000F	126	5.39	1500/4500	12.5	CABLE-RZH*M*-114-TS- (R) 【without brake】 CABLE-RZSH*M*-114-TS- (R) 【with brake】 (Add "R" after the model for back facing motor wiring)	CABLE-BMH*M*-115-TS 【Incremental】 CABLE-BMH*M*-125-TS 【Absolute】 +ER14505 BOX-G (Battery Kit)	If you need brake cable, please select power cable with brake in the power cable column.
		ELM2H-0850LD130E-H		153.5			8.34			
	1300W (220V)	ELM2H-1300LD130F-H	EL7-RS1500P EL7-EC1500N EL7-PN1500F	144	8.34	1500/4500	18.7			
		ELM2H-1300LD130E-H		171.5			21			
	1800W (220V)	ELM2H-1800LD130F-H	EL7-RS2000P EL7-EC2000N EL7-PN2000F	162	11.5	1500/3000	23.8			
		ELM2H-1800LD130E-H		189.5			26.1			
	850W (400V)	ELM2H-0850LD130FT-H	EL7-RS1000PT EL7-EC1000FT EL7-EC1000NT EL7-PN1000FT	126	5.39	1500/4500	12.5			
		ELM2H-0850LD130ET-H		153.5			14.8			
	1300W (400V)	ELM2H-1300LD130FT-H	EL7-RS1500PT EL7-EC1500FT EL7-EC1500NT EL7-PN1500FT	144	8.34	1500/4500	18.7			
		ELM2H-1300LD130ET-H		171.5			21			
	1800W (400V)	ELM2H-1800LD130FT-H	EL7-RS2000PT EL7-EC2000FT EL7-EC2000NT EL7-PN2000FT	162	11.5	1500/3000	23.8			
		ELM2H-1800LD130ET-H		189.5			26.1			
180	2900W (400V)	ELM2M-2900LD180FT-H	EL7-RS3000PT EL7-EC3000FT EL7-EC3000NT EL7-PN3000FT	193	18.6	1500/3000	39.78	CABLE-RZA-H-180 (V1.0)	CABLE-7BM*M*-HZ-180 (V1.0) 【Incremental】 CABLE-7BMA*M*-HZ-180 (V1.0) 【Absolute】	CABLE-SC*M*-H-180 (V1.0)
		ELM2M-2900LD180ET-H		241			40.27			
	4400W (400V)	ELM2M-4400LD180FT-H	EL7-RS4400PT EL7-EC4400FT EL7-EC4400NT EL7-PN4400FT	223	28.4	1500/3000	59.67			
		ELM2M-4400LD180ET-H		271			60.41			
	5500W (400V)	ELM2M-5500LD180FT-H	EL7-RS5500PT EL7-EC5500FT EL7-EC5500NT EL7-PN5500FT	243	35	1500/3000	72.93			
		ELM2M-5500LD180ET-H		291			73.84			
7500W (400V)	ELM2M-7500LD180FT-H	EL7-RS7500PT EL7-EC7500FT EL7-EC7500NT EL7-PN7500FT	283	48	1500/3000	99.45				
ELM2M-7500LD180ET-H	331	100.7								



● Headquarters in Shenzhen



● Shanghai Intelligent Industry Park

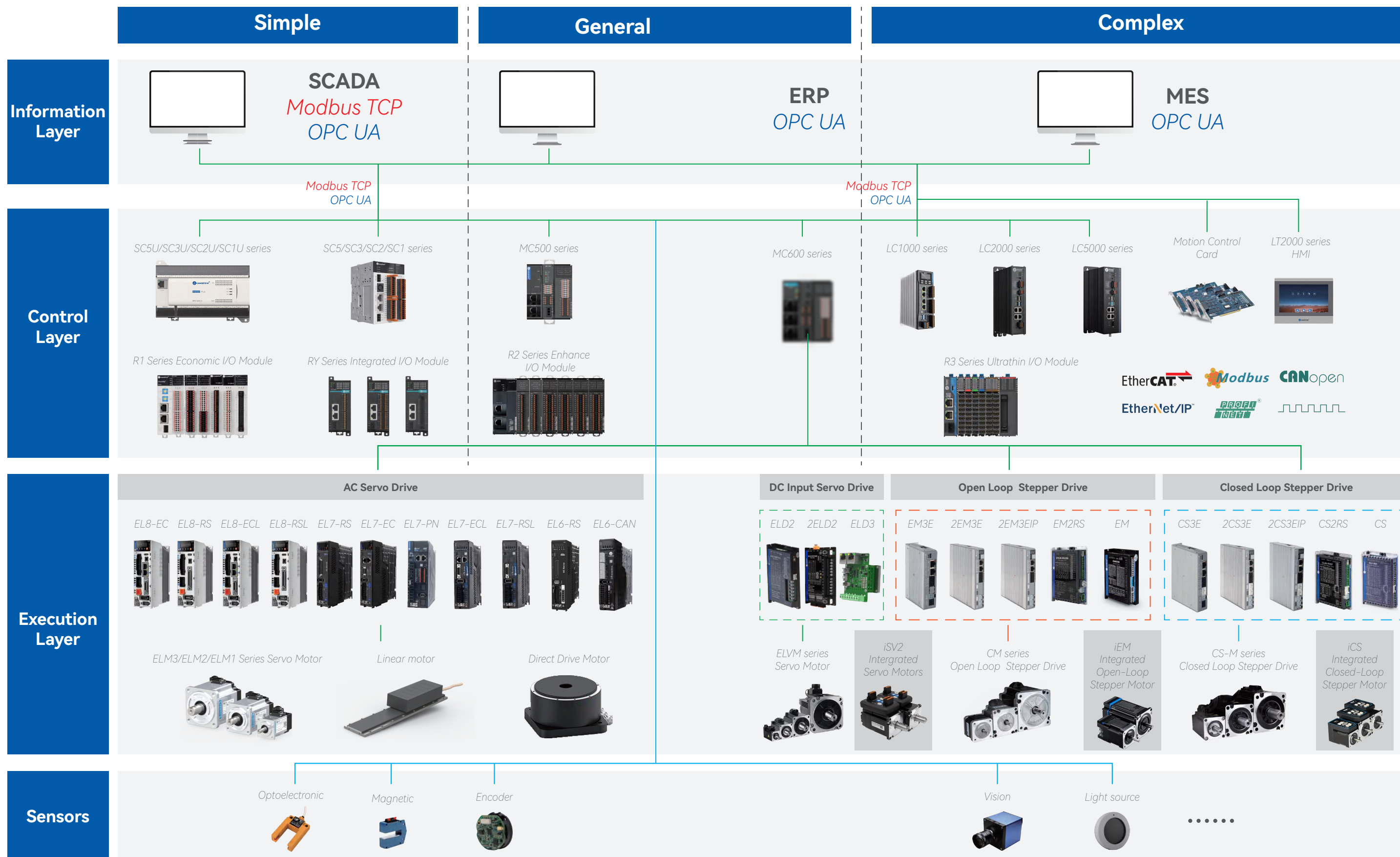


● Production base in Shenzhen

- **Founded in 1997**
- **Public Listed Company in China (002979.SZ)**
- **Dedication in Motion Control**
Stepper/Servo systems, Motion Controllers, PLC
Control systems, I/O Modules, Encoders
- **A leading supplier of motion control products and solutions in the world**
- **Customer Oriented, Technology Oriented, Forever Improving, Sharing of Success**

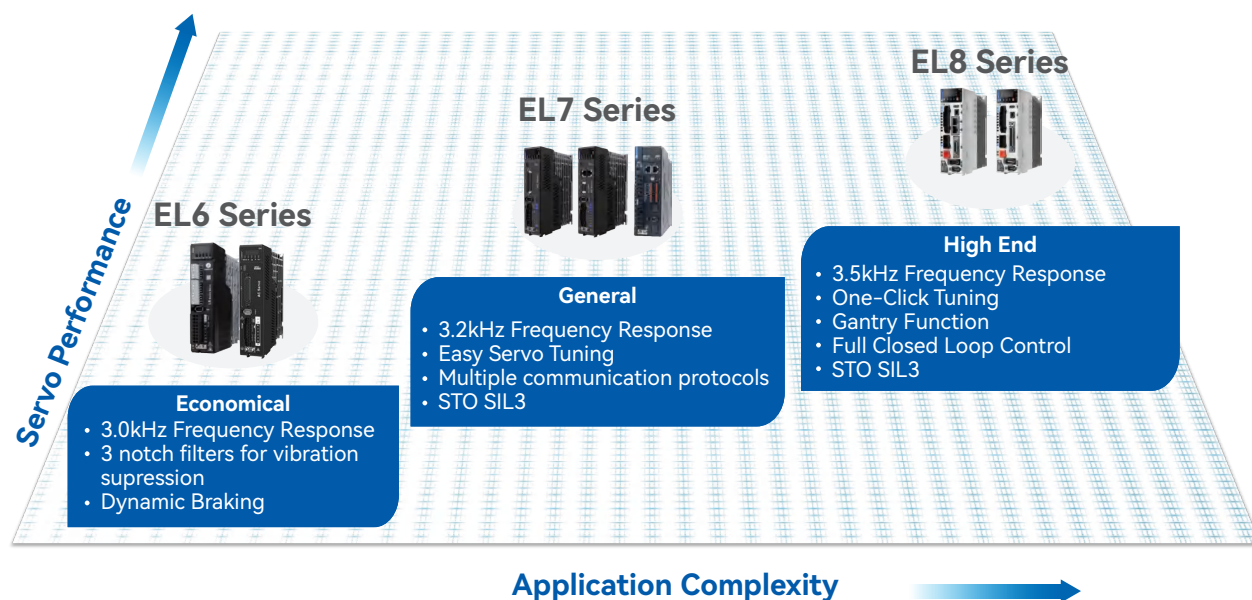
25+ Experience 400+ R&D Engineers 5 Subsidiaries 60+ Countries Clients 10000+ Global Partners 30million+ Installed Axes

Leadshine Motion Control Total Product System

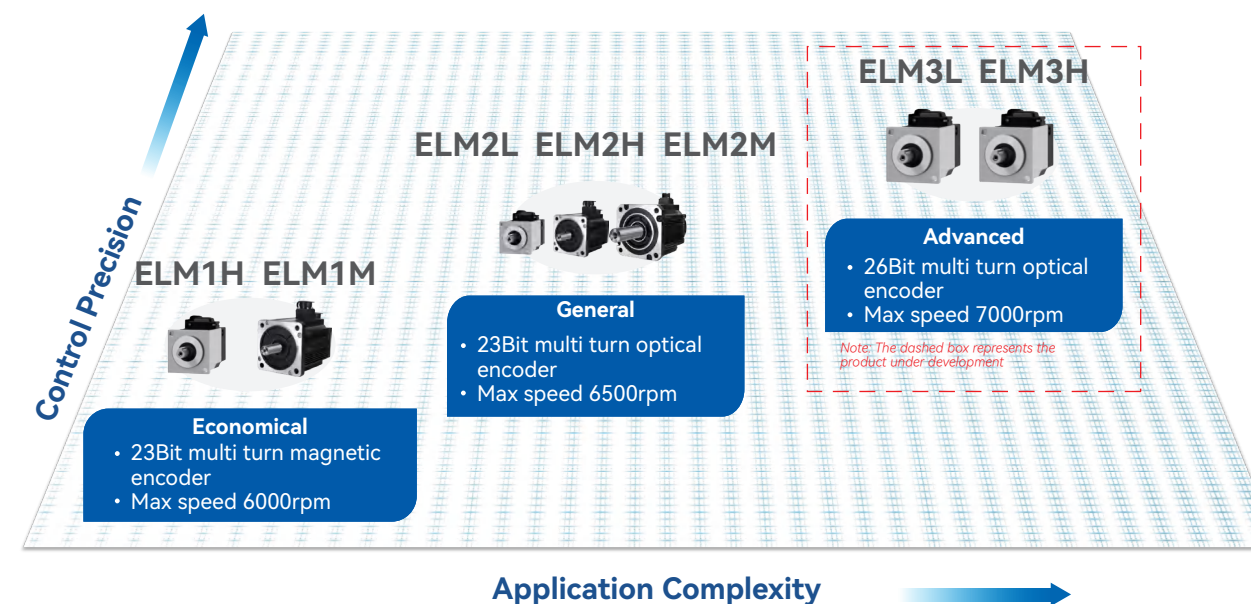


Leadshine Servo Product

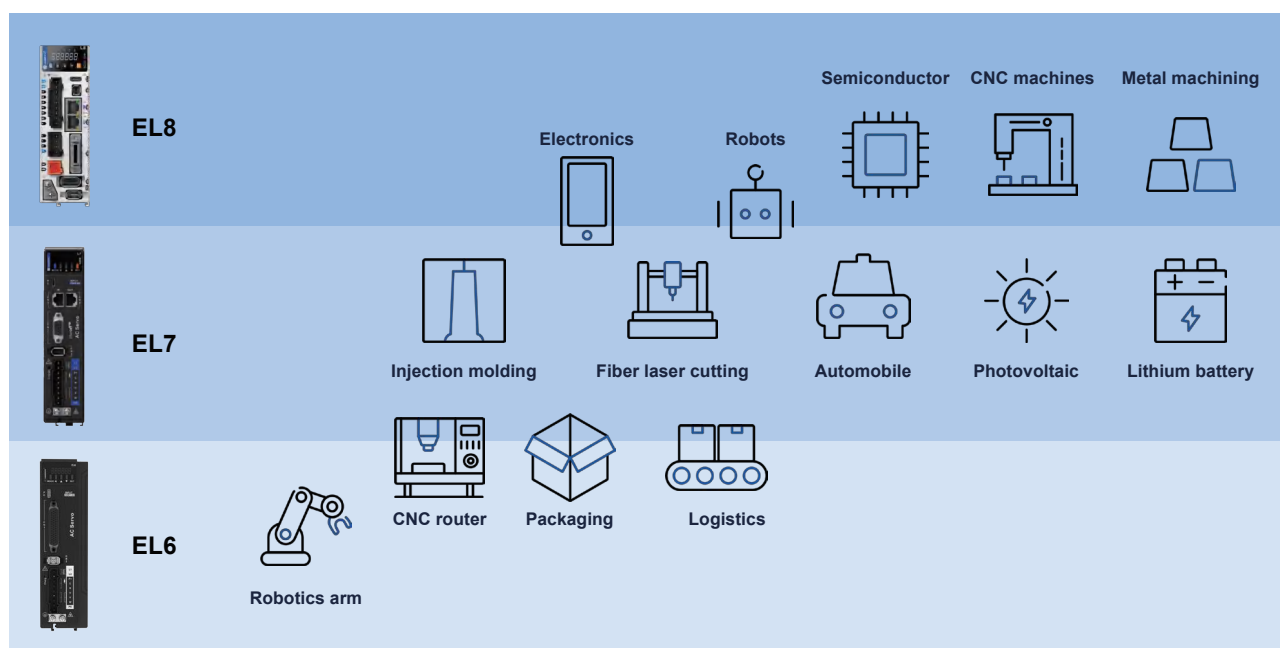
● Servo Drive Series



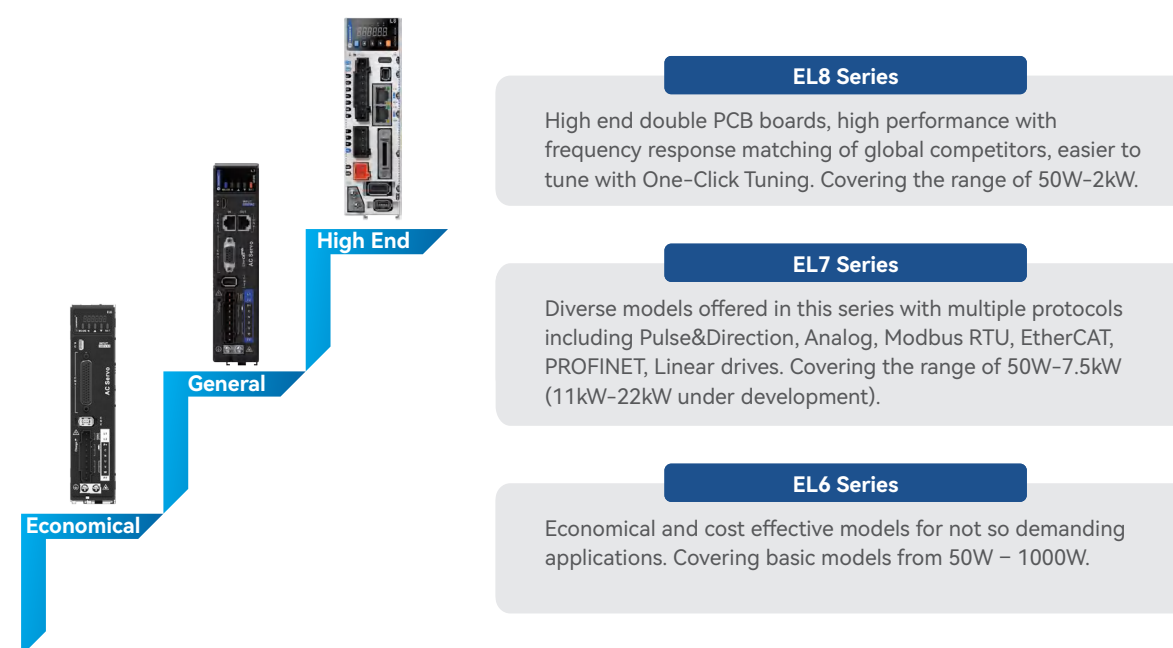
● Servo Motor Series



● Typical Applications



● Simple Introduction



Leadshine Servo Products Quick Selection

Servo Drive	Model	Power (W)	Voltage (VAC)	Dimensions (mm)	Weight (kg)	Command Source			Command Source			STO	Encoder Output	Brake Output	Digital Inputs (Points)	Digital Outputs (Points)	Analogue Input	Analogue Output	Matched Servo Motors
						Pulse+Dir	Analog Input		RS485	EtherCAT	CANopen								
AC Servo Drive EL8 Series	EL8-EC400F	400	1 Phase/ 3 Phase 220	150*150*43	1						√	√		8	3	2	2		
	EL8-RS400F									√	√	√	10	6	3	2			
	EL8-EC750F	750		150*160*55	1.2	√	√		√			√	8	3	2	2			
	EL8-RS750F					√	√	√	√	√	10	6	3	2					
	EL8-EC1000F	1000		183*160*80	2						√	√	√	8	3	2	2		
	EL8-RS1000F					√	√	√	√	√	10	6	3	2					
	EL8-EC1500F	1500									√	√		8	3	2	2		
	EL8-RS1500F			√	√	√	√	√	10	6	3	2							
	EL8-EC2000F	2000									√	√	√	8	3	2	2		
EL8-RS2000F	√		√	√	√	√	10	6	3	2									
AC Servo Drive EL7 Series - 220VAC	EL7-RS400P	400	1 Phase 220	175*156*40	0.9	√	√		√			√		8	5	2	1	ELM1 and ELM2 Servo Motors Please refer to page 84 to 87 for more information on matching servo motors	
	EL7-RS750P	750		175*156*50	1.1	√	√		√			√		8	5	2	1		
	EL7-RS1000P	1000		175*156*80	1.2	√	√		√			√		8	5	2	1		
	EL7-RS1500P	1500	1 Phase/ 3 Phase 220	175*156*80	2.3	√	√		√			√		8	5	2	1		
	EL7-RS2000P	2000			2.3	√	√		√			√		8	5	2	1		
AC Servo Drive EL7 Series - 400VAC	EL7-RS750PT	750	3 Phase 400	179*175*55	1.3	√	√		√			√		8	5	2	1		
	EL7-RS1000PT	1000				√	√		√			√		8	5	2	1		
	EL7-RS1500PT	1500				√	√		√			√		8	5	2	1		
	EL7-RS2000PT	2000		179*175*80	1.9	√	√		√			√		8	5	2	1		
	EL7-RS3000PT	3000				√	√		√			√		8	5	2	1		
	EL7-RS4400PT	4400		230*250*90	3.3	√	√		√			√		8	5	2	1		
	EL7-RS5500PT	5500				√	√		√			√		8	5	2	1		
	EL7-RS7500PT	7500				√	√		√			√		8	5	2	1		
AC Servo Drive EL7 Series - 220VAC	EL7-EC400N	400	1 Phase 220	175*156*40	0.9					√	√		4	3					
	EL7-EC750N	750		175*156*50	1.2					√	√		4	3					
	EL7-EC1000N	1000	1 Phase/ 3 Phase 220	179*175*55	2.3					√	√		4	3					
	EL7-EC1500N	1500				√	√		4	3									
	EL7-EC2000N	2000				√	√		4	3									
AC Servo Drive EL7 Series - 400VAC	EL7-EC750NT	750	3 Phase 400	179*175*55	1.3					√	√		4	3					
	EL7-EC1000NT	1000				√	√		4	3									
	EL7-EC1500NT	1500				√	√		4	3									
	EL7-EC2000NT	2000		179*175*80	1.9	√	√		√	√		4	3						
	EL7-EC3000NT	3000				√	√		4	3									
	EL7-EC4400NT	4400		230*250*90	3.3	√	√		√	√		4	3						
	EL7-EC5500NT	5500				√	√		4	3									
	EL7-EC7500NT	7500				√	√		4	3									
AC Servo Drive EL6 Series	EL6-RS400P	400	1 Phase 220	175*156*40	0.9	√			√			√	√	8	5				
	EL6-CAN400Z										√			4	3				
	EL6-RS750P	750		175*156*50	1.1	√			√			√	√	8	5				
	EL6-CAN750Z										√			4	3				
	EL6-RS1000P	1000		175*156*50	1.2	√			√			√	√	8	5				
EL6-CAN1000Z									√			4	3						

Applications

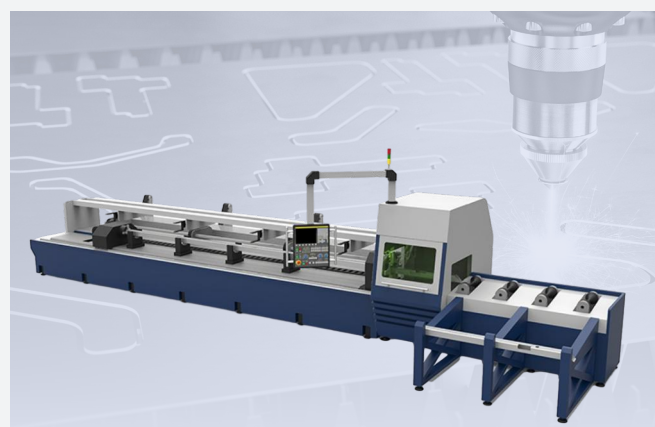
CNC Router



Product Advantages:

- High torque servo motor with 3 times overloading capability
- 23-bit encoders with great impact resistant and harsh environment resistance
- Servo drive optimized for CNC router applications
- Comes with safety features such as Safe Torque Off and Dynamic Braking
- Servo Motors maximum torque ranging from 0.105Nm up to 119Nm

Fiber Laser Cutting



Product Advantages:

- Great Compatibility with renowned laser cutting controller from FScut, Weihong, Beckhoff, Empower, etc.
- Available with most mainstream communication protocols (EtherCAT, Modbus RTU, PROFINET)
- Accurate positioning of 0.02mm and precision up to 0.01mm
- Easy servo tuning features to assist users in setting up the servo systems
- Robust and compact servo motors with high dust- and waterproof ratings



Wafer Cutting

- Full Closed Loop Control function to realize high accuracy control and real time compensation for lead screw wear.
- Real time control using EtherCAT/PROFINET servo drives.
- Easy-to-use, low maintenance and high reliability.



Automated Battery Lamination

- Linear Motors, Direct Drive Motors and Rotary Servo Motors are available.
- Production cycle time per part as low as 0.55s.
- High accuracy and precision motion control with servo drive frequency response of 3.5kHz



Semiconductor Wafer Cleaning

- High following capability with servo frequency response up to 3.5kHz
- Easy servo tuning features for notch filter settings and anti-vibration tunings
- Industrial Ethernet Standard with communication rate up to 100Mbps and compatible with any mainstream PLCs.