Stock Code: 002979

AC Servo *Product Catalogue*

Leadshine

www.leadshine.com

Headquarters in Shenzhen

Shanghai Intelligent Industry Park

Production base in Shenzhen

R&D and production base in Dongguan

- **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**

29+ History
500+ R&D Engineers
1400+ Global Partners
200/40 Agent Channel (Global / Overseas)
20+ Global Sales Offices
30 million+ Installed Axes

Contents

Why

Leadshine AC Servo Systems

Leadshine entire servo series is built around the core principles of precision control, ultimate stability, and comprehensive adaptability. It encompasses three major product matrices: cost-effective, standard, and high-precision series.

Each series features integrated self-developed R&D of drive + motor + encoder, with a power range covering from 400 W to 22000 W. This adaptability spans applications from micro electronic devices to large-scale industrial machine tools, meeting a full spectrum of scenarios. Balancing cost-effectiveness, safety, and convenience, the series is certified to international environmental and safety standards including RoHS, CE, STO, and UL.

It comprehensively meets the needs of overseas customers across different industries and working conditions, helping them achieve equipment performance upgrades.

Premium Performance & Advanced Functionality

Engineered to match the performance benchmarks of world-class servo brands, Leadshine products deliver exceptional dynamic response, positioning accuracy, and operational stability.

In-house developed drives, motors, encoders, and core algorithms ensure consistent high performance, reliability, and durability across demanding applications.

Complete Motion Control Solutions

We offer fully integrated solutions spanning the control layer down to the execution layer, designed for seamless system integration and optimal performance.

Our solutions are widely applied in woodworking, laser processing, electronics, semiconductor, 3C, packaging, and logistics automation.

Full Global Compliance & Certifications

Leadshine servo systems are certified with a full suite of international safety and EMC approvals, including CE, UL, and SIL3-rated STO.

These certifications satisfy strict market access requirements worldwide and minimize customer compliance and operational risks.

Strong Product Leadership & Global Footprint

As a leading supplier in the motion control industry, Leadshine features a comprehensive, scalable product portfolio covering a wide power range.

Our products enjoy a leading market position domestically and are successfully deployed in more than 60 countries and regions globally.

Localized Service & Reliable After-Sales Support

Backed by a worldwide service and distribution network, we provide fast, local technical support, commissioning, and maintenance.

Professional and responsive on-site service minimizes equipment downtime and maximizes long-term productivity for customers.

What

Complete Range of Servo Drives & Motors

Advanced AC Servo Drives

EL8S Series **EL8 Series**

Safety	EL8S support eight functional safety features: SIL3 STO, SBC, SS1, SS2, SOS, SLS, SDI, SSM, and FSoE safety bus (2027).
Maintenance-Free	Supports battery-free absolute encoder motors, LTUNE tuning-free function.
Extreme Speed Response	EL8S 4.0 kHz speed loop bandwidth, 62.5 μs bus cycle, 7000 rpm / 26 Bit motor.

General Purpose AC Servo Drives

EL7S Series **4EL7 Series**

Wide Range of Applications	EL7S maximum power coverage up to 22 kW; 4EL7 features multi-axis solution.
Design Upgrade	New low-frequency vibration suppression MFC5 model, dual-power supply design for models under 1 kW, 3.5 kHz speed loop bandwidth, 62.5 μs bus cycle.
Completed Certifications	CE, STO, UL

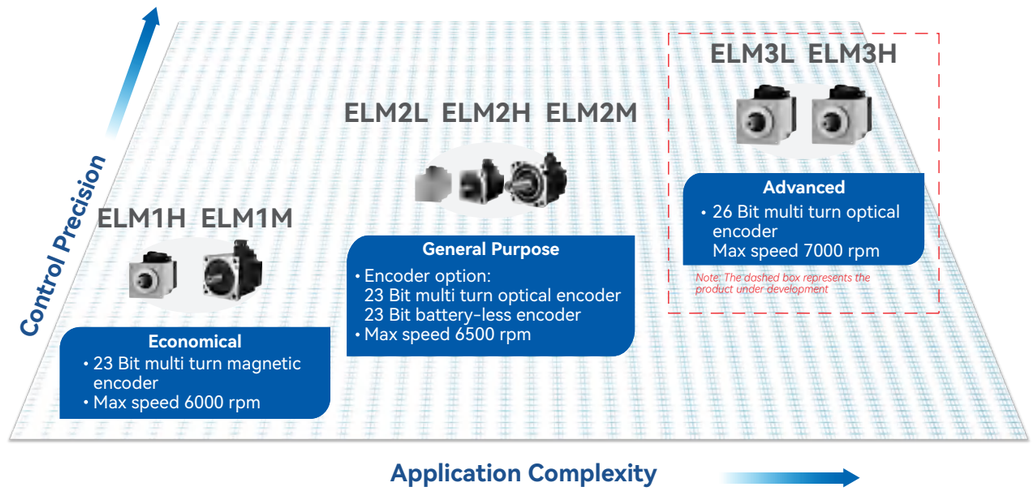
Economical AC Servo Drives

EL6 Series **2EL6 Series**

High Cost-Effectiveness	Equipped with a 23 Bit multi-turn absolute encoder; 2EL6 features multi-axis solution.
Diversity and Easy to Use	Features one-click tuning function, Type-C debugging port, supports multiple bus protocols: EtherCAT / MODBUS / CANopen
Stable and Reliable	Standard configuration includes dynamic braking, built-in resistor, black box function, motor protection class IP67

Servo Drive Series

Servo Motor Series

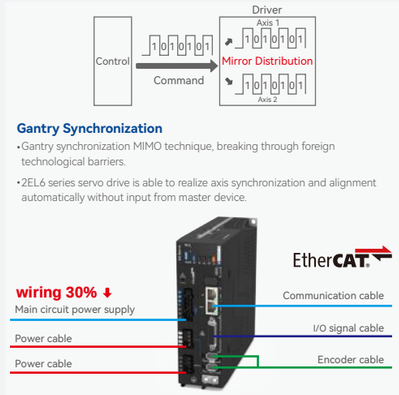


Where

Diverse Applications

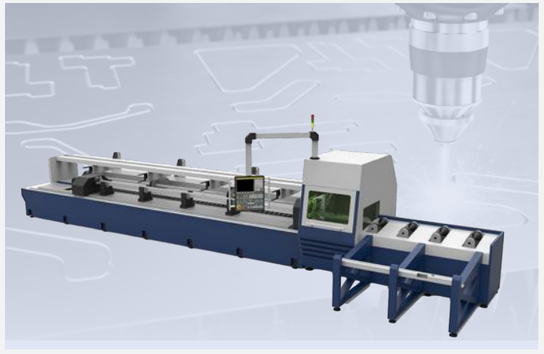
Woodworking

Product Advantages:



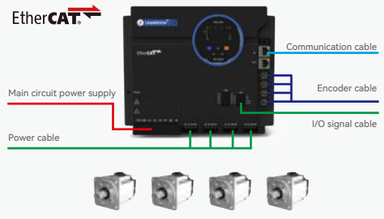
Recommended Model: 2EL6-EC Series

Fiber Laser Cutting



Product Advantages:

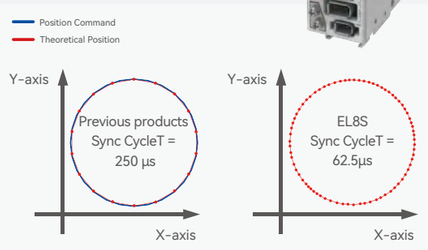
3 SAVE		3 SUPPORT
Save space	35%↓	Support Dynamic Brake
Save wiring	45%↓	Support STO Function
Save energy	30%↓	Support Direct Brake



Recommended Model: 4EL7-EC Series

Probe Station Solution

Product Advantages:

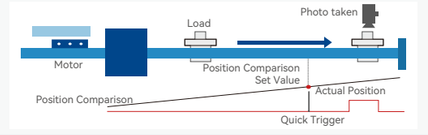


Recommended Model: EL8-ECS Series

AOI Testing

Product Advantages:

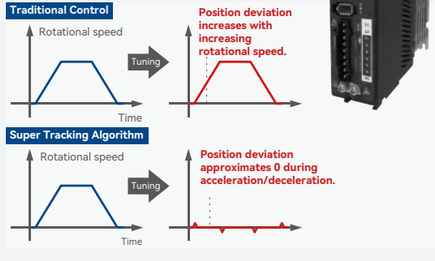
- **3.5 kHz** system response
- **23 Bit** multi-Turn absolute rncoder
- **62.5 µs synchronization cycle**
- New LTune intelligent debugging function ***(auto-tuning function)***



Recommended Model: EL7-ECS Series

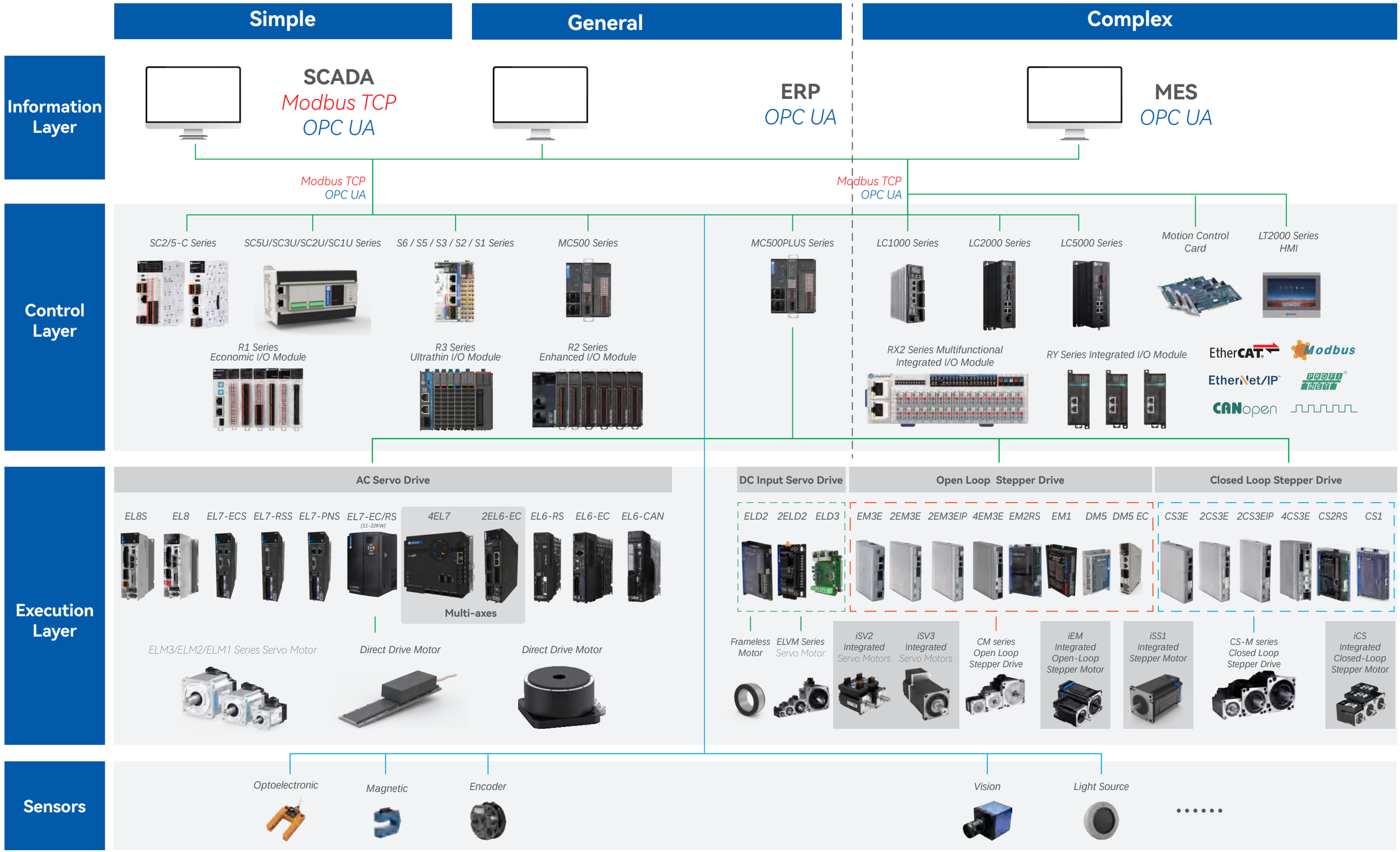
Bottle Filling Machine Total Solution

Product Advantages:



Recommended Model: EL6-EC Series

Leadshine Motion Control Total Product System

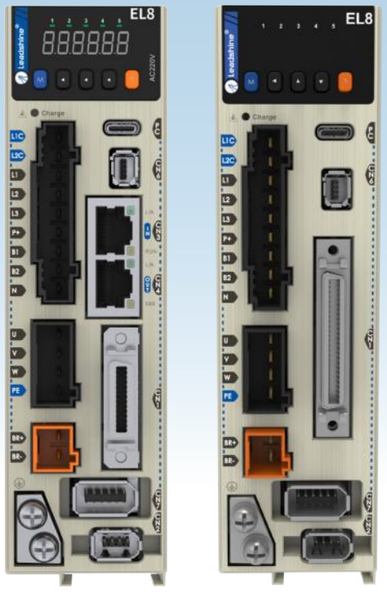


Servo Drive	Model	Power (W)	Voltage (VAC)	Dimensions (mm)	Command Source			Command Source			STO	Gantry	Position Comparison	Full Closed-loop	Certification	Matched Servo Motors
					Pulse+Dir	Analog Input		Modbus	EtherCAT	CANopen						
EL8 Series 220 VAC	EL8-EC400S	400	1 Phase / 3 Phase 220	150*150*43		√			√		√	√	√	√	UL, STO, CE	ELM1 and ELM2 Servo Motors Please refer to page **96 to 100** for more information on matching servo motors
	EL8-RS400S				√	√		√			√	√	√	√	UL, STO, CE	
	EL8-EC750S	750		150*160*55		√			√		√	√	√	√	UL, STO, CE	
	EL8-RS750S				√	√		√			√	√	√	√	UL, STO, CE	
	EL8-EC1000S	1000				√			√		√	√	√	√	UL, STO, CE	
	EL8-RS1000S				√	√		√			√	√	√	√	UL, STO, CE	
	EL8-EC1500S	1500		183*160*80		√			√		√	√	√	√	UL, STO, CE	
	EL8-RS1500S				√	√		√			√	√	√	√	UL, STO, CE	
	EL8-EC2000S	2000				√			√		√	√	√	√	UL, STO, CE	
	EL8-RS2000S				√	√		√			√	√	√	√	UL, STO, CE	
EL7-RS Series 220 VAC	EL7-RS400S	400	1 Phase / 3 Phase 220	175*156*40	√	√		√			√		√		UL, STO, CE	
	EL7-RS750S	750		175*156*50	√	√		√			√		√		UL, STO, CE	
	EL7-RS1000S	1000			√	√		√			√		√		UL, STO, CE	
	EL7-RS1500S	1500		175*156*80	√	√		√			√		√		UL, STO, CE	
	EL7-RS2000S	2000			√	√		√			√		√		UL, STO, CE	
EL7-RS Series 400 VAC	EL7-RS1000ST	1000	3 Phase 400	179*175*55	√	√		√			√		√		UL, STO, CE	
	EL7-RS1500ST	1500			√	√		√			√		√		UL, STO, CE	
	EL7-RS2000ST	2000		179*175*80	√	√		√			√		√		UL, STO, CE	
	EL7-RS3000ST	3000			√	√		√			√		√		UL, STO, CE	
	EL7-RS4400ST	4400		230*250*90	√	√		√			√		√		UL, STO, CE	
	EL7-RS5500ST	5500			√	√		√			√		√		UL, STO, CE	
	EL7-RS7500ST	7500			√	√		√			√		√		UL, STO, CE	
	EL7-RS11K0T	11000		280*170*180	√	√		√			√					
	EL7-RS15K0T	15000			√	√		√			√					
	EL7-RS18K5T	18500			√	√		√			√					
	EL7-RS22K0T	22000			√	√		√			√					
EL7-EC Series 220 VAC	EL7-EC400S	400	1 Phase / 3 Phase 220	175*156*40					√		√		√		UL, STO, CE	
	EL7-EC750S	750		175*156*50					√		√		√		UL, STO, CE	
	EL7-EC1000S	1000							√		√		√		UL, STO, CE	
	EL7-EC1500S	1500		179*175*55					√		√		√		UL, STO, CE	
	EL7-EC2000S	2000							√		√		√		UL, STO, CE	
	4EL7-ECA05	750 / 400 / 400 / 400		230*200*90					√		√				CE	
	4EL7-ECA07	750 / 1000 / 1000 / 1000							√		√				CE	
EL7-EC Series 400 VAC	EL7-EC1000ST	1000	3 Phase 400	179*175*55					√		√		√		UL, STO, CE	
	EL7-EC1500ST	1500							√		√		√		UL, STO, CE	
	EL7-EC2000ST	2000		179*175*80					√		√		√		UL, STO, CE	
	EL7-EC3000ST	3000							√		√		√		UL, STO, CE	
	EL7-EC4400ST	4400		230*250*90					√		√		√		UL, STO, CE	
	EL7-EC5500ST	5500							√		√		√		UL, STO, CE	
	EL7-EC7500ST	7500							√		√		√		UL, STO, CE	
	4EL7-ECA04T	750 / 1000 / 1000 / 1000		230*200*90					√		√				CE	
	4EL7-ECA05T	1000 / 1500 / 1500 / 1000							√		√				CE	
	EL7-EC11K0T	11000		280*170*180					√		√					
	EL7-EC15K0T	15000							√		√					
	EL7-EC18K5T	18500							√		√					
	EL7-EC22K0T	22000							√		√					
EL6 Series 220 VAC	2EL6-EC400	400	1 Phase / 3 Phase 220	168*154*48					√		√	√			CE	
	2EL6-EC750	750		168*154*55					√		√	√			CE	
	2EL6-EC1000	1000		168*183*55					√		√	√			CE	
	2EL6-EC1500	1500		168*183*75					√		√	√			CE	
	EL6-RS400P	400		175*156*40	√			√			√				CE	
	EL6-EC400								√						CE	
	EL6-CAN400Z									√					CE	
	EL6-RS750P	750		175*156*50	√			√							CE	
	EL6-EC750								√						CE	
	EL6-CAN750Z									√					CE	
	EL6-RS1000P	1000		175*156*50	√			√							CE	
	EL6-EC1000								√						CE	
	EL6-CAN1000Z									√					CE	
	EL6-RS1500P	1500		175*183*55	√			√							CE	
	EL6-EC1500								√						CE	
	EL6-RS2000P	2000		175*183*75	√			√							CE	
	EL6-EC2000								√						CE	
EL6 Series 400 VAC	EL6-RS1000PT	1000	3 Phase 400	175*183*55	√			√							CE	
	EL6-EC1000T								√						CE	
	EL6-RS1500PT	1500			√			√							CE	
	EL6-EC1500T								√						CE	
	EL6-RS2000PT	2000			√			√							CE	
	EL6-EC2000T								√						CE	
	EL6-RS3000PT	3000		175*183*75	√			√							CE	
	EL6-EC3000T								√						CE	

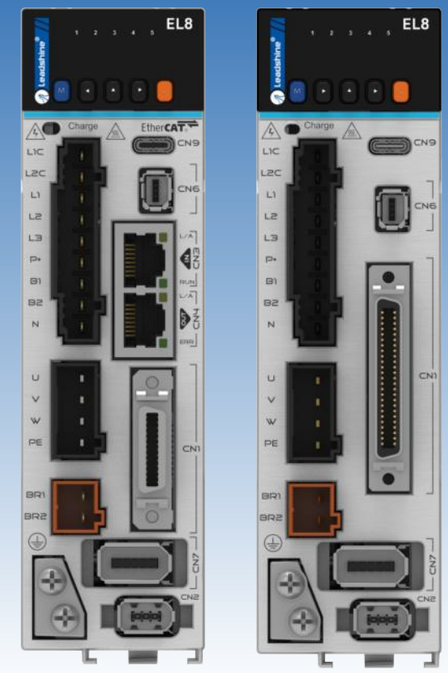
The Next Generation

EL8 Servo Drive Platform

EL8 Series



EL8S Series



EL8S Series: Enhanced Evolution from EL8

- **Upgraded Speed Loop Performance**
  Speed loop bandwidth increased to 4.0 kHz
- **Intelligent LTUNE Self-Tuning**
  One-click auto-tuning can be completed directly via the panel buttons for easier commissioning.
- **Faster Communication Cycle**
  Minimum communication data update cycle shortened from 250 μs to 62.5 μs
- **Advanced Encoder Support**
  Compatible with batteryless absolute encoders and matched with 26 Bit high-resolution optical encoder motors for ultra-precise positioning.
- **FSoE Safety Bus (Planned: Late 2027)**
  Will support FSoE (Fail-Safe over EtherCAT) safety bus protocol (scheduled launch late 2027) .
- **Full Functional Safety (Planned: Late 2027)**
  Complete safety functions: SIL3 STO, SBC, SS1, SS2, SOS, SLS, SDI, SSM (scheduled launch late 2027) .
- **Global Certification**
  CE certification (ongoing)
  SIL3 STO certification (ongoing)
  UL certification (ongoing)

EL8S

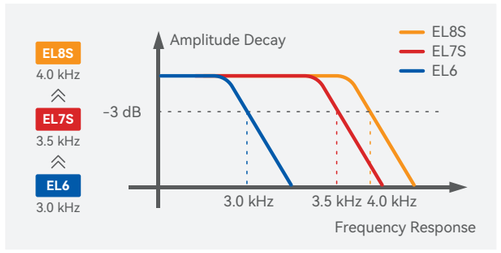
Advanced AC Servo Drives

EtherCAT Modbus

The EL8S series servo drive is a high-end servo drive developed by Leadshine, featuring high speed, high precision, high performance, and equipment commissioning-free functionality. It complies with CE, UL, and STO certifications, meeting international first-class product standards and catering to high-end application requirements.

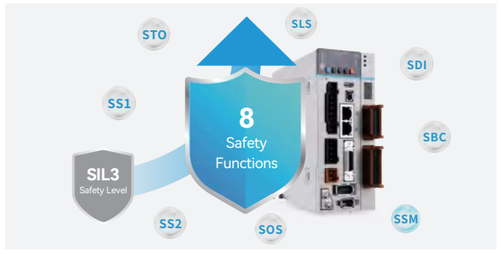
4.0 kHz Speed Loop Bandwidth

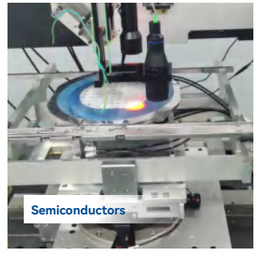
Industry-leading 4.0 kHz bandwidth ensures rapid, faster speed loop response, matching premier global standards.



8 Safety Functions

SBC, SS1, SS2, SOS, SLS, SDI, SSM (In Progress) .




Semiconductors


3C Electronics

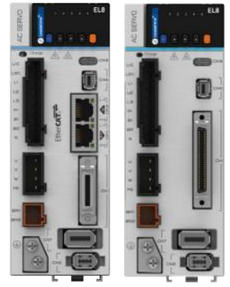

Precision Machine Tools


Laser Processing

400 W (220 VAC)

- Dimension L*H*W (mm)
  150*150*43 mm
- Rated Output Power
  400 W
- Rated Output Current
  2.8 A
- Maximum Output Current
  9.3 A

750 W / 1000 W (220 VAC)



- Dimension L*H*W (mm)
  160*150*55 mm
- Rated Output Power
  750 W / 1000 W
- Rated Output Current
  5.5 A / 7.0 A
- Maximum Output Current
  16.9 A / 21 A

1.5 kW / 2 kW (220 VAC)

- Dimension L*H*W (mm)
  183*168*80 mm
- Rated Output Power
  1.5 kW / 2 kW
- Rated Output Current
  9.5 A / 12 A
- Maximum Output Current
  31.1 A / 36 A

ELM2 Series (50-2000 W)

Recommended

- Power Rating
  50-2000 W
- Encoder
  23 Bit Optical Encoder
- Peak Speed
  6500 rpm
- Strong Overload Capacity
  3.5 Times Overload

220 VAC

Part Numbers

EL8 - EC 400 S

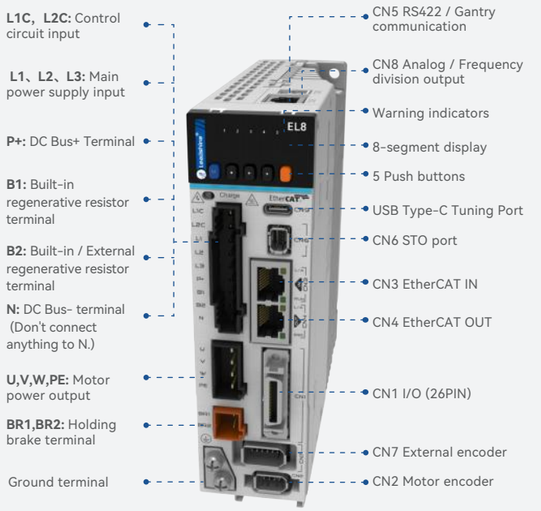
Series Num	
EL8	EL8 Series

Command Source	
EC	EtherCAT
RS	Modbus RTU / Analog Input / Pulse+Direction

Rated Power			
400	400 W	750	750 W
1000	1000 W	1500	1500 W
2000	2000 W		

Version	
S	supreme version with sto and UL certification

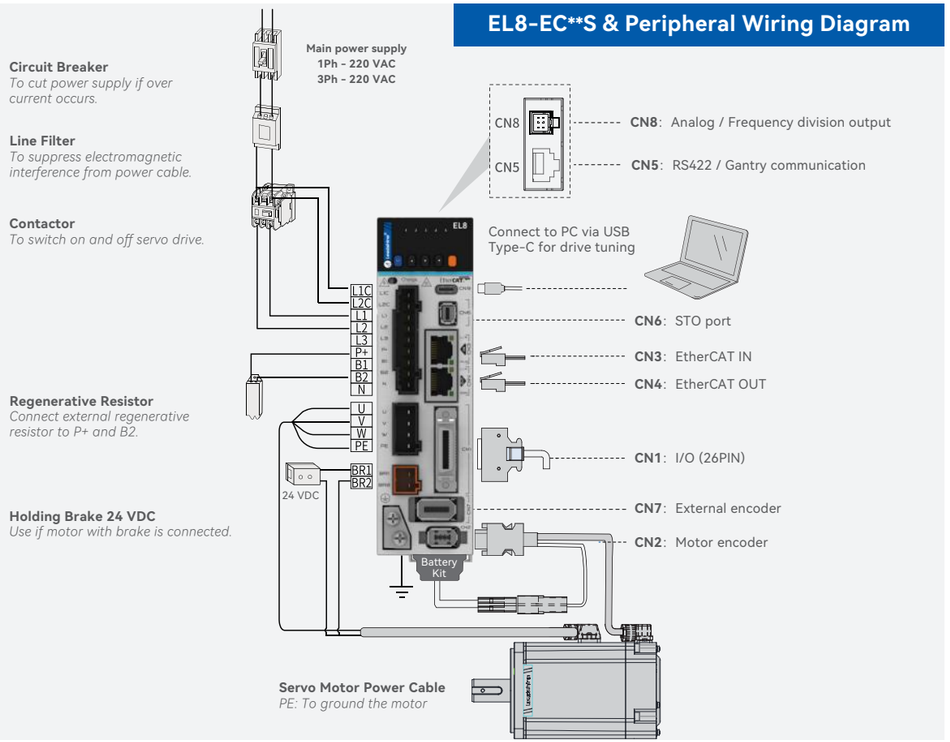
Ports & Connectors



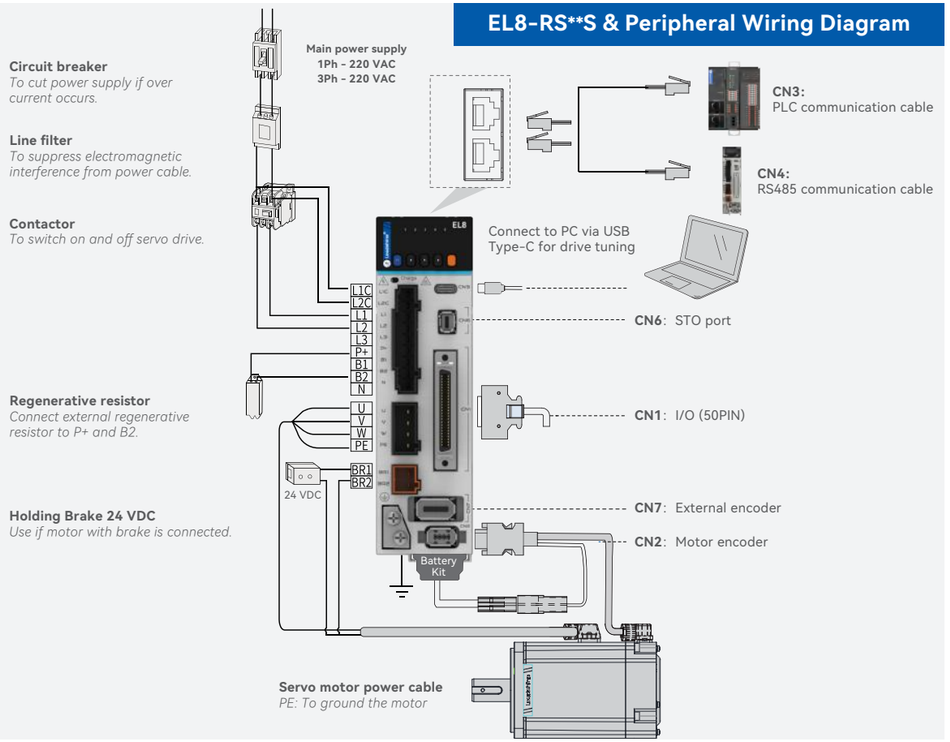
EL8 – EC**S Series

EL8 – RS**S Series

EL8-EC**S & Peripheral Wiring Diagram



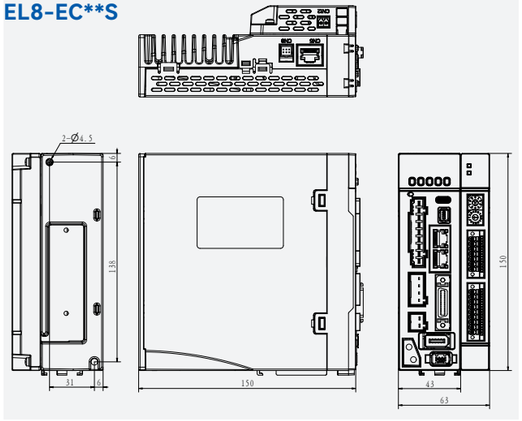
EL8-RS**S & Peripheral Wiring Diagram



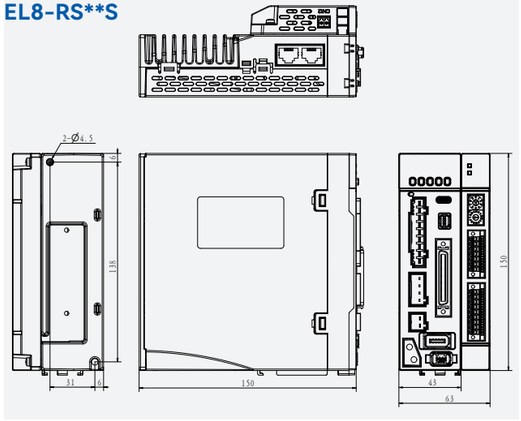
400 W (220 VAC)

Unit: mm

EL8-ECS**



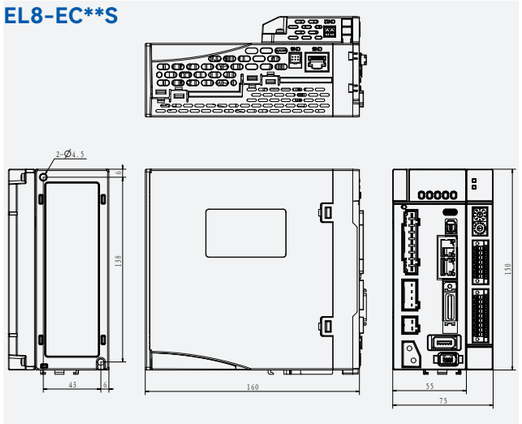
EL8-RSS**



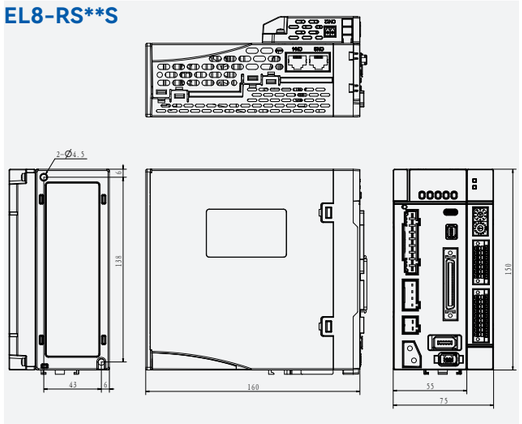
750-1000 W (220 VAC)

Unit: mm

EL8-ECS**



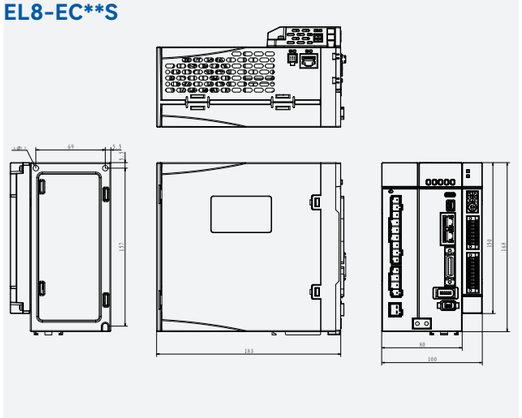
EL8-RSS**



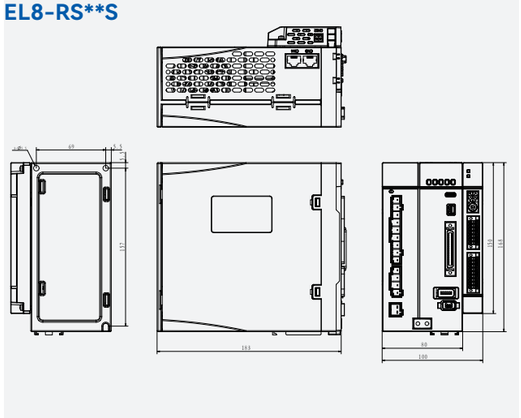
1.5 kW - 2 kW (220 VAC)

Unit: mm

EL8-ECS**



EL8-RSS**



EL8-EC**S	
Ports	**Descriptions**
Analog I/O	2 Analog inputs (AI1 / AI2) , ±10 V, Max. voltage: ±12 V,
	2 Analog outputs (AO1 / AO2) , ±10 V,
Digital I/O	8 DI (Supports common anode or cathode connection)
	3 DO (double-ended DO1-DO3)
Communication Port	EtherCAT (RJ45 interface)
Control Mode	
PP, CSP / PV, CSV / PT, CST / HM	
Control Features	
Feedback Method	Encoder: RS485 Protocol
Easy-to-use	LTUNE , One-click self-tuning, Single-parameter tuning,
Dynamic Braking	Built-in dynamic braking
Frequency Division Output	Supports phase A / B / Z differential frequency division output Supports phase Z open collector frequency division output
Safe Torque Off (STO)	Available for all EL8S series servo drives
External encoder	
Position Comparison	42 position comparison outputs
Gantry Synchronization	Realize axis synchronization and alignment automatically without input from master device
Full Closed Loop Control	support full closed loop control which can eliminate the position deviation due to mechanical gap, and precision will have an obvious improvement.

EL8-RS**S	
Ports	**Descriptions**
Low-speed pulse input	5 V differential signal, 0-500 kHz 24 V single ended signal, 0-200 kHz
High-speed pulse input	5 V differential signal, 0-4 MHz
Analog I/O	3 Analog inputs (AI1 / AI2 / AI3) , ±10 V, Max. voltage: ±12 V,
	2 Outputs (AO1 / AO2) , ±10 V, Max. voltage: ±12 V,
Digital I/O	10 Digital Inputs (Supports common anode or cathode connection)
	6 Digital outputs (2 single ended, 4 double-ended)
Control Mode	
Control	1. External pulse position control 2. JOG control 3. Closed loop position control 4. Velocity control 5. Torque control 6. Hybrid control: Position-Torque / Position-Velocity / Velocity-Torque

EL8

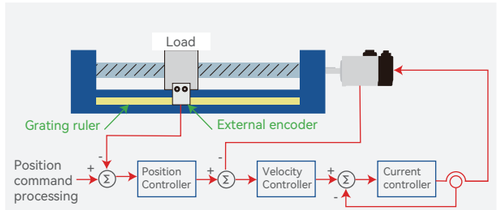
Advanced AC Servo Drives

EtherCAT Modbus

EL8 Series AC Servo Drives are our latest high end servo drives which are packed with more new hardware and software features. This series of servo drive also comes with another version which combines Analog control, Modbus RTU protocol (RS485) and pulse + direction control into one.

Full Closed Loop Control

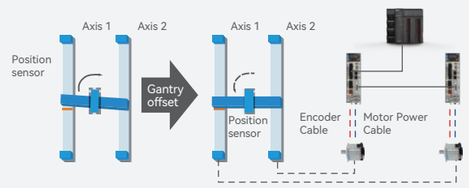
EL8 series servo drives support full closed loop control which can eliminate the position deviation due to mechanical gap, and precision will have an obvious improvement.



Gantry Synchronization

Gantry synchronization MIMO technique, breaking through foreign technological barriers.

EL8 series servo drives are able to realize axis synchronization and alignment automatically without input from master device.




Precise Machining


Semiconductor


Electronics


Fiber Laser

400 W (220 VAC)

- Dimension L*H*W (mm)
  150*150*43 mm
- Rated Output Power
  400 W
- Rated Output Current
  2.8 A
- Maximum Output Current
  9.3 A

750 W / 1000 W (220 VAC)

- Dimension L*H*W (mm)
  160*150*55 mm
- Rated Output Power
  750 W / 1000 W
- Rated Output Current
  5.5 A / 7.0 A
- Maximum Output Current
  16.9 A / 21 A

1.5 kW / 2 kW (220 VAC)

- Dimension L*H*W (mm)
  183*168*80 mm
- Rated Output Power
  1.5 kW / 2 kW
- Rated Output Current
  9.5 A / 12 A
- Maximum Output Current
  31.1 A / 36 A

ELM2 Series (50-2000 W)

Recommended

220 VAC

- Power Rating
  50-2000 W
- Encoder
  23 Bit Optical Encoder
- Peak Speed
  6500 rpm
- Strong Overload Capacity
  3.5 Times Overload

Part Numbers

EL8 - EC 400 F

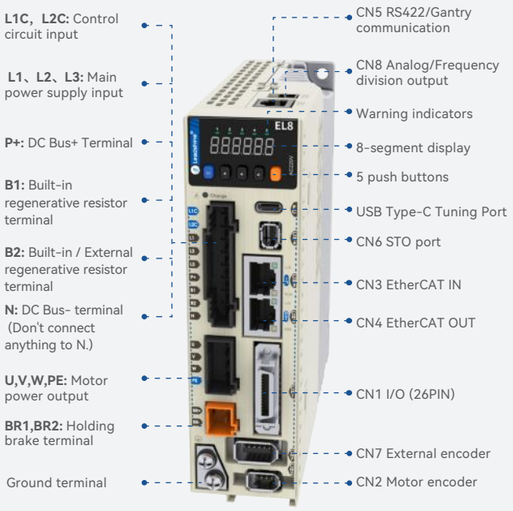
Series Num	
EL8	EL8 Series

Command Source	
EC	EtherCAT
RS	Modbus RTU / Analog Input / Pulse+Direction

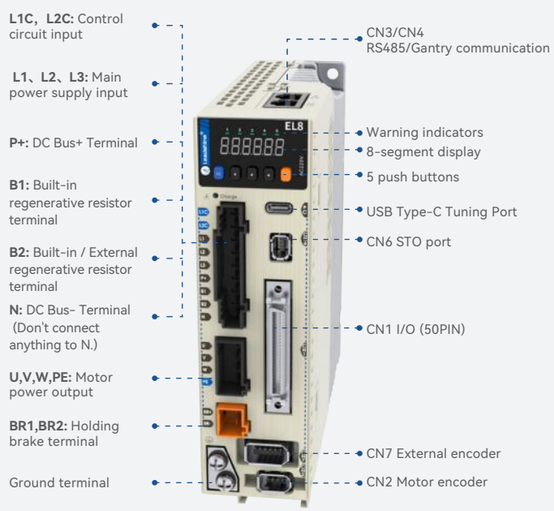
Rated Power			
400	400 W	750	750 W
1000	1000 W	1500	1500 W
2000	2000 W		

Version	
F	Full Functions

Ports & Connectors

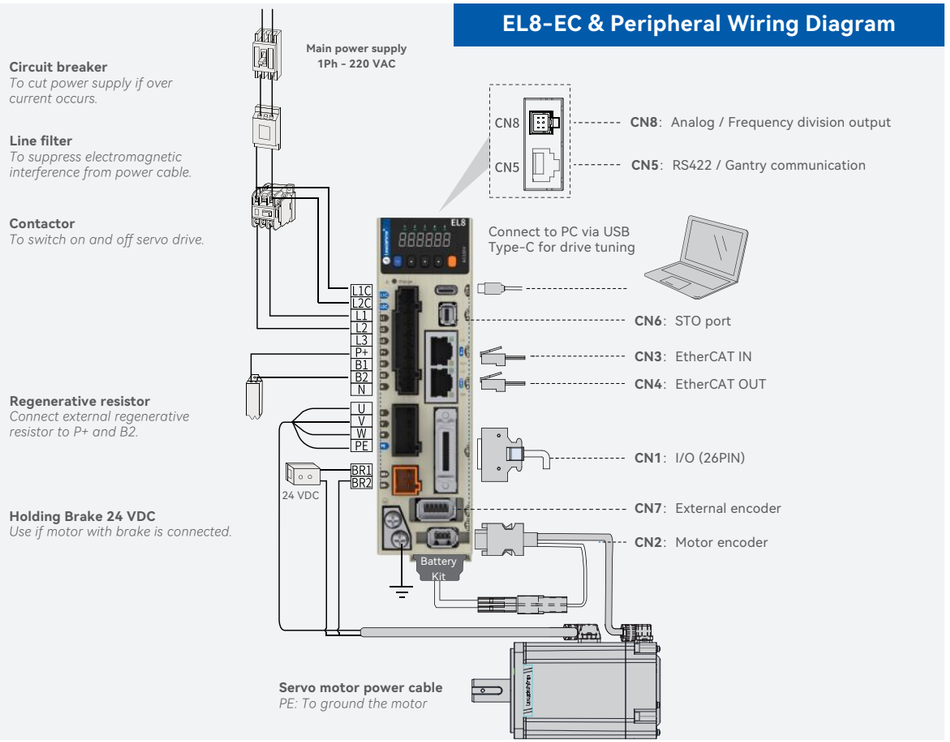


EL8 – EC Series

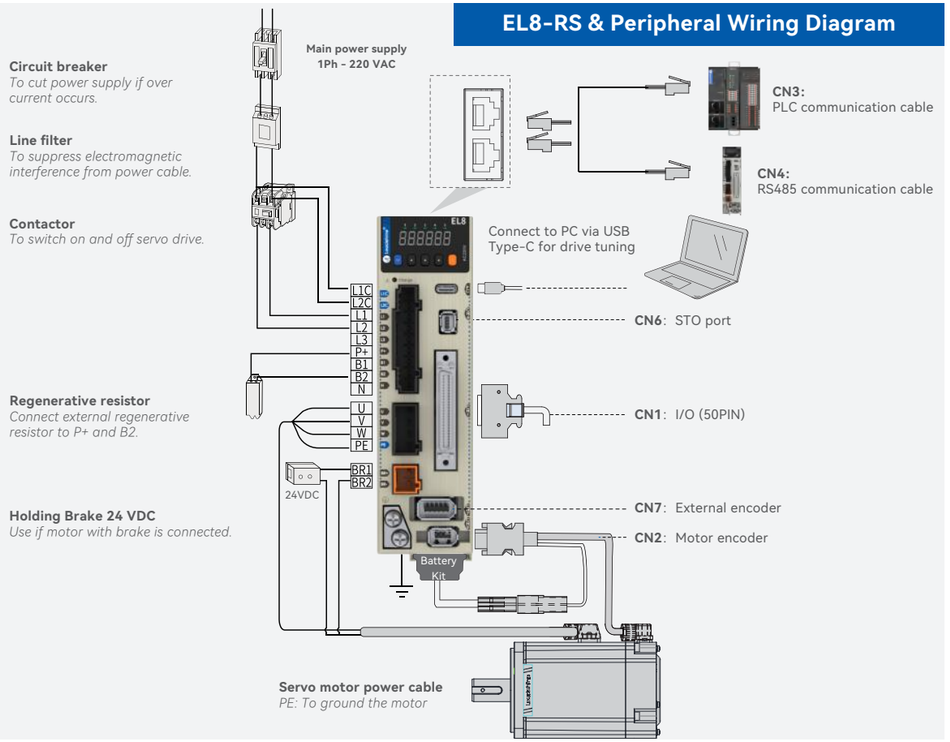


EL8 – RS Series

EL8-EC & Peripheral Wiring Diagram



EL8-RS & Peripheral Wiring Diagram



Specifications

EL8 Series Drive	EL8-RS400F EL8-EC400F	EL8-RS750F EL8-EC750F	EL8-RS1000F EL8-EC1000F	EL8-RS1500F EL8-EC1500F	EL8-RS2000F EL8-EC2000F
Rated Output Power	400 W	750 W	1000 W	1500 W	2000 W
Rated Output Current (A)	2.8	5.5	7.0	9.5	12
Maximum Output Current (A)	9.3	16.9	21.2	31.1	36
Control Circuit Power Supply	1Ph/3Ph 200–240 VAC, ±10%, 50/60 Hz				
Main Power Supply	1Ph/3Ph 200–240 VAC, ±10%, 50/60 Hz				
Dimension L*H*W (mm)	150*150*43	150*160*55		168*183*80	

EL8-EC	
Ports	**Descriptions**
Analog I/O	2 Analog inputs (AI1 / AI2) , ±10 V, Max. voltage: ±12 V,
	2 Analog outputs (AO1 / AO2) , ±10 V,
Digital I/O	8 Digital Inputs (Supports common anode or cathode connection)
	3 Digital outputs (3 double-ended, DO1-DO3)
Safe Torque Off (STO)	Available for all EL8 series servo drives
External encoder	
Holding brake	Internal holding brake no need External relay
Frequency Division Output	Supports phase A / B / Z differential frequency division output Supports phase Z open collector frequency division output
Communication Port	EtherCAT protocol, RJ45 port
USB Type-C	Modify or read drive parameters without connecting to main power supply
Control Mode	
Position	Profile Position Mode (PP)
	Cyclic Synchronous Position Mode (CSP)
	Homing Mode (HM)
Velocity	Profile Velocity Mode (PV)
	Cyclic Synchronous Velocity Mode (CSV)
Torque	Profile Torque Mode (PT)
	Cyclic Synchronous Torque Mode (CST)

EL8-RS	
Ports	**Descriptions**
Low-speed pulse input	5 V differential signal, 0-500 kHz 24 V single ended signal, 0-200 kHz
High-speed pulse input	5 V differential signal, 0-4 MHz
Analog I/O	3 Analog inputs (AI1 / AI2 / AI3) , ±10 V, Max. voltage: ±12 V,
	2 Outputs (AO1 / AO2) , ±10 V, Max. voltage: ±12 V,
Digital I/O	10 Digital Inputs (Supports common anode or cathode connection)
	6 Digital outputs (2 single ended, 4 double-ended)
Control Mode	
Control	1. External pulse position control 2. JOG control 3. Closed loop position control 4. Velocity control 5. Torque control 6. Hybrid control: Position-Torque / Position-Velocity / Velocity-Torque

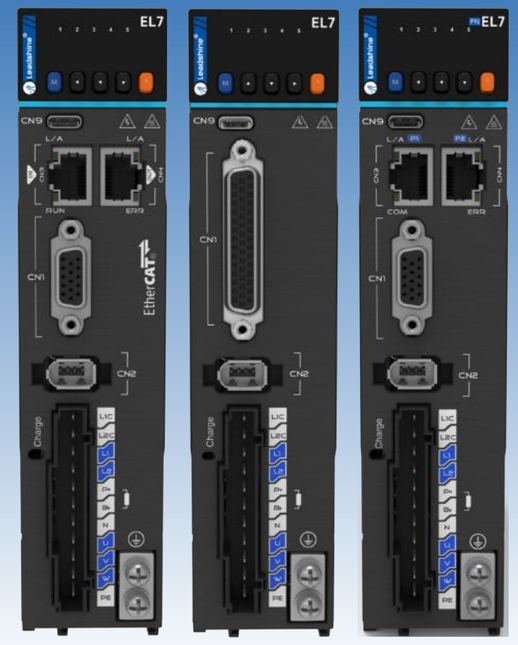
Control Features (All Series)	
Feedback Method	Encoder: RS485 Protocol
Easy-to-use	One-click tuning, Single parameter tuning, Black box, Zero tracking control
Notch Filter	Mechanical resonance suppression. Supports up to 3 filters, 50-4000 Hz
Vibration suppression	End vibration suppression
Alarm	Overcurrent. Overvoltage. Undervoltage. Overheat. Overload. Overtravel. Main power input phase loss. Regenerative resistor error. Position deviation error. Encoder Feedback error. Excessive braking rate. EEPROM error.
Front Panel	5 push buttons, 8-segment display, 5 warning LEDs
Software	Drive tuning through Motion Studio Ver. 2.x.
Dynamic Brake	Internal dynamic brake
Position Comparison	42 position comparison outputs
Black Box	Set triggering conditions and analyze the data from black box. Used for error solving
Environmental Requirements	
Temperature	Storage: -20–80℃ (Condensation free) Not more than 72 hours if stored in over 65℃ Installation: 0-55℃ (Not frozen) ; Lower performance at over 45℃
Humidity	Under 90% RH (Condensation free)
Altitude	Max. altitude of 2000 m; 100% performance at 1000 m or below. Performance decreases by 1% with every increase of 100 m from 1000 m.
Vibration	Less than 0.5G (4.9 m/s²) 10-60 Hz (non-continuous working)
IP Ratings	IP20

The Next Generation

EL7 Servo Drive Platform

EL7 Series

EL7S Series



EL7S Series: Enhanced Evolution from EL7

- **Added Functionality**
  Equipped with position comparison function
- **Simplified Commissioning**
  Integrated LTUNE function supports one-click self-tuning via panel buttons.
- **Hardware Upgrade**
  New circuit design for drives rated 1 kW and below. Control circuit and main power supply are fully isolated for improved safety and stability.
- **Minimum communication data update cycle reduced from 250 μs to 62.5 μs**
- **Supports battery-free absolute encoders and compatible with 23Bit high-resolution optical encoder motors.**
- **Global Certification**
  CE certification (ongoing)
  STO certification (ongoing)
  UL certification (ongoing)

EL7 S

EL7-EC**S / EL7-RS**S / EL7-PN**S
General Purpose AC Servo Drives

EtherCAT. Modbus PROFINET

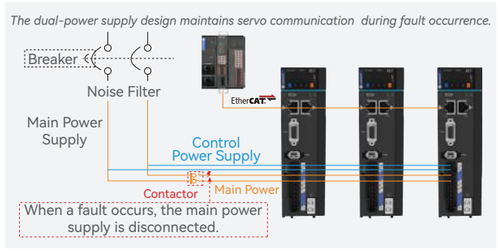
The EL7S servo represents Leadshine's latest generation EL7 AC servo drive, with a Speed Loop Bandwidth up to 3.5 kHz. Operating within a power range of 400–22000 W, its key features include: safety compliance, with control power circuit and main power circuit separated, New LTune Intelligent Tuning function. The minimum communication data update cycle has been reduced from 250–62.5 μs, enabling faster response times and more precise trajectory control. It meets STO and UL certification requirements. Main applications encompass photovoltaic systems, lithium battery manufacturing, semiconductor production, robotics, electronics, laser technology and so on.

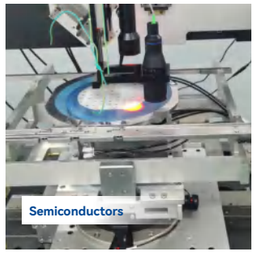
New LTune Intelligent Tuning

Enables online tuning-free functionality and supports one-click activation via the control panel buttons.

Dual Power Supply Capability

Separating control and main power ensures that data collection and processing remain active even during a fault-induced shutdown.




Semiconductors


3C Electronics


Precision Machine Tools


Laser Processing

400 W (220 VAC)

- Dimension L*H*W (mm)
  168*156*40 mm
- Rated Output Power
  400 W
- Rated Output Current
  2.5 A
- Maximum Output Current
  9.5 A

750W / 1000 W (220 VAC)

- Dimension L*H*W (mm)
  160*156*50 mm
- Rated Output Power
  750 W / 1000 W
- Rated Output Current
  5.5 A / 7.0 A
- Maximum Output Current
  16.6 A / 21.0 A

1.5 kW / 2 kW (220 VAC)

- Dimension L*H*W (mm)
  168*183*80 mm
- Rated Output Power
  1.5 kW / 2 kW
- Rated Output Current
  9.5 A / 12 A
- Maximum Output Current
  31.1 A / 36.0 A

ELM2 Series (50-2000 W)

Recommended

- Power Rating
  50-2000 W
- Encoder
  23 Bit Encoder
- Peak Speed
  6000 rpm
- Strong Overload Capacity
  3 Times Overload

220 VAC

EL7 Series General Purpose AC Servo Drives

1 kW / 1.5 kW (400 VAC)

- Dimension L*H*W (mm)
  168*183*55 mm
- Rated Output Power
  1 kW / 1.5 kW
- Rated Output Current
  3.5 A / 5.4 A
- Maximum Output Current
  10.6 A / 14 A
- Continuous Input Current
  2.8 A / 4.11 A

2 kW / 3 kW (400 VAC)

- Dimension L*H*W (mm)
  168*183*80 mm
- Rated Output Power
  2 kW / 3 kW
- Rated Output Current
  8.4 A / 11.9 A
- Maximum Output Current
  20.0 A / 30.0 A
- Continuous Input Current
  4.7 A / 6.53 A

4.4 kW / 5.5 kW / 7.5 kW (400 VAC)

- Dimension L*H*W (mm)
  250*230*89 mm
- Rated Output Power
  4.4 kW / 5.5 kW / 7.5 kW
- Rated Output Current
  16.5 A / 20.8 A / 25.7 A
- Maximum Output Current
  38.9 A / 51.6 A / 63.6 A
- Continuous Input Current
  9.05 A / 11.71 A / 15.7 A

ELM1 / ELM2 Series (750-7500 W)

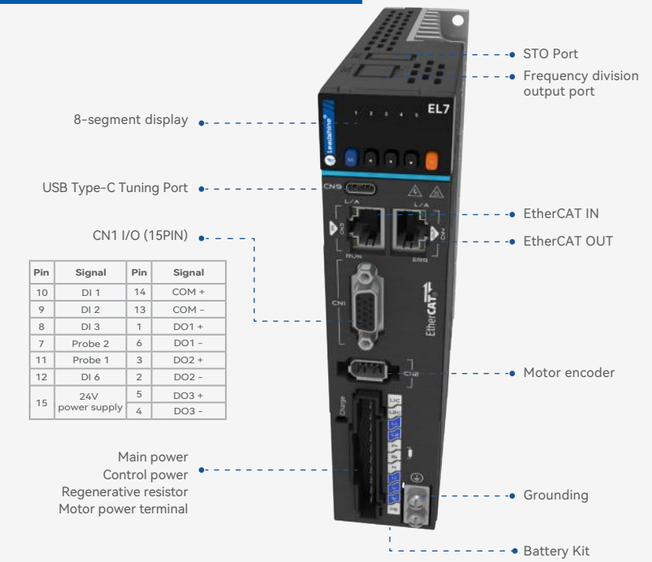
Recommended

400 VAC

- Power Rating
  750-7500 W
- Encoder
  23 Bit Encoder
- Peak Speed
  6500 rpm
- Strong Overload Capacity
  3 Times Overload

Ports & Connectors

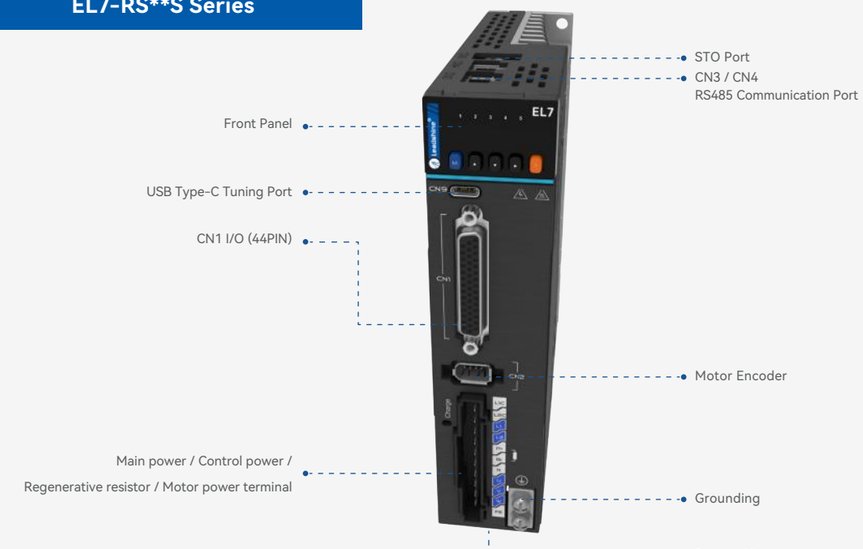
EL7-EC**S / EL7-PN**S Series



Pin	Signal	Pin	Signal
10	DI 1	14	COM +
9	DI 2	13	COM –
8	DI 3	1	DO1 +
7	Probe 2	6	DO1 –
11	Probe 1	3	DO2 +
12	DI 6	2	DO2 –
15	24V power supply	5	DO3 +
		4	DO3 –

EL7-PN**S Series

EL7-RS**S Series



Part Numbers

EL7 - EC 400 S

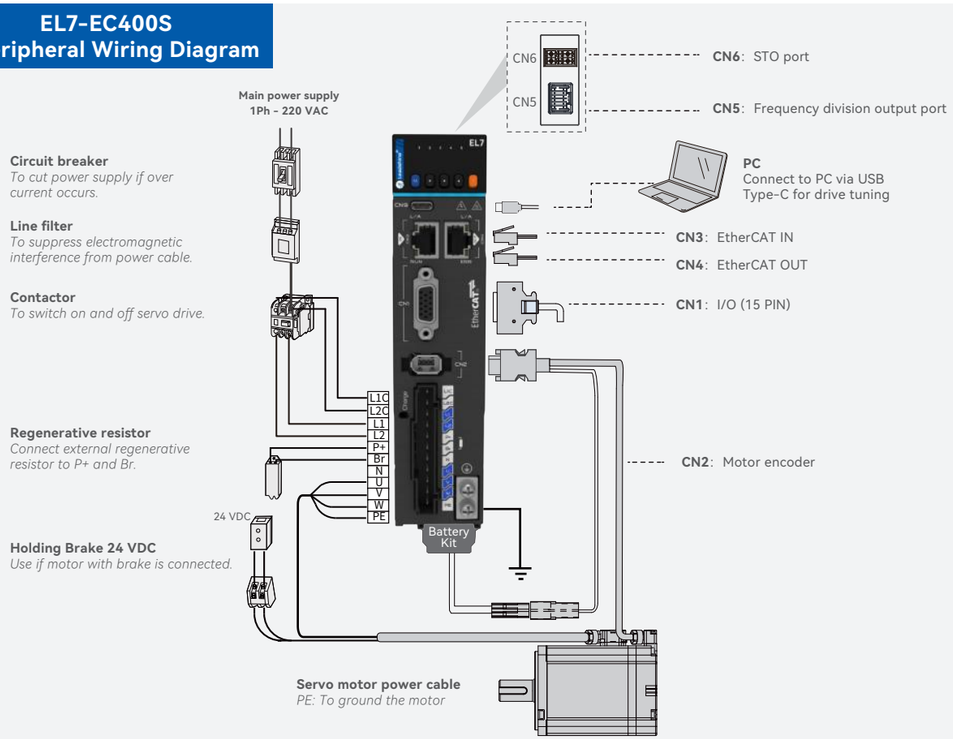
Series Num	
EL7	EL7 Series

Command Source	
EC	EtherCAT
RS	Modbus RTU / Analog Input / Pulse+Direction
PN	Profinet

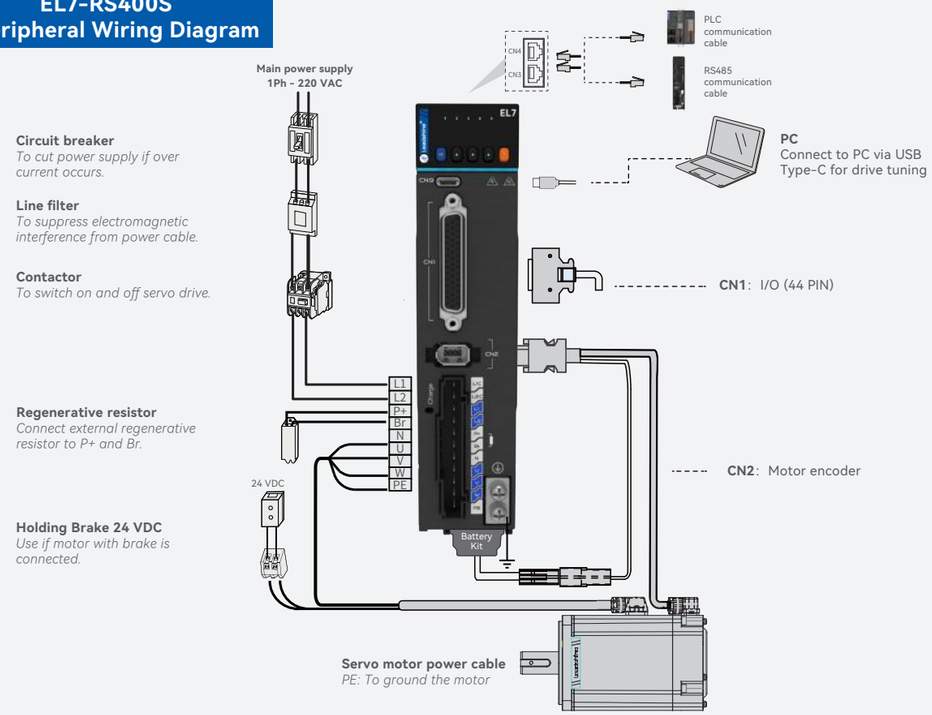
Rated Power					
400	400 W	750	750 W	1000	1000 W
1500	1500 W	2000	2000 W	3000	3000 W
4400	4400 W	5500	5500 W	7500	7500 W

Version	
S	supreme version with sto and UL certification

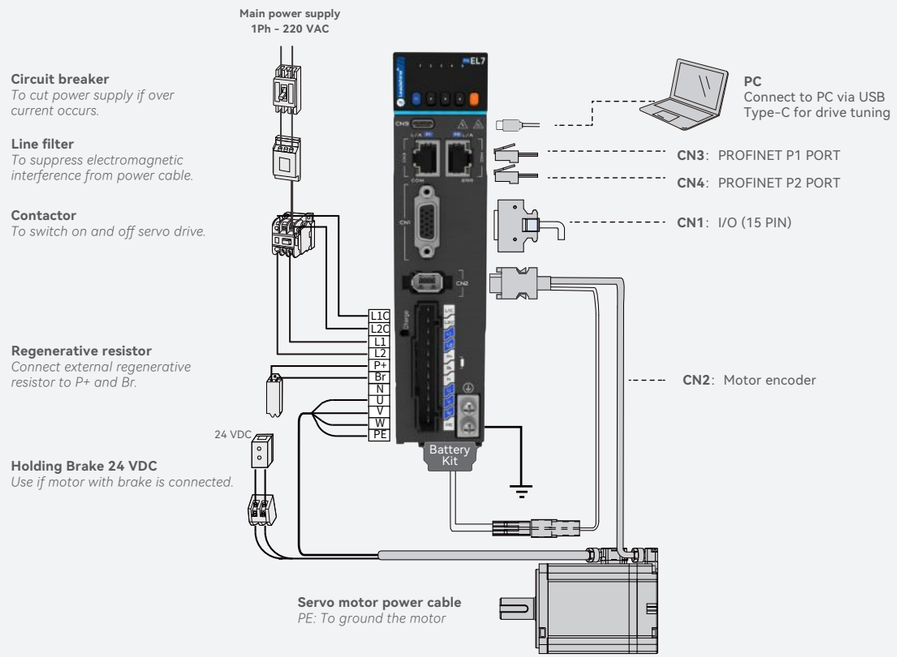
EL7-EC400S & Peripheral Wiring Diagram



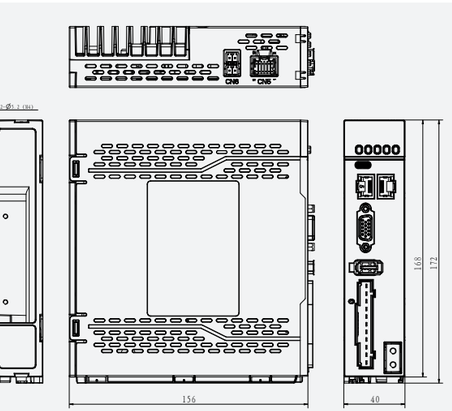
EL7-RS400S & Peripheral Wiring Diagram



EL7-PN400S & Peripheral Wiring Diagram

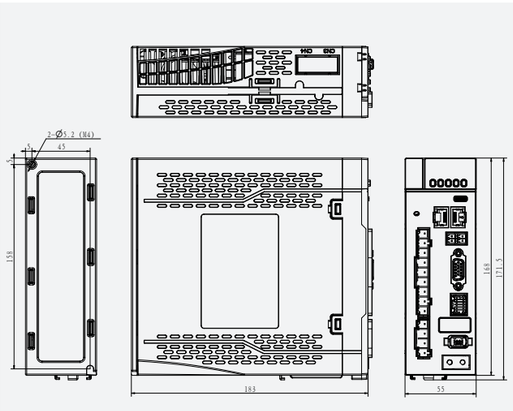


400 W (220 VAC)



750 W / 1000 W (220 VAC)

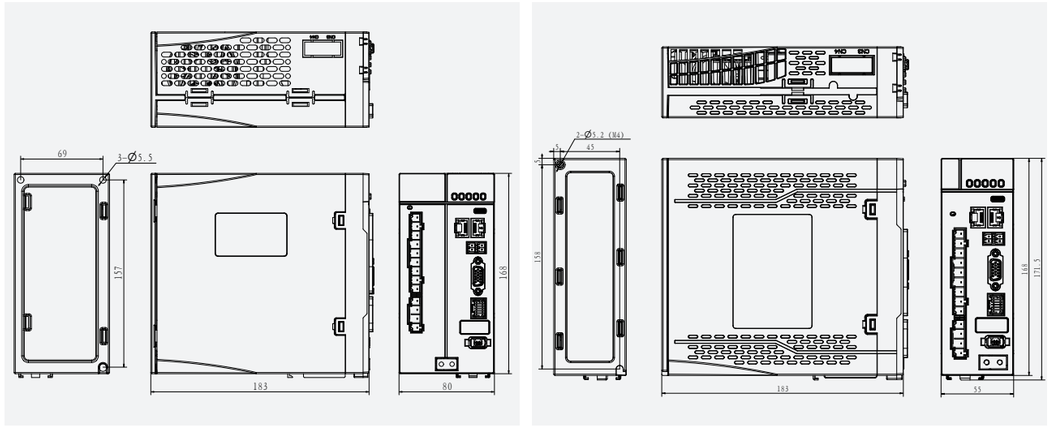
Unit: mm



1500 W / 2000 W (220 VAC)

1000 W / 1.5 kW (400 VAC)

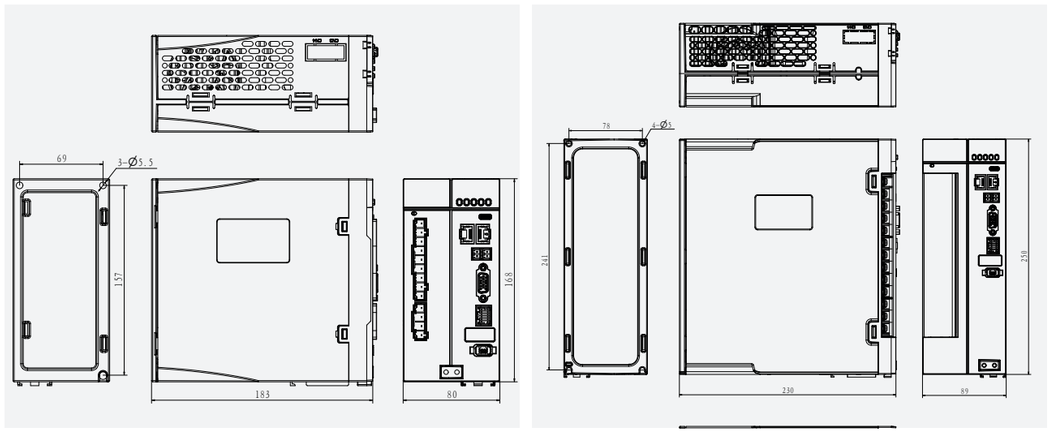
Unit: mm



2 kW / 3 kW (400 VAC)

4.5 kW / 5.5 kW / 7.5 kW (400 VAC)

Unit: mm



EL7-EC**S	
Ports	**Descriptions**
Digital I/O	4 DI (Supports common anode or cathode connection) DI1 / DI2 / DI3 / DI6 2 sets of DI4 / DI5 probe input
	3 DO (double-ended DO1-DO3)
Communication Port	EtherCAT (RJ45 interface)
Control Mode	
PP, CSP / PV, CSV / PT, CST / HM	
Control Features	
Feedback Method	Encoder: RS485 Protocol
Easy-to-use	LTUNE , One-click self-tuning, Single-parameter tuning,
Dynamic Braking	Supports phase A / B / Z differential frequency division output Supports phase Z open collector frequency division output
Position Comparison	42 position comparison outputs

EL7-RS**S	
Ports	**Descriptions**
USB Type-C Tuning	Modify or read drive parameters without connecting to main power supply
Low-speed Pulse Input	5V differential signal, 0-500 kHz 24V single ended signal, 0-200 kHz
High-speed Pulse Input	5V differential signal, 0-4 MHz
Frequency Division Output	Supports phase A / B / Z differential frequency division output Supports phase Z open collector frequency division output
Analog I/O	2 Analog inputs (AI1 / AI3) , ±10 V, Max. voltage: ±12 V
	1 Analog output (AO1) , ±10 V
Digital I/O	8 Digital Inputs (Supports common anode or cathode connection) DI1-DI8
	5 Digital outputs (double-ended) DO1-DO5
Communication Port	RS485 communication, Modbus RTU protocol (RJ45 port)
Control Mode	
Control	1. External pulse train position control, 2. JOG control, 3. Velocity control, 4. Torque control, 5. Hybrid control: Position-Torque / Position-Velocity / Velocity-Torque,

EL7-PN**S	
Ports	**Descriptions**
USB mini Tuning	Modify or read drive parameters with connecting to main power supply
Frequency Division Output	Supports phase A / B / Z differential frequency division output Supports phase Z open collector frequency division output
Digital I/O	4 DI (Supports common anode or cathode connection) DI1 / DI2 / DI3 / DI6 2 sets of DI4 / DI5 probe input
	3 DO (double-ended DO1-DO3)
Communication Port	PROFINET protocol (RJ45 port)
Control Mode	
Supported Telegram	Telegram 1 / 3 / 111 / 102 / 105 / 750 + DSC

Control Features (All Series)	
Drive Mode	IGBT SPWM sinusoidal wave drive
Encoder Feedback	Encoder: RS485 Protocol
Easy-to-use	One-click tuning, Single parameter tuning, Black box, Zero tracking control
Notch Filter	Mechanical resonance suppression. Supports up to 3 filters, 50–4000 Hz
Vibration Suppression	End vibration suppression
Alarm	Overcurrent. Overvoltage. Undervoltage. Overheat. Overload. Overtravel. Main power input phase loss. Regenerative resistor error. Position deviation error. Encoder Feedback error. Excessive braking rate. EEPROM error
Safe Torque Off (STO) function	Available for all EL7S series products
Front Panel	5 push buttons, 8-segment display
Software	Drive tuning through **Motion Studio** Ver. 3.0.
Dynamic Brake	Internal dynamic brake
Black Box	Set triggering conditions and analyze the data from black box. Used for error solving
Environmental Requirements (All Series)	
Temperature	Storage: -20-80℃ (Condensation free) Do not store above 65℃ for more than 72 hours if stored in over 65℃ Installation: 0-55℃ (Not frozen) ; Lower performance at over 45℃
Humidity	Under 90% RH (Condensation free)
Altitude	Max. altitude of 2000 m; 100% performance at 1000 m or below. Performance decreases by 1% with every increase of 100 m from 1000 m.
Vibration	Less than 0.5G (4.9m/s^2) 10-60 Hz (non-continuous working)
IP Ratings	IP20

4EL7-EC

General Purpose AC Servo Drive

EtherCAT

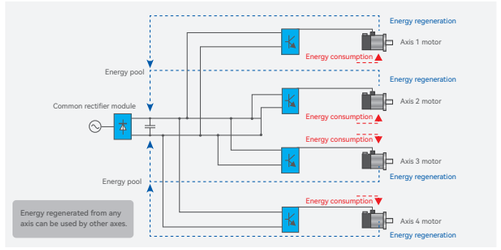
Covering a power range of 400–1500 W, it features high efficiency, convenience, quality and cost-effectiveness, plus safety and ease of use.
Its compact multi-axis integrated design saves 35% space. Sharing power and communication cables reduces wiring by 45% and labor costs. Sharing rectifier and regenerative resistors enables up to 30% energy saving.
It supports Type-C offline commissioning, auto-tuning and multi-axis synchronous monitoring. With direct brake terminal (no external relay needed) , standard dynamic braking and STO function, it ensures high safety.

Save on labor and cables, up to 45%

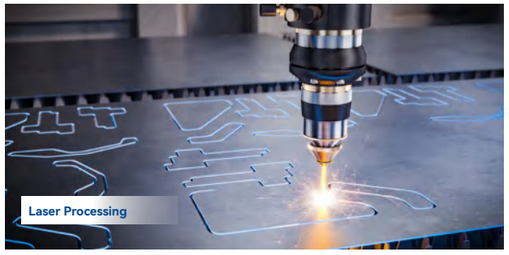
The four-in-one series driver shares power cables, communication cables, and partial I/O signals, reducing wiring complexity and labor costs while improving equipment stability.

Energy saving, up to 30%

The 4EL7-EC series driver shares the rectifier module and regenerative bleeder resistor, which improves conversion efficiency and enhances energy recovery efficiency. In some applications, energy savings of up to 30% can be achieved.




Logistics


Laser Processing

400 W - 1500 W

4EL7EC-A05

- Dimension L*H*W (mm)
  228*195*89 mm
- Rated Output Power
  J1: 1000 W J2: 1000 W
  J3: 1000 W J4: 750 W
- Rated Output Current
  J1: 6.8 A J2: 6.8 A
  J3: 6.8 A J4: 4.3 A
- Maximum Output Current
  J1: 20.4 A J2: 20.4 A
  J3: 20.4 A J4: 16.1 A

4EL7EC-A07

- Dimension L*H*W (mm)
  228*195*89 mm
- Rated Output Power
  J1: 1000 W J2: 1000 W
  J3: 1000 W J4: 750 W
- Rated Output Current
  J1: 6.8 A J2: 6.8 A
  J3: 6.8 A J4: 4.3 A
- Maximum Output Current
  J1: 20.4 A J2: 20.4 A
  J3: 20.4 A J4: 16.1 A

4EL7EC-A04T

- Dimension L*H*W (mm)
  228*195*89 mm
- Rated Output Power
  J1: 1000 W J2: 1000 W
  J3: 1000 W J4: 750 W
- Rated Output Current
  J1: 3.5 A J2: 3.5 A
  J3: 3.5 A J4: 2.7 A
- Maximum Output Current
  J1: 10.6 A J2: 10.6 A
  J3: 10.6 A J4: 8.6 A

4EL7EC-A05T

- Dimension L*H*W (mm)
  228*195*89 mm
- Rated Output Power
  J1: 1000 W J2: 1500 W
  J3: 1500 W J4: 1500 W
- Rated Output Current
  J1: 3.5 A J2: 4.6 A
  J3: 4.6 A J4: 3.5 A
- Maximum Output Current
  J1: 10.6 A J2: 13.8 A
  J3: 13.8 A J4: 10.6 A

ELM1 Series (50-1500 W)

Recommended

- Power Rating
  50-1500 W
- Encoder
  23 Bit Encoder
- Peak Speed
  6000 rpm
- Strong Overload Capacity
  3 Times Overload

Part Numbers

4 EL7 - EC A05 □

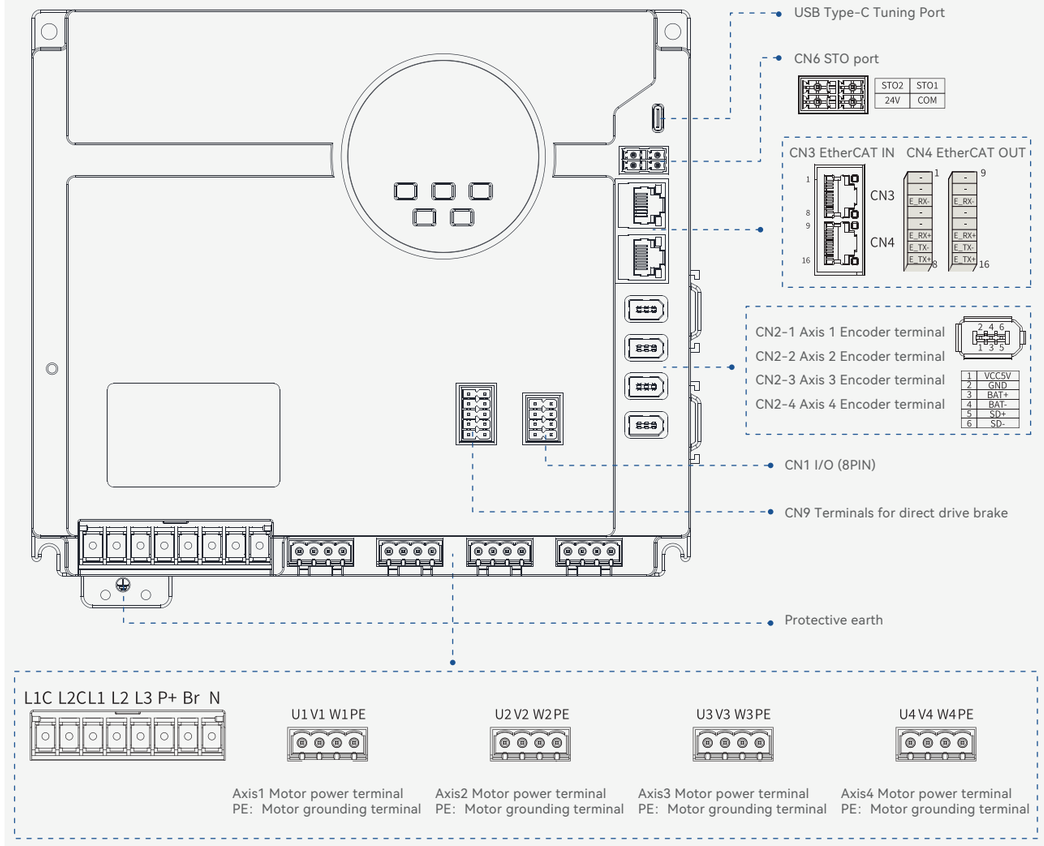
Axes	
2	2 axis
4	4 axis

Series Num	
EL7	EL7 Series

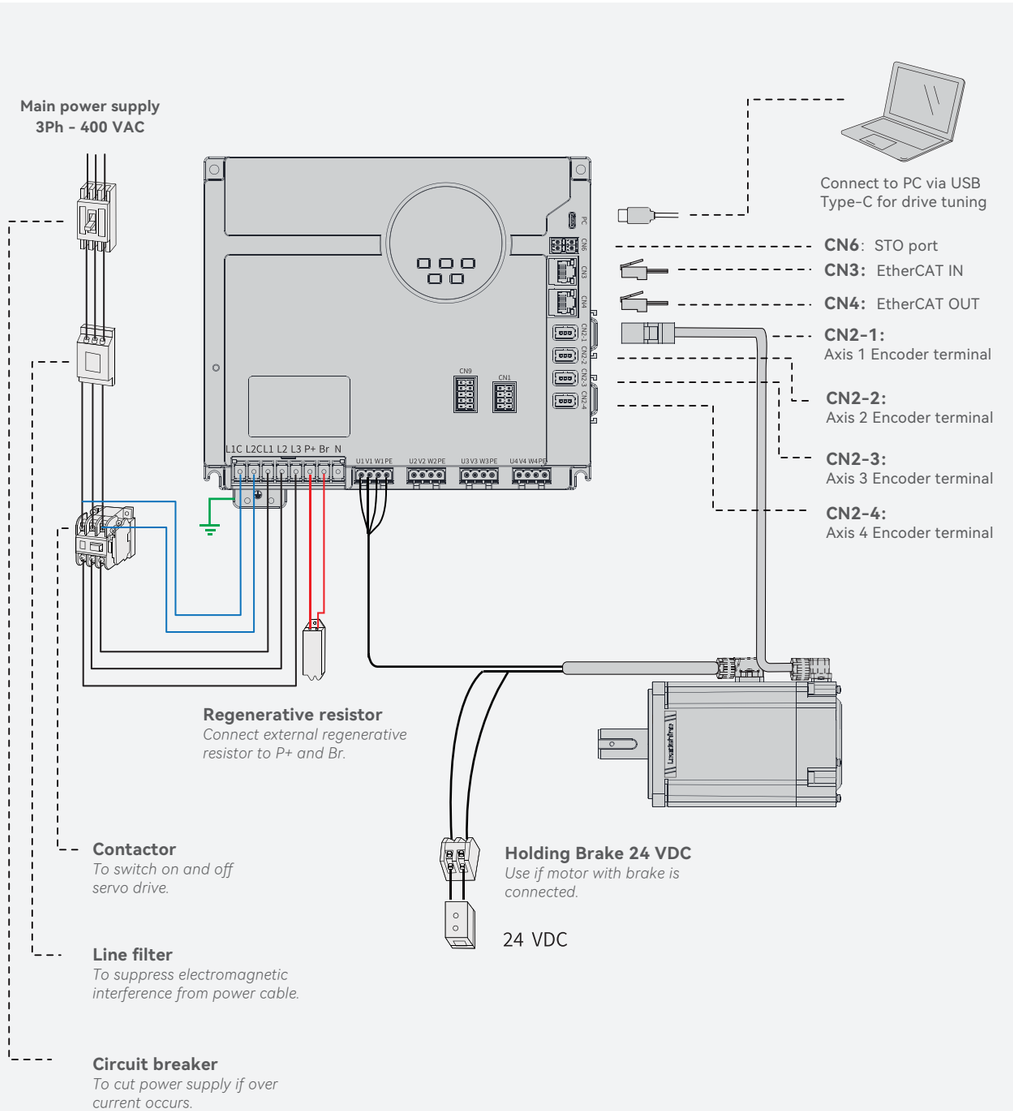
Command Source	
EC	EtherCAT

Voltage	
Blank	220 V
T	400 V

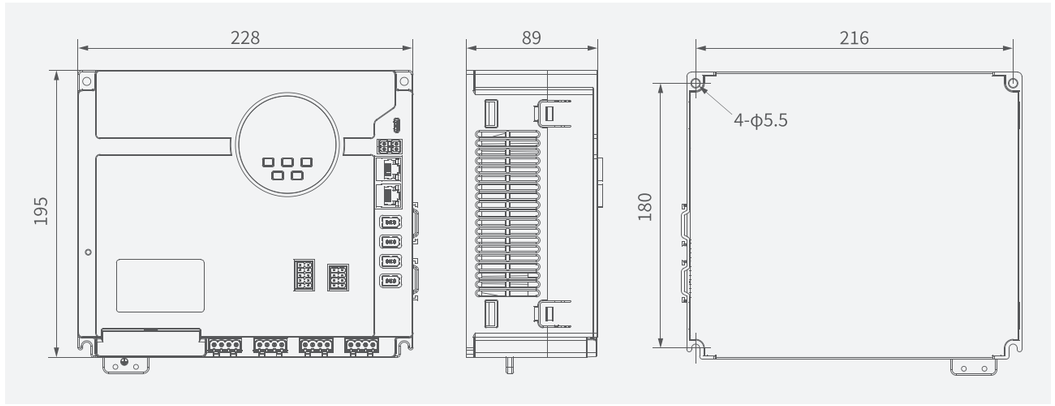
Maximum uniaxial current	
04	4 A
05	5 A
07	7 A



4EL7-EC & Peripheral Wiring Diagram



4EL7-EC Series



Specifications

4EL7-EC 220V Models

4EL7-EC series	4EL7-ECA05				4EL7-ECA07			
Rated Power	750 W	400 W	400 W	400 W	1000 W	1000 W	1000 W	750 W
Rated Output Current (Amps)	4.3	2.5	2.5	2.5	6.8	6.8	6.8	4.3
Maximum Output Current (Amps)	16.6	9.1	9.1	9.1	20.4	20.4	20.4	16.1
Main Power Supply	1Ph/3Ph 200–240 VAC, ±10%, 50/60 Hz				1Ph/3Ph 200–240 VAC, ±10%, 50/60 Hz			
Control Circuit Power Supply	1Ph/3Ph 200–240 VAC, ±10%, 50/60 Hz				1Ph/3Ph 200–240 VAC, ±10%, 50/60 Hz			
Dimension L*H*W (mm)	230*200*90							

4EL7-EC 400V Models

4EL7-EC series	4EL7-ECA04T				4EL7-ECA05T			
Rated Power	1000 W	1000 W	1000 W	750 W	1000 W	1500 W	1500 W	1000 W
Rated Output Current (Amps)	3.5	3.5	3.5	2.7	3.5	4.6	4.6	3.5
Maximum Output Current (Amps)	10.6	10.6	10.6	8.6	10.6	13.8	13.8	10.6
Main Power Supply	1Ph/3Ph 380–440 VAC, ±10%, 50/60 Hz				1Ph/3Ph 380–440 VAC, ±10%, 50/60 Hz			
Control Circuit Power Supply								
Dimension L*H*W (mm)	230*200*90							

Ports	Descriptions
STO	2 STO safety circuits common to all 4 axes, assignable
USB Type-C Tuning	Modify or read drive parameters without connecting to main power supply
Digital I/O	DI, DO can be freely assigned. 4DI common to 1 / 2 / 3 / 4 axes 2DO, common to 1 / 2 / 3 / 4 axes. DI7 / DI8 probe inputs
Communication Port	EtherCAT (RJ45 interface)
Control Mode	
Position	Profile Position Mode (PP)
	Cyclic Synchronous Position Mode (CSP)
	Homing Mode (HM)
Velocity	Profile Velocity Mode (PV)
	Cyclic Synchronous Velocity Mode (CSV)
Torque	Profile Torque Mode (PT)
	Cyclic Synchronous Torque Mode (CST)
Control Features	
Drive Mode	IGBT SVPWM sinusoidal wave drive
Encoder Feedback	Encoder: RS485 Protocol
Easy-To-Use	One-click tuning, Single parameter tuning, Black box, Zero tracking control
Notch Filter	5 Filters (1 group automatic, 4 groups manual)
Vibration Suppression	2 End Vibration suppression
Alarm	Overcurrent. Overvoltage. Undervoltage. Overheat. Overload. Overtravel. Main power input phase loss. Regenerative resistor error. Position deviation error. Encoder Feedback error. Excessive braking rate. EEPROM error
Front Panel	5 push buttons, 8-segment display
Software	Drive tuning through Motion Studio Ver. 2.x.
Dynamic Braking	Built-in dynamic braking
Black Box	Set triggering conditions and analyze the data from black box. Used for error solving
Suitable Load Inertia	Less than 30 times the motor inertia
Environmental Requirements	
Temperature	Operating temperature: 0-55℃ (non-frozen) . 1.5% derating for every 1℃ of temperature above 45℃ . Storage temperature: -40–80℃ (condensation free) . Do not store over 65℃ for more than 72 hours.
Humidity	Under 90% RH (Condensation free)
Altitude	Max.Altitude up to 2000 m. No derating for use below 1000 m. 1% derating for every 100 m of altitude above 1000 m.
Vibration	Less than 0.5G (4.9 m/s²) 10-60 Hz (non-continuous working)
IP Ratings	IP20

EL7-EC/RS (11-22 kW) Series

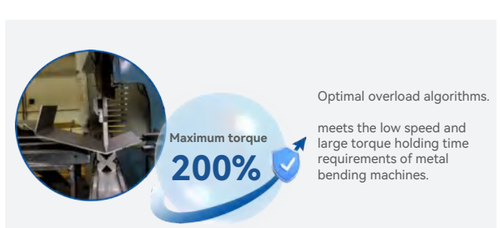
General Purpose AC Servo Drives

EtherCAT Modbus

The EL7 high power servo drive can provide the power in the range of 11-22 kW. Frequency response is up to 2.0 kHz. In particular, it supports gantry synchronization and PTC temperature detection compared to lower power servo drives of the same series.

Supports Up To Two Times Overloading

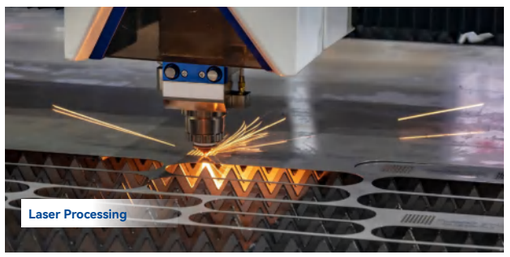
The high-power EL7 is at an industry-leading level, providing a more competitive solution for equipment with high overload capability requirements.



Supports PTC Temperature Detection

The EL7 high-power servo detects the internal temperature of the motor during operation and protects the motor for stable operation.

Note: Motor built-in PT1000 temperature sensor



400 W (220 VAC)

EL7EC-11K0T

- Dimension L*H*W (mm)
  280*170*180 mm
- Rated Output Power
  11 kW
- Rated Input Current
  29 A
- Rated Output Current
  25 A
- Maximum Output Current
  50 A

EL7EC-15K0T

- Dimension L*H*W (mm)
  280*170*180 mm
- Rated Output Power
  15 kW
- Rated Input Current
  36 A
- Rated Output Current
  32 A
- Maximum Output Current
  64 A

EL7EC-18K5T

- Dimension L*H*W (mm)
  280*170*180 mm
- Rated Output Power
  18.5 kW
- Rated Input Current
  42 A
- Rated Output Current
  37 A
- Maximum Output Current
  74 A

EL7EC-22K0T

- Dimension L*H*W (mm)
  280*170*180 mm
- Rated Output Power
  22 kW
- Rated Input Current
  48 A
- Rated Output Current
  44 A
- Maximum Output Current
  88 A

ELM2M Series (11-22 kW)

Recommended

- Power Rating
  11-22 kW
- Encoder
  23 Bit Encoder
- Peak Speed
  1800 rpm

220 VAC

Part Numbers

EL7 - EC 11K0 T

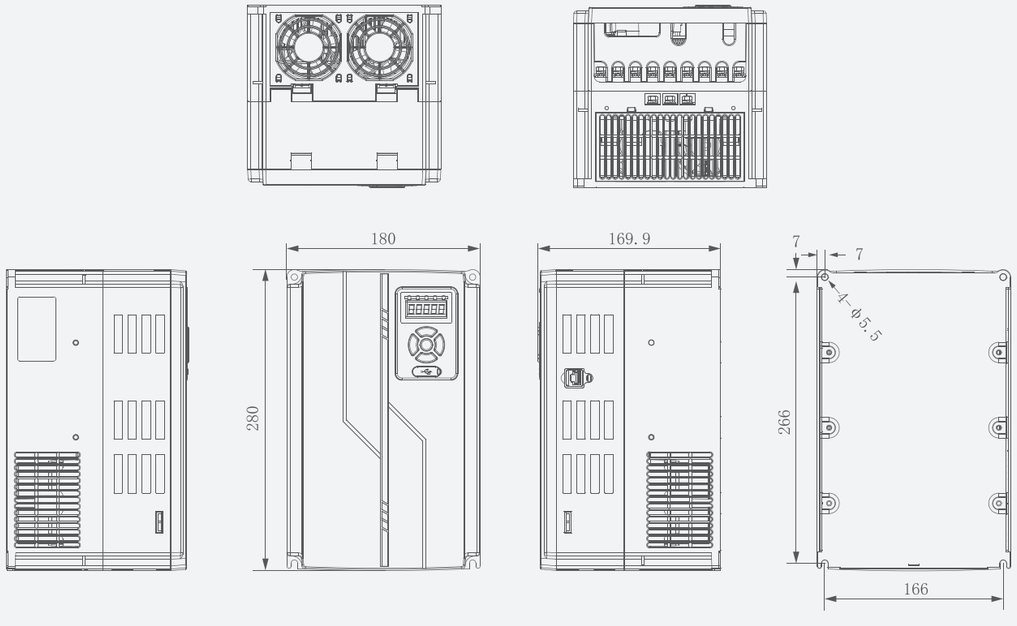
Series Num	
EL7	EL7 Series

Command Source	
EC	EtherCAT
RS	Modbus RTU / Analog Input / Pulse+Direction

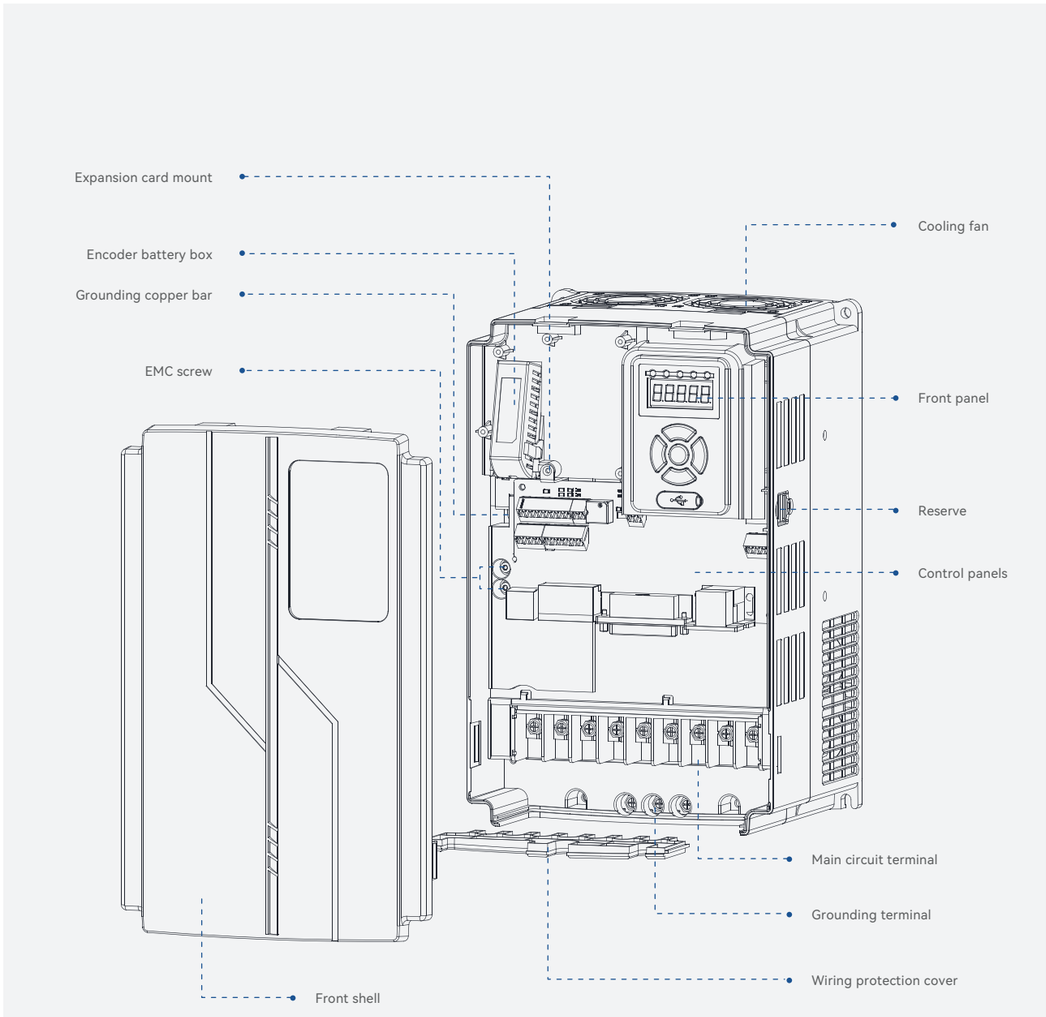
Voltage	
Blank	220 V
T	400 V

Rated Power	
11K0	11 KW
15K0	15 KW
18K5	18.5 KW
22K0	22 KW

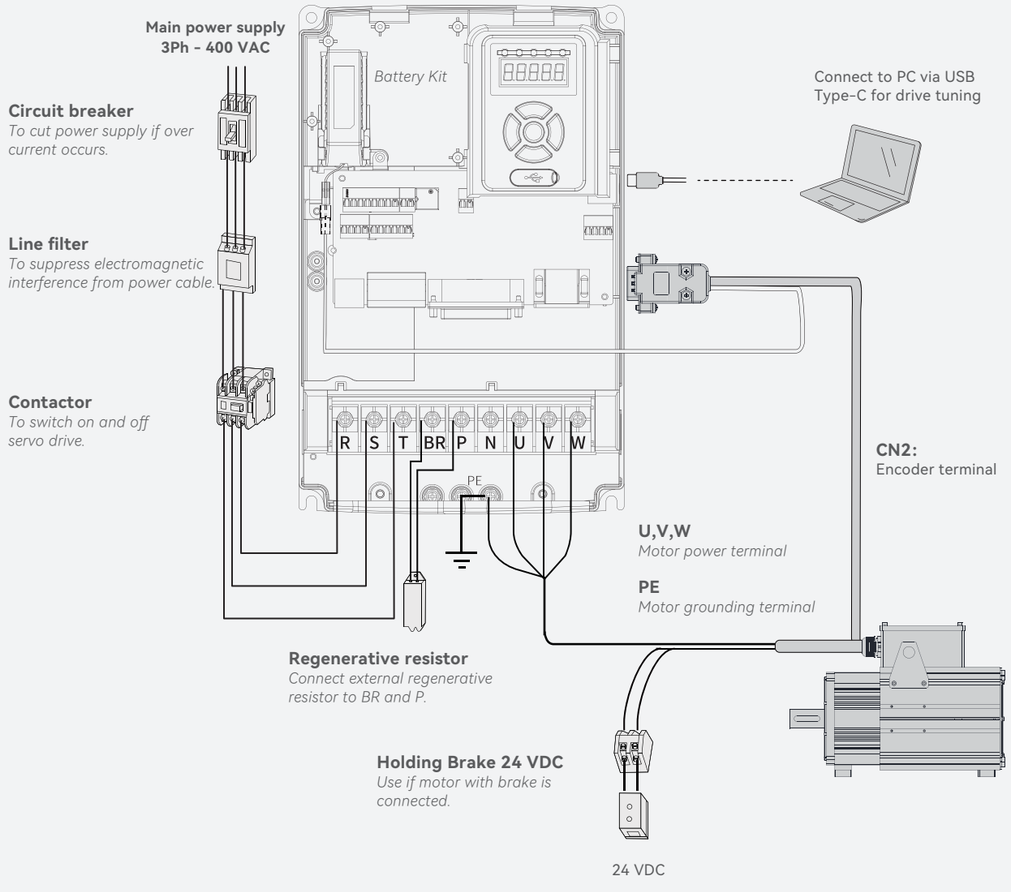
EL7-EC/RS (11-22 kW) Series



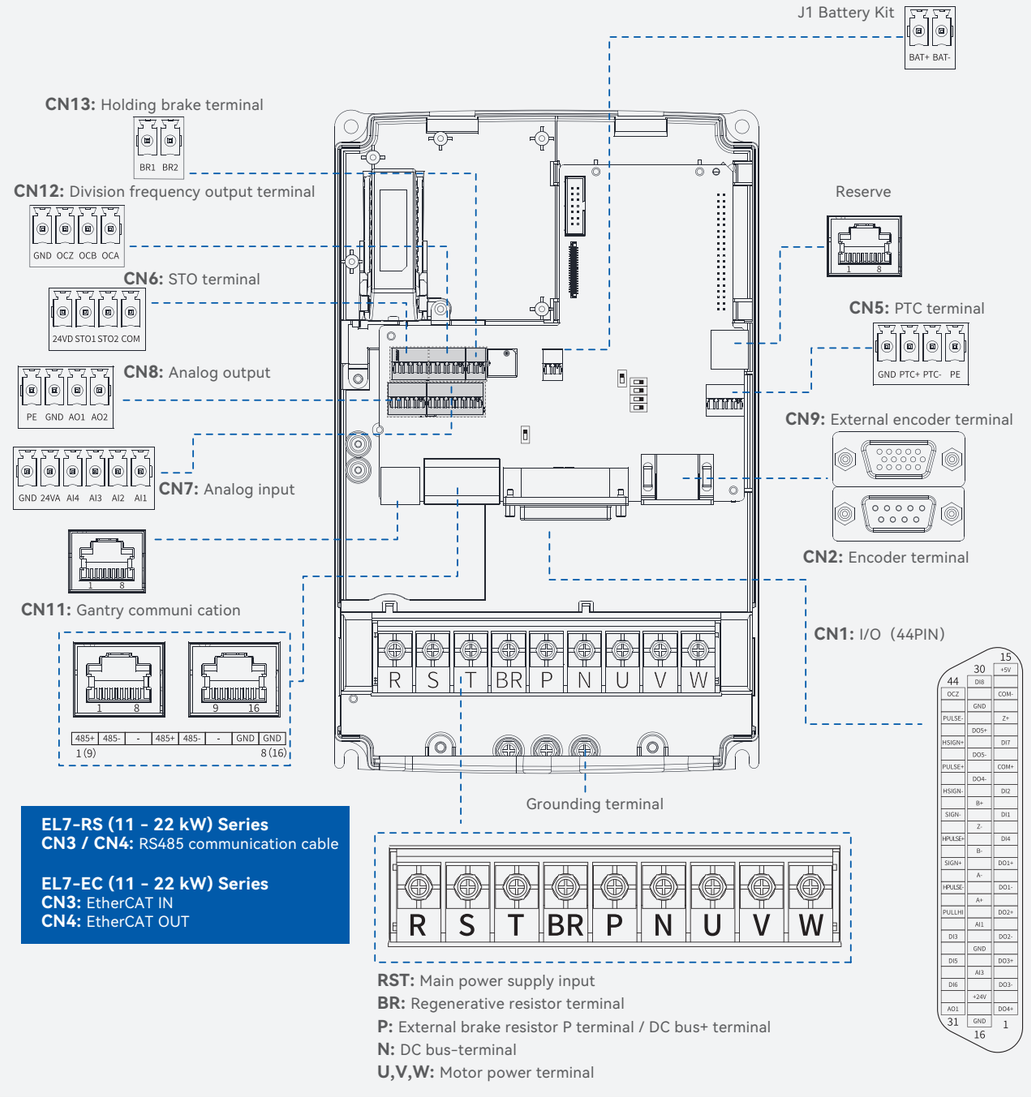
Ports & Connectors



EL7-EC/RS (11-22 kW) & Peripheral Wiring Diagram



EL7-EC/RS (11-22 kW) & Peripheral Wiring Diagram



Specifications

EL7 (11-22kW) series	EL7-RS11K0T EL7-EC11K0T	EL7-RS15K0T EL7-EC15K0T	EL7-RS18K5T EL7-EC18K5T	EL7-RS22K0T EL7-EC22K0T
Rated Power	11 KW	15 KW	18.5 KW	22 KW
Rated Input Current (Amps)	29	36	42	48
Rated Output Current (Amps)	25	32	37	44
Peak Output Current (Amps)	50	64	74	88
Main Power Supply	3Ph 380–480 VAC, -15% - +10%, 50/60 Hz			
Dimension L*H*W (mm)	280*170*180			
Regenerative Resistor	No built-in braking resistor			

EL7-RS (11-22kW)	
Ports	**Descriptions**
STO	2 STO safety circuits
USB Type-C Tuning	Modify or read drive parameters without connecting to main power supply
Frequency Division Output	Supports phase A / B / Z differential frequency division output Supports phase Z open collector frequency division output
Digital I/O	8 Digital Inputs (Supports common anode or cathode connection) DI1-DI8
	5 Digital outputs (double-ended) DO1-DO5
Analog Input	4 AI (AI1-AI4) : 2 voltage inputs, input range ±10V 2 optional voltage / current inputs, input range 0-10V / 0-20mA Maximum allowable voltage: ±12 V
Analog Output	2 AO (AO1 / AO2) , output range: 0-10V
Communication Port	RS485 (RJ45 interface)

EL7-EC (11-22kW)	
Ports	**Descriptions**
STO	2 STO safety circuits
USB Type-C Tuning	Modify or read drive parameters without connecting to main power supply
Frequency Division Output	Supports phase A / B / Z differential frequency division output Supports phase Z open collector frequency division output
Digital I/O	8 Digital Inputs (Supports common anode or cathode connection) DI1-DI8 5 Digital outputs (double-ended) DO1-DO5 2 sets Probe Function Input
Communication Port	EtherCAT (RJ45 interface)

Control Mode	
Control	1. External pulse train position control 2. JOG control 3. Velocity control 4. Torque control 5. Hybrid control: Position-Torque / Position-Velocity / Velocity-Torque
Control Features	
Drive Mode	IGBT SVPWM sinusoidal wave drive
Easy-to-use	One-click self-tuning, Single-parameter tuning, Super-following function
Encoder Feedback Method	First encoder: RS485 protocol. Second Encoder: Supports 2500-wire wire-saving encoder / non-wire-saving encoder. Expansion card: support for resolver (under development) .
Suitable Load Inertia	Less than 30 times the motor inertia
Notch Filter	Mechanical resonance suppression. Supports up to 3 filters, 50–4000 Hz
Vibration suppression	End vibration suppression
Alarm	Overcurrent. Overvoltage. Undervoltage. Overheat. Overload. Overtravel. Main power input phase loss. Regenerative resistor error. Position deviation error. Encoder Feedback error. Excessive braking rate. EEPROM error
Front Panel	5 push buttons, 8-segment display
Software	Drive tuning through **Motion Studio** Ver. 2.x.
Black Box	Set triggering conditions and analyze the data from black box. Used for error solving
Environmental Requirements	
Temperature	Operating temperature: -10--50℃ (non-frozen) . 1.5% derating for every 1℃ of temperature above 40℃ . Storage temperature: -20–60℃ (condensation free) . Do not store over 65℃ for more than 72 hours .
Humidity	Under 95% RH (Condensation free) .
Altitude	Max.Altitude up to 3000 m. No derating for use below 1000 m. 1% derating for every 100 m of altitude above 1000 m.
Vibration	Less than 1G (9.8 m/s^2) 10-60 Hz (non-continuous working) .
IP Ratings	IP20

EL6-EC

Economical AC Servo Drives

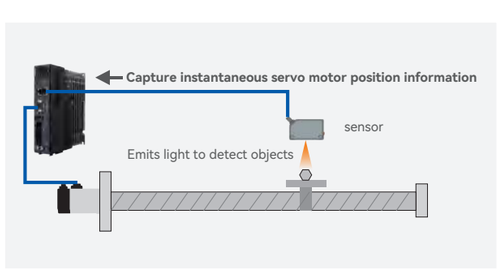
EtherCAT

EL6 Series include cost-effective AC servo drives designed for accurate positioning control. They can power up to 3 kW AC servo motors and are ideal for many OEM applications. Many advanced features are implemented such as MFC, vibration suppression, Multi-mode filter function, etc.

When combined with Leadshine servo motors with 17/23 Bit high resolution encoders, they can provide excellent performance to your control systems.

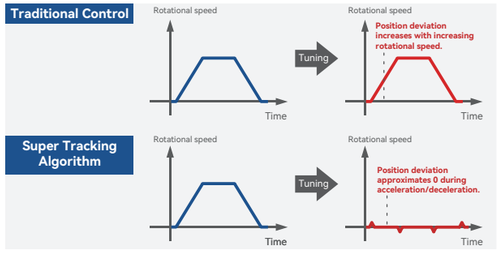
Real-time Position Capture

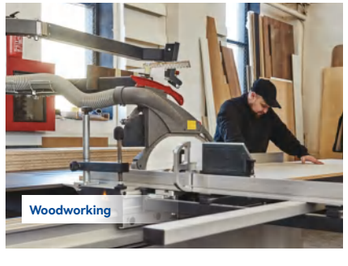
The instantaneous position information of the motor can be acquired and recorded by means of a high speed input signal with probe function.



Zero Tracking Control

Able to realize a zero position deviation during acceleration / deceleration by improving multi-axis precision and following.




Woodworking


Logistics


Robotic Arm

400 W (220 VAC)

- Dimension L*H*W (mm)
  175*156*40 mm
- Rated Output Power
  400 W
- Rated Output Current
  3.5 A
- Maximum Output Current
  9.5 A

750 W / 1 kW (220 VAC)

- Dimension L*H*W (mm)
  175*156*50 mm
- Rated Output Power
  750 W / 1 kW
- Rated Output Current
  5.5 A / 7.0 A
- Maximum Output Current
  16.6 A / 21.0 A

1.5 kW (220 VAC)

- Dimension L*H*W (mm)
  175*183*55 mm
- Rated Output Power
  1.5 kW
- Rated Output Current
  9.5 A
- Maximum Output Current
  31.1 A

2 kW (220 VAC)

- Dimension L*H*W (mm)
  175*183*75 mm
- Rated Output Power
  2 kW
- Rated Output Current
  12 A
- Maximum Output Current
  36 A

ELM1 Series (50-2000 W)

Recommended

- Power Rating
  50-2000 W
- Encoder
  23 Bit Encoder
- Peak Speed
  6000 rpm
- Strong Overload Capacity
  3 Times Overload

220 VAC

1 kW / 1.5 kW / 2 kW (400 VAC)

- Dimension L*H*W (mm)
  175*183*55 mm
- Rated Output Power
  1000 W / 1.5 kW / 2 kW
- Rated Output Current
  3.5 A / 5.4 A / 8.4 A
- Maximum Output Current
  10.6 A / 14.0 A / 24.8 A
- Continuous Input Current
  2.4 A / 3.6 A / 5.6 A

3 kW (400 VAC)

- Dimension L*H*W (mm)
  175*183*75 mm
- Rated Output Power
  3 kW
- Rated Output Current
  11.9 A
- Maximum Output Current
  33.2 A
- Continuous Input Current
  7.9 A

ELM1 Series (750-3000 W)

Recommended

- Power Rating
  750-3000 W
- Encoder
  23 Bit Encoder
- Peak Speed
  6000 rpm
- Strong Overload Capacity
  3 Times Overload

440 VAC

EL6 - EC 400 □ □

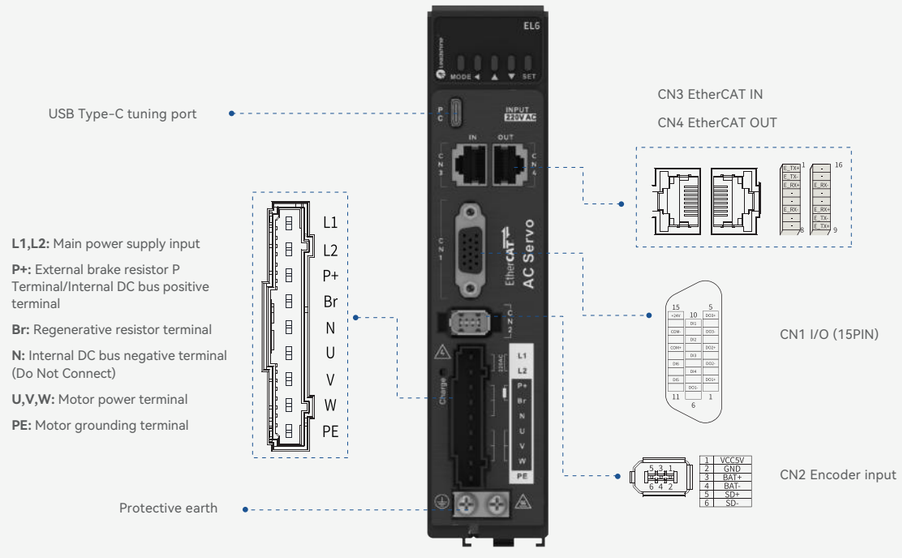
Series Num	
EL6	EL6 Series

Command Source	
EC	EtherCAT

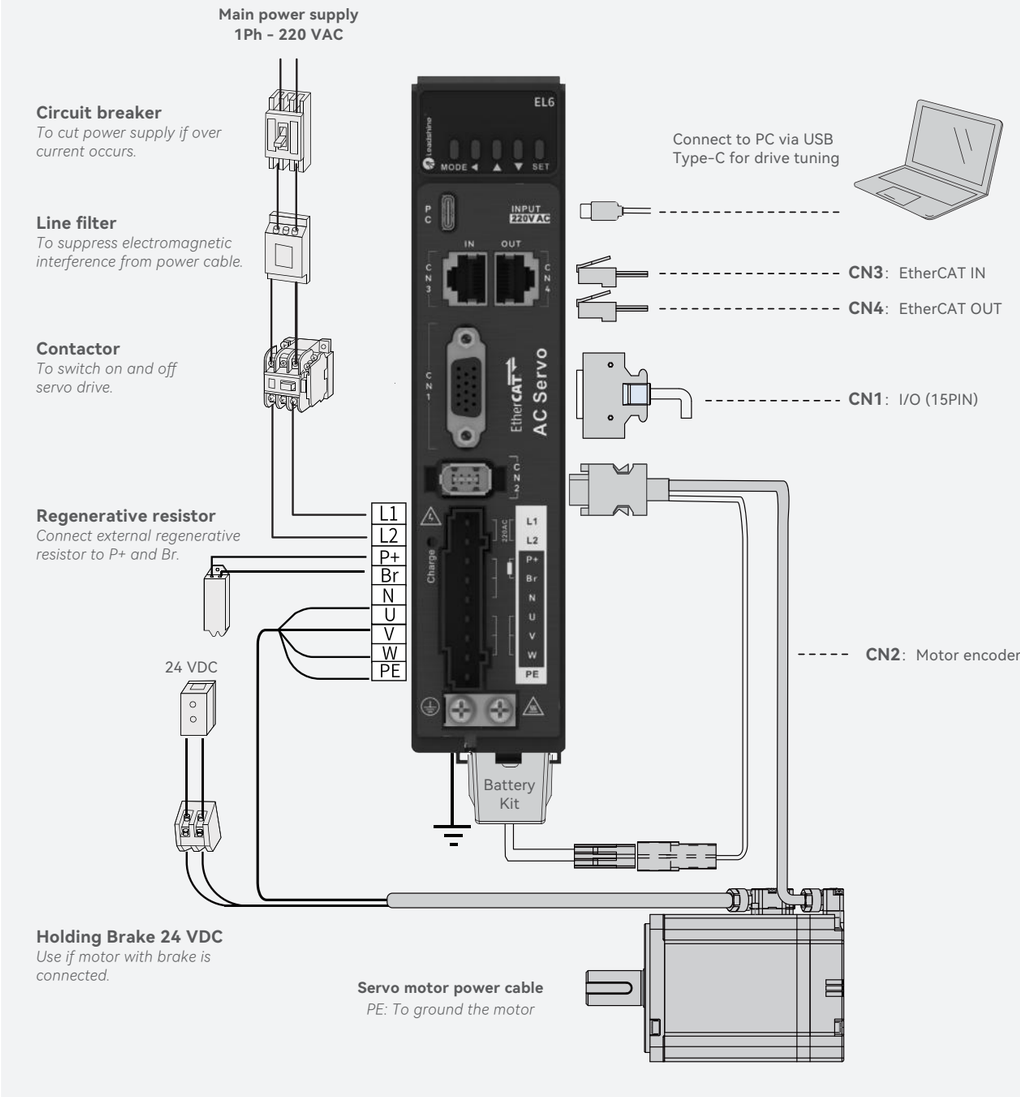
Rated Power			
400	400 W	1500	1500 W
750	750 W	2000	2000 W
1000	1000 W	3000	3000 W

Voltage	
Blank	220 V
T	400 V

Version	
Blank	Standard Version

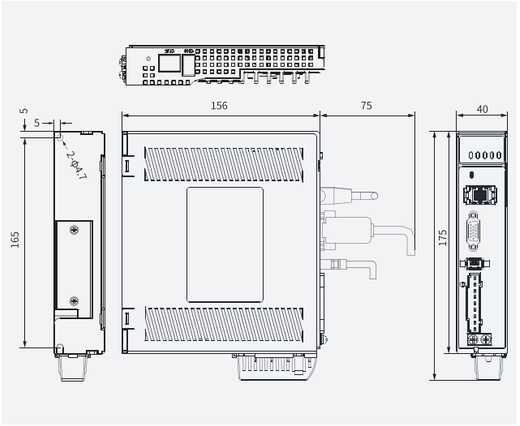


EL6-EC & Peripheral Wiring Diagram

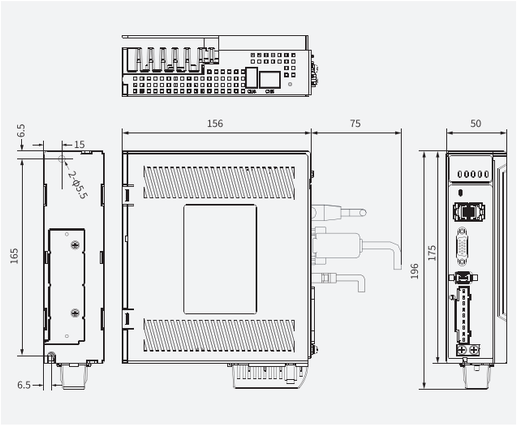


400 W (220 VAC)

Unit: mm

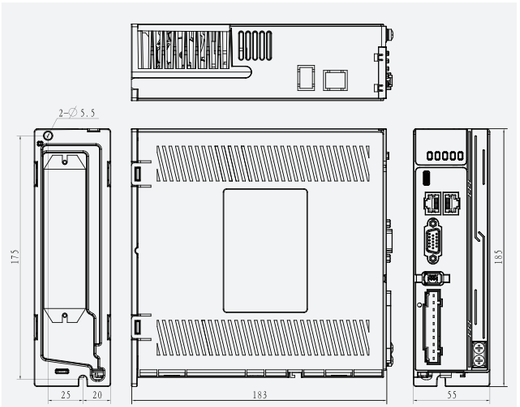


750-1000 W (220 VAC)

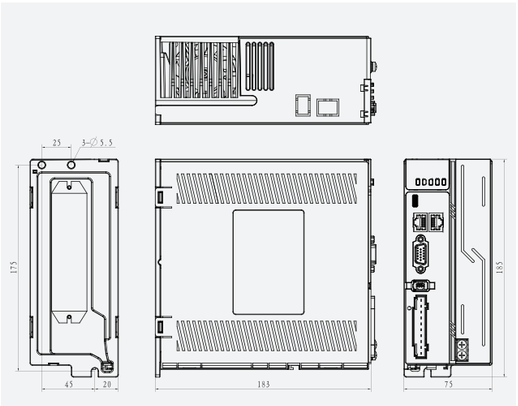


1.5 kW (220 VAC)

Unit: mm

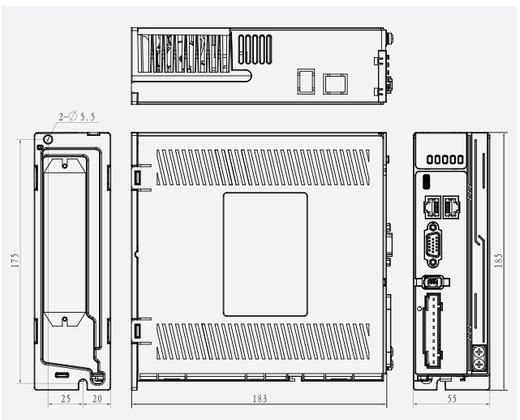


2 kW (220 VAC)

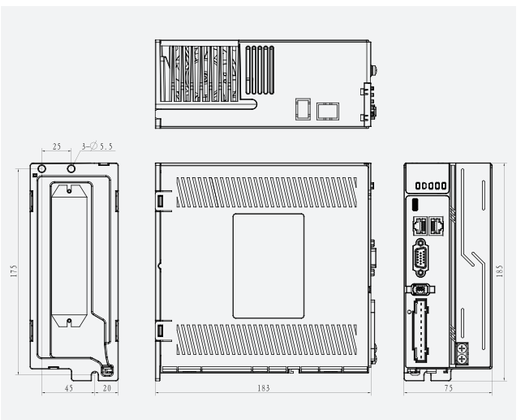


1 kW / 1.5 kW / 2 kW (400 VAC)

Unit: mm



3 kW (400 VAC)



EL6 Series		EL6-EC400	EL6-EC750	EL6-EC1000	EL6-EC1500	EL6-EC2000	EL6-EC1000T	EL6-EC1500T	EL6-EC2000T	EL6-EC3000T
Rated Power		400 W	750 W	1000 W	1500 W	2000 W	1000 W	1500 W	2000 W	3000 W
Rated Output Current (Amps)		3.5	5.5	7.0	9.5	12	3.5	5.4	8.4	11.9
Peak Output Current (Amps)		9.5	16.6	21.0	31.1	36	10.5	14.0	24.8	33.2
Main Power Supply		1Ph AC 200-240 VAC, ±10%, 50/60 Hz,			1Ph/3Ph 200–240 VAC, ±10%, 50/60 Hz		3Ph AC 380-440V, ±10%, 50/60 Hz,			
Control Circuit Power Supply		1Ph AC 200-240 VAC, ±10%, 50/60 Hz,			1Ph AC 200-240 VAC, ±10%, 50/60 Hz,		3Ph AC 380-440V, ±10%, 50/60 Hz,			
Dimension L*H*W (mm)		175*156*40	175*156*50		175*183*55	175*183*75	175*183*55			175*183*75
Regenerative Resistor	Resistance Value (Ω)	None	50	50	50	50	80		80	
	Resistance Power (W)		75	75	100	100	100		100	

Ports	Descriptions
USB Type-C Tuning	Modify or read drive parameters without connecting to main power supply
Digital I/O	4 DI (Supports common anode or cathode connection) DI1 / DI2 / DI3 / DI6 2 sets of DI4 / DI5 probe input， 3 DO (double-ended DO1-DO3)
Communication Port	EtherCAT (RJ45 interface)
Control Mode	
Position	Profile Position Mode (PP)
	Cyclic Synchronous Position Mode (CSP)
	Homing Mode (HM)
Velocity	Profile Velocity Mode (PV)
	Cyclic Synchronous Velocity Mode (CSV)
Torque	Profile Torque Mode (PT)
	Cyclic Synchronous Torque Mode (CST)
Dynamic Brake	Internal dynamic brake
Control Features	
Drive Mode	IGBT SVPWM sinusoidal wave drive
Feedback Method	Encoder: RS485 Protocol
Easy-To-Use	One-click self-tuning, Single-parameter tuning, Super-following function
Suitable Load Inertia	Less than 30 times the motor inertia
Notch Filter	Mechanical resonance suppression. Supports up to 3 filters, 50–4000 Hz
Vibration Suppression	End vibration suppression
Alarm	Overcurrent. Overvoltage. Undervoltage. Overheat. Overload. Overtravel. Main power input phase loss. Regenerative resistor error. Position deviation error. Encoder Feedback error. Excessive braking rate. EEPROM error
Front Panel	5 push buttons, 8-segment display
Software	Drive tuning through **Motion Studio** Ver. 2.x
Dynamic Braking	Built-in dynamic braking
Black Box	Set triggering conditions and analyze the data from black box. Used for error solving
Environmental Requirements	
Temperature	Operating temperature: 0-55℃ (non-frozen) .1.5% derating for every 1℃ of temperature above 45℃ . Storage temperature: -40–80℃ (condensation free) .Do not store over 65℃ for more than 72 hours.
Humidity	Under 90% RH (Condensation free)
Altitude	Max.Altitude up to 2000 m. No derating for use below 1000 m. 1% derating for every 100 m of altitude above 1000 m.
Vibration	Less than 0.5G (4.9 m/s²) 10-60 Hz (non-continuous working)
IP Ratings	IP20

2EL6-EC

Economical AC Servo Drives

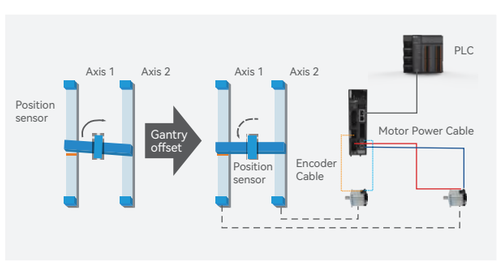
EtherCAT

2EL6-EC Series AC servo products are high performance economical AC digital servos designed for designed for position / velocity / torque high-precision control with Rated Output Power ranging up to 1.5 kW for 220 VAC and 400 VAC models which provides a perfect solution for different applications with easy tuning process.

Gantry Synchronization

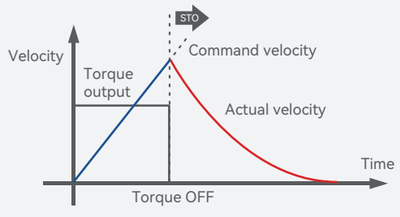
Gantry synchronization MIMO technique, breaking through foreign technological barriers.

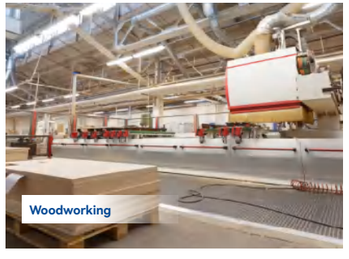
2EL6 series servo drive is able to realize axis synchronization and alignment automatically without input from master device.

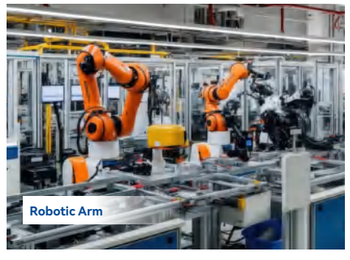


Safe Torque Off

When Safe Torque Off is activated, internal circuit will cut off motor power supply immediately, guaranteeing operator and machine safety.







400 W (220 VAC)

- Dimension L*H*W (mm)
  168*154*48 mm
- Rated Output Power
  400 W
- Rated Output Current
  2.5 A
- Maximum Output Current
  9.1 A

750 W (220 VAC)

- Dimension L*H*W (mm)
  168*154*55 mm
- Rated Output Power
  750 W
- Rated Output Current
  4.3 A
- Maximum Output Current
  16.1 A

1000 W (220 VAC)

- Dimension L*H*W (mm)
  168*183*55 mm
- Rated Output Power
  1000 W
- Rated Output Current
  6.8 A
- Maximum Output Current
  21.0 A

1500 W (220 VAC)

- Dimension L*H*W (mm)
  168*183*75 mm
- Rated Output Power
  1500 W
- Rated Output Current
  8.5 A
- Maximum Output Current
  24.2 A

ELM1 Series (50-1500 W)

Recommended

- Power Rating
  50-1500 W
- Encoder
  23 Bit Encoder
- Peak Speed
  6000 rpm
- Strong Overload Capacity
  3 Times Overload

220 VAC

Part Numbers

2 EL6 - EC 400 □

Axes	
2	2 axis
4	4 axis

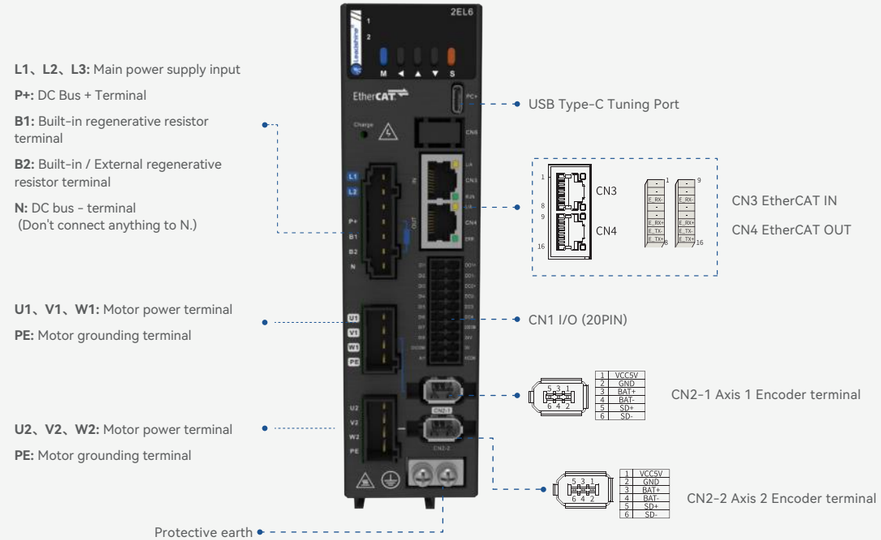
Series Num	
EL6	EL6 Series

Command Source	
EC	EtherCAT

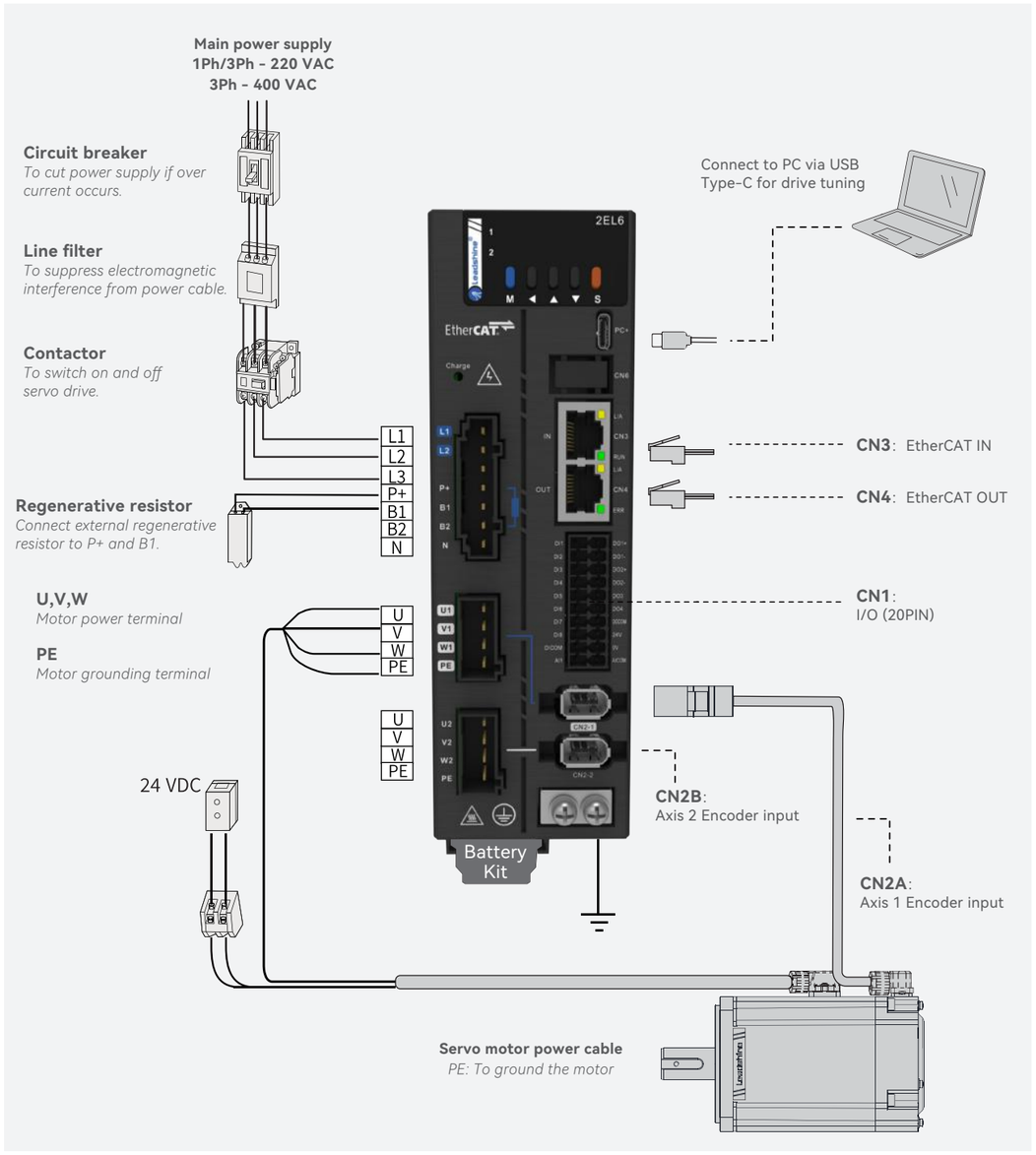
Voltage	
Blank	220 V
T	400 V

Rated Power	
400	400 W
750	750 W
1000	1000 W
1500	1500 W

Ports & Connectors

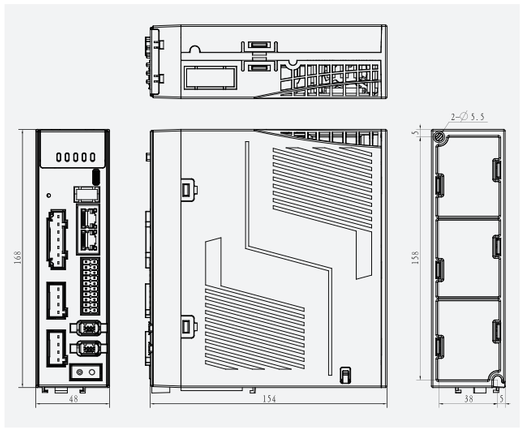


2EL6-EC & Peripheral Wiring Diagram

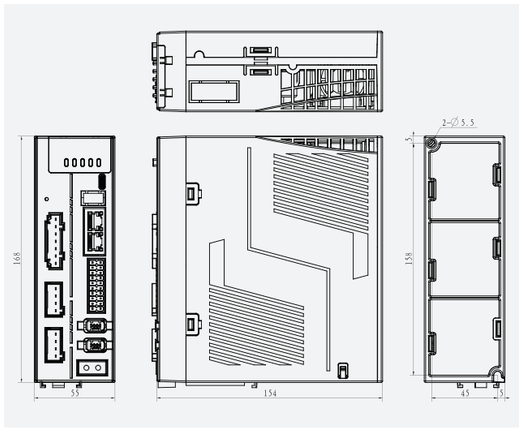


400 W (220 VAC)

Unit: mm

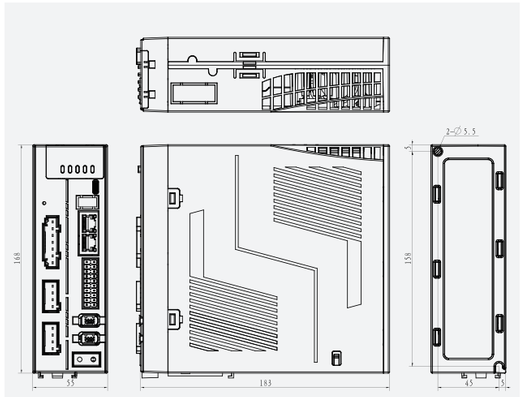


750 W (220 VAC)

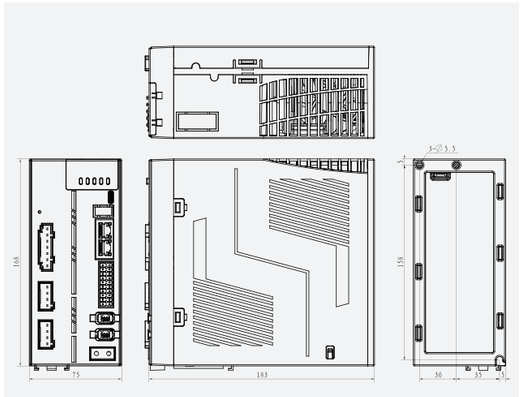


1000 W (220 VAC)

Unit: mm



1500 W (220 VAC)



Specifications

2EL6-EC 220V Models

2EL6-EC series		2EL6-EC400	2EL6-EC750	2EL6-EC1000	2EL6-EC1500
Rated Power		400 W	750 W	1000 W	1500 W
Rated Output Current (Amps)		2.5	4.3	6.8	8.5
Maximum Output Current (Amps)		9.1	16.1	21.0	24.2
Control Circuit Power Supply		1Ph/3Ph 200–240 VAC, ±10%, 50/60 Hz			
Main Power Supply		1Ph/3Ph 200–240 VAC, ±10%, 50/60 Hz			
Regenerative Resistor	Resistance Value (Ω)	None	40	40	40
	Resistance Power (W)		80	80	80
Dimension L*H*W (mm)		168*154*48	168*154*55	168*183*55	168*183*75

Ports	Descriptions
USB Type-C Tuning	Modify or read drive parameters without connecting to main power supply
Digital I/O	Axis 1: DI1, DI3, DI5, DI7 (probe inputs) DO: DO1, DO3
	Axis 2: DI2, DI4, DI6, DI8 (probe inputs) DO: DO2, DO4
	DI4 / DI5 probe inputs
Communication Port	EtherCAT (RJ45 interface)
Control Mode	
Position	Profile Position Mode (PP)
	Cyclic Synchronous Position Mode (CSP)
	Homing Mode (HM)
Velocity	Profile Velocity Mode (PV)
	Cyclic Synchronous Velocity Mode (CSV)
Torque	Profile Torque Mode (PT)
	Cyclic Synchronous Torque Mode (CST)
Control Features	
Drive Mode	IGBT SVPWM sinusoidal wave drive
Encoder Feedback	Encoder: RS485 Protocol
Easy-to-use	One-click tuning, Single parameter tuning, Black box, Zero tracking control
Notch Filter	Mechanical resonance suppression. Supports up to 3 filters, 50–4000 Hz
Vibration Suppression	2 End Vibration suppression
Alarm	Overcurrent. Overvoltage. Undervoltage. Overheat. Overload. Overtravel. Main power input phase loss. Regenerative resistor error. Position deviation error. Encoder Feedback error. Excessive braking rate. EEPROM error
Front Panel	5 push buttons, 8-segment display
Software	Drive tuning through Motion Studio Ver. 2.x.
Dynamic Braking	Built-in dynamic braking
Black Box	Set triggering conditions and analyze the data from black box. Used for error solving
Suitable Load Inertia	Less than 30 times the motor inertia
Environmental Requirements	
Temperature	Operating temperature: 0-55℃ (non-frozen) ; 1.5% derating for every 1℃ of temperature above 45℃ ; Storage temperature: -40–80℃ (condensation free) ; Do not store over 65℃ for more than 72 hours;
Humidity	Under 90% RH (Condensation free)
Altitude	Max.Altitude up to 2000 m; No derating for use below 1000 m; 1% derating for every 100 m of altitude above 1000 m;
Vibration	Less than 0.5G (4.9 m/s²) 10-60 Hz (non-continuous working)
IP Ratings	IP20

EL6-RS

Economical AC Servo Drives

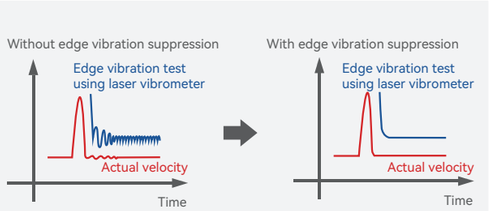
Modbus

EL6 Series include cost-effective AC servo drives designed for accurate positioning control. They can power up to 3 kW AC servo motors and are ideal for many OEM applications. Many advanced features are implemented such as MFC, vibration suppression, Multi-mode filter function, etc.

When combined with Leadshine servo motors with 17/23 Bit high resolution encoders, they can provide excellent performance to your control systems.

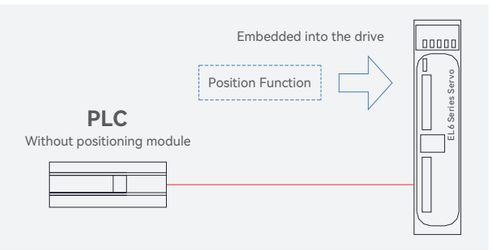
Anti-Vibration Filter

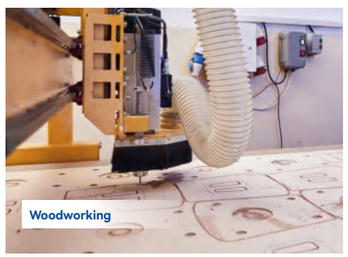
For mechanical equipment with lower stiffness, it is easy to produce low frequency vibration of less than 200 Hz, which can be inhi Bited by mechanical end swing suppression, to realize the high-tempo operation of the equipment.



PR-Mode

EL6-RS series embedded with 16 motion paths that are set up internally, combined with position / velocity / homing / Jog / E-Stop / Limit switch.




Woodworking


Logistics


Robotic Arm

400 W (220 VAC)

- Dimension L*H*W (mm)
  175*156*40 mm
- Rated Output Power
  400 W
- Rated Output Current
  3.5 A
- Maximum Output Current
  9.5 A

750 W / 1 kW (220 VAC)

- Dimension L*H*W (mm)
  175*156*50 mm
- Rated Output Power
  750 W / 1 kW
- Rated Output Current
  5.5 A / 7.0 A
- Maximum Output Current
  16.6 A / 21.0 A

1.5 kW (220 VAC)

- Dimension L*H*W (mm)
  175*183*55 mm
- Rated Output Power
  1.5 kW
- Rated Output Current
  9.5 A
- Maximum Output Current
  31.1 A

2 kW (220 VAC)

- Dimension L*H*W (mm)
  175*183*75 mm
- Rated Output Power
  2 kW
- Rated Output Current
  12 A
- Maximum Output Current
  36 A

ELM1 Series (50-2000 W)

Recommended

- Power Rating
  50-2000 W
- Encoder
  23 Bit Encoder
- Peak Speed
  6000 rpm
- Strong Overload Capacity
  3 Times Overload

220 VAC

EL6 Series Economical AC Servo Drives

1 kW / 1.5 kW / 2 kW (400 VAC)

- Dimension L*H*W (mm)
  175*183*55 mm
- Rated Output Power
  1000 W / 1.5 kW / 2 kW
- Rated Output Current
  3.5 A / 5.4 A / 8.4 A
- Maximum Output Current
  10.6 A / 14.0 A / 24.8 A
- Continuous Input Current
  2.4 A / 3.6 A / 5.6 A

3 kW (400 VAC)

- Dimension L*H*W (mm)
  175*183*75 mm
- Rated Output Power
  3 kW
- Rated Output Current
  11.9 A
- Maximum Output Current
  33.2 A
- Continuous Input Current
  7.9 A

ELM1 Series (750-3000 W)

Recommended

- Power Rating
  750-3000 W
- Encoder
  23 Bit Encoder
- Peak Speed
  6000 rpm
- Strong Overload Capacity
  3 Times Overload

440 VAC

EL6 - RS 750 P □

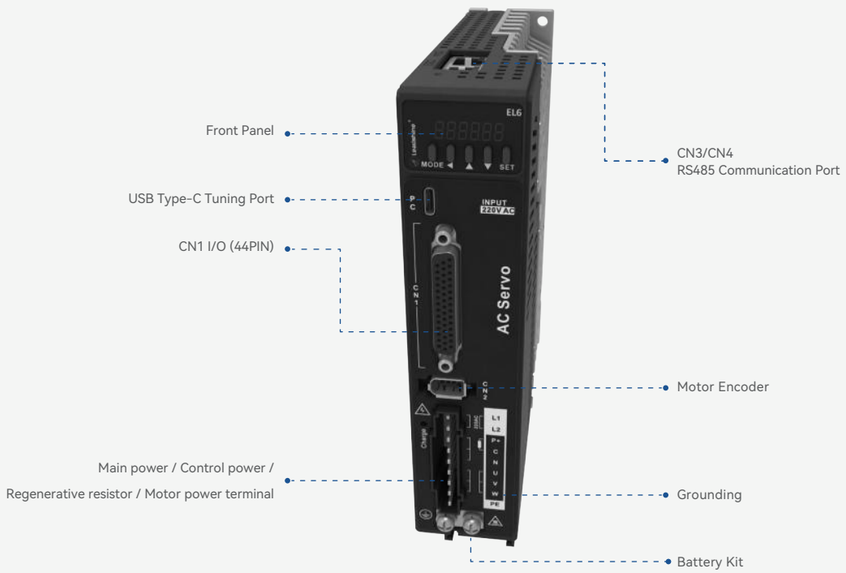
Series Num	
EL6	EL6 Series

Command Source	
RS	Modbus RTU / Pulse+Direction

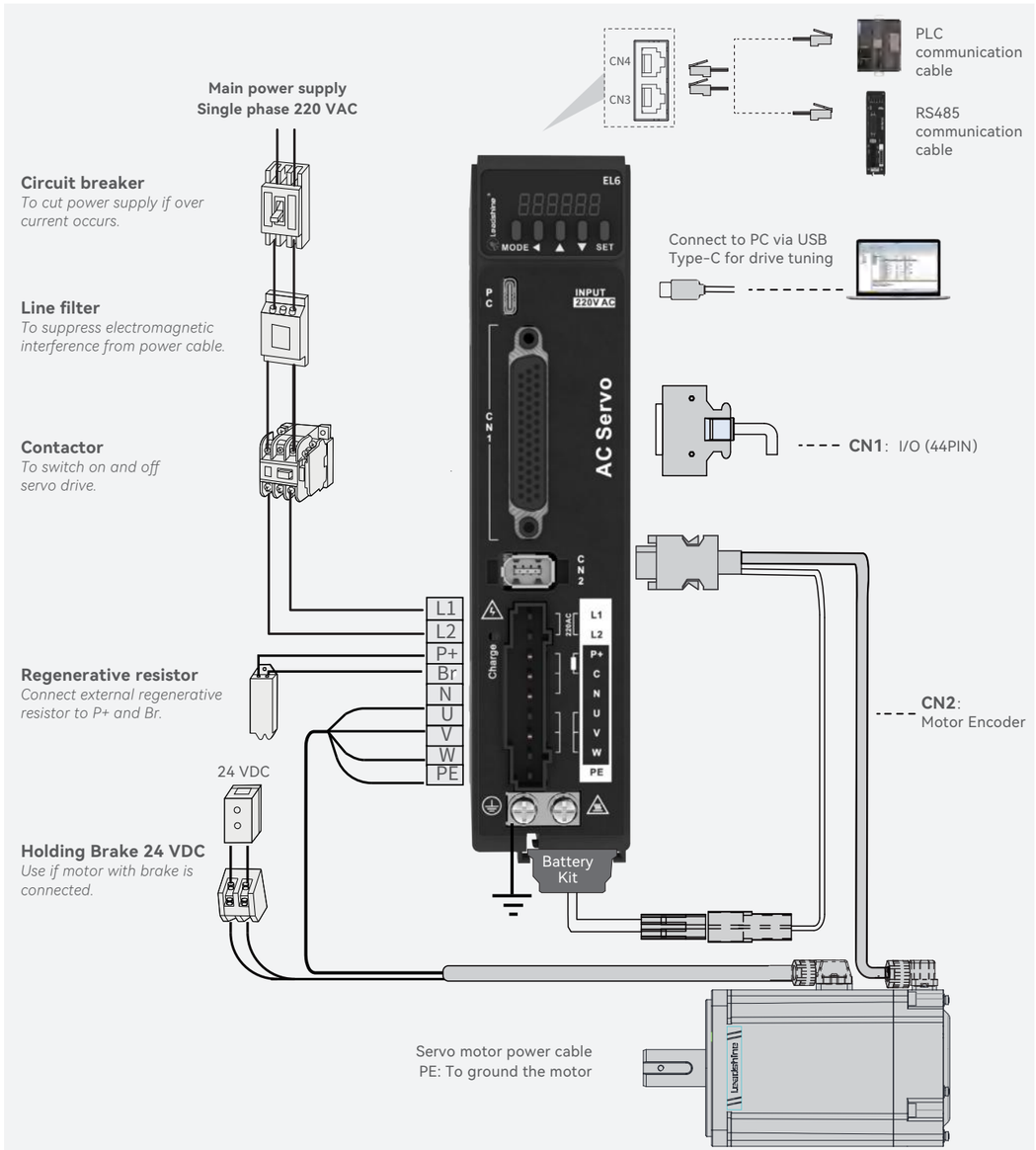
Rated Power			
400	400 W	1500	1500 W
750	750 W	2000	2000 W
1000	1000 W	3000	3000 W

Voltage	
Blank	220 V
T	400 V

Version	
P	Full functions without STO



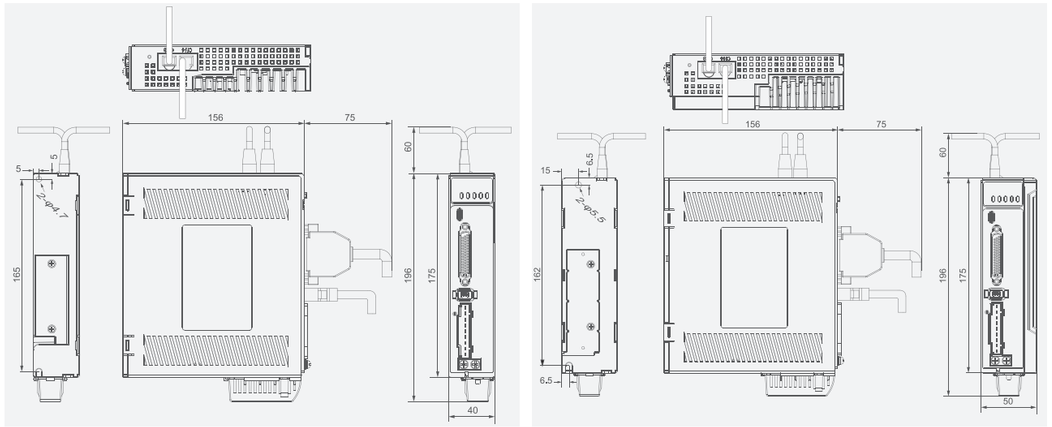
EL6-RS & Peripheral Wiring Diagram



400 W (220 VAC)

750-1000 W (220 VAC)

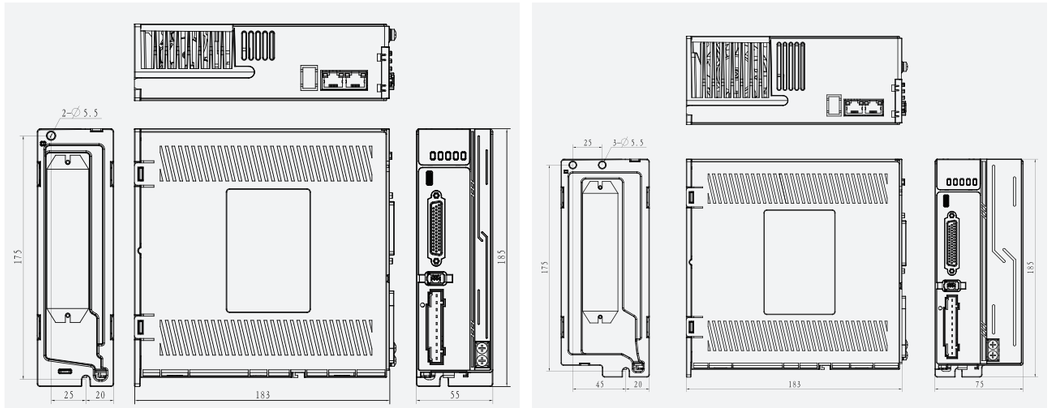
Unit: mm



1.5 kW (220 VAC)

2 kW (220 VAC)

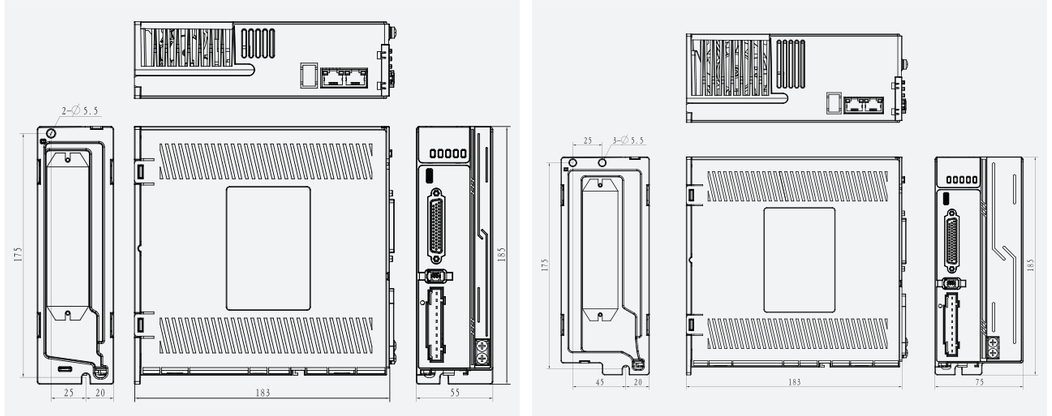
Unit: mm



1 kW / 1.5 kW / 2 kW (400 VAC)

3 kW (400 VAC)

Unit: mm



EL6 Series		EL6-RS400P	EL6-RS750P	EL6-RS1000P	EL6-RS1500P	EL6-RS2000P	EL6-RS1000PT	EL6-RS1500PT	EL6-RS2000PT	EL6-RS3000PT
Rated Power		400 W	750 W	1000 W	1500 W	2000 W	1000 W	1500 W	2000 W	3000 W
Rated Output Current (Amps)		3.5	5.5	7.0	9.5	12	3.5	5.4	8.4	11.9
Peak Output Current (Amps)		9.5	16.6	21.0	31.1	36	10.5	14.0	24.8	33.2
Main Power Supply		1Ph AC 200-240 VAC, ±10%, 50/60 Hz			1Ph/3Ph 200-240 VAC, ±10%, 50/60 Hz		3Ph AC 380-440V, ±10%, 50/60 Hz			
Control Circuit Power Supply		1Ph AC 200-240 VAC, ±10%, 50/60 Hz			1Ph AC 200-240 VAC, ±10%, 50/60 Hz		3Ph AC 380-440V, ±10%, 50/60 Hz			
Dimension L*H*W (mm)		175*156*40	175*156*50		175*183*55	175*183*75	175*183*55			175*183*75
Regenerative Resistor	Resistance Value (Ω)	None	50	50	50	50	80		80	
	Resistance Power (W)		75	75	100	100	100		100	

Ports	Descriptions
USB Type-C Tuning	Modify or read drive parameters without connecting to main power supply
Low-Speed Pulse Input	5 V differential signal, 0-500 kHz 24 V single ended signal, 0-200 kHz
High-Speed Pulse Input	5 V differential signal, 0-4 MHz
Frequency Division Output	Supports phase A / B / Z differential frequency division output Supports phase Z open collector frequency division output
Digital I/O	8 Digital Inputs (Supports common anode or cathode connection) DI1-DI8
	5 Digital outputs (double-ended) DO1-DO5
Communication Port	RS485 communication, Modbus RTU protocol (RJ45 port)
Control Mode	
Control	1. External pulse train position control 2. JOG control 3. Velocity control 4. Torque control 5. Hybrid control: Position-Torque / Position-Velocity / Velocity-Torque
Control Features	
Drive Mode	IGBT SVPWM sinusoidal wave drive
Feedback Method	Encoder: RS485 Protocol
Easy-To-Use	One-click tuning, Single parameter tuning, Black box, Zero tracking control
Notch Filter	Mechanical resonance suppression. Supports up to 3 filters, 50–4000 Hz
Vibration Suppression	End vibration suppression
Alarm	Overcurrent. Overvoltage. Undervoltage. Overheat. Overload. Overtravel. Main power input phase loss. Regenerative resistor error. Position deviation error. Encoder Feedback error. Excessive braking rate. EEPROM error
Front Panel	5 push buttons, 5-segments display
Software	Drive tuning through **Motion Studio** Ver. 2.x
Dynamic Brake	Internal dynamic brake
Black Box	Set triggering conditions and analyze the data from black box. Used for error solving
Environmental Requirements	
Temperature	Storage: -20-80℃ (Condensation free) ; Do not store above 65℃ for more than 72 hours if stored in over 65℃ Installation: 0-55℃ (Not frozen) ; Lower performance at over 45℃
Humidity	Under 90% RH (Condensation free)
Altitude	Max. altitude of 2000 m; 100% performance at 1000 m or below. Performance decreases by 1% with every increase of 100 m from 1000m.
Vibration	Less than 0.5G (4.9 m/s²) 10-60 Hz (non-continuous working)
IP Ratings	IP20

EL6-CAN

Economical AC Servo Drives

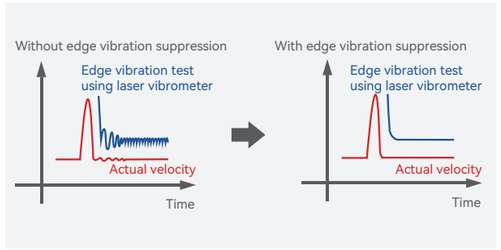
CANopen

The EL6-CAN series consists of cost-effective AC servo drives of CANopen protocol designed for accurate control. They can power up to 1 kW AC servo motors and are ideal for many OEM applications. Many advanced features are implemented such as MFC, vibration suppression, multi filter functions, etc.

When combined with Leadshine servo motors with 17 Bit or 23 Bit high resolution encoder, they can provide excellent performance to your control systems.

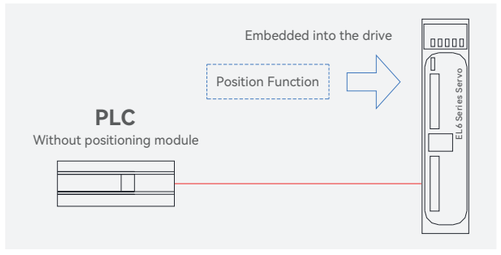
Anti-Vibration Filter

For mechanical equipment with lower stiffness, it is easy to produce low frequency vibration of less than 200 Hz, which can be inhi Bited by mechanical end swing suppression, to realize the high-tempo operation of the equipment.

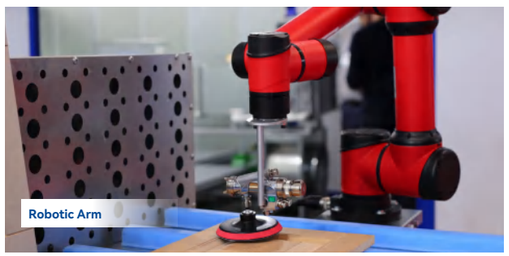


PR-Mode

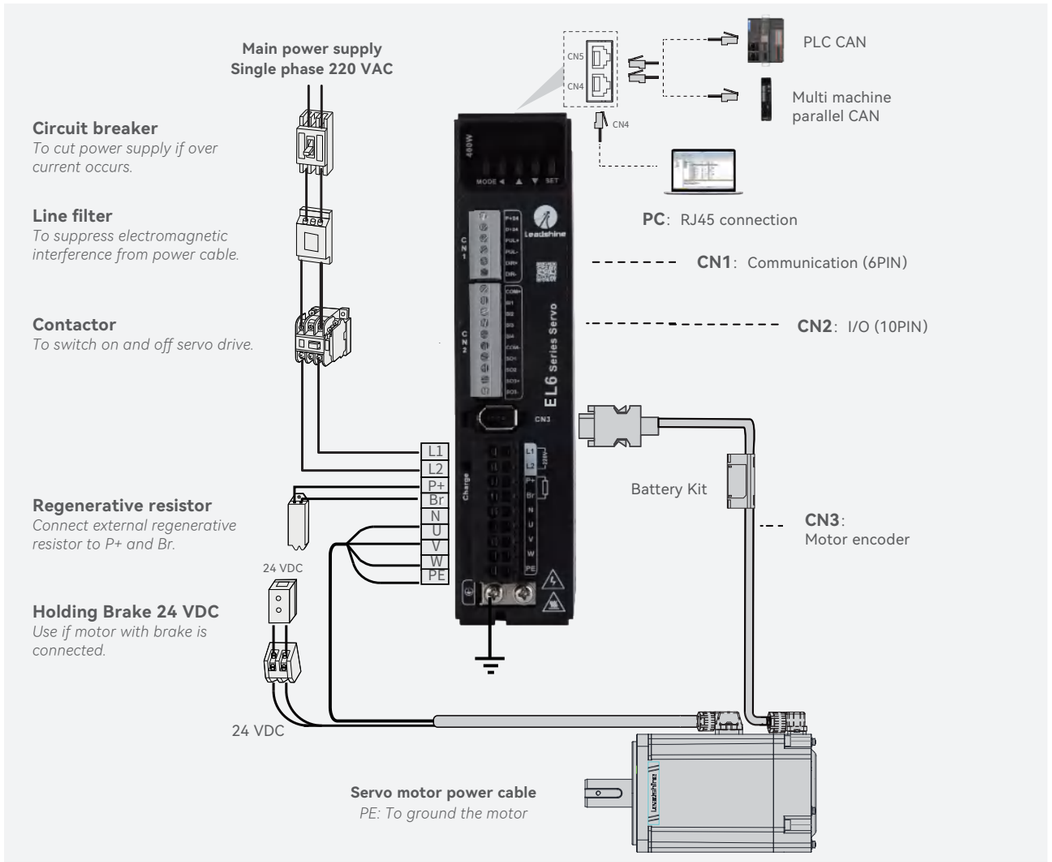
EL6-CAN series embedded with 16 motion paths that are set up internally, combined with position / velocity / homing / Jog / E-Stop / Limit switch.




Logistics


Robotic Arm

EL6-CAN & Peripheral Wiring Diagram



Part Numbers

EL6 - CAN 400 Z

Series Num	
EL6	EL6 Servo drive series

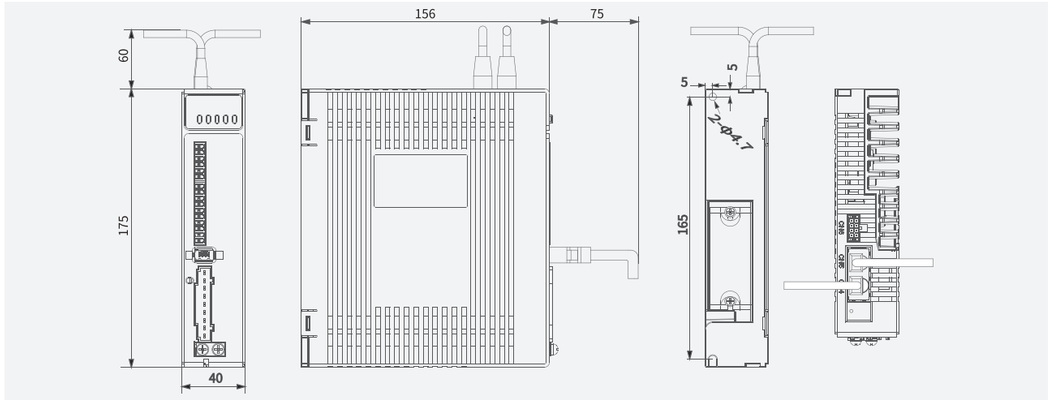
Command Source	
CAN	CANopen

Version	
Z	Standard Version

Rated Power	
400	400 W
750	750 W
1000	1000 W

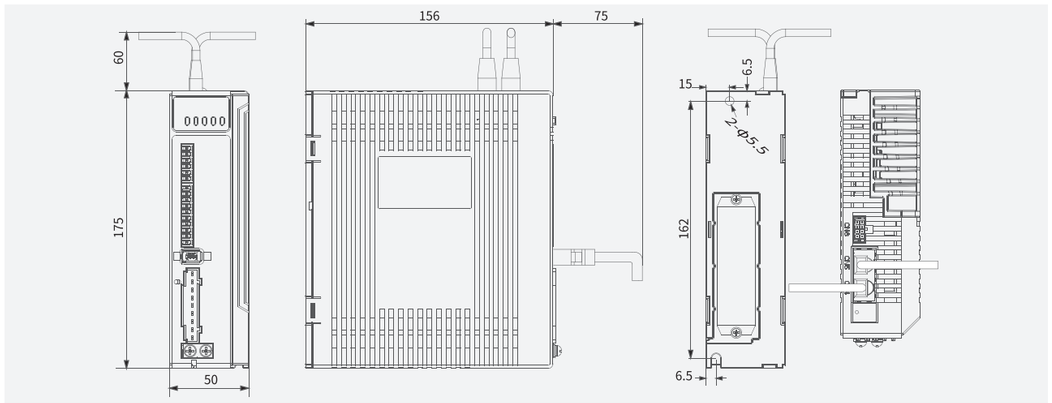
400 W (220 VAC)

Unit: mm



750 W / 1000 W (220 VAC)

Unit: mm



Specifications

EL6-CAN 220V Models

EL6-CAN Series Drive	EL6-CAN400Z	EL6-CAN750Z	EL6-CAN1000Z
Rated Output Power	400 W	750 W	1000 W
Rated Output Current (Amps)	3.0	5.5	7.5
Maximum Output Current (Amps)	9.2	16.6	18.7
Control Circuit Power Supply	1Ph/3Ph 200–240 VAC, ±10%, 50/60 Hz		
Main Power Supply			
Dimension L*H*W (mm)	175*156*40	175*156*50	

Ports	Descriptions
RJ45 Tuning	Modify or read drive parameters
Digital I/O	4 Digital Inputs (Supports common anode or cathode connection) DI1-DI4
	3 Digital outputs (2 Single-ended, 1 double-ended)
Communication Port	CANopen protocol (RJ45 port)
Control Mode	
Control	1. Profile Position Mode 2. Profile Velocity Mode 3. Profile Torque Mode 4. Homing Mode
Control Features	
Drive Mode	IGBT SVPWM sinusoidal wave drive
Feedback Method	Encoder: RS485 Protocol
Notch Filter	Mechanical resonance suppression. Supports up to 3 filters, 50–4000 Hz
Vibration Suppression	End vibration suppression
Alarm	Overcurrent. Overvoltage. Undervoltage. Overheat. Overload. Overtravel. Main power input phase loss. Regenerative resistor error. Position deviation error. Encoder Feedback error. Excessive braking rate. EEPROM error
Front Panel	5 push buttons, 5-segments display
Software	Drive tuning through **Motion Studio** Ver. 2.x
Dynamic Brake	Internal dynamic brake
Regenerative Resistor	No internal regeneration resistor
Environmental Requirements	
Temperature	Storage: -20–80℃ (Condensation free) Do not store above 65℃ for more than 72 hours if stored in over 65℃ Installation: 0–55℃ (Not frozen) ; Lower performance at over 45℃
Humidity	Under 90% RH (Condensation free)
Altitude	Max. altitude of 2000 m; 100% performance at 1000 m or below. Performance decreases by 1% with every increase of 100 m from 1000 m.
Vibration	Less than 0.5G (4.9 m/s^2) 10-60 Hz (non-continuous working)
IP Ratings	IP20

Leadshine

ELM1 / ELM2 Series

AC Servo Motors

Feature:

Rated Output Power: 30-22000 W
Voltage: 220/400 VAC
Encoder: 23 Bit encoder
Optional accessory: brake
Frame size: 25 mm, 40 mm, 60 mm, 80 mm, 100 mm, 130 mm, 180 mm, 200 mm,

ELM1 Series

23 Bit magnetic encoder
Power: 50-1800 W

ELM2 Series

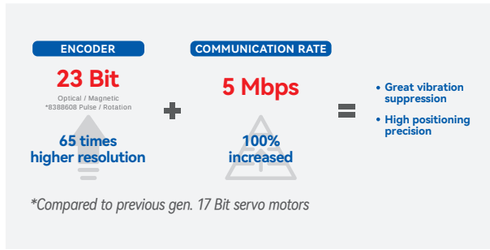
23 Bit optical encoder
Power: 30-22000 W

Overview

Precision positioning

High inertia, high torque with overloading up to 350%, rotational speed up to 6500 rpm with acceleration at the max. of 2g.

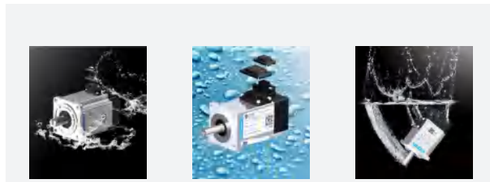
Positioning accuracy of 0.02 mm and precision of 0.01 mm thanks to 3.2 kHz frequency response and 5 Mbps communication rate.



High quality servo motor

IP rating of IP67 with better performance and reliability.

Motor comes with direct connectors which is easier for installation and more reliable.

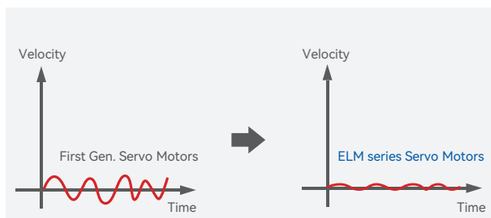


Servo motor

Better reliability with IP Ratings of IP67 in addition to higher max. speed / torque and overload rate up to 350%.

Better motor stability

Improving the stability of high and low velocity motion by 30%.



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 Ratio	
L	Low
M	Medium
H	High

(3) Rated Output Power			
0030	30 W	0050	50 W
0100	100 W	0200	200 W
0400	400 W	0750	750 W
0850	850 W	1300	1300 W
1800	1800 W	1500	1500 W
2000	2000 W	2900	2900 W
3000	3000 W	3800	3800 W
4000	4000 W	4400	4400 W
5000	5000 W	7000	7000 W
7500	7500 W	11000	11000 W
15000	15000 W	18500	18500 W
22000	22000 W		

(4) Encoder Type	
D	17 Bit optical
F	17 Bit magnetic
K	23 Bit optical battery-less
L	23 Bit optical multi-turn
M	23 Bit magnetic multi-turn
N	26 Bit optical multi-turn
P	21 Bit optical multi-turn

(5) Rated Speed			
A	3000 rpm	B	2500 rpm
C	2000 rpm	D	1500 rpm
E	1000 rpm		

(6) Frame Size	
25	25 mm
40	40 mm
60	60 mm
80	80 mm
100	100 mm
130	130 mm
180	180 mm
200	200 mm

(7) Motor Type	
E	With brake，oil seal
F	No brake，oil seal

(8) Voltage	
Blank	220 VAC
T	400 VAC

(9) Connect type	
Blank	Direct connector
H	Aviation connector-H

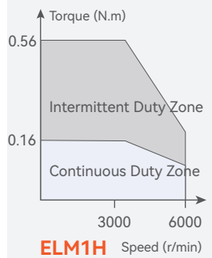
40 mm Frame Size & 50-100 W

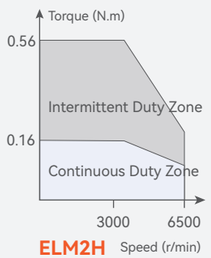
220 VAC

Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Amps)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM1H-0050MA40E	□ 40	√	220	50	3000	6000	0.16	0.56	0.93	3.39	78	54	23 Bit magnetic encoder	0.046	0.44
ELM1H-0050MA40F		×												0.036	0.28
ELM1H-0100MA40E		√		100			0.32	1.11	0.92	3.36				0.072	0.54
ELM1H-0100MA40F		×												0.062	0.38
ELM2H-0050LA40E		√		50		6500	0.16	0.56	0.93	3.39			23 Bit optical encoder	0.046	0.44
ELM2H-0050LA40F		×												0.036	0.28
ELM2H-0100LA40E		√		100			0.32	1.11	0.92	3.36				0.072	0.54
ELM2H-0100LA40F		×												0.062	0.38
ELM2L-0100LA40E		√		100			0.32	1.12	1.18	4.13				0.042	0.54
ELM2L-0100LA40F		×												0.032	0.38

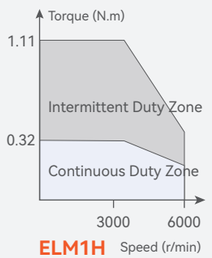
Speed-Torque characteristics

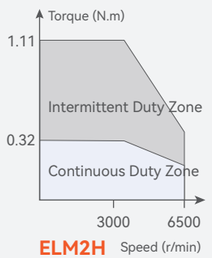
50 W Motor

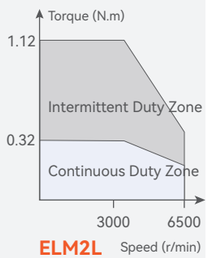




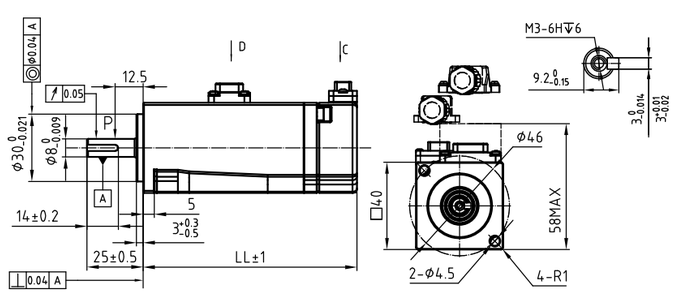
100 W Motor







Dimensions

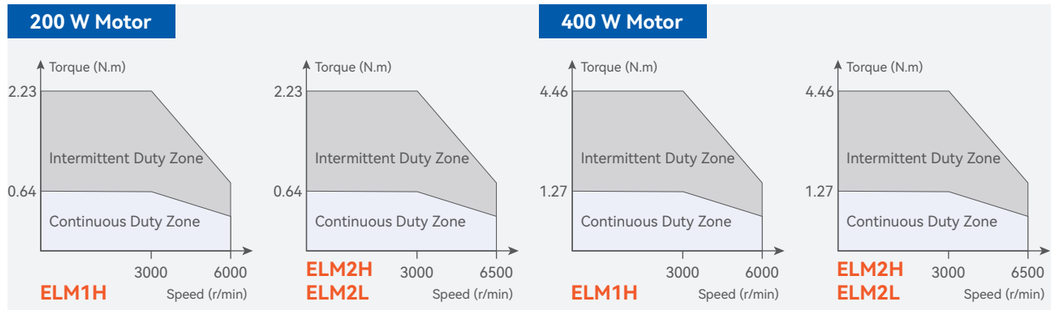


Motor Model	LL
ELM*H-0050*A40E	84
ELM*H-0050*A40F	56.7
ELM**-0100*A40E	95
ELM**-0100*A40F	67.7

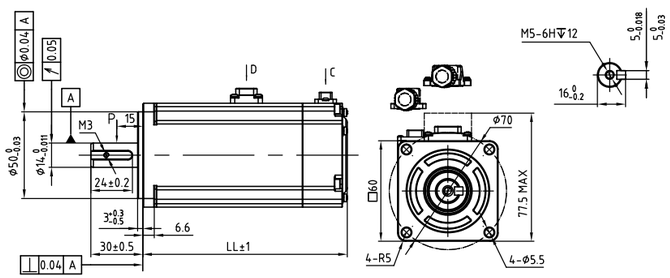
60 mm Frame Size & 200-400 W

Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Amps)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM1H-0200MA60E	□ 60	√	220	200	3000	6000	0.64	2.23	1.5	5.4	245	74	23 Bit magnetic encoder	0.3	1.3
ELM1H-0200MA60F		×												0.28	1.0
ELM1H-0400MA60E		√		400			1.27	4.46	2.1	7.6				0.58	1.55
ELM1H-0400MA60F		×												0.56	1.3
ELM2H-0200LA60E		√		200		6500	0.64	2.23	1.5	5.4	245	74	23 Bit optical encoder	0.3	1.3
ELM2H-0200LA60F		×												0.28	1.0
ELM2H-0400LA60E		√		400			1.27	4.46	2.1	7.6				0.58	1.55
ELM2H-0400LA60F		×												0.56	1.3
ELM2L-0200LA60E		√		200			0.64	2.23	1.5	5.7	245	74		0.15	1.2
ELM2L-0200LA60F		×												0.14	0.85
ELM2L-0400LA60E		√		400			1.27	4.46	2.4	9.1				0.26	1.54
ELM2L-0400LA60F		×												0.25	1.19

Speed-Torque characteristics



Dimensions

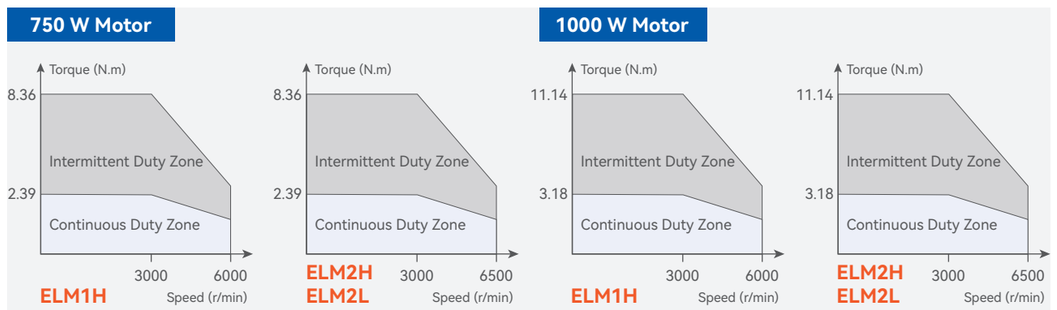


Motor Model	LL
ELM**-0200*A60E	101.1
ELM**-0200*A60F	71.8
ELM**-0400*A60E	118.1
ELM**-0400*A60F	88.8

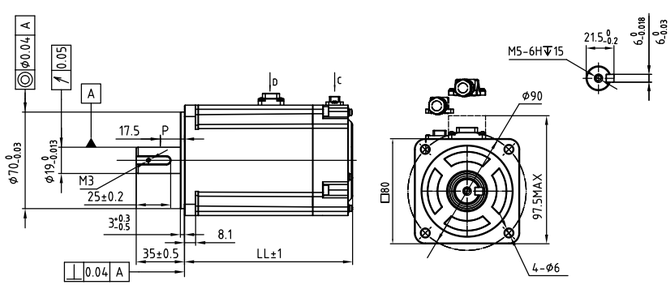
80 mm Frame Size & 750-1000 W

Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Amps)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM1H-0750MA80E	□ 80	√	220	750	3000	6000	2.39	8.36	4.1	15.4	392	147	23 Bit magnetic encoder	1.65	2.7
ELM1H-0750MA80F		×												1.5	2.12
ELM1H-1000MA80E		√		1000			3.18	11.14	5.7	21				2.15	3.4
ELM1H-1000MA80F		×												2.0	2.8
ELM2H-0750LA80E		√		750		6500	2.39	8.36	4.1	15.4			23 Bit optical encoder	1.65	2.7
ELM2H-0750LA80F		×												1.5	2.12
ELM2H-1000LA80E		√		1000			3.18	11.14	5.7	21				2.15	3.4
ELM2H-1000LA80F		×												2.0	2.8
ELM2L-0750LA80E		√		750			2.39	8.36	4.2	16.1				0.79	2.74
ELM2L-0750LA80F		×												0.77	2.12
ELM2L-1000LA80E		√		1000			3.18	11.14	5.7	21.9				1.02	3.17
ELM2L-1000LA80F		×												1	2.56

Speed-Torque characteristics



Dimensions



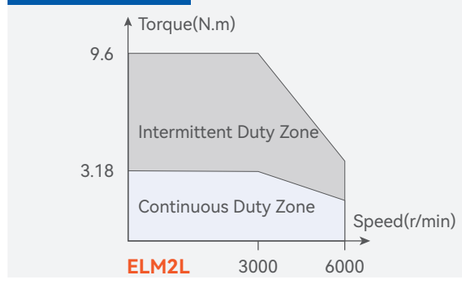
Motor Model	LL
ELM**-0750*A80E	121.9
ELM**-0750*A80F	90.9
ELM**-1000*A80E	134.9
ELM**-1000*A80F	103.9

100 mm Frame Size & 1000-1500 W

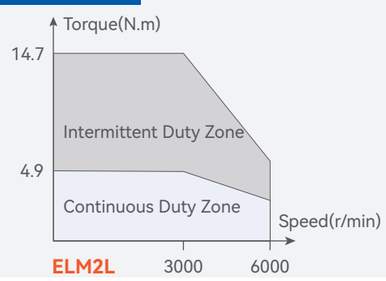
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Amps)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM2L-1000LA100E-HMS10A	□ 100	√	220	1000	3000	6000	3.18	9.6	6.4	20	686	196	23 Bit optical encoder	2.24	4.6
ELM2L-1000LA100F-HMS10A		×												1.92	3.7
ELM2L-1500LA100E-HMS10A		√		1500		6000	4.9	14.7	8.9	27.6				3.02	5.5
ELM2L-1500LA100F-HMS10A		×												2.7	4.6

Speed-Torque characteristics

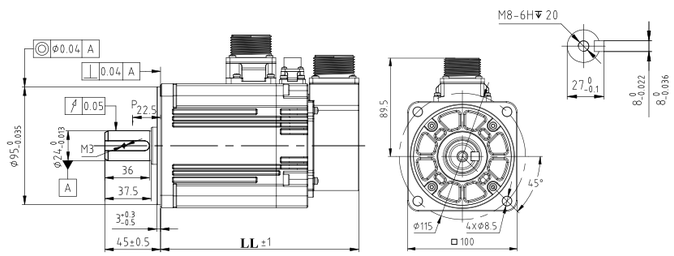
1000 W Motor



1500 W Motor



Dimensions



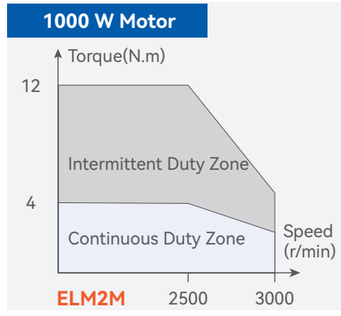
Motor Model	LL
ELM2L-1000LA100E-H	160
ELM2L-1000LA100F-H	140
ELM2L-1500LA100E-H	178.2
ELM2L-1500LA100F-H	158.2

130 mm Frame Size & 1000-2000 W

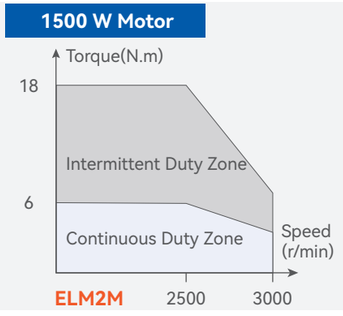
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Amps)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM2M-1000LB130E-HMS1HB	□ 130	√	220	1000	2500	3000	4	12	5.06	15.2	490	98	23 Bit optical encoder	14.8	6.9
ELM2M-1000LB130F-HMS1HB		×												12.5	5.5
ELM2M-1500LB130E-HMS1HB		√		1500			6	18	7.6	20.4				14.8	6.9
ELM2M-1500LB130F-HMS1HB		×												12.5	5.5
ELM2M-2000LB130E-HMS1HB		√		2000			7.7	22	8.95	22.55				21	8.6
ELM2M-2000LB130F-HMS1HB		×												18.7	7.3

Speed-Torque characteristics

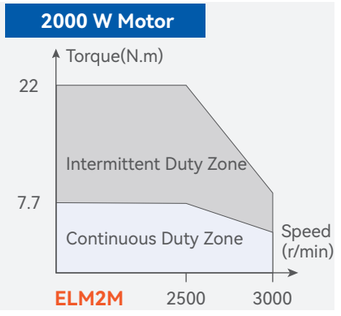
1000 W Motor



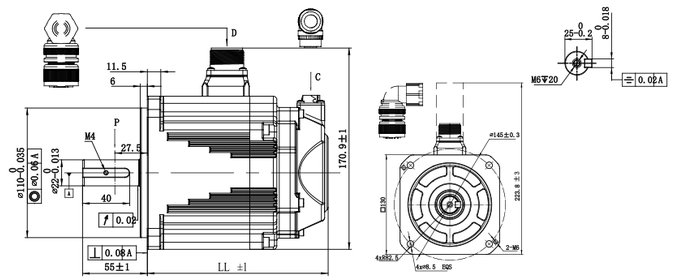
1500 W Motor



2000 W Motor



Dimensions



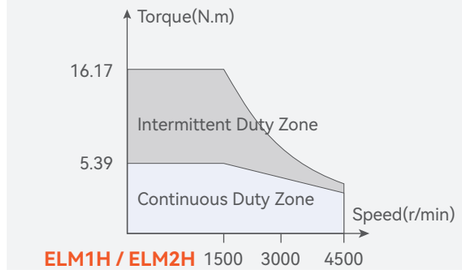
Motor Model	LL
ELM2M-1000LB130E-H MS1HB	163.7
ELM2M-1000LB130F-H MS1HB	136.2
ELM2M-1500LB130E-H MS1HB	163.7
ELM2M-1500LB130F-H MS1HB	136.2
ELM2M-2000LB130E-H MS1HB	181.7
ELM2M-2000LB130F-H MS1HB	154.2

130 mm Frame Size & 850-1800 W

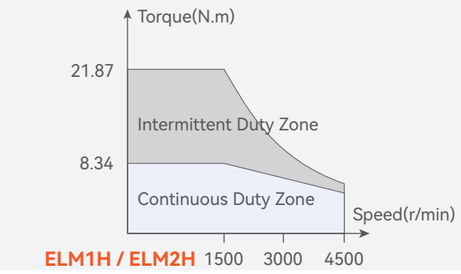
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Amps)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM1H-0850MD130E-H	□ 130	√	220	850	1500	4500	5.39	16.17	6.8	20.4	686	196	23 Bit magnetic encoder	14.8	6.9
ELM1H-0850MD130F-H		×												12.5	5.5
ELM1H-1300MD130E-H		√		1300			8.34	21.87	9.3	24.4				21	8.6
ELM1H-1300MD130F-H		×												18.7	7.3
ELM1H-1800MD130E-H		√		1800			11.5	31.4	11.2	30.5				26.1	10.2
ELM1H-1800MD130F-H		×												23.8	8.8
ELM1M-1500MA130E-H		√		1500	3000	5500	4.9	12.5	6.8	17.1	490	98		14.8	6.9
ELM1M-1500MA130F-H		×												12.5	5.5
ELM2H-0850LD130E-H		√		850	1500	4500	5.39	16.17	6.8	20.4	686	196	23 Bit optical encoder	14.8	6.9
ELM2H-0850LD130F-H		×												12.5	5.5
ELM2H-1300LD130E-H		√		1300			8.34	21.87	9.3	24.4				21	8.6
ELM2H-1300LD130F-H		×												18.7	7.3
ELM2H-1800LD130E-H		√		1800			11.5	31.4	11.2	32.1				26.1	10.2
ELM2H-1800LD130F-H		×												23.8	8.8

Speed-Torque characteristics

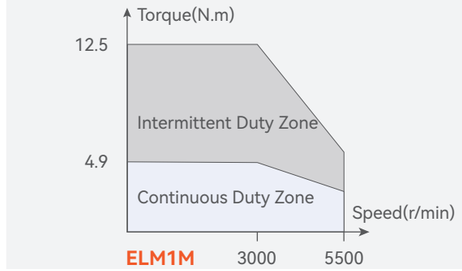
850 W Motor



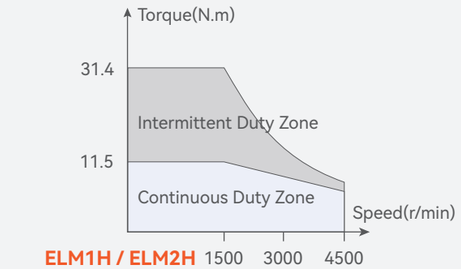
1300 W Motor



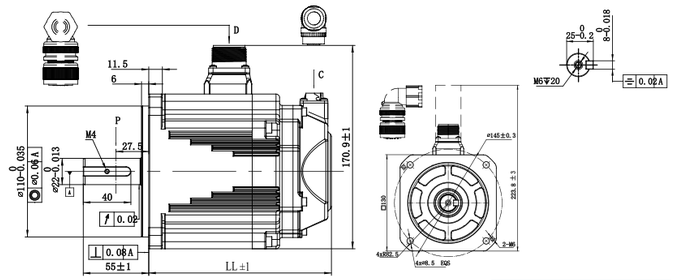
1500 W Motor



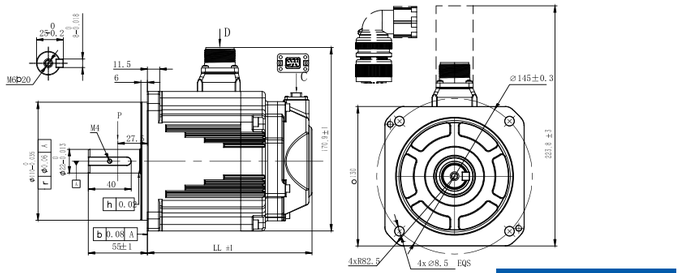
1800 W Motor



Dimensions



ELMIH



ELM2H

Motor Model	LL
ELM1H-0850MD130E-H	153.5
ELM1H-0850MD130F-H	126
ELM1H-1300MD130E-H	171.5
ELM1H-1300MD130F-H	144
ELM1H-1800MD130E-H	189.5
ELM1H-1800MD130F-H	162
ELM1M-1500MA130E-H	153.5
ELM1M-1500MA130F-H	126
ELM2H-0850LD130E-H	163.7
ELM2H-0850LD130F-H	136.2
ELM2H-1300LD130E-H	181.7
ELM2H-1300LD130F-H	154.2
ELM2H-1800LD130E-H	199.7
ELM2H-1800LD130F-H	172.2

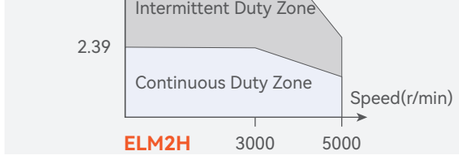
80 mm Frame Size & 750-1000 W

400 VAC

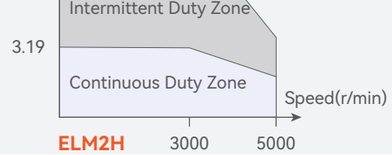
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Amps)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM2H-0750LA80ET	□ 80	√	400	750	3000	5000	2.39	7.17	2.7	8.8	392	147	23 Bit optical encoder	1.65	2.7
ELM2H-0750LA80FT		×												1.5	2.12
ELM2H-1000LA80ET		√		1000			3.19	9.56	4	12.4				2.15	3.4
ELM2H-1000LA80FT		×												2.0	2.8

Speed-Torque characteristics

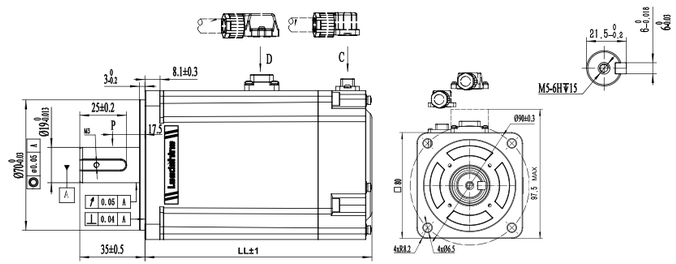
750 W Motor



1000 W Motor



Dimensions



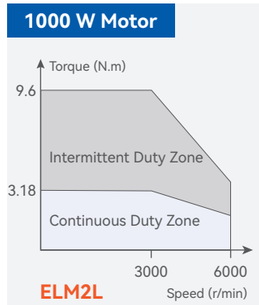
Motor Model	LL
ELM2H-0750LA80ET	121.9
ELM2H-0750LA80FT	90.9
ELM2H-1000LA80ET	134.9
ELM2H-1000LA80FT	103.9

100 mm Frame Size & 1000-2500 W

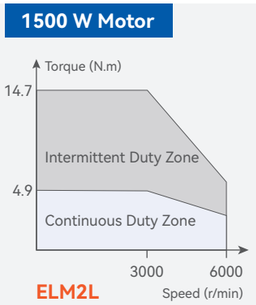
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Amps)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM2L-1000LA100ET-HMS10A	□ 100	√	400	1000	3000	6000	3.18	9.6	3.2	10	686	196	23 Bit optical encoder	2.24	4.6
ELM2L-1000LA100FT-HMS10A		×												1.92	3.7
ELM2L-1500LA100ET-HMS10A		√		1500			4.9	14.7	4.5	13.8				3.02	5.5
ELM2L-1500LA100FT-HMS10A		×												2.7	4.6
ELM2L-2000LA100ET-HMS10A		√		2000			6.37	19.1	5.7	17.5				3.81	6.4
ELM2L-2000LA100FT-HMS10A		×												3.49	5.5
ELM2L-2500LA100ET-HMS10A		√		2500			7.96	23.9	7.3	22.6				4.59	7.3
ELM2L-2500LA100FT-HMS10A		×												4.27	6.4

Speed-Torque characteristics

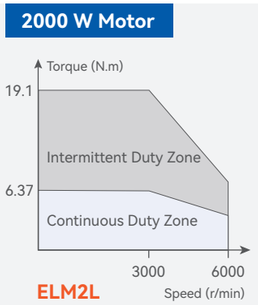
1000 W Motor



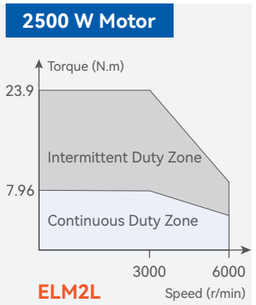
1500 W Motor



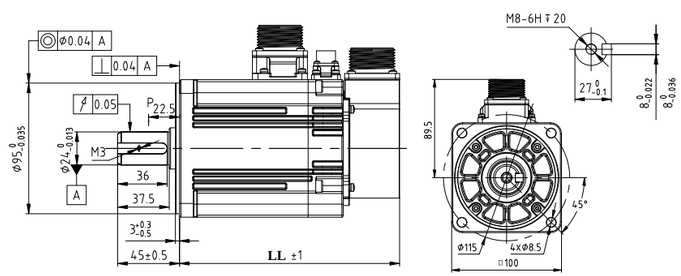
2000 W Motor



2500 W Motor



Dimensions

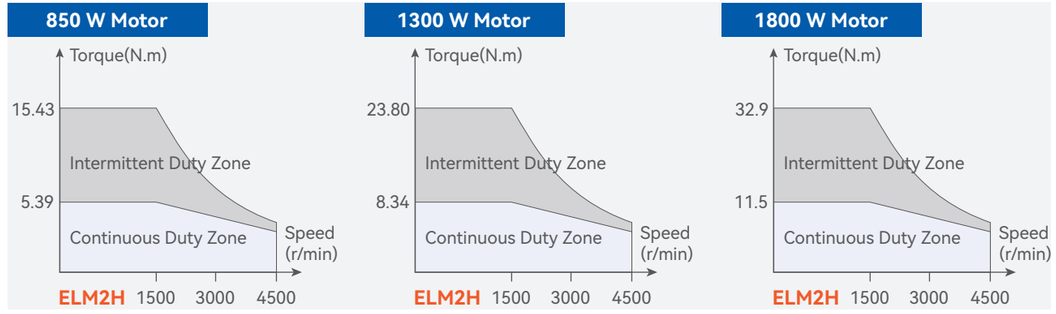


Motor Model	LL
ELM2L-1000LA100ET-H	160
ELM2L-1000LA100FT-H	140
ELM2L-1500LA100ET-H	178.2
ELM2L-1500LA100FT-H	158.2
ELM2L-2000LA100ET-H	195.7
ELM2L-2000LA100FT-H	175.7
ELM2L-2500LA100ET-H	213.9
ELM2L-2500LA100FT-H	193.9

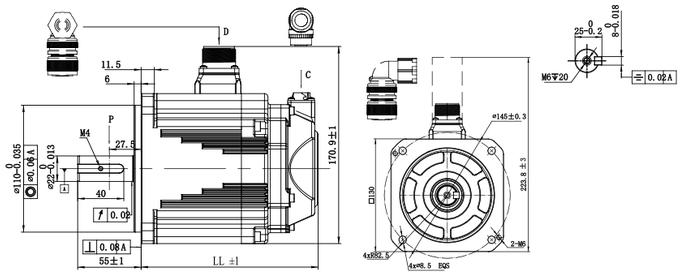
130 mm Frame Size & 850-1800 W

Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Amps)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM2H-0850LD130ET-H	□ 130	√	400	850	1500	4500	5.39	15.43	3.4	9.5	686	196	23 Bit optical encoder	14.8	6.9
ELM2H-0850LD130FT-H		×												12.5	5.5
ELM2H-1300LD130ET-H		√		1300			8.34	23.8	4.6	13.8				21	8.6
ELM2H-1300LD130FT-H		×												18.7	7.3
ELM2H-1800LD130ET-H		√		1800			11.5	32.9	5.6	15.4				26.1	10.2
ELM2H-1800LD130FT-H		×												23.8	8.8

Speed-Torque characteristics



Dimensions

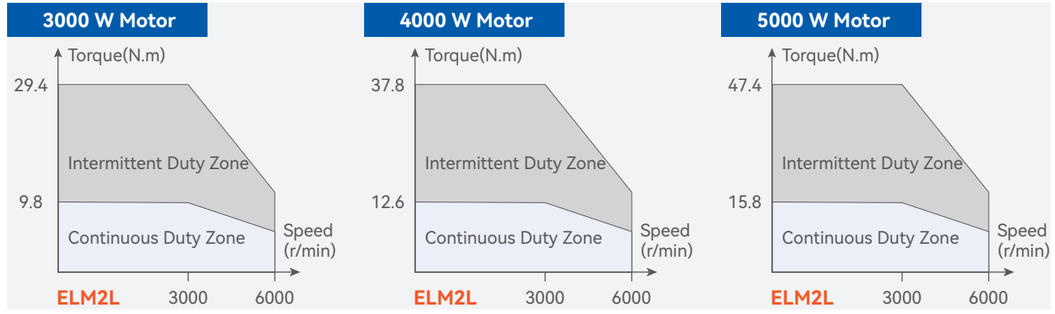


Motor Model	LL
ELM2H-0850LD130ET-H	163.7
ELM2H-0850LD130FT-H	136.2
ELM2H-1300LD130ET-H	181.7
ELM2H-1300LD130FT-H	154.2
ELM2H-1800LD130ET-H	199.7
ELM2H-1800LD130FT-H	172.2

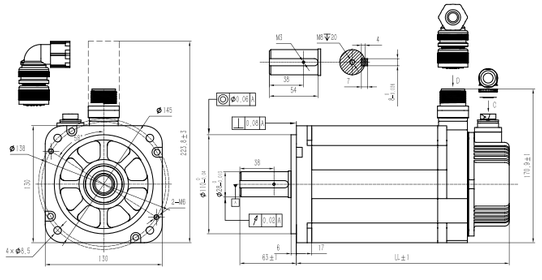
130 mm Frame Size & 3000-5000 W

Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Amps)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM2L-3000LA130ET-H	□ 130	√	400	3000	3000	6000	9.8	29.4	10	30	\	\	23 Bit optical encoder	11.3	13.25
ELM2L-3000LA130FT-H		×												9.6	11.55
ELM2L-4000LA130ET-H		√		4000			12.6	37.8	13	39				13.1	15.2
ELM2L-4000LA130FT-H		×												11.4	13.5
ELM2L-5000LA130ET-H		√		5000			15.8	47.4	16	48				15.6	16.7
ELM2L-5000LA130FT-H		×												13.9	15

Speed-Torque characteristics



Dimensions



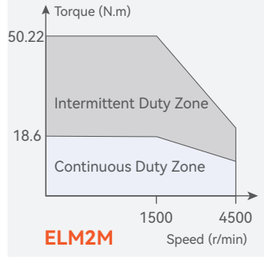
Motor Model	LL
ELM2L-3000LA130ET-H	248.5
ELM2L-3000LA130FT-H	236.5
ELM2L-4000LA130ET-H	268.5
ELM2L-4000LA130FT-H	256.5
ELM2L-5000LA130ET-H	288.5
ELM2L-5000LA130FT-H	276.5

180 mm Frame Size & 2900-7500 W

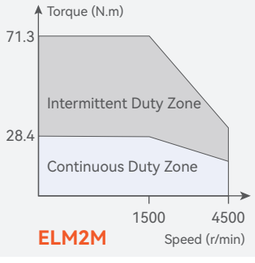
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Amps)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM2M-2900LD180ET-H MS2HB	□ 180	√	400	2900	1500	4500	18.6	50.22	9.26	28.5	1470	490	23 Bit optical encoder	55.8	18
ELM2M-2900LD180FT-H MS2HB		×												47.6	14
ELM2M-4400LD180ET-H MS2HB		√		4400			28.4	71.3	14.66	40				79.6	21.9
ELM2M-4400LD180FT-H MS2HB		×												71.4	17.9
ELM2M-5500LD180ET-H MS2HB		√		5500			35	91	17.8	49.1	1764	588		103.5	26.6
ELM2M-5500LD180FT-H MS2HB		×												95.8	22.5
ELM2M-7500LD180ET-H MS2HB		√		7500			48	120	22.5	57.2				151.1	34.3
ELM2M-7500LD180FT-H MS2HB		×												143.4	30.2

Speed-Torque characteristics

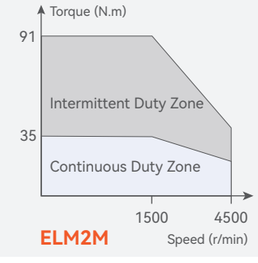
2900 W Motor



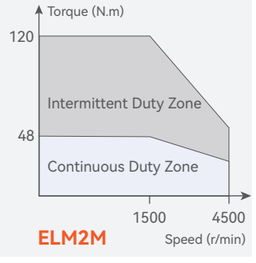
4400 W Motor



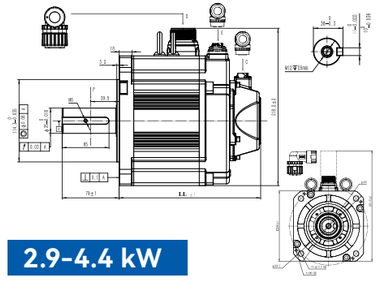
5500 W Motor



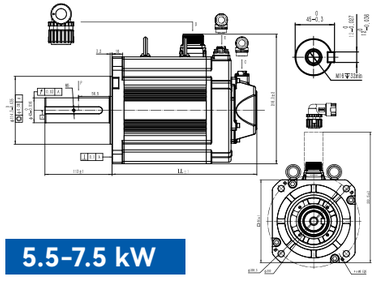
7500 W Motor



Dimensions



2.9-4.4 kW



5.5-7.5 kW

Motor Model	LL
ELM2M-2900LD180ET-H MS2HB	196.4
ELM2M-2900LD180FT-H MS2HB	162.6
ELM2M-4400LD180ET-H MS2HB	220.4
ELM2M-4400LD180FT-H MS2HB	186.6

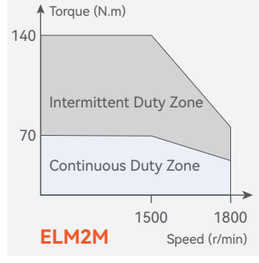
Motor Model	LL
ELM2M-5500LD180ET-H MS2HB	243.9
ELM2M-5500LD180FT-H MS2HB	210.1
ELM2M-7500LD180ET-H MS2HB	290.9
ELM2M-7500LD180FT-H MS2HB	257.1

200 mm Frame Size & 11000-22000 W

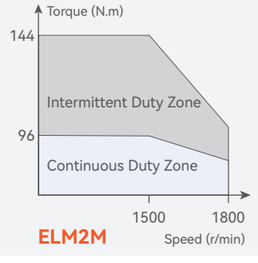
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Amps)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max			
ELM2M-11000LD200ET-H	□ 200	√	400	11000	1500	1800	70	140	21.4	42.8	23 Bit optical encoder	81	59
ELM2M-11000LD200FT-H		×										75	51
ELM2M-15000LD200ET-H		√		15000			96	144	30	45		120	75
ELM2M-15000LD200FT-H		×										114	67
ELM2M-18500LD200ET-H		√		18500			118	177	35	52.5		137	80
ELM2M-18500LD200FT-H		×										131	75
ELM2M-22000LD200ET-H		√		22000			140	210	42.8	64.2		151	88
ELM2M-22000LD200FT-H		×										145	83

Speed-Torque characteristics

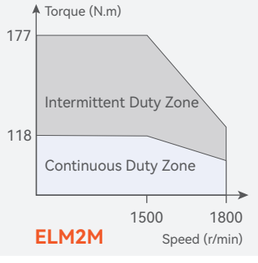
11000 W Motor



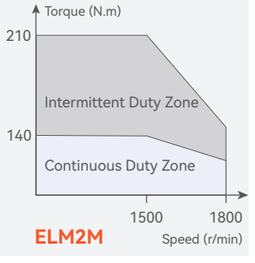
15000 W Motor



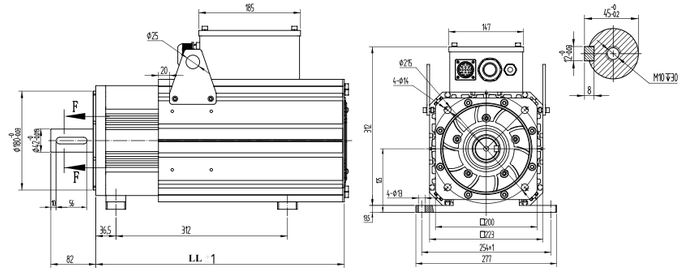
18500 W Motor



22000 W Motor



Dimensions



Motor Model	LL
ELM2M-11000LD200ET-H	482.5
ELM2M-11000LD200FT-H	380
ELM2M-15000LD200ET-H	554.5
ELM2M-15000LD200FT-H	452
ELM2M-18500LD200ET-H	590.5
ELM2M-18500LD200FT-H	488
ELM2M-22000LD200ET-H	626.5
ELM2M-22000LD200FT-H	524

Cable Selection

The cables which are available for our EL6 / EL7 / EL8 series AC servo drives and ELM1 & ELM2 AC servo motors are listed in detail in this section including a comprehensive guide on how to match the right cables to the drives and motors.

For our EL6 / EL7 / EL8 series AC servo drives, a USB Type-C tuning cable is optionally provided to connect the drives to a PC for tuning purposes. Any USB Type-C to Type-A data cable can handle the same task. Ethernet cables are also available for communications between drives and controllers. Safe Torque Off STO cable (2 meters) is included with every purchase of our EL6 / EL7 / EL8 Series AC servo drives.

Motor power supply cables (including motor brake cables) and encoder cables are matched with our ELM1 and ELM2 series AC servo motors. The cables are matched to the servo motors based on motor series and frame sizes.

Servo Drive Cables

Tuning Cable	EL8 Series EL7 Series EL6-EC Series EL6-RS Series	**CABLE-TYPEC2M0**	2000mm
	EL6-CAN Series	**CABLE-L6TS1M5**	
Communication Cable		**CABLE-TX*M*-BUS**	 *M*represents the length of the cables. For example, 1M5 = 1.5 meters Available length: 0.2 M, 0.5 M, 1.0 M, 1.5 M, 3 M, 5 M, 7 M, 10 M, 13 M
Safe Torque Off STO Cable		**CABLE-STOH*M***	 *M*represents the length of the cables. For example, 1M5 = 1.5 meters Available length: 0.2 M, 1.0 M, 1.5 M, 2 M, 3 M, 5 M

Motor (brake) cable model number

CABLE RZS H 3M0 - 1 1 3 - T - R

Sign	Meaning
CABLE	Cable identification

Sign	Cable Type
RZ	Without brake motor cable
RZS	With brake motor cable
SC	Brake cable
***	Reserved

Sign	Voltage
H	AC Servo motor cable
D	DC Servo motor cable

Sign	Length	Sign	Length
1M5	1.5 meter	13M0	13 meter
3M0	3 meter	15M0	15 meter
5M0	5 meter	***	Please contact leadshine teams for other lengths
7M0	7 meter		
10M0	10 meter		

Sign	Drive Side Terminal Type
1	Wire ferrule
2	Spade terminal

Sign	Customized Models
R	Direct plug for back-facing wiring
***	Customized

Sign	Special Requirements
Blank	Fixed cable
T	flexible cable
TS	flexible & oil proof cable
***	Reserved

Sign	Motor Side Terminal Type
1	AMP plastic plug
2	Reserved
3	Assembly type aviation plug
4	Terminal type direct plug
***	Reserved

Sign	Cable Specifications
1	20AWG
2	18AWG
3	16AWG
4	15AWG
5	14AWG
6	12AWG
7	10AWG
***	Reserved

Encoder cable model number

CABLE BMA H 3M0 - 1 1 3 - T - R

Sign	Meaning
CABLE	Cable identification

Sign	Cable Type
BM	Single-turn encoder cable
BMA	Multi-turn encoder cable (Including Battery Kit)

Sign	Voltage
H	AC Servo motor cable
D	DC Servo motor cable

Sign	Length	Sign	Length
1M5	1.5 meter	13M0	13 meter
3M0	3 meter	15M0	15 meter
5M0	5 meter	***	Please contact leadshine teams for other lengths
7M0	7 meter		
10M0	10 meter		

Sign	Drive Side Terminal Type
1	1394-6P Connector
2	MOLEX Connector

Sign	Motor Side Terminal Type
1	AMP plastic plug
2	Reserved
3	Assembly type aviation plug
4	Terminal type direct plug
***	Reserved

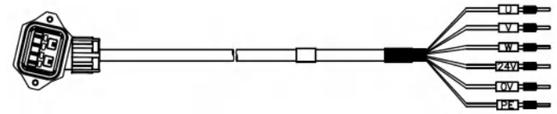
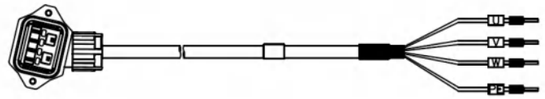
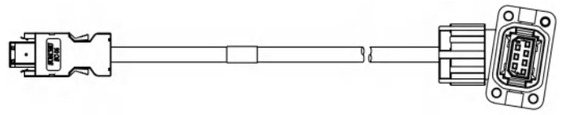
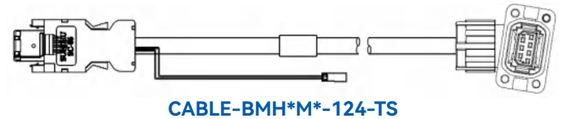
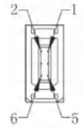
Sign	Cable Specifications
1	2PX24AWG
2	3PX24AWG
3	2PX26AWG
4	3PX26AWG
5	Reserved

Sign	Special Requirements
Blank	Fixed cable
T	flexible cable
TS	flexible & oil proof cable
***	Reserved

Sign	Customized Models
R	Direct plug for back-facing wiring
***	Customized

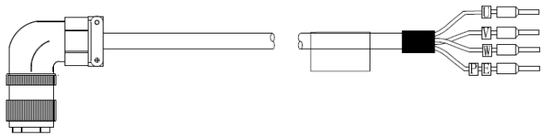
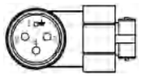
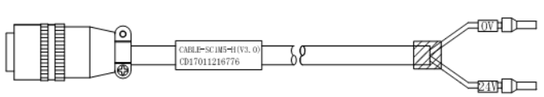
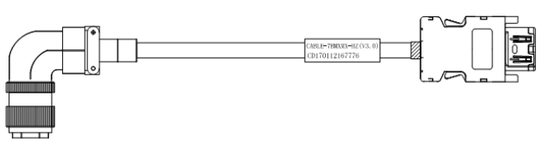
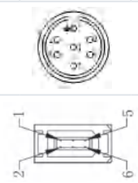
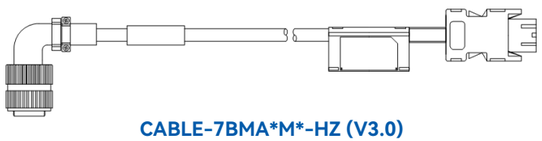
ELM1 / ELM2 Series - 40/60/80 mm

- Frame size: 40/60/80 mm
- Rated Output Power: 50-1000 W

Cable Type		Diagram	Pin		
Motor Power	With Brake	 CABLE-RZSH*M*-114-TS			
	Without Brake	 CABLE-RZH*M*-114-TS	1	Blue	U
			2	Black	V
			3	Red	W
			4	Yellow Green	PE
			A*	Black	0V
			B*	Red	24V
			*A&B terminal for motor with brake		
Motor Encoder	Single-turn	 CABLE-BMH*M*-114-TS			
	Multi-turn	 CABLE-BMH*M*-124-TS			
	Battery Kit	 ER14505 BOX-G DCH RoHS	A	Terminal	B
			1	PE	-
			2	5V	1
			3	0V	2
			4	SD+	5
			5	SD-	6
			6*	BAT+	-
			7*	BAT-	-
			*Terminal 6 & 7 is to be connected to battery kit for Multi-turn encoder		

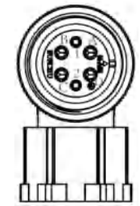
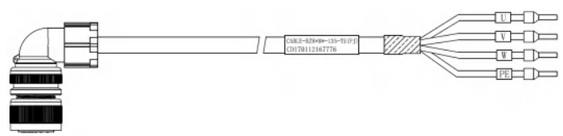
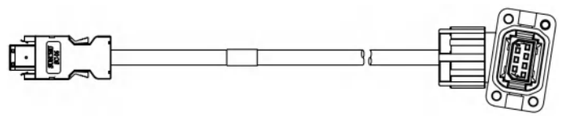
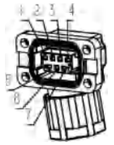
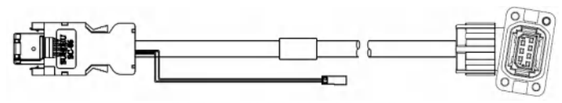
ELM2 Series - 100 mm

- Frame size: 100 mm
- Rated Output Power: 1000 W / 1500 W / 2000 W / 2500 W

Cable Type		Diagram	Pin
Motor Power		 CABLE-RZ*M*-H (V2.0)	 1 Yellow PE; 2 Red U; 3 Green V; 4 Black W
Motor Brake		 CABLE-SC*M*-H (V3.0)	 1 Black 0V; 2 Red 24V
Motor Encoder	Single-turn	 CABLE-7BM*M*-HZ (V3.0)	
	Multi-turn	 CABLE-7BMA*M*-HZ (V3.0)	A Terminal B; 1 PE -; 2 5V 1; 3 0V 2; 4 SD+ 5; 5 SD- 6; 6* BAT+ -; 7* BAT- -; *Terminal 6 & 7 is to be connected to battery kit for Multi-turn encoder

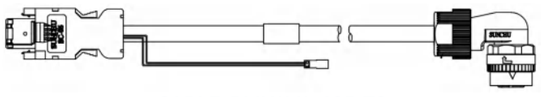
ELM1 Series - 130 mm

- Frame size: 130 mm
- Rated Output Power: 850 W / 1300 W / 1500 W / 1800 W

Cable Type		Diagram	Pin
Motor Power	With Brake	 CABLE-RZSH*M*-135-TS	 A Blue U; B Black V; C Red W; D Yellow Green PE; 1* Black 0V; 2* Red 24V; *1&2 terminal for motor with brake
	Without Brake	 CABLE-RZH*M*-135-TS	
Motor Encoder	Single-turn	 CABLE-BMH*M*-114-TS	
	Multi-turn	 CABLE-BMH*M*-124-TS	
	Battery Kit	 ER14505 BOX-G DCH RoHS	A Terminal B; 1 PE -; 2 5V 1; 3 0V 2; 4 SD+ 5; 5 SD- 6; 6* BAT+ -; 7* BAT- -; *Terminal 6 & 7 is to be connected to battery kit for Multi-turn encoder

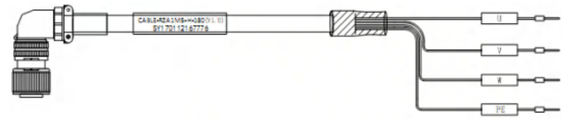
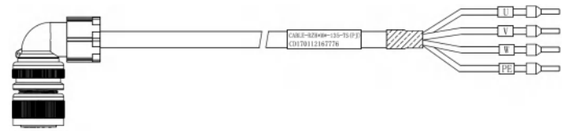
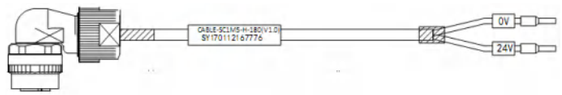
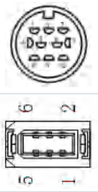
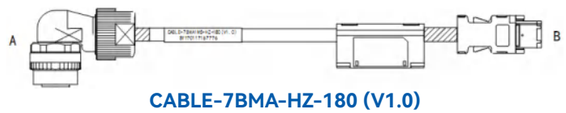
ELM2 Series - 130 mm

- **Frame size: 130 mm**
- **Rated Output Power:**
  850 W / 1000 W / 1300 W / 1500 W / 1800 W / 2000 W / 3000 W / 4000 W / 5000 W

Cable Type		Diagram	Pin
Motor power	With brake	 CABLE-RZSH*M*-135-TS	
	Without brake	 CABLE-RZH*M*-135-TS	A Blue U B Black V C Red W D Yellow Green PE 1* Black 0V 2* Red 24V *1&2 terminal for motor with brake
Motor encoder	Single-turn	 CABLE-BMH*M*-115-TS	
	Multi-turn	 CABLE-BMH*M*-125-TS	
	Battery kit	 ER14505 BOX-G DCH RoHS	A Terminal B 10 PE - 2 5V 1 3 0V 2 4 SD+ 5 5 SD- 6 6* BAT+ - 7* BAT- - *Terminal 6 & 7 is to be connected to battery kit for Multi-turn encoder

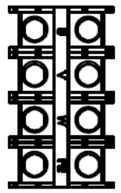
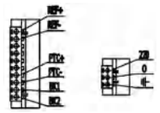
ELM2M Series - 180 mm

- **Frame size: 180 mm**
- **Rated Output Power: 2900-7500 W**

Cable Type		Diagram	Pin
Motor power	2900 W	 CABLE-RZA*M*-H-180 (V1.0)	 A Blue U B Black V C Red W D Yellow Green PE
	4400-7500 W	 CABLE-RZB*M*-H-180 (V1.0)	 A White U B Black V C Red W D Yellow Green PE
Motor brake		 CABLE-SC-H-180 (V1.0)	 1 Black 0V 2 Red 24V
Motor encoder	Single-turn	 CABLE-7BM-HZ-180 (V1.0)	 A Terminal B 10 PE - 2 5V 1 3 0V 2 4 SD+ 5 5 SD- 6 6* BAT+ - 7* BAT- - *Terminal 6 & 7 is to be connected to battery kit for Multi-turn encoder
	Multi-turn	 CABLE-7BMA-HZ-180 (V1.0)	

ELM2M Series - 200 mm

- Frame size: 200 mm
- Rated Output Power: 11000-22000 W

Cable Type		Diagram	Pin
Motor power	11 kW & 15 kW	 CABLE-RZH*M*-272	 1 Red U; 2 Yellow V; 3 Blue W; 4 Yellow Green PE
	18.5-22 kW	 CABLE-RZH*M*-292	
Motor brake		/	 REF- White 0V; REF+ Red 24V
Motor encoder		 CABLE-BMH*M*-D20	  A Terminal B: 1 PE -; 2 5V 7; 3 0V 8; 4 SD+ 1; 5 SD- 2; 6* BAT+ -; 7* BAT- -; 8 PTC+ 9; 9 PTC- 5; *Terminal 6 & 7 is to be connected to battery kit for Multi-turn encoder

Typical configuration examples

EL8 Series

Frame Size (mm)	Rated Power (W)	Motor Model	Matching Drive	Motor Length (mm)	Rated Torque (Nm)	Rated / Max Speed (rpm)	Rated Output Current (Amps)	Inertia (kgm2*10^{-4})	Motor Cable	Encoder cable	Brake Cable	Turning Cable
40	50 W (220 V)	ELM2H-0050LA40F	EL8-RS400S EL8-EC400S	56.7	0.16	3000 / 6500	0.93	0.0355	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) 【Single-turn】 CABLE-BMH*M*-124-TS- (R) 【Multi-turn】 +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.	CABLE-TYPEC2M0
		ELM2H-0050LA40E		84				0.0456				
	100 W (220 V)	ELM2H-0100LA40F		67.7	0.32	3000 / 6500	0.92	0.062				
		ELM2H-0100LA40E		95				0.0721				
60	200 W (220 V)	ELM2H-0200LA60F		71.6	0.64	3000 / 6500	1.5	0.29				
		ELM2H-0200LA60E		100.9				0.31				
	400 W (220 V)	ELM2H-0400LA60F		88.8	1.27	3000 / 6500	2.1	0.56				
		ELM2H-0400LA60E		118.1				0.58				
80	750 W (220 V)	ELM2H-0750LA80F	EL8-RS750S EL8-EC750S	90.9	2.39	3000 / 6500	4.1	1.5				
		ELM2H-0750LA80E		121.9				1.65				
	1000 W (220 V)	ELM2H-1000LA80F	EL8-RS1000S EL8-EC1000S	103.9	3.18	3000 / 6500	5.7	2.03				
		ELM2H-1000LA80E		134.9				2.13				
130	850 W (220 V)	ELM2H-0850LD130F-H		126	5.39	1500 / 4500	-	12.5	CABLE-RZH*M*-135-TS 【without brake】 CABLE-RZSH*M*-135-TS 【with brake】	CABLE-BMH*M*-115-TS 【Single-turn】 CABLE-BMH*M*-125-TS 【Multi-turn】 +ER14505 BOX-G (Battery Kit)		
		ELM2H-0850LD130E-H		153.5				14.8				
	1300 W (220 V)	ELM2H-1300LD130F-H	EL8-RS1500S EL8-EC1500S	144	8.43	1500 / 4500	-	18.7				
		ELM2H-1300LD130E-H		171.5				21				
	1800 W (220 V)	ELM2H-1800LD130F-H	EL8-RS2000S EL8-EC2000S	162	11.5	1500 / 4500	-	23.8				
		ELM2H-1800LD130E-H		189.5				26.1				

EL7 Series

Frame Size (mm)	Rated Power (W)	Motor Model	Matching Drive	Motor Length (mm)	Rated Torque (Nm)	Rated / Max Speed (rpm)	Inertia ($kgm2*10^{-4}$)	Motor Cable	Encoder cable	Brake Cable
40	50 W (220 V)	ELM2H-0050LA40F	EL7-RS400S EL7-PN400S EL7-EC400S	56.7	0.16	3000 / 6000	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) 【Single-turn】 CABLE-BMH*M*-124-TS- (R) 【Multi-turn】+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			
	100 W (220 V)	ELM2H-0100LA40F		67.7	0.32	3000 / 6000	0.062			
		ELM2H-0100LA40E		95			0.072			
60	200 W (220 V)	ELM2H-0200LA60F		71.6	0.64	3000 / 6000	0.28			
		ELM2H-0200LA60E		101.1			0.3			
	400 W (220 V)	ELM2H-0400LA60F		88.8	1.27	3000 / 6000	0.6			
		ELM2H-0400LA60E		118.1			0.62			
80	750 W (220 V)	ELM2H-0750LA80F	EL7-RS750S EL7-EC750S EL7-PN750S	90.9	2.39	3000 / 6000	1.8			
		ELM2H-0750LA80E		121.9			1.95			
	1000 W (220 V)	ELM2H-1000LA80F	EL7-RS1000S EL7-EC1000S EL7-PN1000S	103.9	3.18	3000 / 6000	2			
		ELM2H-1000LA80E		134.9			2.15			
100	1000 W (220 V)	ELM2L-1000LA100F-HMS10A	EL7-RS1000S EL7-EC1000S EL7-PN1000S	140	3.18	3000 / 6000	1.92	CABLE-RZ*M*H (V1.1) 【Fixed cable】 CABLE-RZ*M*-H (V2.0) 【Flexible cable】	CABLE-7BM*M*-HZ (V3.0) 【Single-turn】 CABLE-7BMA*M*-HZ (V3.0) 【Multi-turn】	CABLE-SC*M*-H (V3.0)
		ELM2L-1000LA100E-HMS10A		160			2.24			
	1500 W (220 V)	ELM2L-1500LA100F-HMS10A	EL7-RS1500S EL7-EC1500S EL7-PN1500S	158.2	4.9	3000 / 6000	2.7			
		ELM2L-1500LA100E-HMS10A		178.2			3.02			
130	850 W (220 V)	ELM2H-0850LD130F-H	EL7-RS1000S EL7-EC1000S EL7-PN1000S	126	5.39	1500 / 4500	12.5	CABLE-RZH*M*-135-TS 【without brake】 CABLE-RZSH*M*-135-TS 【with brake】	CABLE-BMH*M*-115-TS 【Single-turn】 CABLE-BMH*M*-125-TS 【Multi-turn】 +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			
	1300 W (220 V)	ELM2H-1300LD130F-H	EL7-RS1500S EL7-EC1500S EL7-PN1500S	144	8.34		18.7			
		ELM2H-1300LD130E-H		171.5			21			
	1800 W (220 V)	ELM2H-1800LD130F-H	EL7-RS2000S EL7-EC2000S EL7-PN2000S	162	11.5	1500 / 3000	23.8			
		ELM2H-1800LD130E-H		189.5			26.1			

Frame Size (mm)	Rated Power (W)	Motor Model	Matching Drive	Motor Length (mm)	Rated Torque (Nm)	Rated / Max Speed (rpm)	Inertia ($kgm2*10^{-4}$)	Motor Cable	Encoder cable	Brake Cable
130	850 W (400 V)	ELM2H-0850LD130FT-H	EL7-RS1000ST EL7-EC1000ST EL7-PN1000ST	126	5.39	1500 / 4500	12.5	CABLE-RZH*M*-135-TS 【without brake】 CABLE-RZSH*M*-135-TS 【with brake】	CABLE-BMH*M*-115-TS 【Single-turn】 CABLE-BMH*M*-125-TS 【Multi-turn】+ER14505 BOX-G (Battery Kit)	If you need brake cable, please select power cable with brake in the power cable column.
		ELM2H-0850LD130ET-H		153.5			14.8			
	1300 W (400 V)	ELM2H-1300LD130FT-H	EL7-RS1500ST EL7-EC1500ST EL7-PN1500ST	144	8.34		18.7			
		ELM2H-1300LD130ET-H		171.5			21			
	1800 W (400 V)	ELM2H-1800LD130FT-H	EL7-RS2000ST EL7-EC2000ST EL7-PN2000ST	162	11.5		23.8			
		ELM2H-1800LD130ET-H		189.5			26.1			
	3000 W (400 V)	ELM2L-3000LA130FT-H	EL7-RS3000ST EL7-EC3000ST EL7-PN3000ST	236.5	9.8	3000 / 6000	9.6			
		ELM2L-3000LA130ET-H		248.5			11.3			
	4000 W (400 V)	ELM2L-4000LA130FT-H	EL7-RS4400ST EL7-EC4400ST EL7-PN4400ST	256.5	12.6		11.4			
		ELM2L-4000LA130ET-H		268.5			13.1			
	5000 W (400 V)	ELM2L-5000LA130FT-H	EL7-RS5500ST EL7-EC5500ST EL7-PN5500ST	276.5	15.8		13.9			
		ELM2L-5000LA130ET-H		288.5			15.6			
220	2900 W (400 V)	ELM2M-2900LD180FT-H	EL7-RS3000ST EL7-EC3000ST EL7-PN3000ST	193	18.6	1500 / 3000	39.78	CABLE-RZA-H-180 (V1.0)	CABLE-7BM*M*-HZ-180 (V1.0) 【Single-turn】 CABLE-7BMA*M*-HZ-180 (V1.0) 【Multi-turn】	CABLE-SC*M*-H-180 (V1.0)
		ELM2M-2900LD180ET-H		241			40.27			
	4400 W (400 V)	ELM2M-4400LD180FT-H	EL7-RS4400ST EL7-EC4400ST EL7-PN4400ST	223	28.4		59.67	CABLE-RZB-H-180 (V1.0)		
		ELM2M-4400LD180ET-H		271			60.41			
	5500 W (400 V)	ELM2M-5500LD180FT-H	EL7-RS5500ST EL7-EC5500ST EL7-PN5500ST	243	35		72.93			
		ELM2M-5500LD180ET-H		291			73.84			
	7500 W (400 V)	ELM2M-7500LD180FT-H	EL7-RS7500ST EL7-EC7500ST EL7-PN7500ST	283	48		99.45			
		ELM2M-7500LD180ET-H		331			100.7			
	11000 W (400 V)	ELM2M-11000LD200FT-H	EL7-EC11K0T EL7-RS11K0T	380	70	1500 / 1800	75	11000&15000W: CABLE-RZHM*M*-272 18500&22000W: CABLE-RZHM*M*-292	CABLE-BMH*M*-D20	Not provided, self equipped
		ELM2M-11000LD200ET-H		482.5			81			
	15000 W (400 V)	ELM2M-15000LD200FT-H	EL7-EC15K0T EL7-RS15K0T	452	96		114			
		ELM2M-15000LD200ET-H		554.5			120			
	18500 W (400 V)	ELM2M-18500LD200FT-H	EL7-EC18K5T EL7-RS18K5T	488	118		131			
		ELM2M-18500LD200ET-H		590.5			137			
	22000 W (400 V)	ELM2M-22000LD200FT-H	EL7-EC22K0T EL7-RS22K0T	524	140		145			
		ELM2M-22000LD200ET-H		626.5			151			

EL6 Series

Frame Size (mm)	Rated Power (W)	Motor Model	Matching Drive	Motor Length (mm)	Rated Torque (Nm)	Rated / Max Speed (rpm)	Inertia (kgm2*10^{-4})	Motor Cable	Encoder cable	Brake Cable
40	50 W (220 V)	ELM1H-0050LA40F	EL6-RS400P EL6-EC400 EL6-CAN400Z 2EL6-EC400	56.7	0.16	3000 / 6000	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 【Single-turn】 CABLE-BMH*M*-124-TS- (R) 【Multi-turn】+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.
		ELM1H-0050LA40E		84			0.046			
	100 W (220 V)	ELM1H-0100LA40F		67.7	0.32	3000 / 6000	0.062			
		ELM1H-0100LA40E		95			0.072			
60	200 W (220 V)	ELM1H-0200LA60F		71.6	0.64	3000 / 6000	0.28			
		ELM1H-0200LA60E		101.1			0.3			
	400 W (220 V)	ELM1H-0400LA60F		88.8	1.27	3000 / 6000	0.6			
		ELM1H-0400LA60E		118.1			0.62			
80	750 W (220 V)	ELM1H-0750LA80F	EL6-RS750P EL6-EC750 EL6-CAN750Z 2EL6-EC750	90.9	2.39	3000 / 6000	1.8			
		ELM1H-0750LA80E		121.9			1.95			
	1000 W (220 V)	ELM1H-1000LA80F	EL6-RS1000P EL6-EC1000 EL6-CAN1000Z 2EL6-EC1000	103.9	3.18	3000 / 6000	2			
		ELM1H-1000LA80E		134.9			2.15			
100	1000 W (220 V)	ELM2L-1000LA100F-HMS10A	EL6-RS1000P EL6-EC1000 EL6-CAN1000Z 2EL6-EC1000	140	3.18	3000 / 6000	1.92	CABLE-RZ*M*-H (V2.0) 【Flexible cable】	CABLE-7BM*M*-HZ (V3.0) 【Single-turn】 CABLE-7BMA*M*-HZ (V3.0) 【Multi-turn】	CABLE-SC*M*-H (V3.0)
		ELM2L-1000LA100E-HMS10A		160			2.24			
	1500 W (220 V)	ELM2L-1500LA100F-HMS10A	EL6-RS1500P EL6-EC1500 2EL6-EC1500	158.2	4.9	3000 / 6000	2.7			
		ELM2L-1500LA100E-HMS10A		178.2			3.02			
130	850 W (220 V)	ELM1H-0850MD130F-H	EL6-RS1000P EL6-CAN1000Z EL6-EC1000 2EL6-EC1000	126	5.39	1500 / 4500	5.5	CABLE-RZH*M*-135-TS 【without brake】 CABLE-RZSH*M*-135-TS 【with brake】	CABLE-BMH*M*-114-TS 【Single-turn】 CABLE-BMH*M*-124-TS- (R) 【Multi-turn】+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.
		ELM1H-0850MD130E-H		153.5			6.9			
	1300 W (220 V)	ELM1H-1300MD130F-H	EL6-RS1500P EL6-EC1500 2EL6-EC1500	144	8.34		7.3			
		ELM1H-1300MD130E-H		171.5			8.6			
	1800 W (220 V)	ELM1H-1800MD130F-H	EL6-RS2000P EL6-EC2000	162	11.5		8.8			
		ELM1H-1800MD130E-H		189.5			10.2			

Frame Size (mm)	Rated Power (W)	Motor Model	Matching Drive	Motor Length (mm)	Rated Torque (Nm)	Rated / Max Speed (rpm)	Inertia (kgm2*10^{-4})	Motor Cable	Encoder cable	Brake Cable
130	850 W (400 V)	ELM2H-0850LD130FT-H	EL6-RS1000PT EL6-EC1000T	136.2	5.39	1500 / 4500	12.5	CABLE-RZH*M*-135-TS 【without brake】 CABLE-RZSH*M*-135-TS 【with brake】	CABLE-BMH*M*-115-TS 【Single-turn】 CABLE-BMH*M*-125-TS 【Multi-turn】+ER14505 BOX-G (Battery Kit)	If you need brake cable, please select power cable with brake in the power cable column.
		ELM2H-0850LD130ET-H		163.7			14.8			
	1300 W (400 V)	ELM2H-1300LD130FT-H	EL6-RS1500PT EL6-EC1500T	154.2	8.34		18.7			
		ELM2H-1300LD130ET-H		181.7			21			
	1800 W (400 V)	ELM2H-1800LD130FT-H	EL6-RS2000PT EL6-EC2000T	172.2	11.5		23.8			
		ELM2H-1800LD130ET-H		199.7			26.1			
180	2900 W (400 V)	ELM2M-2900LD180FT-H	EL6-RS3000PT EL6-EC3000T	193	18.6	1500 / 3000	39.78	CABLE-RZA-H-180 (V1.0)	CABLE-7BM*M*-HZ-180 (V1.0) 【Single-turn】 CABLE-7BMA*M*-HZ-180 (V1.0) 【Multi-turn】	CABLE-SC*M*-H-180 (V1.0)
		ELM2M-2900LD180ET-H		241			40.27			

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