Leadshine

Stock Code: 002979

AC Servo

Product Catalogue

www.leadshine.com

Reliable Motion Control Partner

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Leadshine

Headquarters in Shenzhen

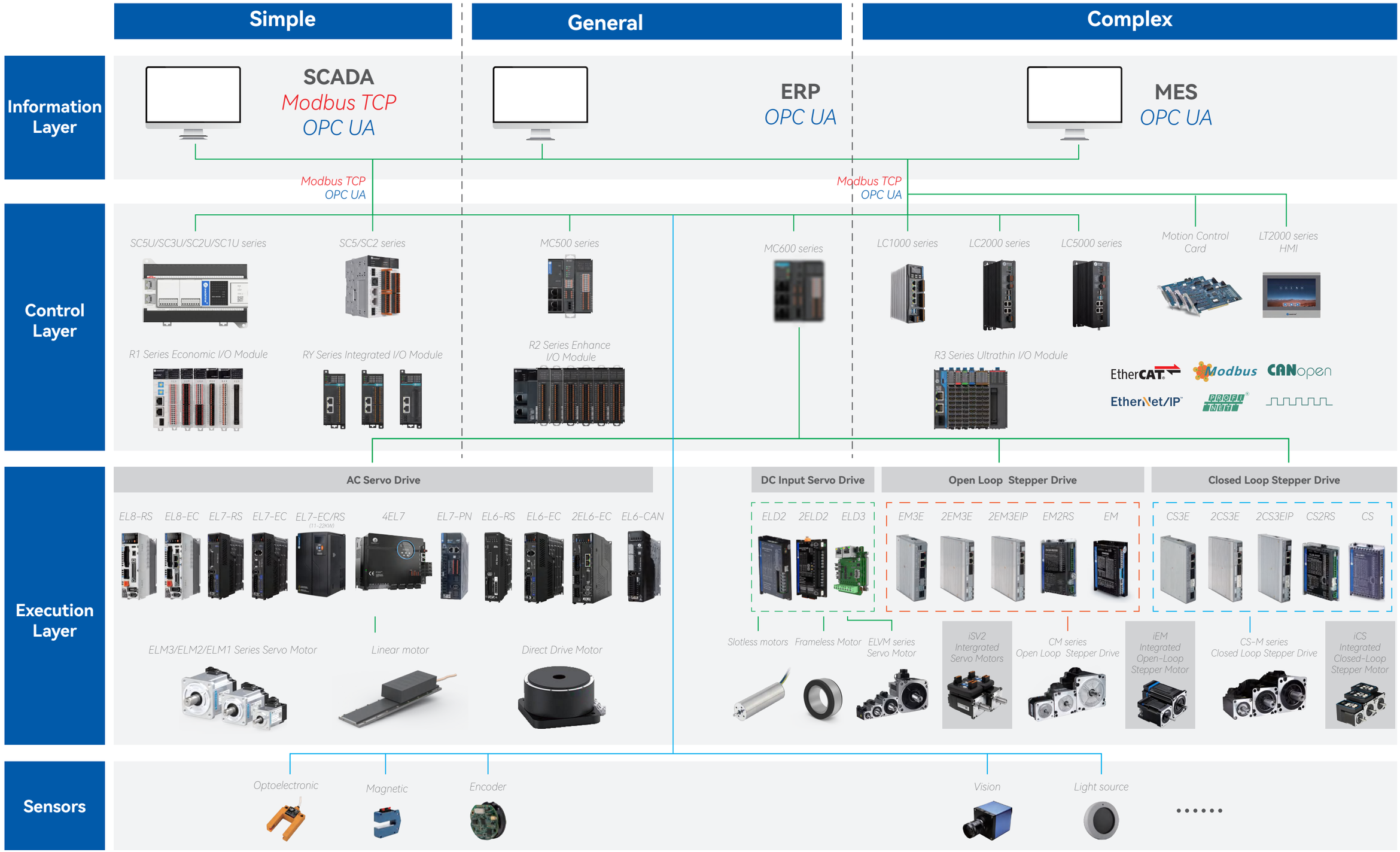
Shanghai Intelligent Industry Park

Production base in Shenzhen

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

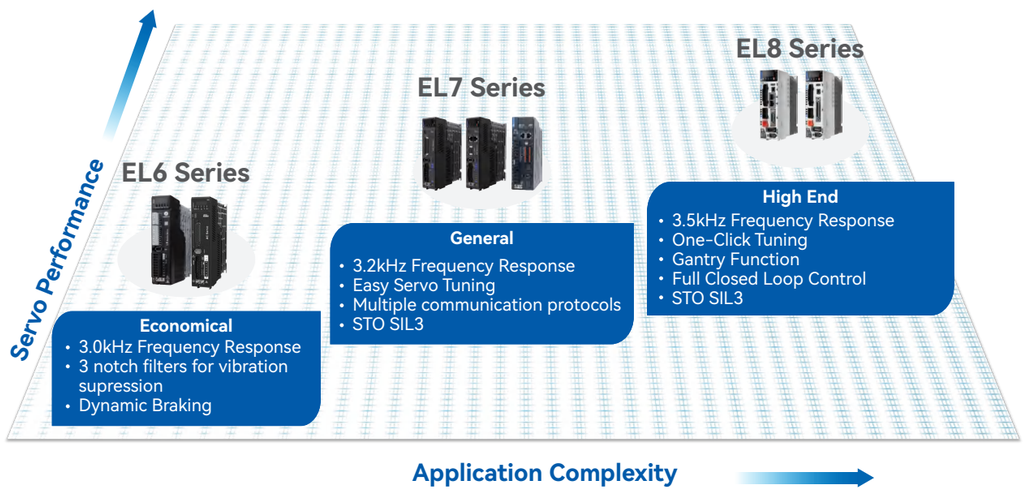
25+ Experience
400+ R&D Engineers
5 Subsidiaries
60+ Countries Clients
10000+ Global Partners
30 million+ Installed Axes

Leadshine Motion Control Total Product System

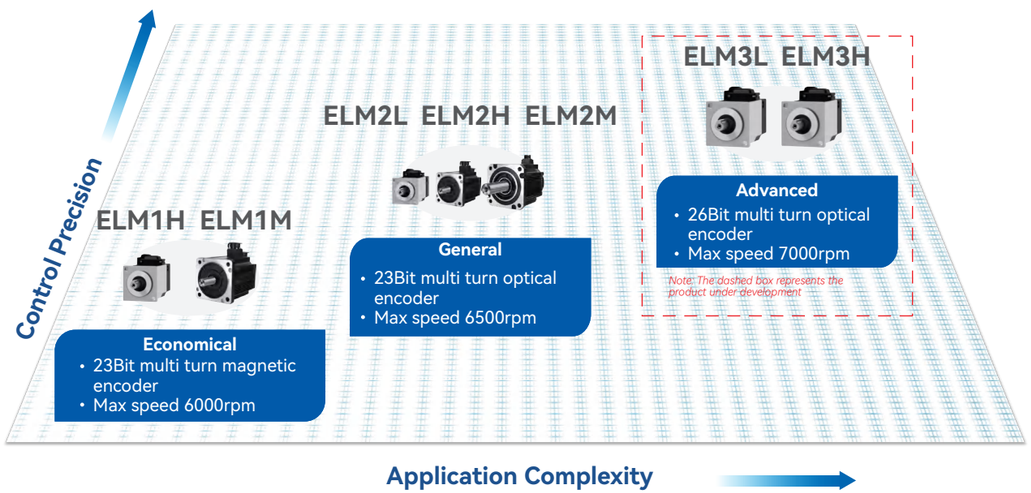


Leadshine Servo Product

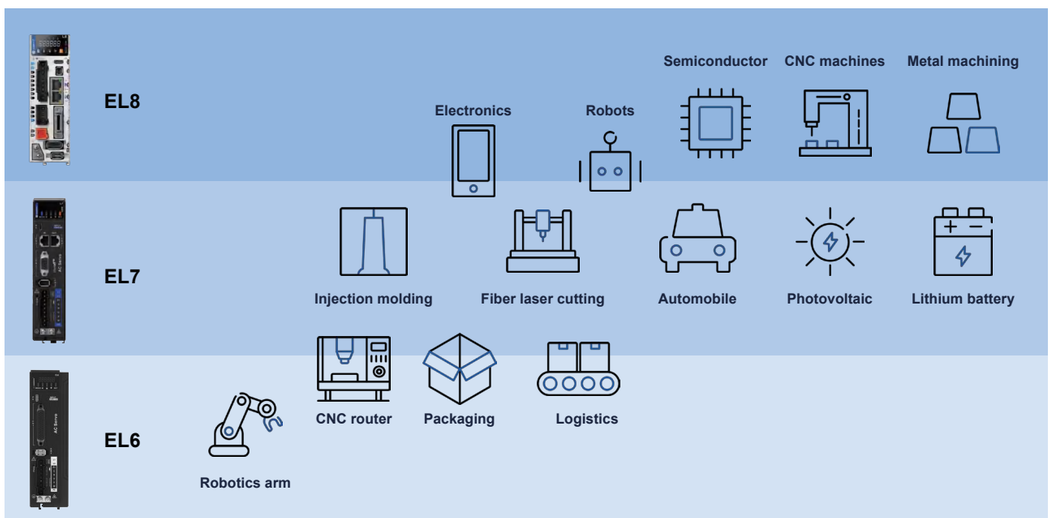
Servo Drive Series



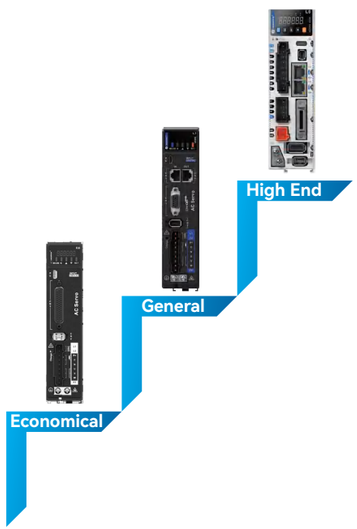
Servo Motor Series



Typical Applications



Simple Introduction



EL8 Series

High end double PCB boards, high performance with frequency response matching of global competitors, easier to tune with One-Click Tuning. Covering the range of 50W-2kW.

EL7 Series

Diverse models offered in this series with multiple protocols including Pulse&Direction, Analog, Modbus RTU, EtherCAT, PROFINET, Linear drives. Covering the range of 50W-22kW.

EL6 Series

Economical and cost effective models for not so demanding applications. Covering basic models from 50W – 2kW.

Servo Drive	Model	Power (W)	Voltage (VAC)	Dimensions (mm)	Weight (kg)	Command Source			Command Source			STO	Encoder Output	Brake Output	Digital Inputs (Points)	Digital Outputs (Points)	Analogue Input	Analogue Output	Matched Servo Motors
						Pulse+Dir	Analog Input		Modbus	EtherCAT	CANopen								
AC Servo Drive EL8 Series	EL8-EC400F	400	1 Phase/ 3 Phase 220	150*150*43	1		√			√		√	√	√	8	3	2	2	ELM1 and ELM2 Servo Motors Please refer to page 97 to 101 for more information on matching servo motors
	EL8-RS400F					√	√		√			√	√	√	10	6	3	2	
	EL8-EC750F	750		150*160*55	1.2		√			√		√	√	√	8	3	2	2	
	EL8-RS750F					√	√		√			√	√	√	10	6	3	2	
	EL8-EC1000F	1000					√			√		√	√	√	8	3	2	2	
	EL8-RS1000F					√	√		√			√	√	√	10	6	3	2	
	EL8-EC1500F	1500		183*168*80	2		√			√		√	√	√	8	3	2	2	
	EL8-RS1500F					√	√		√			√	√	√	10	6	3	2	
	EL8-EC2000F	2000					√			√		√	√	√	8	3	2	2	
	EL8-RS2000F					√	√		√			√	√	√	10	6	3	2	
AC Servo Drive EL7-RS Series - 220VAC	EL7-RS400P	400	1 Phase 220	175*156*40	0.9	√	√		√				√	√	8	5	2	1	
	EL7-RS750P	750		175*156*50	1.1	√	√		√				√	√	8	5	2	1	
	EL7-RS1000P	1000			1.2	√	√		√				√	√	8	5	2	1	
	EL7-RS1500P	1500	1 Phase/ 3 Phase 220	175*156*80	2.3	√	√		√				√	√	8	5	2	1	
	EL7-RS2000P	2000			2.3	√	√		√				√	√	8	5	2	1	
AC Servo Drive EL7 Series - 400VAC	EL7-RS750PT	750	3 Phase 400	179*175*55	1.3	√	√		√				√	√	8	5	2	1	
	EL7-RS1000PT	1000				√	√		√				√	√	8	5	2	1	
	EL7-RS1500PT	1500				√	√		√				√	√	8	5	2	1	
	EL7-RS2000PT	2000		179*175*80	1.9	√	√		√				√	√	8	5	2	1	
	EL7-RS3000PT	3000				√	√		√				√	√	8	5	2	1	
	EL7-RS4400PT	4400		230*250*90	3.3	√	√		√				√	√	8	5	2	1	
	EL7-RS5500PT	5500				√	√		√				√	√	8	5	2	1	
	EL7-RS7500PT	7500				√	√		√				√	√	8	5	2	1	
	EL7-RS11K0T	11000		280*170*180		√	√		√			√	√		8	5	4	2	
	EL7-RS15K0T	15000				√	√		√			√	√		8	5	4	2	
	EL7-RS18K5T	18500				√	√		√			√	√		8	5	4	2	
	EL7-RS22K0T	22000				√	√		√			√	√		8	5	4	2	
AC Servo Drive EL7 Series - 220VAC	EL7-EC400N	400	1 Phase 220	175*156*40	0.9					√		√	√	√	4	3			
	EL7-EC750N	750		175*156*50	1.2					√		√	√	√	4	3			
	EL7-EC1000N	1000								√		√	√	√	4	3			
	EL7-EC1500N	1500	1 Phase/ 3 Phase 220	179*175*55	2.3					√		√	√	√	4	3			
	EL7-EC2000N	2000								√		√	√	√	4	3			
	4EL7-ECA05	400		230*200*90						√		√	√	√	4	2			
		400								√		√	√	√	4	2			
		750								√		√	√	√	4	2			
	4EL7-ECA07	1000								√		√	√	√	4	2			
		1000								√		√	√	√	4	2			
		1000								√		√	√	√	4	2			
		750								√		√	√	√	4	2			
AC Servo Drive EL7 Series - 400VAC	EL7-EC750NT	750	3 Phase 400	179*175*55	1.3					√		√	√	√	4	3			
	EL7-EC1000NT	1000								√		√	√	√	4	3			
	EL7-EC1500NT	1500								√		√	√	√	4	3			
	EL7-EC2000NT	2000		179*175*80	1.9					√		√	√	√	4	3			
	EL7-EC3000NT	3000								√		√	√	√	4	3			
	EL7-EC4400NT	4400		230*250*90	3.3					√		√	√	√	4	3			
	EL7-EC5500NT	5500								√		√	√	√	4	3			
	EL7-EC7500NT	7500								√		√	√	√	4	3			
	EL7-EC11K0T	11000		280*170*180						√		√	√		8	5			
	EL7-EC15K0T	15000								√		√	√		8	5			
	EL7-EC18K5T	18500								√		√	√		8	5			
	EL7-EC22K0T	22000								√		√	√		8	5			
AC Servo Drive EL6 Series - 200VAC	EL6-RS400P	400	1 Phase 220	175*156*40	0.9	√			√				√	√	8	5			
	EL6-CAN400Z										√		√	√	4	3			
	EL6-RS750P	750		175*156*50	1.1	√			√				√	√	8	5			
	EL6-CAN750Z										√		√	√	4	3			
	EL6-RS1000P	1000		175*156*50	1.2	√			√				√	√	8	5			
	EL6-CAN1000Z										√		√	√	4	3			
	EL6-EC400	400		175*156*40						√			√	√	4	3			
	EL6-EC750	750		175*156*50						√			√	√	4	3			
	EL6-EC1000	1000								√			√	√	4	3			
	EL6-EC1500	1500		175*179*80						√			√	√	4	3			
	EL6-EC2000	2000								√			√	√	4	3			
	2EL6-EC400	400		168*154*48						√			√	√	8	4			
	2EL6-EC750	750		168*154*55						√			√	√	8	4			
	2EL6-EC1000	1000	1 Phase/ 3 Phase 220	168*183*55						√			√	√	8	4			
	2EL6-EC1500	1500		168*183*75						√			√	√	8	4			

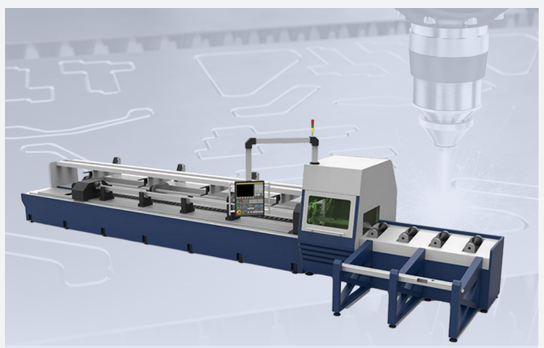
Applications

CNC Router

Product Advantages:

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

Fiber Laser Cutting



Product Advantages:

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

Wafer Cutting

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

Automated Battery Lamination

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

Semiconductor Wafer Cleaning

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

Leadshine

EtherCAT

Modbus

EL8 Series

High End AC Servo Drives

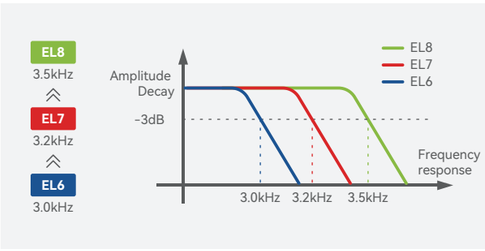
EL8 Series AC Servo Drives are our latest high end servo drives which are packed with more new hardware and software features. This serie of servo drive also comes with another version which combines analogue control, Modbus RTU protocol (RS485) and pulse + direction control into one. We added STO SIL3, analogue I/Os, holding brake port and EL8 series now supports a 2nd external encoder as well with our full closed loop control.

Robotic Arm | Precise Machining | Semiconductor | Electronics | Fiber Laser

Overview

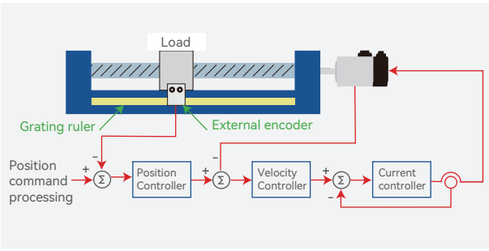
Quick Frequency Response

Frequency response of 3.5kHz, quicker system response and better precision.



Full Closed Loop Control

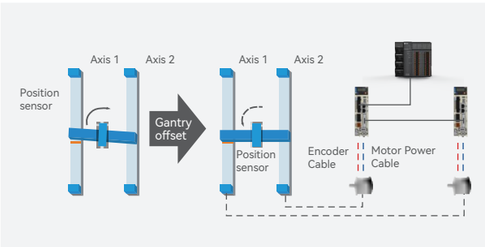
EL8 series servo drives support full closed loop control which can eliminate the position deviation due to mechanical gap, and precision will have an obvious improvement.



Gantry Synchronization

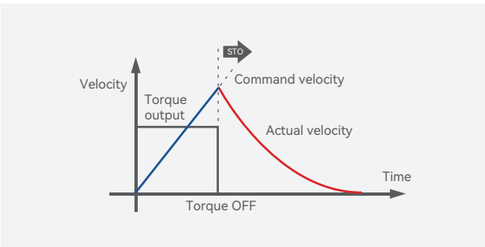
Gantry synchronization MIMO technique, breaking through foreign technological barrier.

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



Safe Torque Off (SIL3)

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



Part Numbers

EL8 - EC 400 F

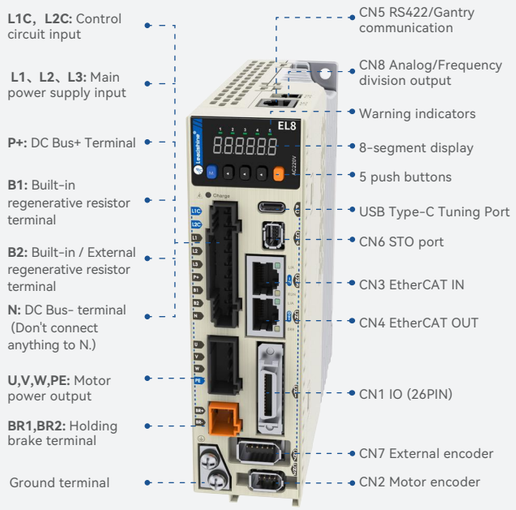
Series Num	
EL8	EL8 series

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

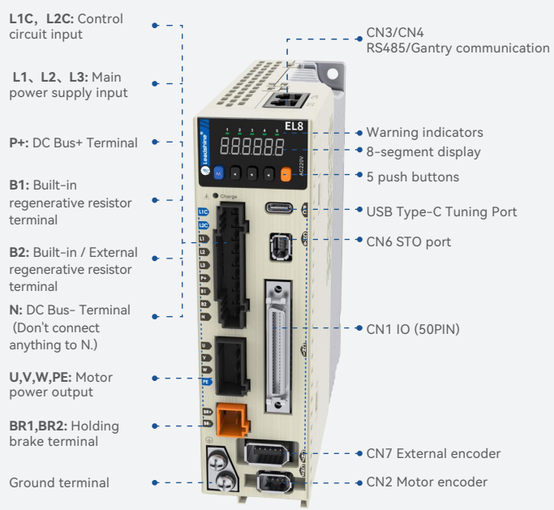
Version			
400	400W	750	750W
1000	1000W	1500	1500W
2000	2000W		

Version	
F	Full Functions

Ports & Connectors



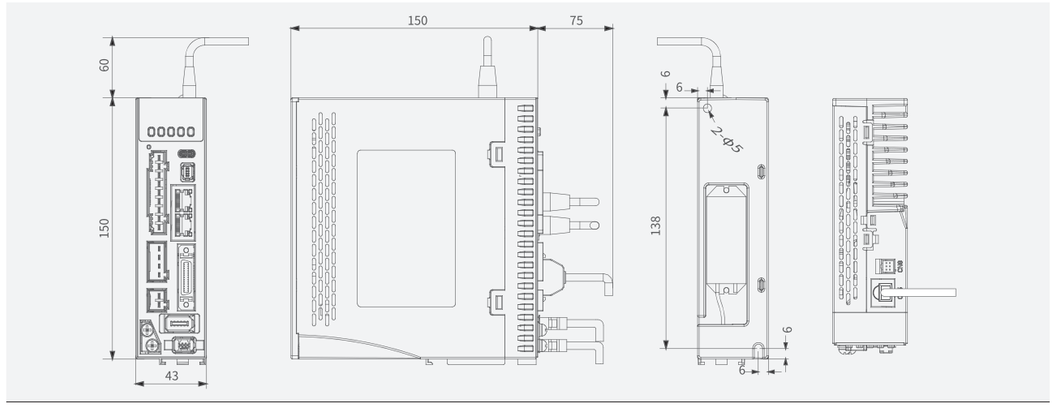
EL8 – EC Series



EL8 – RS Series

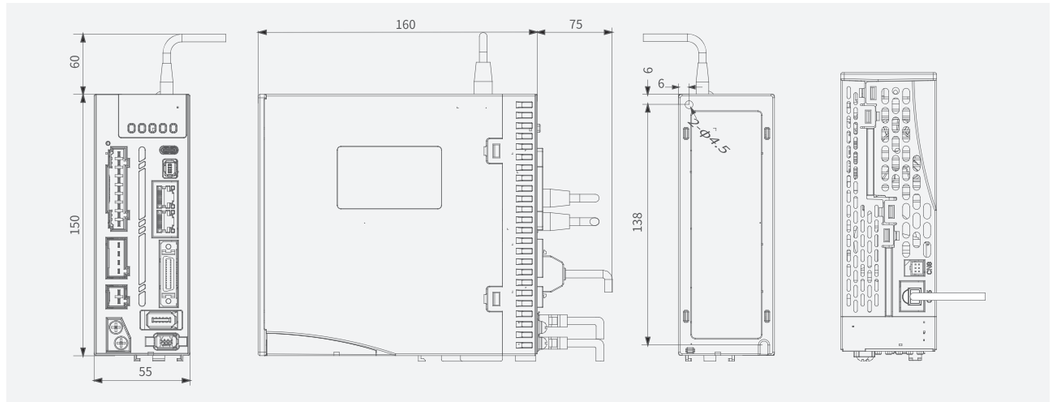
400W（AC 220V）

Unit: mm



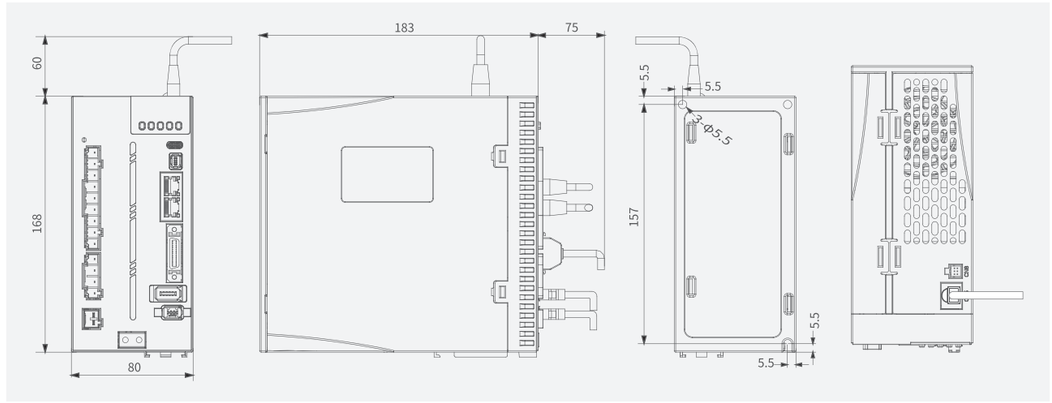
750W/1000W（AC 220V）

Unit: mm



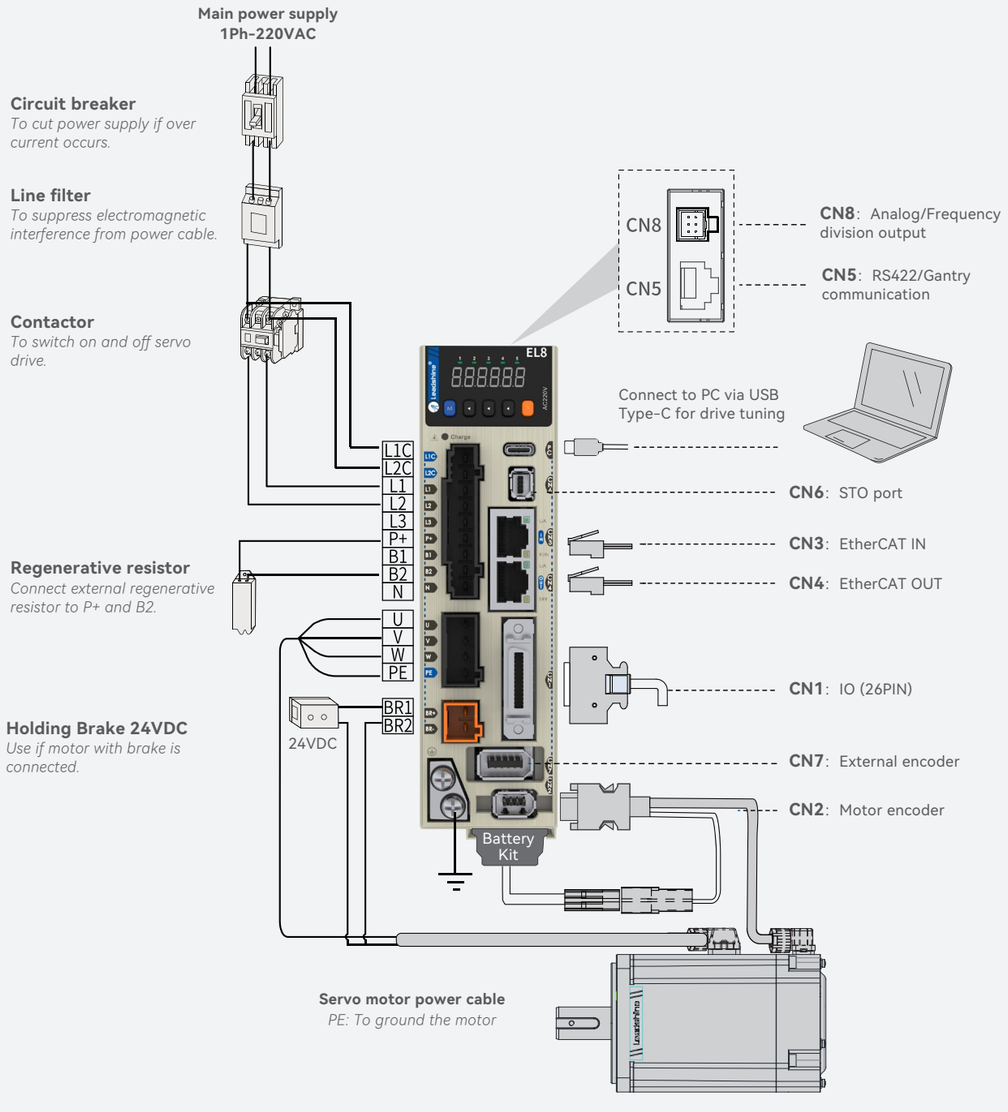
1500W/2000W（AC 220V）

Unit: mm

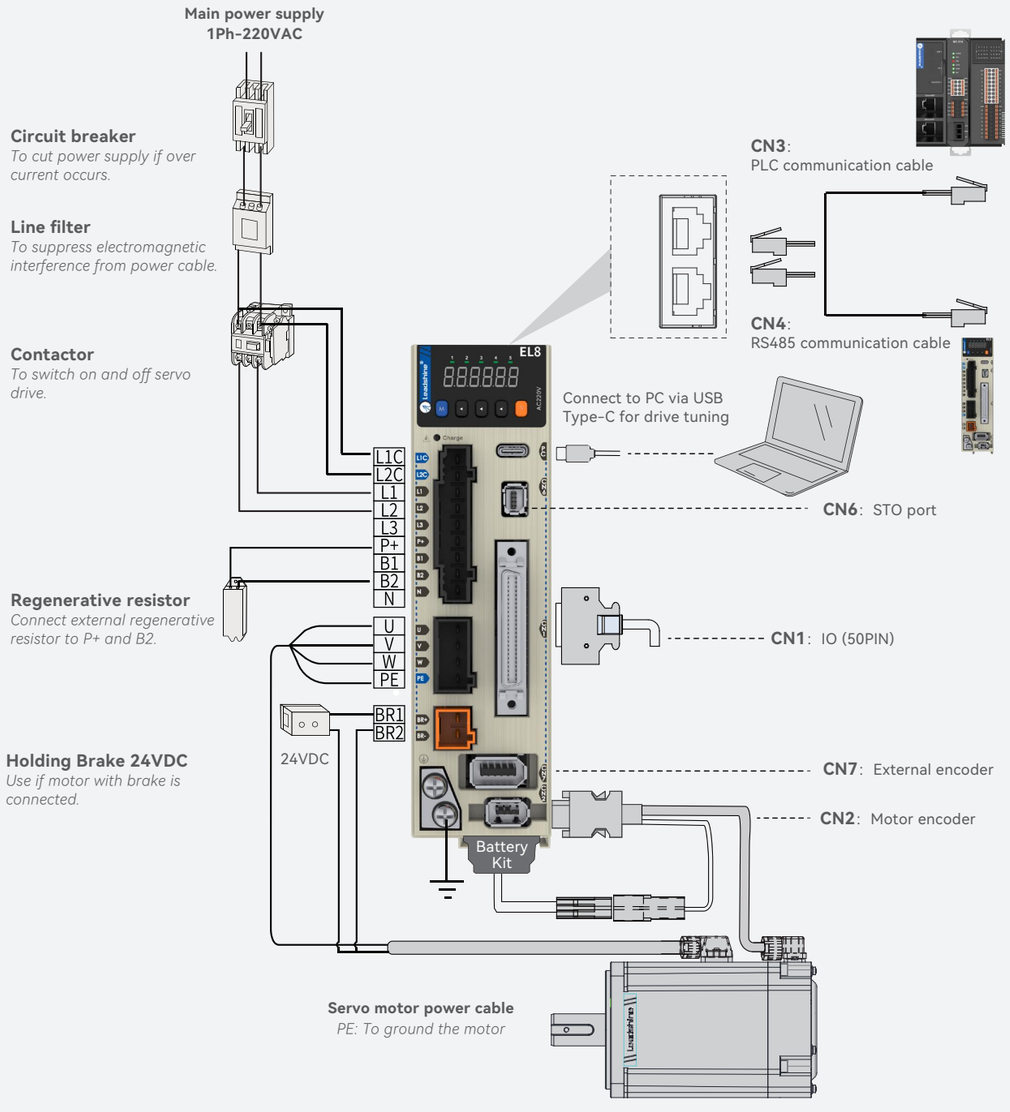


EL8 Series Advanced AC Servo Drives

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
Power Rating	400W	750W	1000W	1500W	2000W
Rated Current (A)	2.8	5.5	7.0	9.5	12
Peak Current (A)	9.3	16.9	21.2	31.1	36
Control Circuit Power Supply	1Ph AC 200V~240VAC, -10%~+10%, 50/60Hz				
Main Power Supply	1Ph/3Ph AC 200V~240VAC, -10%~+10%, 50/60Hz				
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), -10V~+10V, Max. voltage: ±12V,
	2 analog outputs (AO1/AO2), -10V~+10V,
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	5V differential signal, 0-500kHz 24V single ended signal, 0-200kHz
High-speed pulse input	5V differential signal, 0-4MHz
Analog I/O	3 analog inputs (AI1/AI2/AI3), -10V~+10V, Max. voltage: ±12V,
	2 outputs (AO1/AO2), -10V~+10V, Max. voltage: ±12V,
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, 50Hz~4000Hz
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-segments 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 2000m; 100% performance at 1000m or below. Performance decreases by 1% with every increase of 100m from 1000m.
Vibration	Less than 0.5G (4.9m/s2) 10-60Hz (non-continuous working)
IP ratings	IP20

Leadshine

EtherCAT

Modbus

EL8-L Series

High End AC Servo Drives

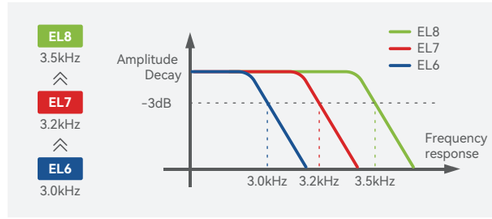
EL8-L Series AC Servo Drives are our latest high end servo drives which now supports linear motors. This series of servo drive comes with EtherCAT control and another version which combines analogue control, Modbus RTU protocol (RS485) and pulse + direction control into one. We added STO SIL3, analogue I/Os, holding brake port and EL8 series now supports a 2nd external encoder for optical/ magnetic scale feedback of a linear motor.

Machine tools | Electronics | Renewable energy | Fiber laser | Semiconductor

Overview

Quick Frequency Response

Frequency response of 3.5kHz, quicker system response and better precision.



Gantry Synchronization

Gantry synchronization MIMO technique, breaking through foreign technological barrier.

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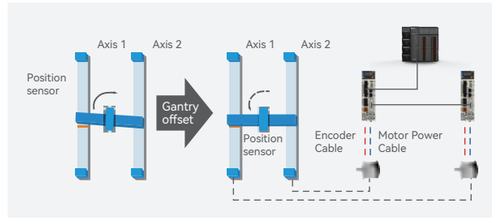
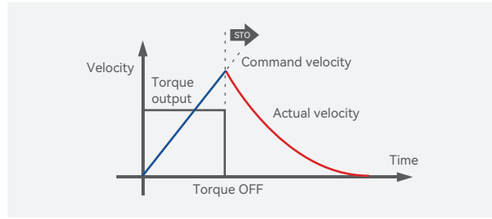


Safe Torque Off (SIL3)

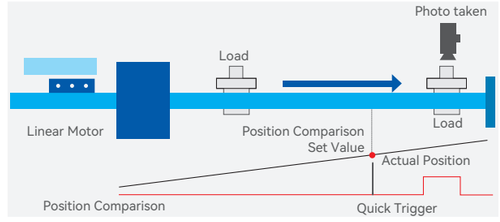
When Safe Torque Off is activated, internal circuit will cut off motor power supply immediately, guaranteeing operator and machine safety.



Position Comparison

Up to 42 points of position comparison.

Drive with analogue input up to 16 bit data for more precise sampling.



Matching Motor Types

- Linear
- Direct Drive
- Voice Coil

** Encoder with BissC/Tamagawa/ABZ are supported*

Part Numbers

EL8 - EC 030 L

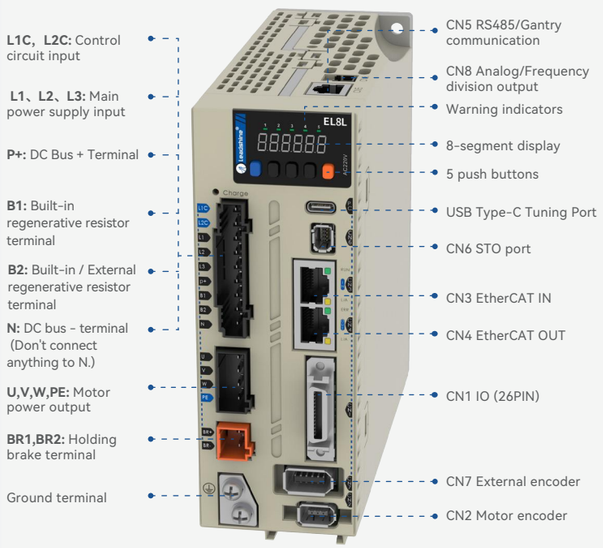
Series Num	
EL8	EL8 series

Command Source	
EC	EtherCAT
RS	Modbus RTU/ Pulse+Direction

Rated Current			
030	3.0Arms	045	4.5Arms
060	6.0Arms	080	8.0Arms
130	13.0Arms		

Version	
L	Linear Drive

Ports & Connectors

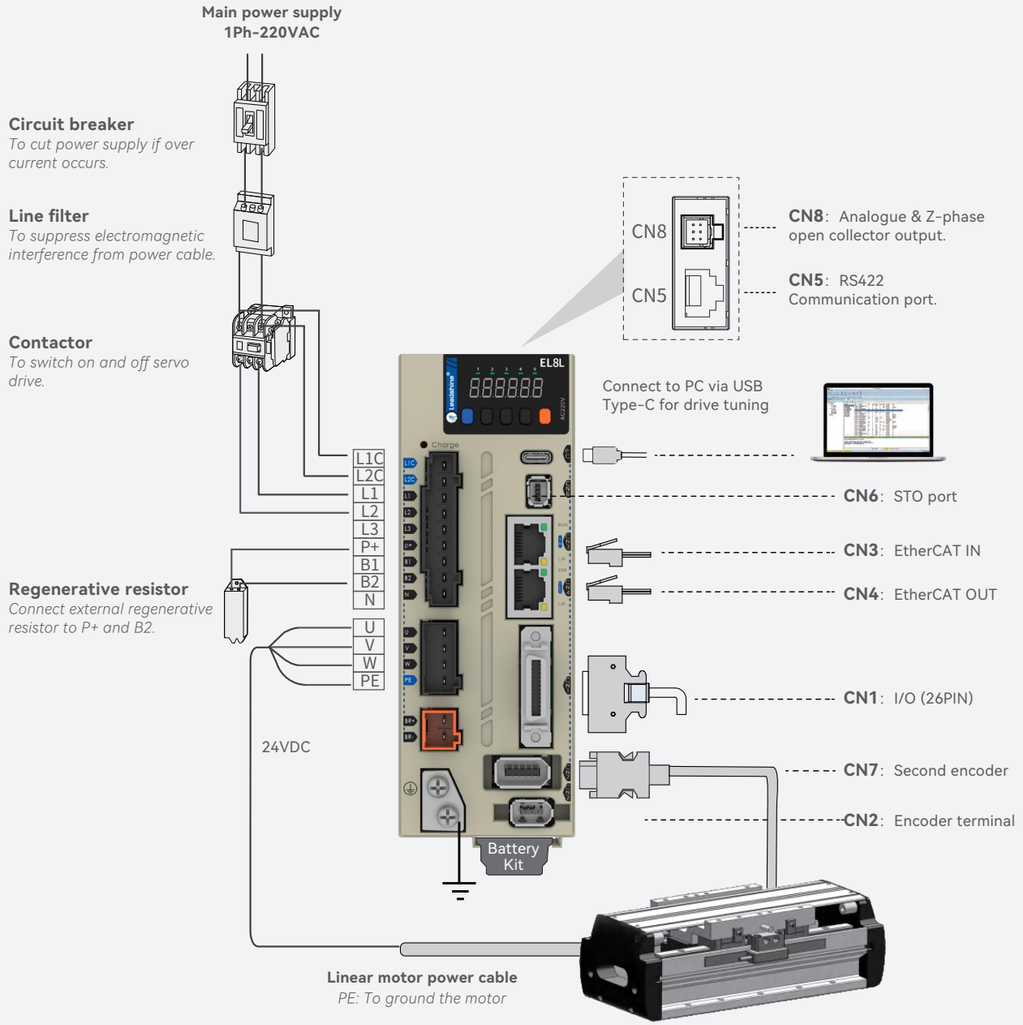


Specifications

1-Phase/3-Phase 200-240VAC, 50/60Hz

Drive Models	Rated Current (Arms)	Peak Current (Arms)	Dimension (L*H*W mm)
EL8-RS030L	3.0	9.3	150*150*43
EL8-EC030L			
EL8-RS045L	4.5	18.5	160*150*55
EL8-EC045L			
EL8-RS060L	6.0	21.0	
EL8-EC060L			
EL8-RS080L	8.0	28.0	183*168*80
EL8-EC080L			
EL8-RS130L	13.0	36.0	
EL8-EC130L			

EL8-L & Peripheral Wiring Diagram



EL7-EC/RS/PN (400W-7.5kW) Series

General Purpose AC Servo Drives

EL7-EC/RS/PN (400W-7.5kW) Series AC servo products are high performance AC digital servo which is designed for position/velocity/torque high accurate control with power rating ranging up to 2kW for 220VAC models and 7.5kW for 400VAC models which provides a perfect solution for different applications with easy tuning process.

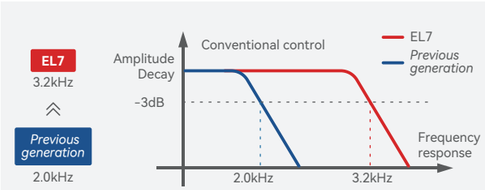
This drive series supports automatic inertia ratio identification, vibration suppression and automatic/manual gain settings. It also comes with Safe Torque Off (STO) of SIL3 grading and matching regenerative resistor.

EL7-RS/EC/PN (400W-7.5kW) Series AC Servo Drive supports Modbus communication protocol in addition to analogue and pulse + direction input control, EtherCAT, Profinet.

CNC router | Fiber laser | Electronics | Semiconductor | Renewable energy

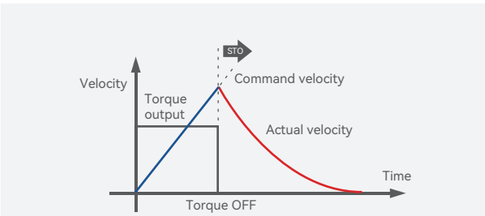
Frequency Response

Quicker system response of 3.2kHz for higher precision control.



Safe Torque Off (STO) SIL3 (EC/PN)

Ensures that no torque-generating energy can act upon a motor at emergency stop and prevents unintentional starting.

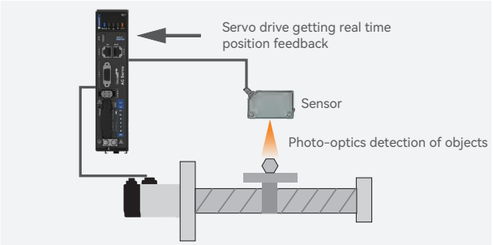


Supports PROFI Drive Telegrams (PN)

- Drives with PROFINET communication protocols.
- Supports Application Case 1, 3 and 4.
- Supports Telegram 1, 3, 102, 105, 111.
- Contains Siemens Annex Telegram 750 and Leadshine Annex Telegram 901.

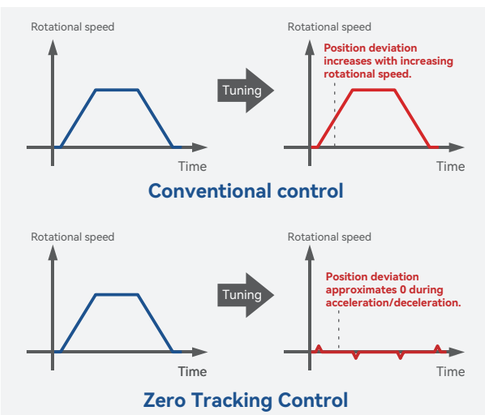
Real Time Position Control

Through touch probe input, real time motor position feedback can be recorded.



Zero Tracking Control

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



Part Numbers

EL7 - EC 750 P T

Series Num	
EL7	EL7 series

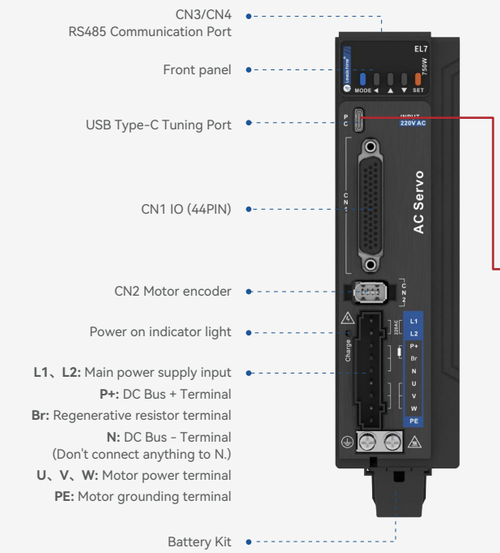
Command Source	
EC	EtherCAT
RS	Modbus RTU/ Analog Input/ Pulse+Direction
PN	Profinet

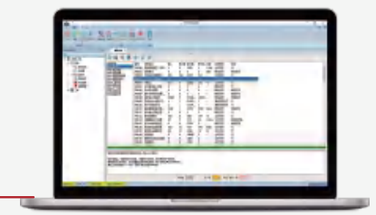
Voltage	
Blank	220VAC
T	400VAC

Version	
P	Full functions without STO
N	Full function including CE, STO, UL* Certifcations

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

EL7-RS Series



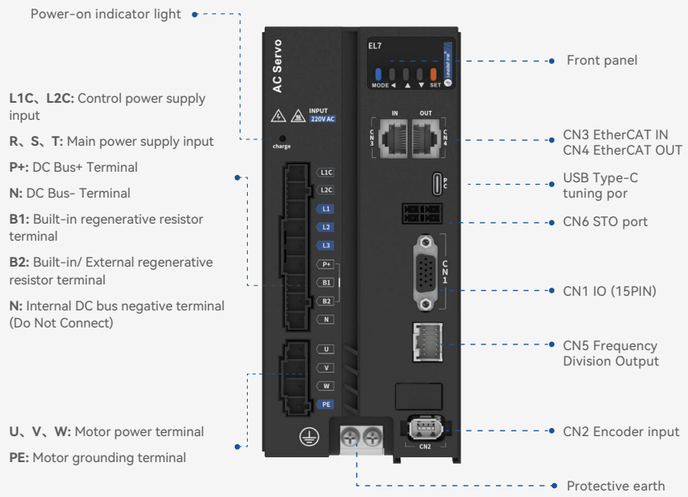


Tuning via USB Type-C

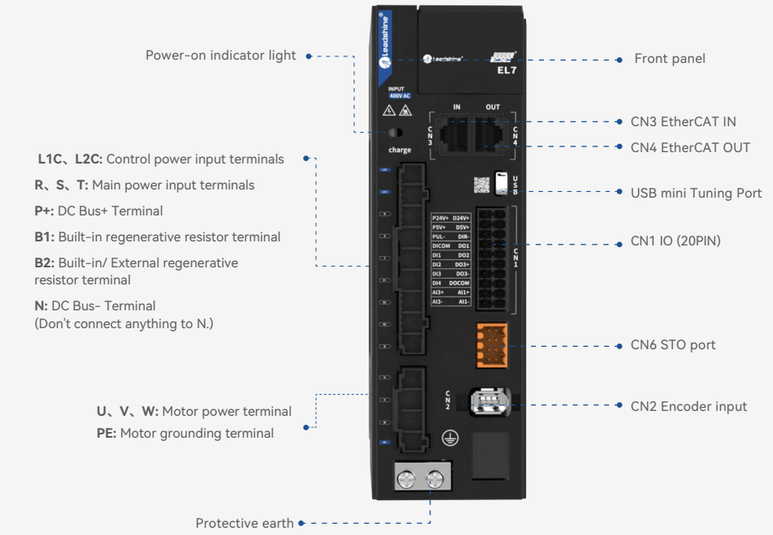
- Tuning can be done via USB Type-C tuning port.
- Main power supply is not needed for parameter reading and writing.

Ports & Connectors

EL7-ECN Series

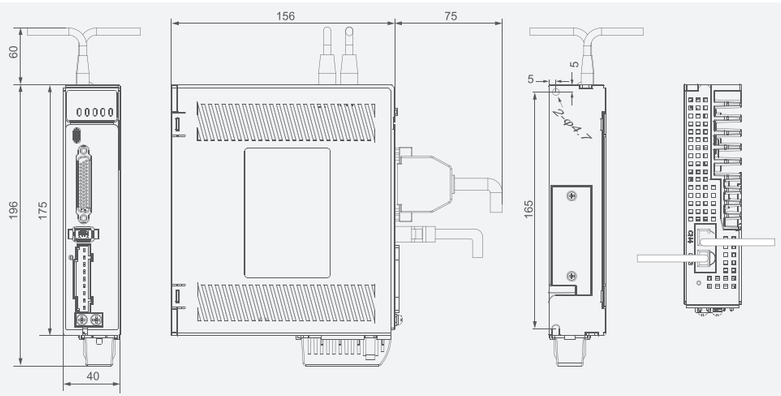


EL7-PN Series



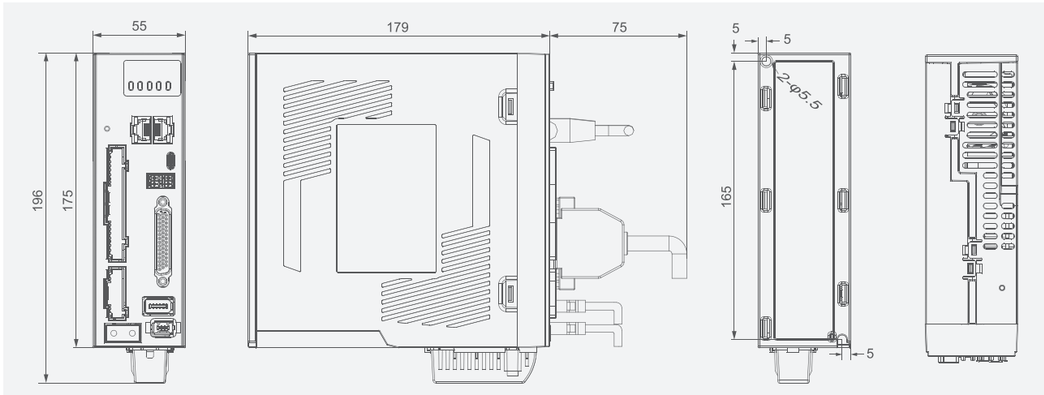
400W（AC 220V）

Unit: mm



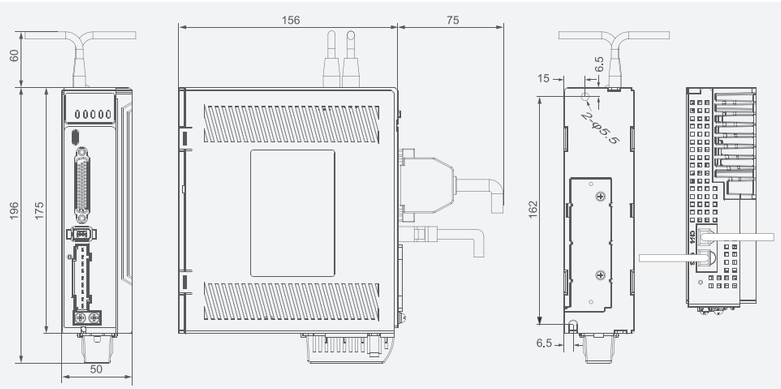
750W/1000W/1.5kW（AC 400V）

Unit: mm



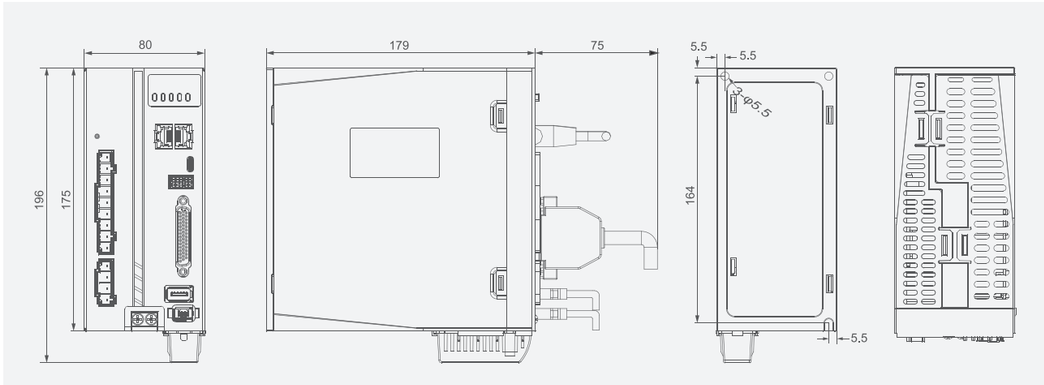
750W/1000W（AC 220V）

Unit: mm



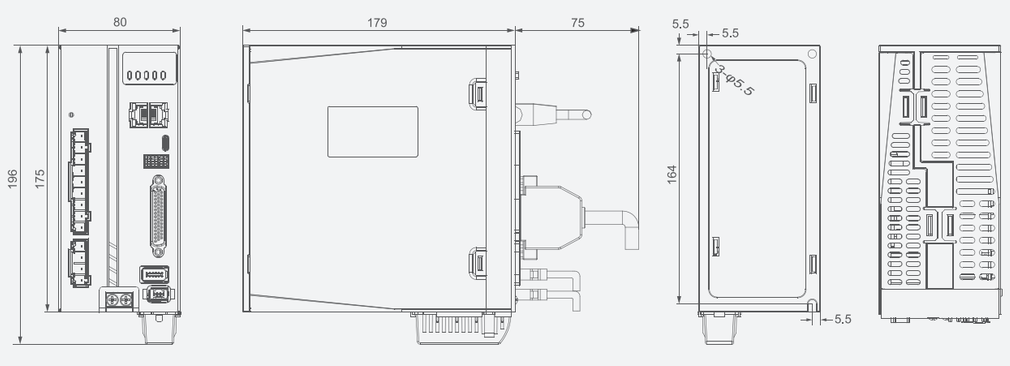
2kW/3kW（AC 400V）

Unit: mm



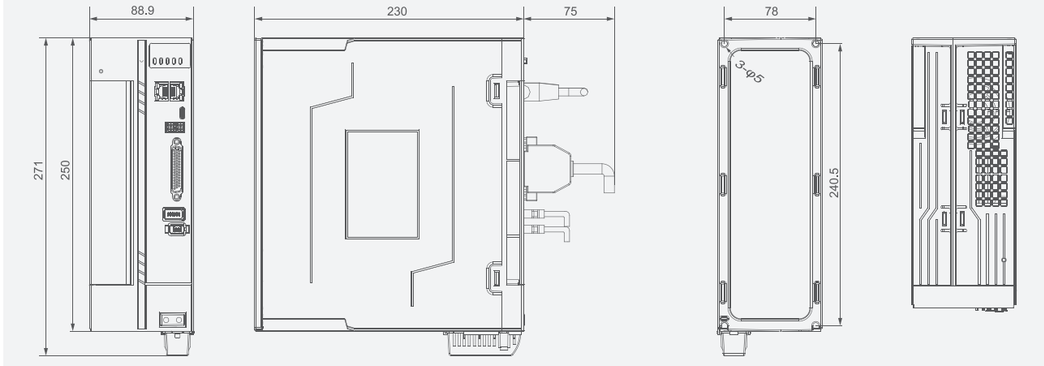
1500W/2000W（AC 220V）

Unit: mm

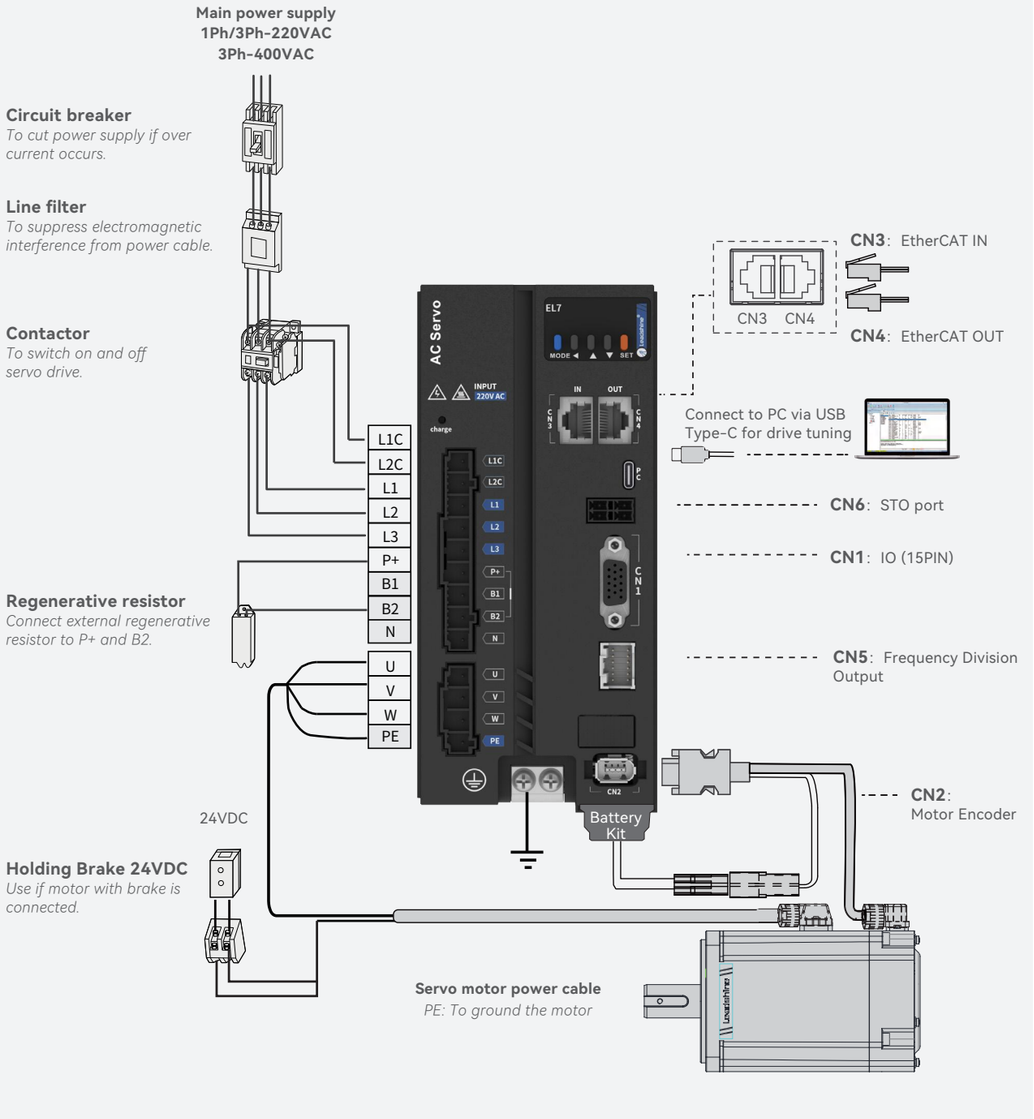


4.4kW/5.5kW/7.5kW（AC 400V）

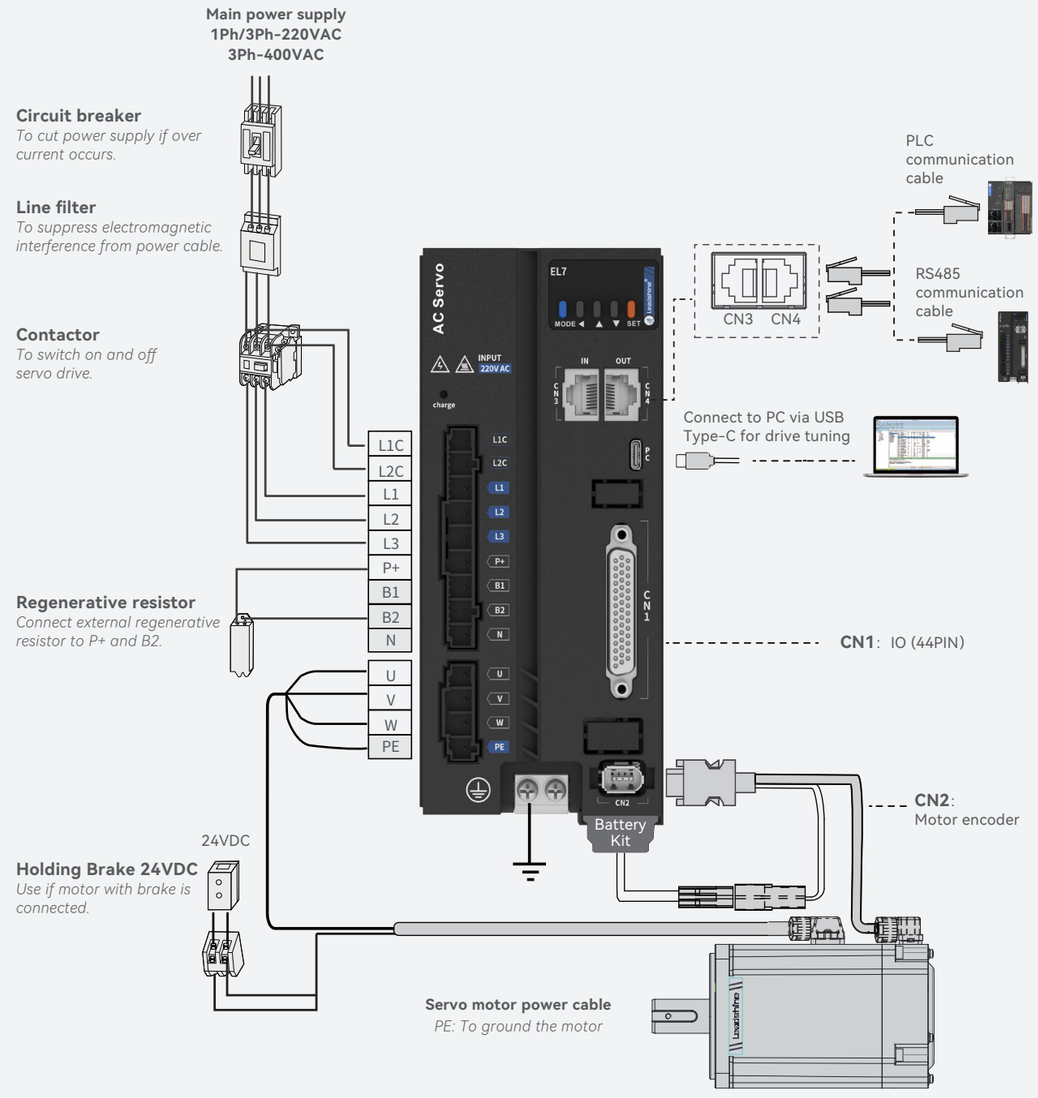
Unit: mm



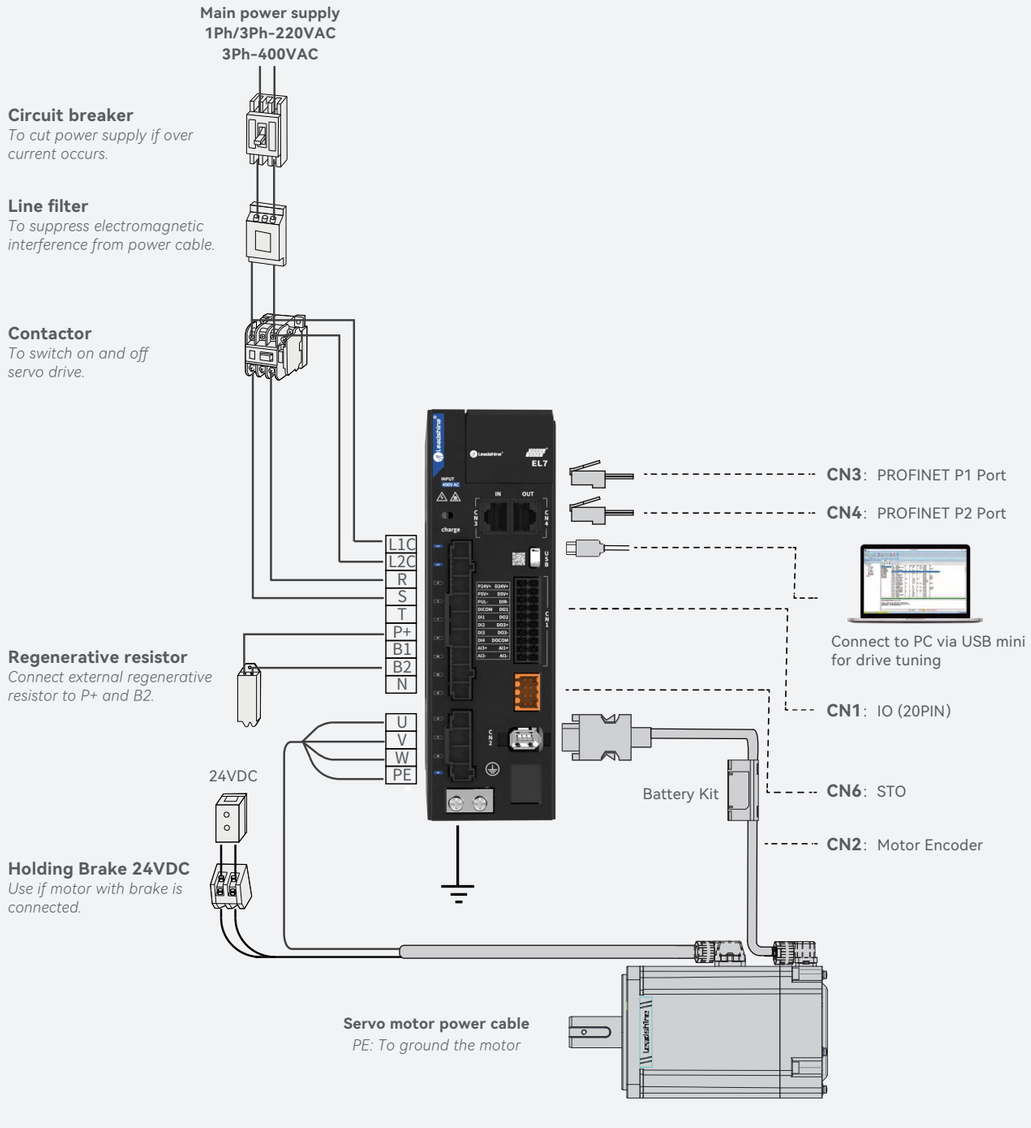
EL7-ECN & Peripheral Wiring Diagram



EL7-RS & Peripheral Wiring Diagram



EL7-PN & Peripheral Wiring Diagram



Specifications

EL7-RSP/ECN 220V Models

EL7-ECN series	EL7-EC400N	EL7-EC750N	EL7-EC1000N	EL7-EC1500N	EL7-EC2000N
EL7-RSP Series	EL7-RS400P	EL7-RS750P	EL7-RS1000P	EL7-RS1500P	EL7-RS2000P
Power Rating	400W	750W	1000W	1500W	2000W
Rated Current (Arms)	3.5	5.5	7.0	9.5	12
Peak Current (Arms)	9.5	16.6	21	31.1	36
Control circuit power supply	1Ph AC 200V~240V, -10%~+10%, 50/60Hz,			1Ph AC 200V~240V, -10%~+10%, 50/60Hz,	
Main power supply				1Ph/3Ph AC 200V~240V, -10%~+10%, 50/60Hz,	
Dimension H*L*W (mm)	175*156*40	175*156*50		175*179*80	

EL7-PN 220V Models

EL7- PNF series	EL7-PN400F	EL7- PN750F	EL7- PN1000F	EL7- PN1500F	EL7- PN2000F
Rated power	400W	750W	100W	1500W	2000W
Rated Current (Arms)	3.5	5.5	7	9.5	12
Peak Current (Arms)	9.5	16.6	18.7	31.1	36
Main Power Supply	1Ph/3Ph AC 220V, -15%~+10%, 50/60Hz,				
Control Circuit Power Supply	1Ph AC 220V, -15%~+10%, 50/60Hz,				
Dimension H*L*W (mm)	175*179*55			175*179*80	

EL7-RSPT/ECNT/PNFT 400V Models

EL7-ECNT series	EL7-EC750NT	EL7-EC1000NT	EL7-EC1500NT	EL7-EC2000NT	EL7-EC3000NT	EL7-EC4400NT	EL7-EC5500NT	EL7-EC7500NT
EL7-RSPT series	EL7-RS750PT	EL7-RS1000PT	EL7-RS1500PT	EL7-RS2000PT	EL7-RS3000PT	EL7-RS4400PT	EL7-RS5500PT	EL7-RS7500PT
EL7- PNFT series	EL7-PN750FT	EL7-PN1000FT	EL7-PN1500FT	EL7-PN2000FT	EL7-PN3000FT	EL7-PN4400FT	EL7-PN5500FT	EL7-PN7500FT
Rated Power	750W	1000W	1500W	2000W	3000W	4400W	5500W	7500W
Rated Current (Arms)	2.7	3.5	5.4	8.4	11.9	16.5	20.8	25.7
Peak Current (Arms)	8.6	10.6	14	24.8	33.2	38.9	51.6	63.6
Control circuit power supply	1Ph AC 380V~440V, -15%~+10%, 50/60Hz,							
Main power supply	3Ph AC 380V~440V, -15%~+10%, 50/60Hz,							
Dimension L*H*W (mm)	175*179*55			175*179*80		250*230*89		

EL7-ECN	
Ports	**Descriptions**
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	4 Digital Inputs (Supports common anode or cathode connection) DI1,DI2,DI3,DI6
	3 digital outputs (double-ended) DO1~DO3
Communication Port	EtherCAT, RTU protocol (RJ45 port)
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)

EL7-RS	
Ports	**Descriptions**
USB Type-C Tuning	Modify or read drive parameters without connecting to main power supply
Low-speed pulse input	5V differential signal, 0-500kHz 24V single ended signal, 0-200kHz
High-speed pulse input	5V differential signal, 0-4MHz
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) ,-10V~+10V, Max. voltage: ±12V
	1 analog output (AO1), -10V~+10V
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	
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	6 Digital Inputs (Supports common anode or cathode connection) DI1~DI8
	3 digital outputs (double-ended) DO1~DO5
Communication Port	PROFINET protocol (RJ45 port)
Control Mode	
Supported Telegram	Telegram 1/2/3/110/111/102/105

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,50Hz~4000Hz
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 EL7-ECN and EL7-PNF series products
Front Panel	5 push buttons, 8-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 (All Series)	
Temperature	Storage: -20-80℃ (Condensation free); Not < 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 2000m; 100% performance at 1000m or below. Performance decreases by 1% with every increase of 100m from 1000m.
Vibration	Less than 0.5G (4.9m/s2) 10-60Hz (non-continuous working)
IP ratings	IP20

Leadshine

EtherCAT

Modbus

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

General Purpose AC Servo Drives

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

Machine Tools

Logistics

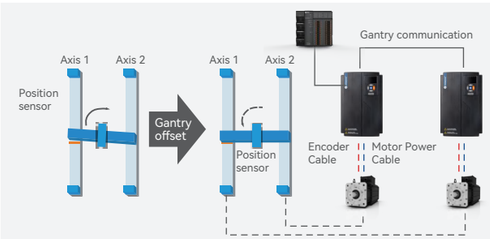
Packaging

Overview

Gantry Synchronisation

Gantry Synchronised MIMO Technique.

To achieve two-axis alignment and two-axis synchronous following of the device, the EL7 high-power servo drives are self-synchronised and does not require upper computer control.



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.

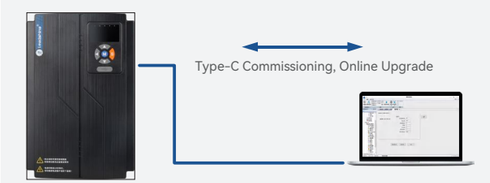
Supports PTC Temperature Detection

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

Type-C Commissioning

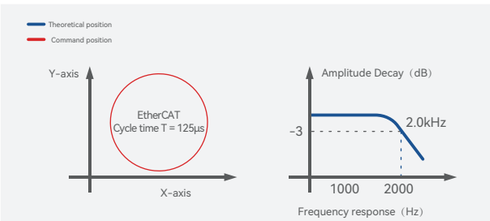
Supports Type-C powered panel commissioning parameters only, fulfilling the trend of intelligent commissioning.



Excellent Response Performance (EC)

Frequency response of 2.0kHz,quicker system response and smaller position tracking deviation.

Minimum 125μs bus synchronisation period for more accurate and smooth position control.



Part Numbers

EL7 - EC 11K0 N T

Series Num	
EL7	EL7 series

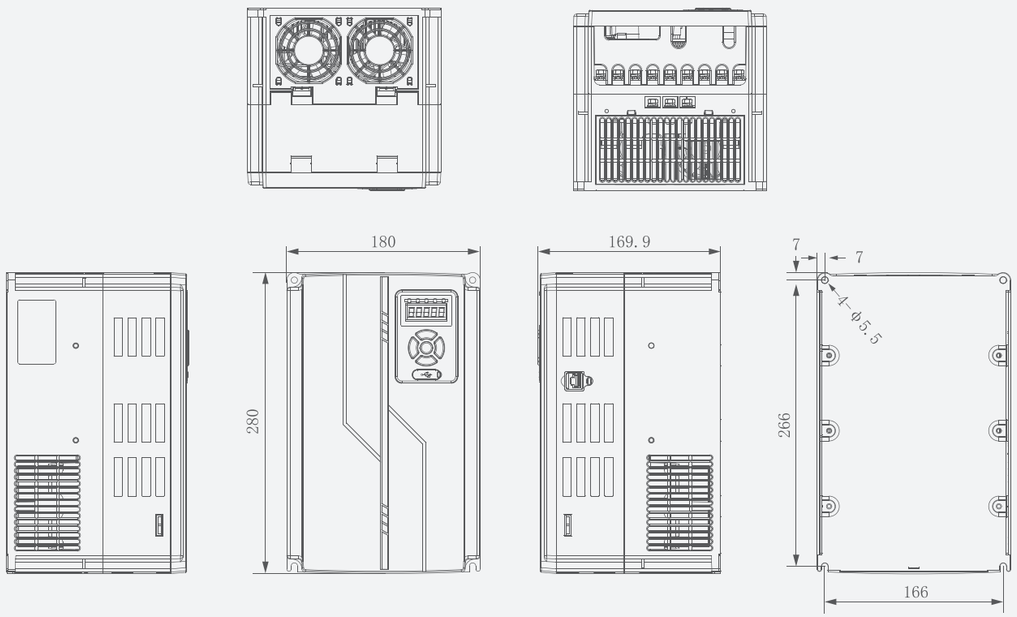
Command Source	
EC	EtherCAT
RS	Modbus RTU/ Analog Input/ Pulse+Direction

Voltage	
Blank	220V
T	400V

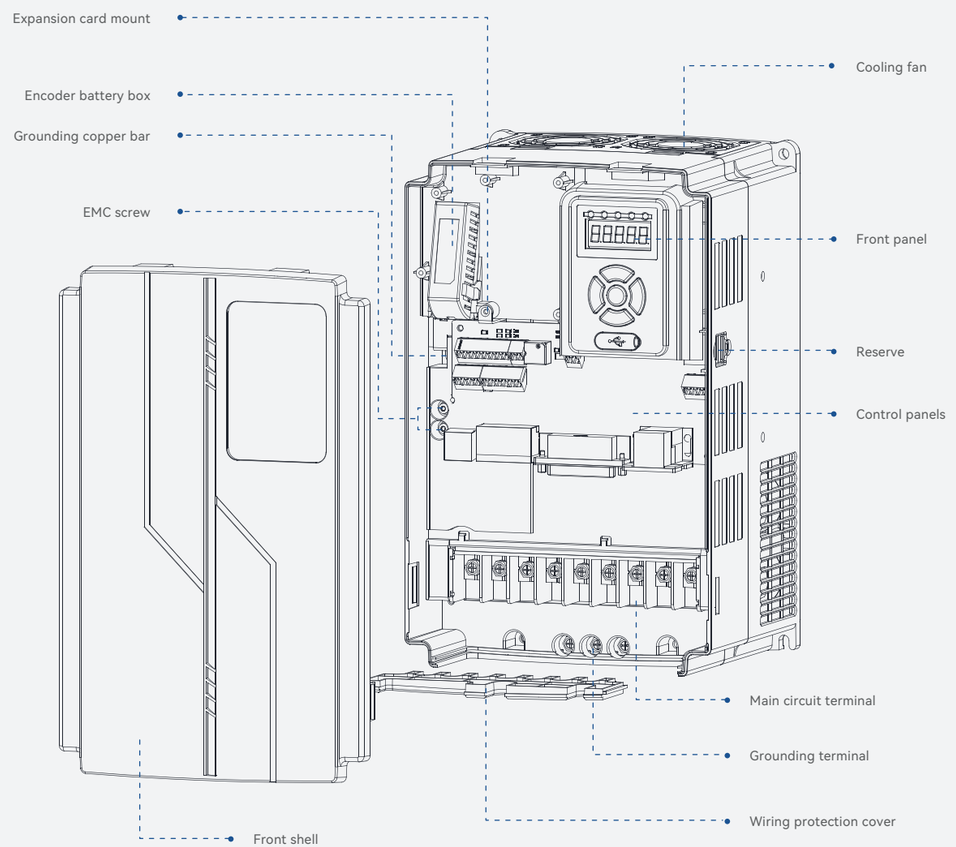
Version	
N	Full function including CE, STO, UL* Certifcations

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

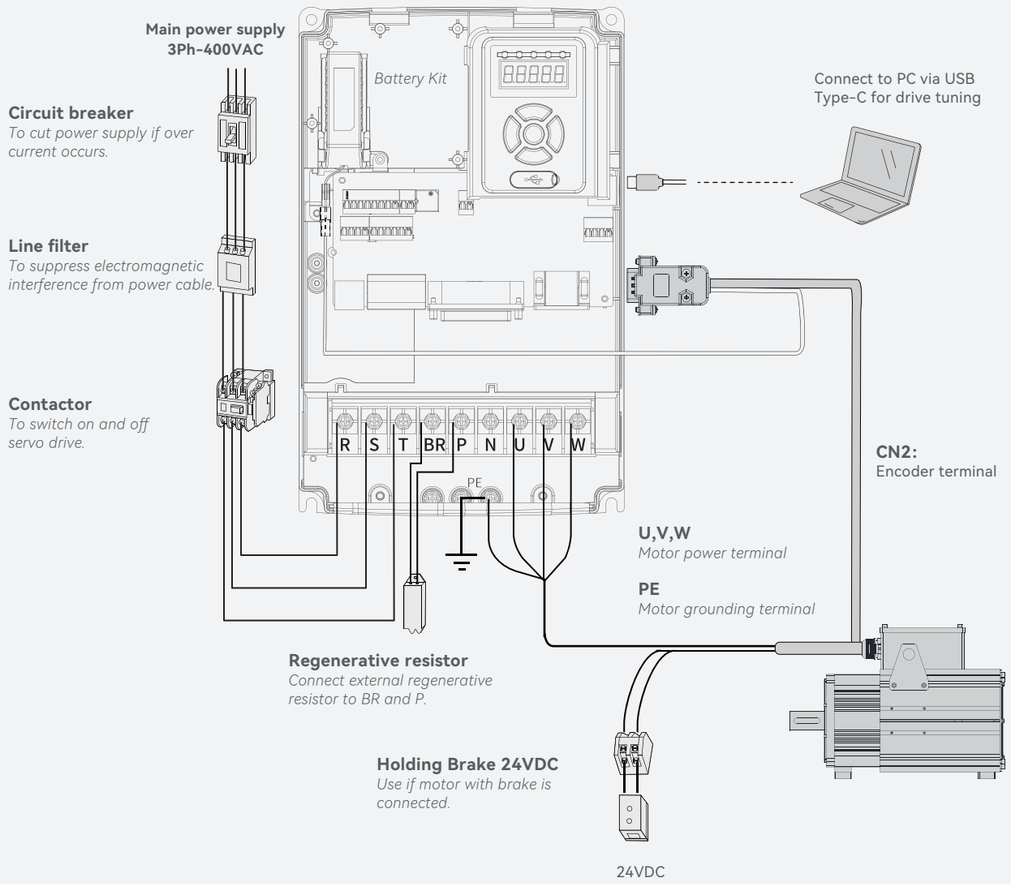
EL7-EC/RS (11-22kW) Series



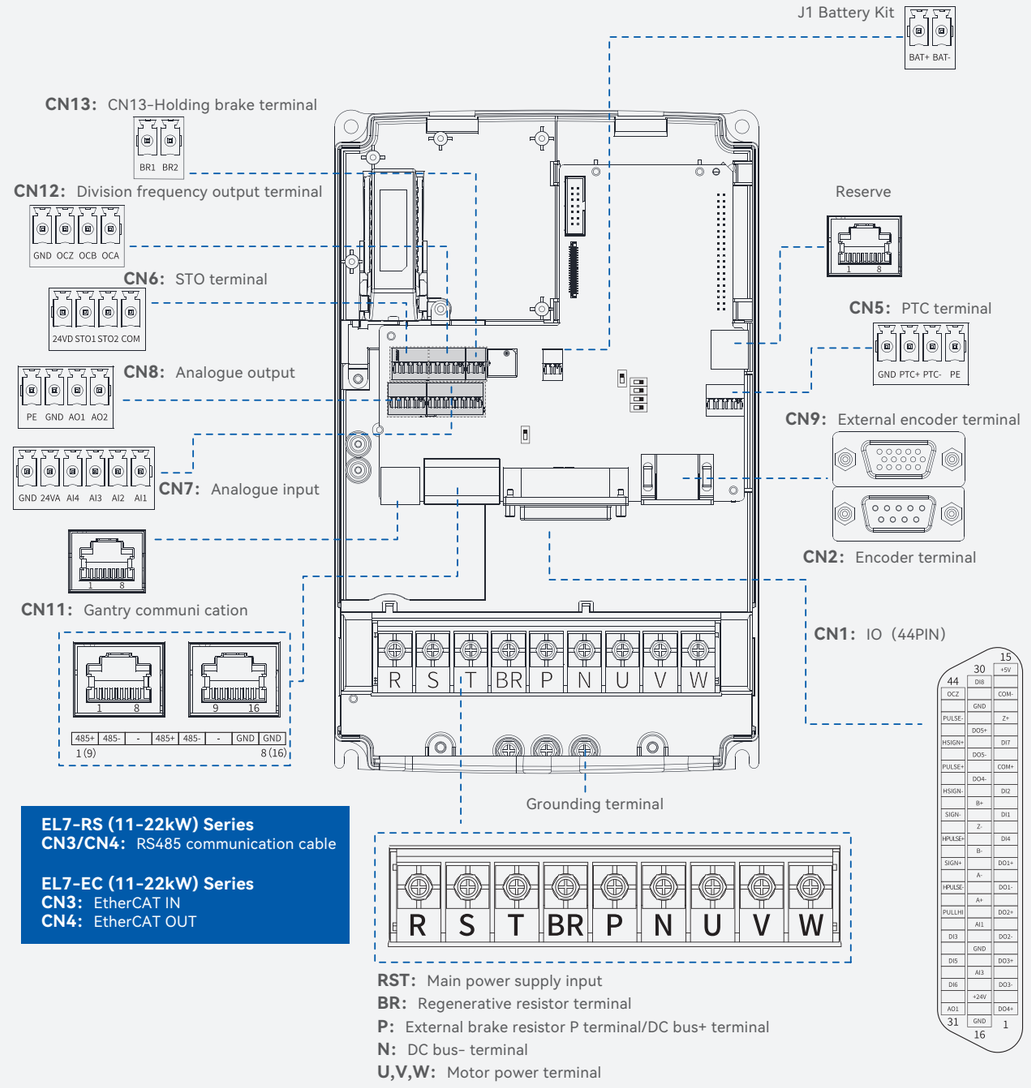
Ports & Connectors



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



EL7-EC/RS (11-22kW) & 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	11KW	15KW	18.5KW	22KW
Rated Input Current (Arms)	29	36	42	48
Rated Output Current (Arms)	25	32	37	44
Peak Output Current (Arms)	42.5	54.4	62.9	74.8
Main Power Supply	3Ph AC 380~480V, -15~+10%, 50/60Hz			
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
Analogue 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: ±12V
Analogue 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)
Analogue 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: ±12V
Analogue Output	2 AO(AO1/AO2), output range: 0~10V
Communication Port	RS485 (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).
Position Comparison	Up to 42 points
Suitable Load Inertia	Less than 30 times the motor inertia
Notch Filter	Mechanical resonance suppression. Supports up to 3 filters,50Hz~4000Hz
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-segments 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 3000m. No derating for use below 1000m. 1% derating for every 100m of altitude above 1000m.
Vibration	Less than 1G (9.8m/s^2) 10-60Hz (non-continuous working) .
IP ratings	IP20

4EL7-EC Series

4 Axes Drive

4 EL7 - EC A05 □

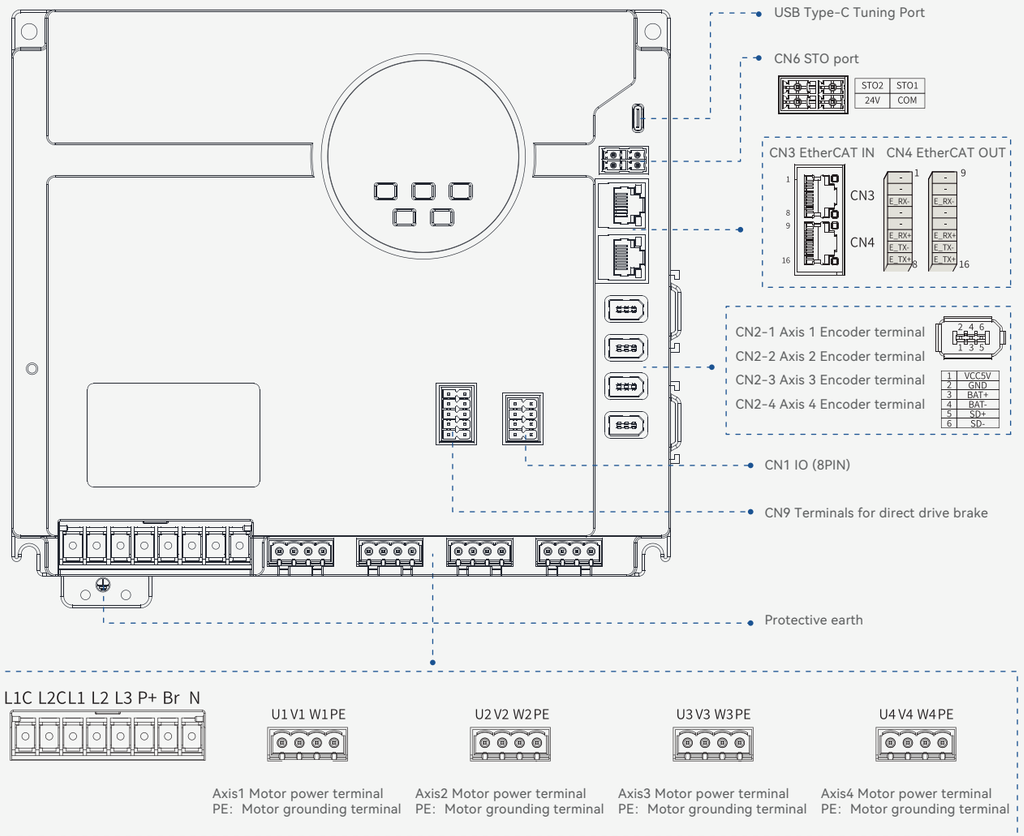
Axes	
2	2 axis
4	4 axis

Series Num	
EL7	EL7 Series

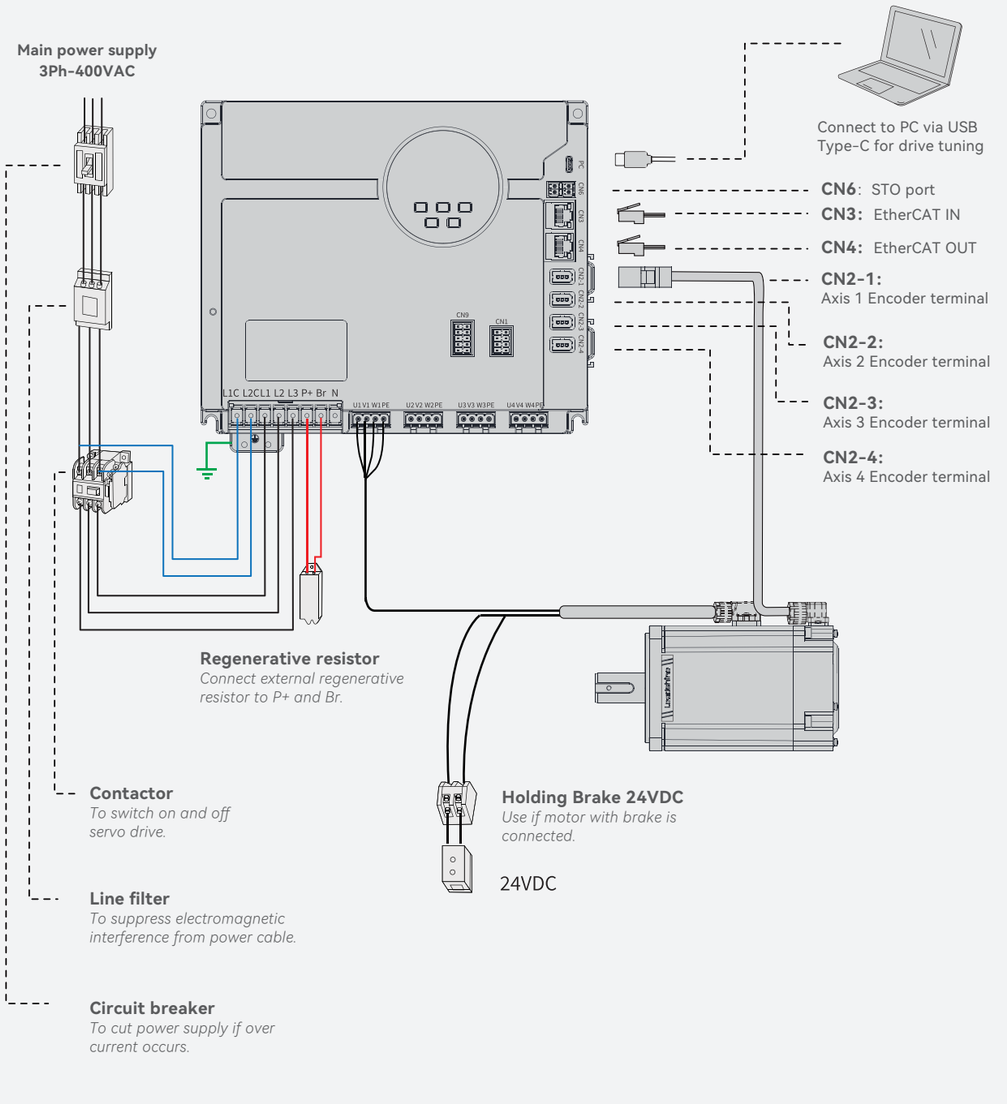
Command Source	
EC	EtherCAT

Voltage	
Blank	220V
T	400V

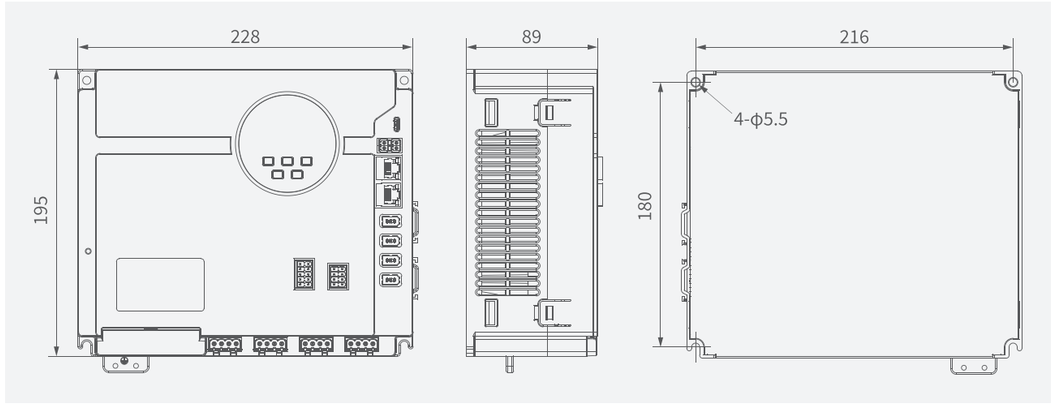
Maximum uniaxial current	
04	4A
05	5A
07	7A



4EL7-EC & Peripheral Wiring Diagram



4EL7-EC Series



Specifications

4EL7-EC 220V Models

4EL7-EC series	4EL7-ECA05				4EL7-ECA07			
Rated Power	750W	400W	400W	400W	1000W	1000W	1000W	750W
Rated Current (Arms)	4.3	2.5	2.5	2.5	6.8	6.8	6.8	4.3
Peak Current (Arms)	16.6	9.3	9.3	9.3	20.4	20.4	20.4	16.1
Main Power Supply	1Ph /3Ph 200~240V, -10%~+10%, 50/60Hz,				1Ph /3Ph 200~240V, -10%~+10%, 50/60Hz,			
Control Circuit Power Supply	1Ph 200~240V, -10%~+10%, 50/60Hz,				1Ph 200~240V, -10%~+10%, 50/60Hz,			
Dimension L*H*W (mm)	230*200*90							

4EL7-EC 400V Models

4EL7-EC series	4EL7-ECA04T				4EL7-ECA05T			
Rated Power	1000W	1000W	1000W	750W	1000W	1500W	1500W	1000W
Rated Current (Arms)	3.5	3.5	3.5	2.7	3.5	4.6	4.6	3.5
Peak Current (Arms)	10.6	10.6	10.6	8.6	10.6	13.8	13.8	10.6
Main Power Supply	3Ph AC 380V~440V, -10%~+10%, 50/60Hz,				3Ph AC 380V~440V, -10%~+10%, 50/60Hz,			
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-segments 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 2000m. No derating for use below 1000m. 1% derating for every 100m of altitude above 1000m.
Vibration	Less than 0.5G (4.9m/s^2) 10-60Hz (non-continuous working)
IP ratings	IP20

Leadshine

EL6-EC Series

Economical AC Servo Drives

EL6 Series include cost-effective AC servo drives designed for accurate positioning control. They can power up to 2kW 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 or 23-bit high resolution encoders, they can provide excellent performance to your control systems.

Logistics

Packaging

lithium battery

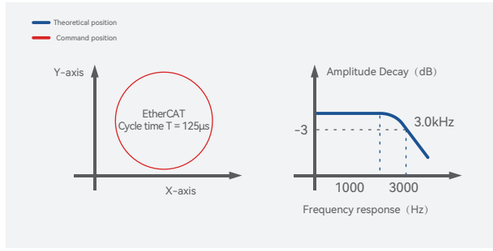
Photovoltaic

Overview

Excellent Response Performance

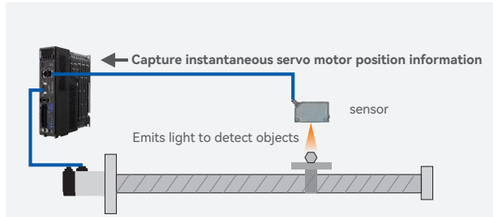
Frequency response of 3.0kHz,quicker system response and smaller position tracking deviation.

Minimum 125μs bus synchronisation period for more accurate and smooth position control.



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.

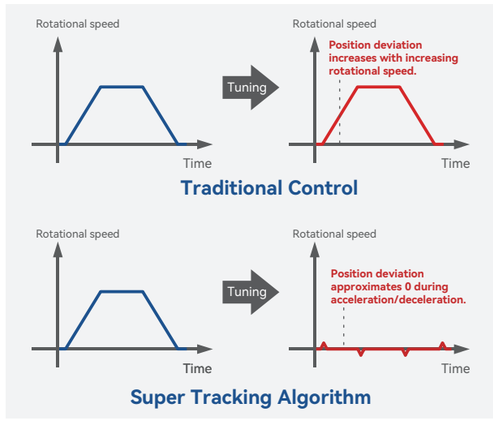


Multi-device Parameter Management

All drives supporting EtherCAT communication can upload and download all parameters in a single operation, which makes reading and writing smarter.

Zero Tracking Control

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



Part Numbers

EL6 - EC 400 □ □

Series Num	
EL6	EL6 series

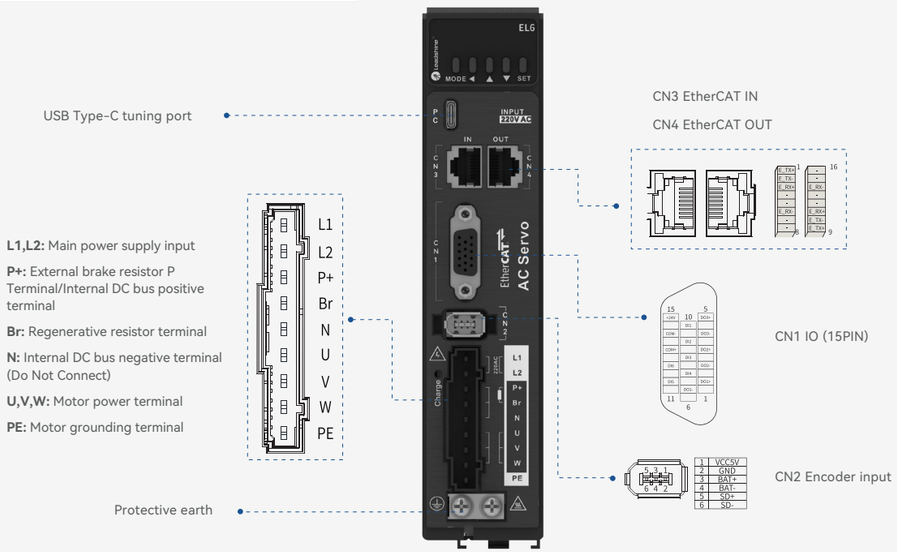
Command Source	
EC	EtherCAT

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

Voltage	
Blank	220V
T	400V

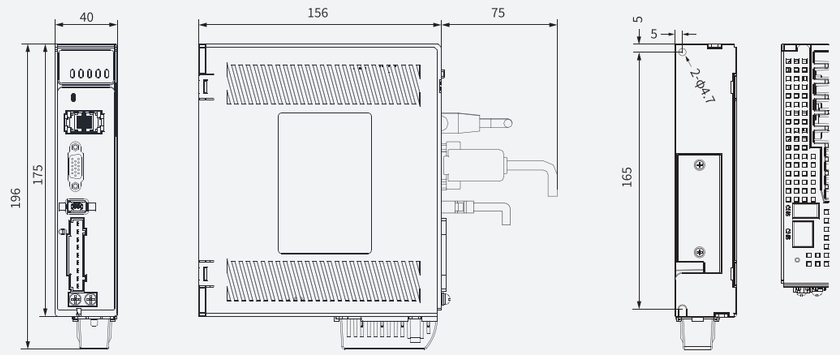
Version	
Blank	Standard Version

EL6-EC 100 ~ EL6-EC 2000



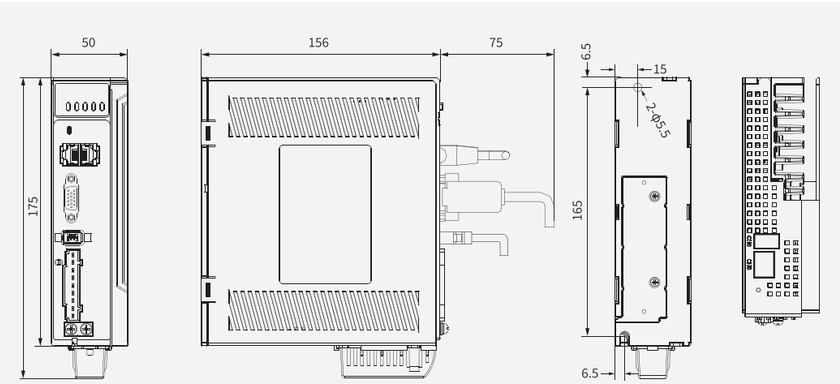
400W（AC 220V）

Unit: mm



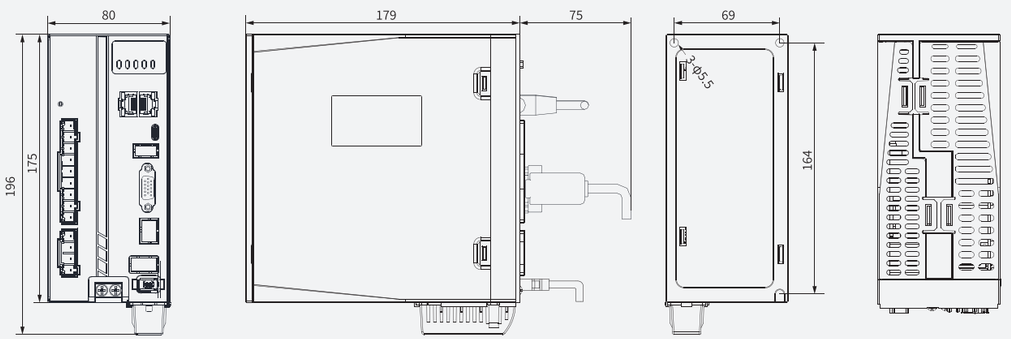
750W/1000W（AC 220V）

Unit: mm

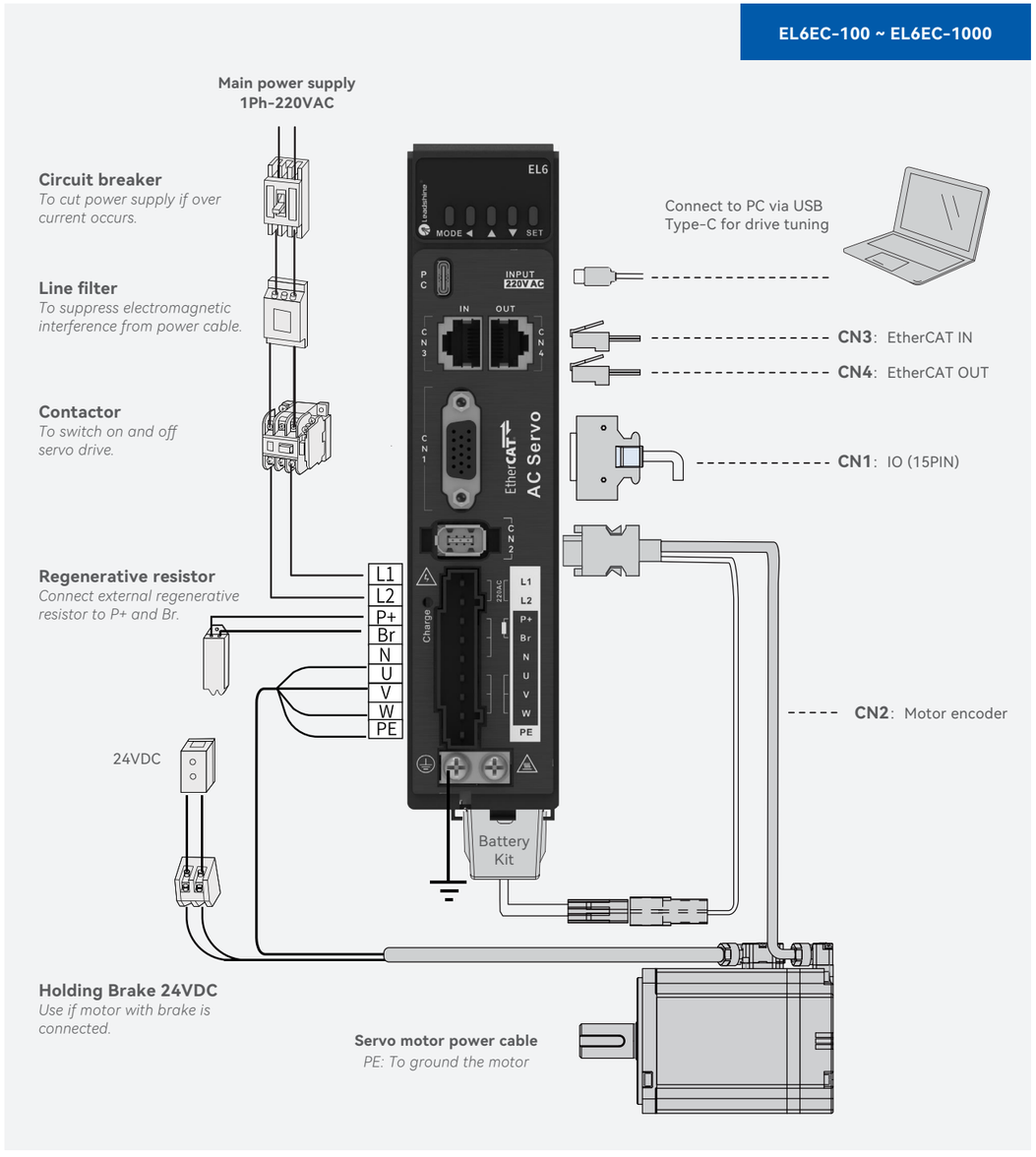


1500W/2000W

Unit: mm



EL6-EC & Peripheral Wiring Diagram



Specifications

EL6-EC series		EL6-EC400	EL6-EC750	EL6-EC1000	EL6-EC1500	EL6-EC2000
Rated Power		400W	750W	1000W	1500W	2000W
Rated Output Current (Arms)		3.5	5.5	7.0	9.5	12
Peak Output Current (Arms)		9.5	16.6	21.0	31.1	36
Main Power Supply		1Ph AC 200V~240V, -10%~+10%, 50/60Hz,			1Ph/3Ph AC 200V~240V, -10%~+10%, 50/60Hz,	
Control Circuit Power Supply		1Ph AC 200V~240V, -10%~+10%, 50/60Hz,			1Ph AC 200V~240V, -10%~+10%, 50/60Hz,	
Dimension L*H*W (mm)		175*156*40	175*156*50		175*179*80	
Regenerative Resistor	Resistance Value (Ω)	None	50	50	50	50
	Resistance Power (W)		75	75	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,50Hz~4000Hz
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-segments 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 2000m. No derating for use below 1000m. 1% derating for every 100m of altitude above 1000m.
Vibration	Less than 0.5G (4.9m/s^2) 10-60Hz (non-continuous working)
IP ratings	IP20

Leadshine

2EL6-EC Series

General Purpose EtherCAT AC Servo Drives

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

Logistics

Packaging

lithium battery

Photovoltaic

Part Numbers

2 EL6 - EC 400 □

Axes	
2	2 axis
4	4 axis

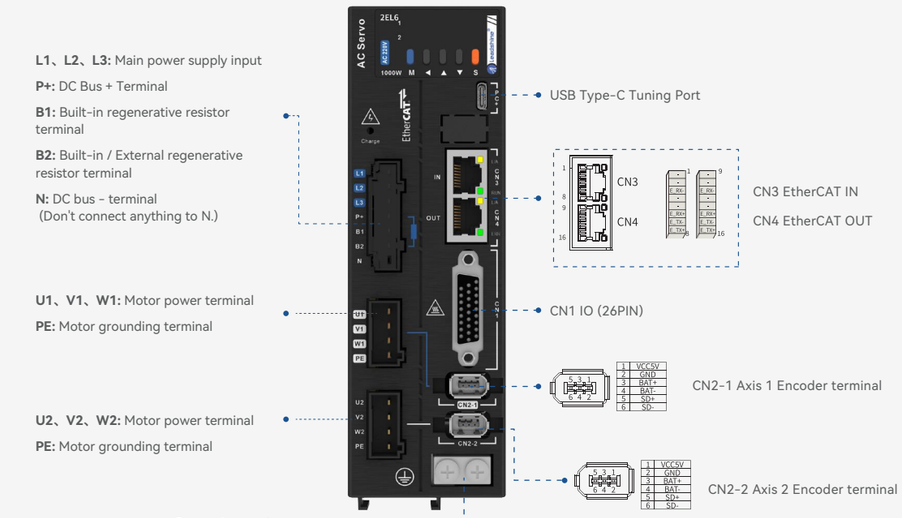
Series Num	
EL6	EL6 Series

Command Source	
EC	EtherCAT

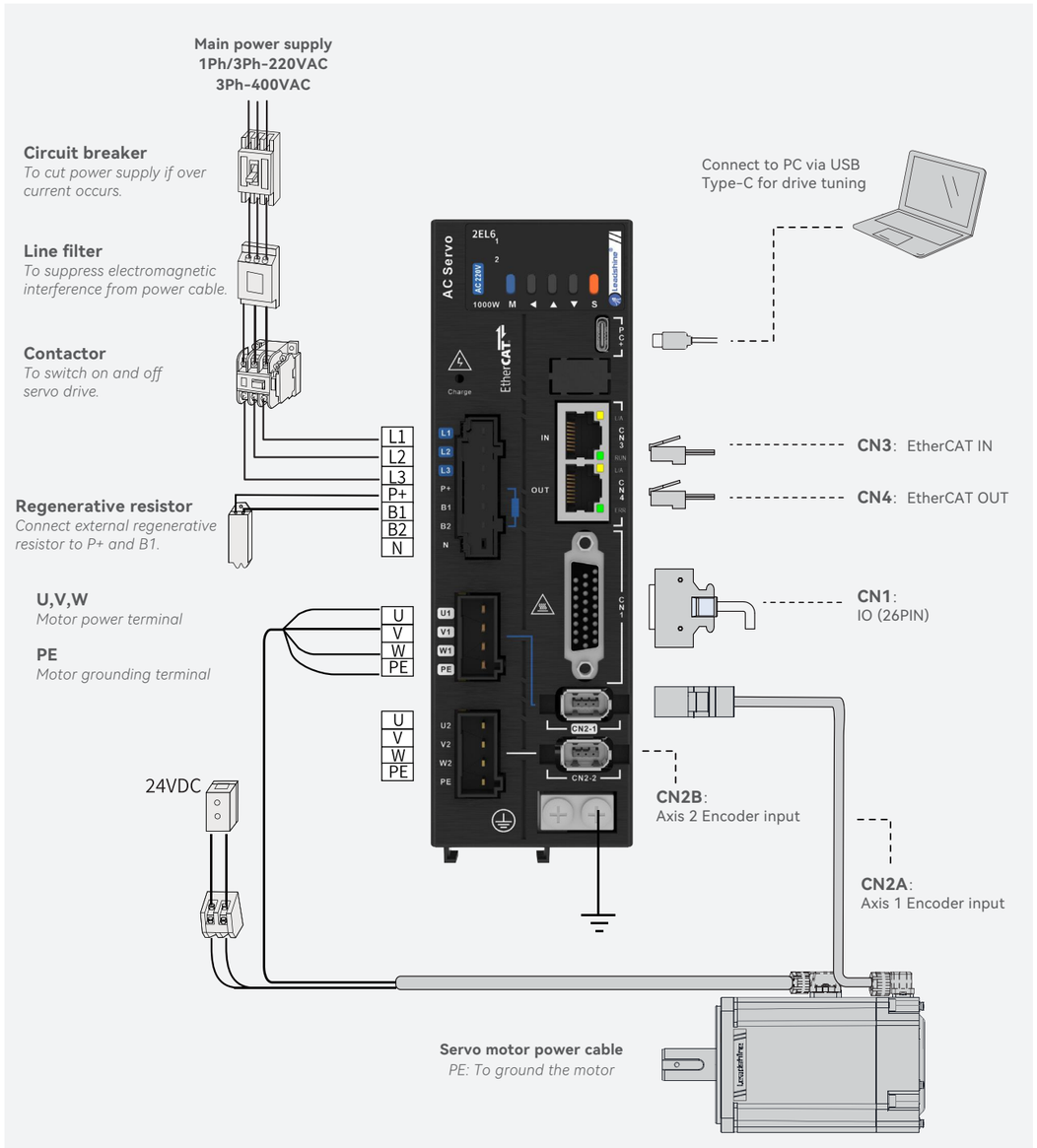
Voltage	
Blank	220V
T	400V

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

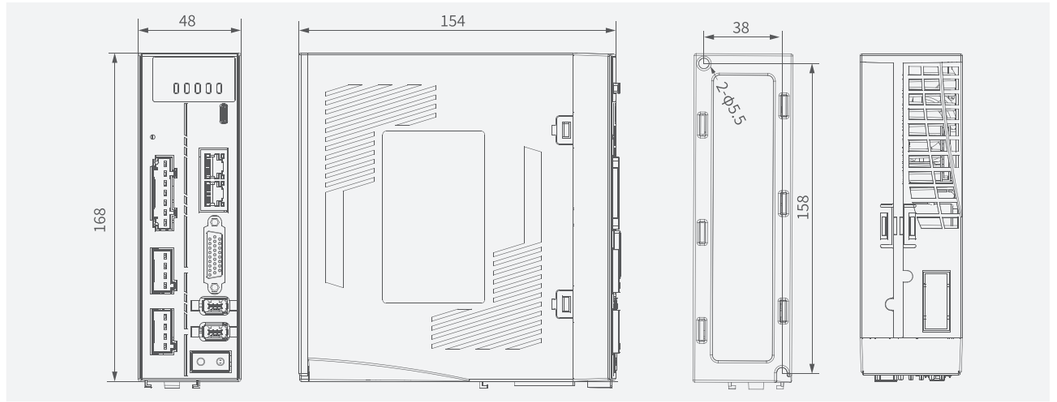
Ports & Connectors



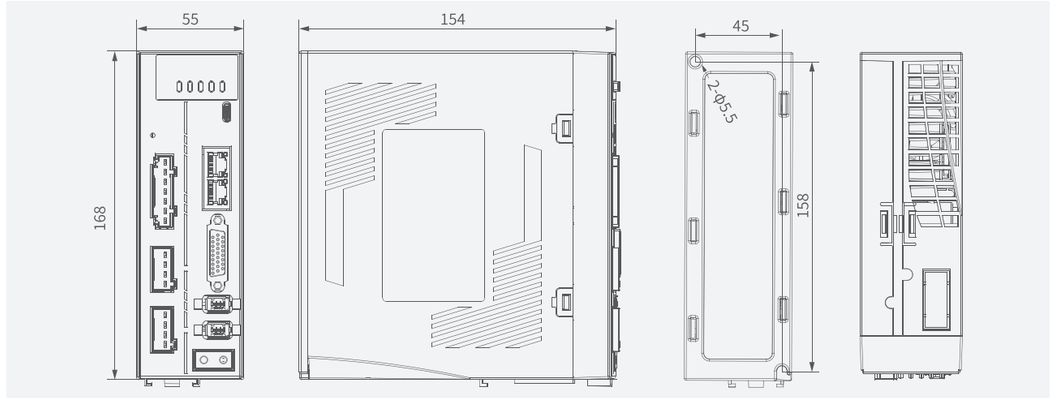
2EL6-EC & Peripheral Wiring Diagram



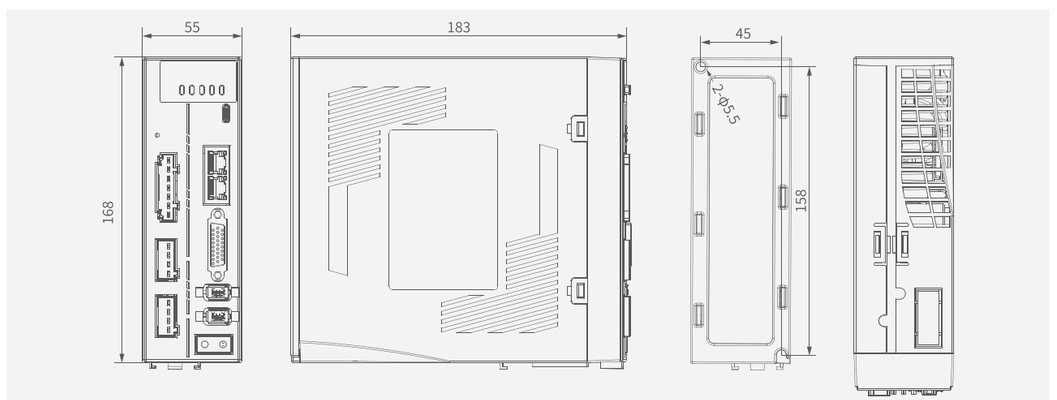
400W (AC 220V)



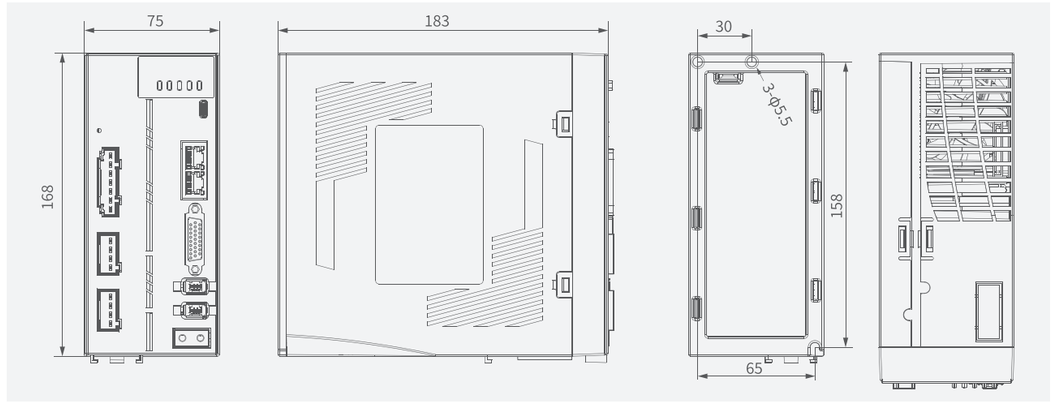
750W (AC 220V)



1000W (AC 220V)



1500W（AC 220V）



Specifications

2EL6-EC 220V Models

2EL6-EC series		2EL6-EC400	2EL6-EC750	2EL6-EC1000	2EL6-EC1500
Rated Power		400W	750W	1000W	1500W
Rated Current (Arms)		2.5	4.3	6.8	8.5
Peak Current (Arms)		9.1	16.1	21	24.2
Control circuit power supply		1Ph AC 200V~240V, -10%~+10%, 50/60Hz,		1Ph /3Ph AC 200V~240V, -10%~+10%, 50/60Hz,	
Main power supply					
Regenerative Resistor	Resistance Value (Ω)	None	40	40	40
	Resistance Power (W)		80	80	80
Dimension H*L*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,50Hz~4000Hz
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-segments 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 2000m; No derating for use below 1000m; 1% derating for every 100m of altitude above 1000m;
Vibration	Less than 0.5G (4.9m/s2) 10-60Hz (non-continuous working)
IP ratings	IP20

Leadshine

Modbus

EL6-RS Series

Economical AC Servo Drives

EL6 Series include cost-effective AC servo drives designed for accurate positioning control. They can power up to 1kW 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 or 23-bit high resolution encoders, they can provide excellent performance to your control systems.

Logistics

Packaging

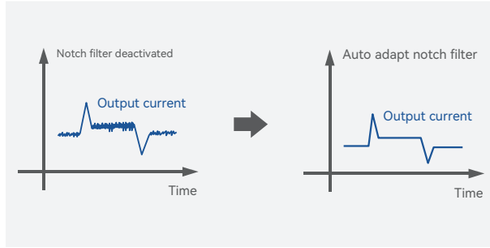
lithium battery

Photovoltaic

Overview

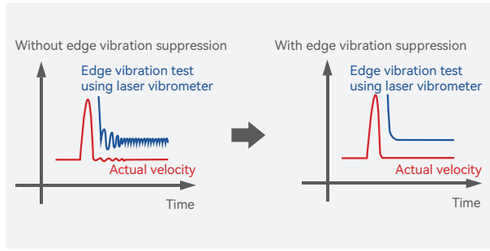
Adaptive Notch Filter

- 3 Adaptive Notch Filter.
- Automatically / Manually Notch Filter Setting.
- Notch Width Selectable.
- Quick setting suppresses mechanical vibration, saving labor cost.



Anti-Vibration Filter

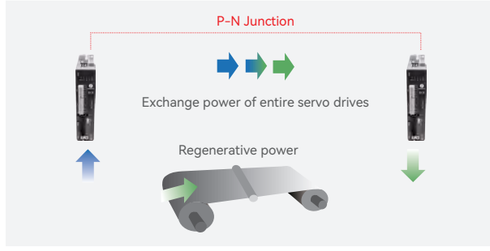
For mechanical equipment with lower stiffness, it is easy to produce low frequency vibration of less than 200Hz, which can be inhibited by mechanical end swing suppression, to realize the high-tempo operation of the equipment.



P-N Junction

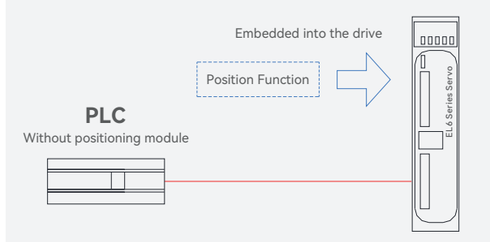
Directly connect the DC link circuit of entire servo drives to exchange power.

In a system having a powering (driving) shaft and regenerating (back tension) shaft such as the winder/unwinder unit, the power consumption of the entire system can be reduced.



PR-Mode

EL6-RS series embedded with 16 paths motion which setup internally, combined with position/velocity/homing/Jog/ E-Stop/Limit switch.



Part Numbers

EL6 - RS 750 P

Series Num	
EL6	EL6 series

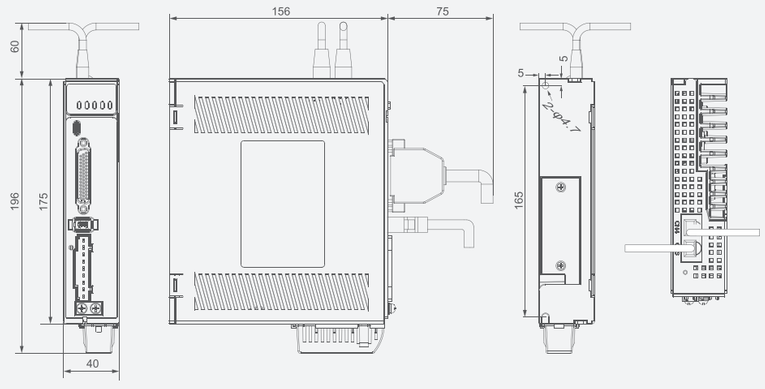
Command Source	
RS	Modbus RTU/ Pulse+Direction

Version	
P	Full functions without STO

Rated Power	
400	400W
750	750W
1000	1000W

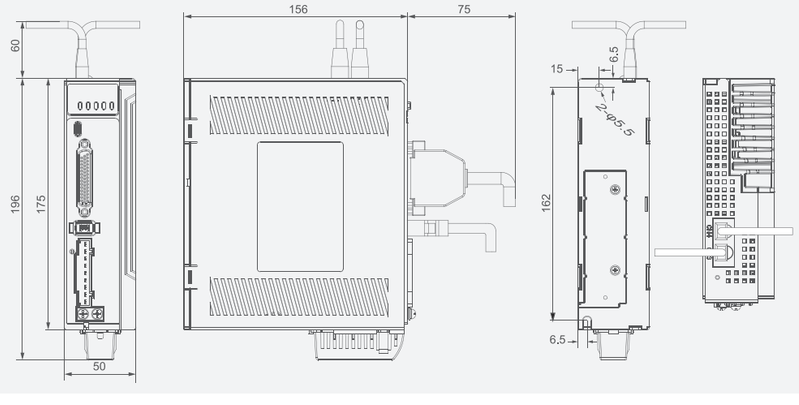
400W（AC 220V）

Unit: mm

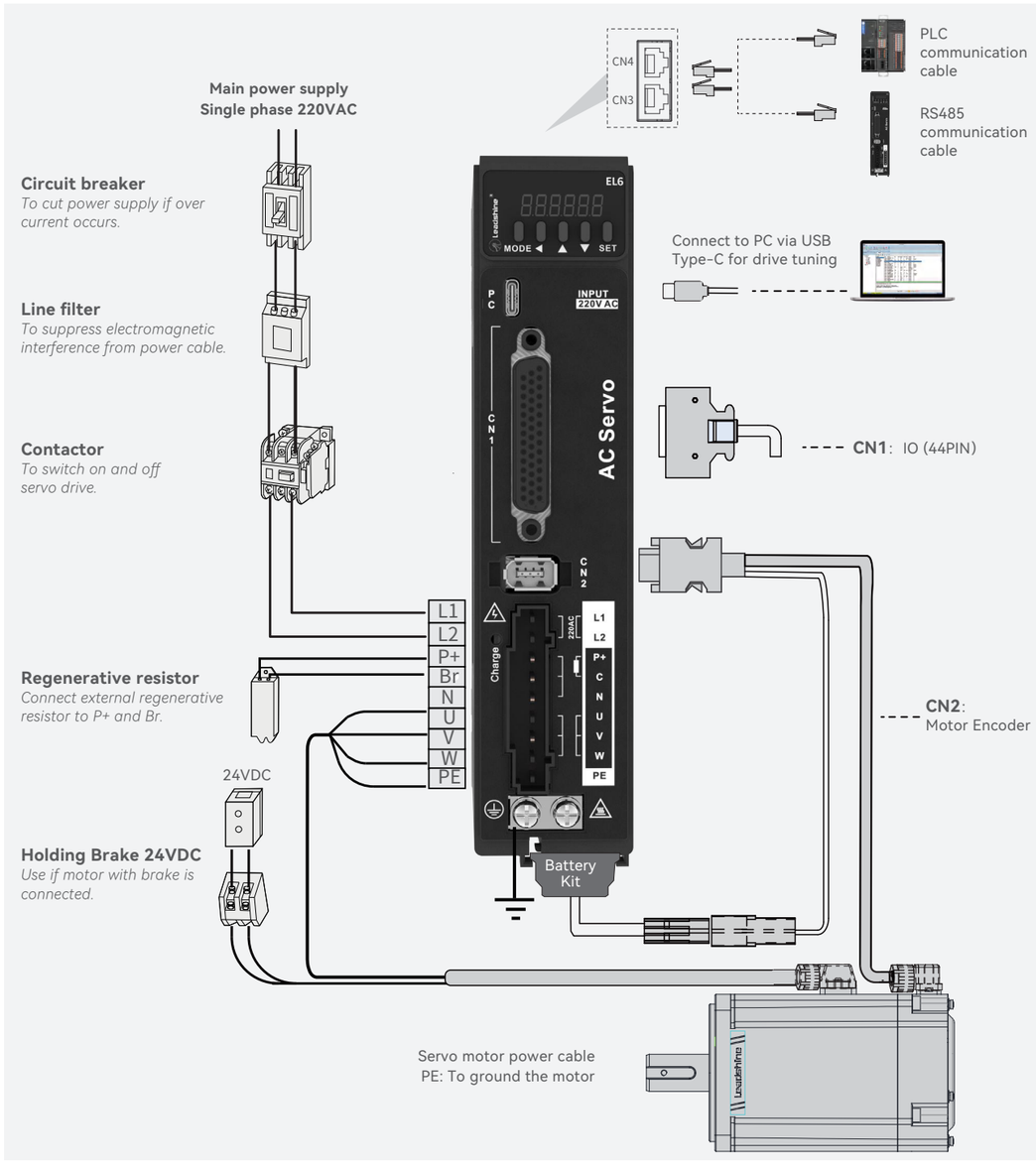


750W/1000W（AC 220V）

Unit: mm



EL6-RS & Peripheral Wiring Diagram



EL6 Series Economical AC Servo Drives

Specifications

EL6-RS 220V Models

EL6-RSP Series Drive	EL6-RS400P	EL6-RS750P	EL6-RS1000P
Power Rating	400W	750W	1000W
Rated Current (Arms)	3.5	5.5	7.0
Peak Current (Arms)	9.5	16.6	21
Control circuit power supply	1Ph AC 200V-240V, -10% - +10%, 50/60Hz		
Main power supply			
Dimension L*H*W (mm)	175*156*40	175*156*50	

Ports	Descriptions
USB Type-C Tuning	Modify or read drive parameters without connecting to main power supply
Low-speed pulse input	5V differential signal, 0-500kHz 24V single ended signal, 0-200kHz
High-speed pulse input	5V differential signal, 0-4MHz
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,50Hz~4000Hz
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); Not < 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 2000m; 100% performance at 1000m or below. Performance decreases by 1% with every increase of 100m from 1000m.
Vibration	Less than 0.5G (4.9m/s2) 10-60Hz (non-continuous working)
IP ratings	IP20

Leadshine

CANopen

EL6-CAN Series

Economical AC Servo Drives

EL6-CAN Series is cost-effective AC servo drives of CANopen protocol designed for accurate control. They can power to 1kW 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.

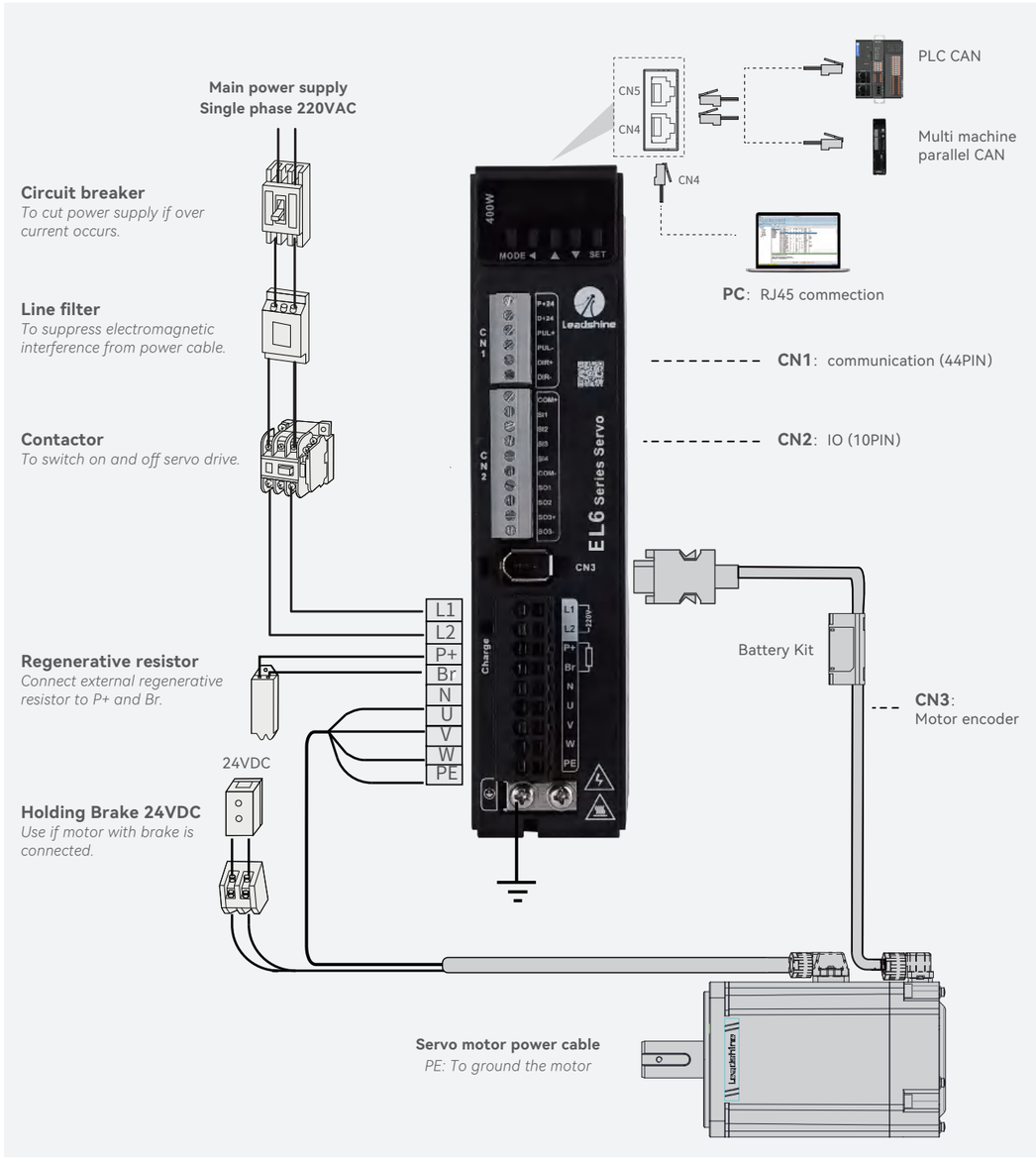
Logistics

Packaging

lithium battery

Photovoltaic

EL6-CAN & Peripheral Wiring Diagram



Part Numbers

EL6 - CAN 400 Z

Series Num	
EL6	EL6 servo drive series

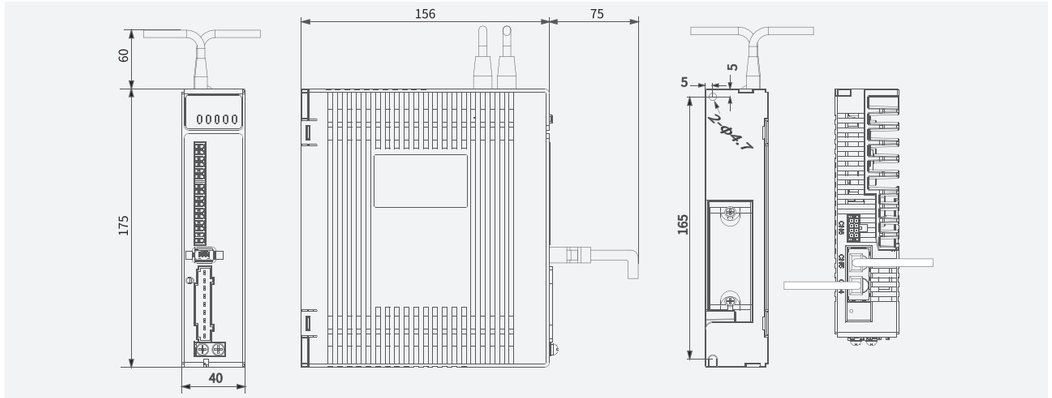
Command Source	
CAN	CANopen

Version	
Z	Standard Version

Rated Power	
400	400W
750	750W
1000	1000W

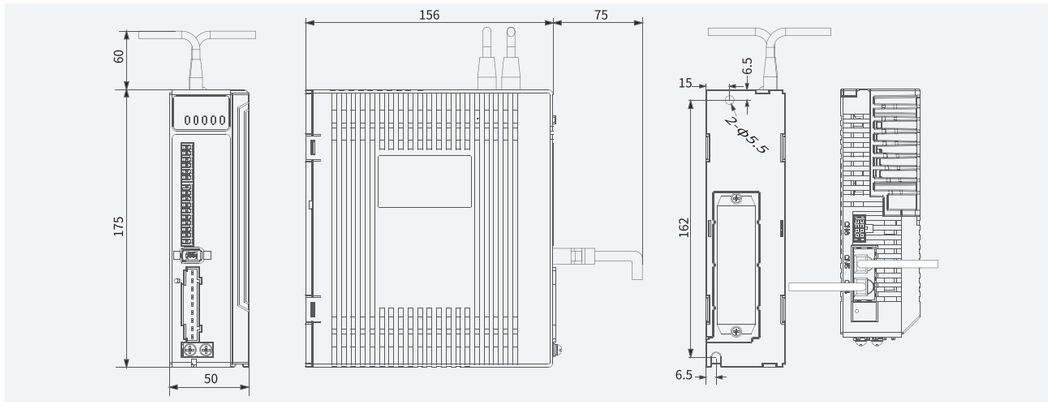
400W (AC 220V)

Unit: mm



750W/1000W (AC 220V)

Unit: mm



Specifications

EL6-CAN 220V Models

EL6-CAN Series Drive	EL6-CAN400Z	EL6-CAN750Z	EL6-CAN1000Z
Power Rating	400W	750W	1000W
Rated Current (Arms)	3.0	5.5	7.5
Peak Current (Arms)	9.2	16.6	18.7
Control circuit power supply	1Ph AC 200V~240V, -10%~+10%, 50/60Hz		
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,50Hz~4000Hz
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); Not < 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 2000m; 100% performance at 1000m or below. Performance decreases by 1% with every increase of 100m from 1000m.
Vibration	Less than 0.5G (4.9m/s2) 10-60Hz (non-continuous working)
IP ratings	IP20

Leadshine

ELM1/ELM2 Series

AC Servo Motors

Feature:

Power rating: 30W-22kW
Voltage: 220VAC/400VAC
Encoder: 23-bit encoder
Optional accessory: brake
Frame size: 25mm,40mm,60mm,80mm,100mm,130mm,180mm,200mm.

ELM1 Series

23-Bit magnetic encoder
Power: 50W-1800W

ELM2 Series

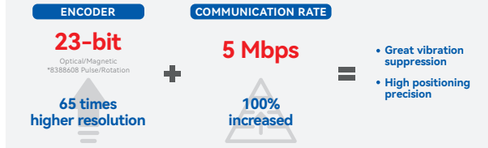
23-Bit optical encoder
Power: 30W-22kW

Overview

Precision positioning

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

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



Comparing to previous gen. 17-bit servo motors

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.

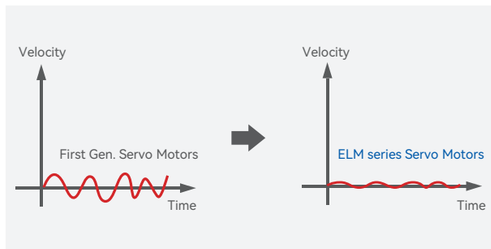
Splash | Moisture | Submerged

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

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

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

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

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

(8) Voltage	
Blank	220VAC
T	400VAC

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

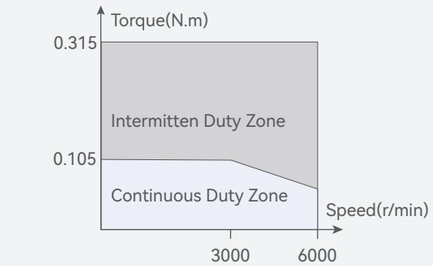
220 VAC

25mm Frame size & 30W

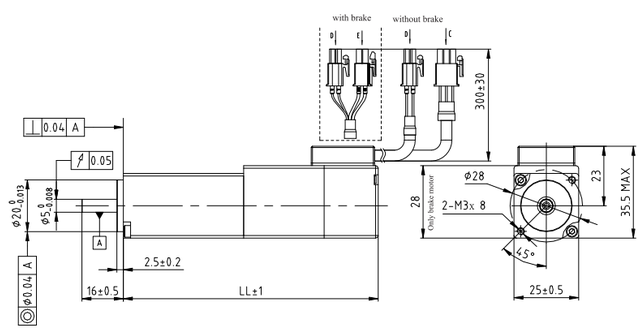
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Arms)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM2L-0030LA25E	□ 25	√	220	30	3000	6000	0.105	0.315	0.87	2.6	44	14.5	23-bit optical encoder	0.007	0.26
ELM2L-0030LA25F		×												0.006	0.19

Speed-Torque characteristics

30W Motor



Dimensions



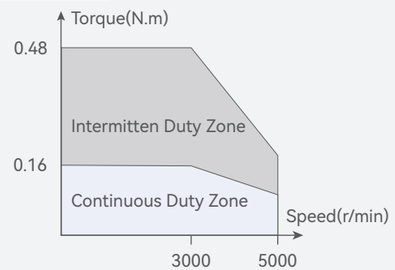
Motor model	LL
ELM2L-0030LA25E	98.5
ELM2L-0030LA25F	72.5

40mm Frame size & 50W~100W

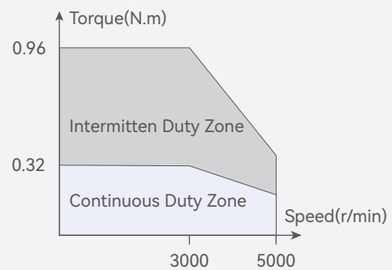
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Arms)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM1H-0050MA40E	□ 40	√	220	50	3000	5000	0.16	0.48	0.93	2.88	78	54	23-bit magnetic encoder	0.046	0.44
ELM1H-0050MA40F		×												0.036	0.28
ELM1H-0100MA40E		√		100			0.32	0.96	0.92	2.85				0.072	0.54
ELM1H-0100MA40F		×												0.062	0.38
ELM2H-0050LA40E		√		50			0.16	0.48	0.93	2.88			23-bit optical encoder	0.046	0.44
ELM2H-0050LA40F		×												0.036	0.28
ELM2H-0100LA40E		√		100			0.32	0.96	0.92	2.85				0.072	0.54
ELM2H-0100LA40F		×												0.062	0.38

Speed-Torque characteristics

50W Motor



100W Motor



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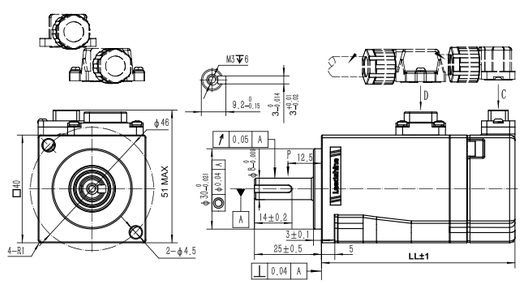


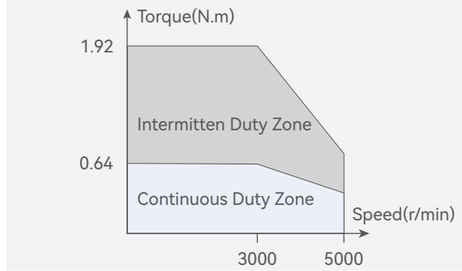
Motor model	LL
ELM*H-0050*A40E	84
ELM*H-0050*A40F	56.7
ELM*H-0100*A40E	95
ELM*H-0100*A40F	67.7

60mm Frame size & 200W~400W

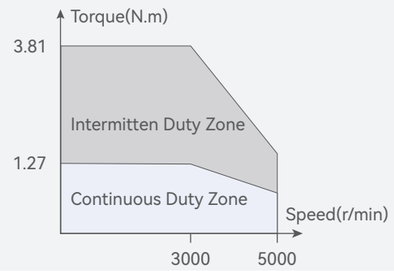
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Arms)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM1H-0200MA60E	□ 60	√	220	200	3000	5000	0.64	1.92	1.5	4.5	245	74	23-bit magnetic encoder	0.3	1.3
ELM1H-0200MA60F		×												0.28	1.0
ELM1H-0400MA60E		√		400			1.27	3.81	2.1	6.5				0.58	1.55
ELM1H-0400MA60F		×												0.56	1.3
ELM2H-0200LA60E		√		200			0.64	1.92	1.5	4.5			23-bit optical encoder	0.3	1.3
ELM2H-0200LA60F		×												0.28	1.0
ELM2H-0400LA60E		√		400			1.27	3.81	2.1	6.5				0.58	1.55
ELM2H-0400LA60F		×												0.56	1.3

Speed-Torque characteristics

200W Motor



400W Motor



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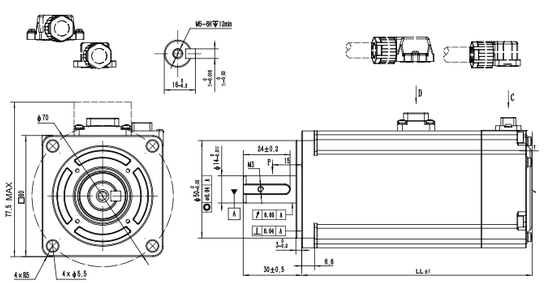


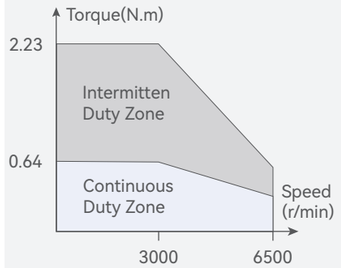
Motor model	LL
ELM*H-0200*A60E	101.1
ELM*H-0200*A60F	71.8
ELM*H-0400*A60E	118.1
ELM*H-0400*A60F	88.8

200W~750W

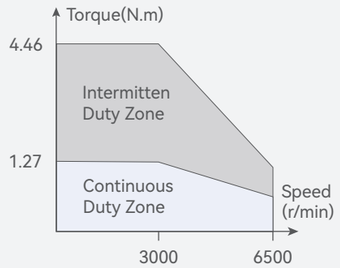
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Arms)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM2L-0200LA60E	□ 60	√	220	200	3000	6500	0.64	2.23	1.5	5.7	245	74	23-bit optical encoder	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
ELM2L-0750LA80E	□ 80	√		750			2.39	8.36	4.2	16.1	392	147		0.79	2.74
ELM2L-0750LA80F		×												0.77	2.12

Speed-Torque characteristics

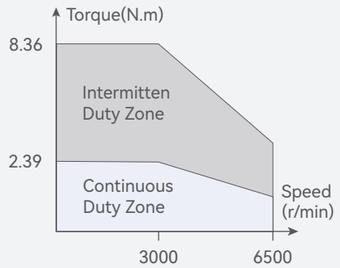
200W Motor



400W Motor



750W Motor



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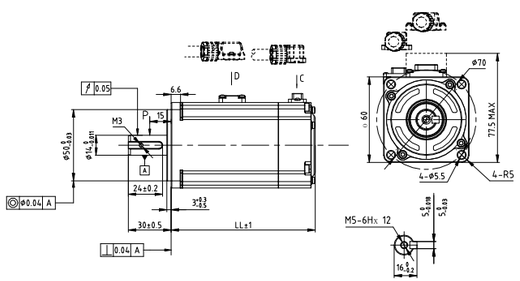
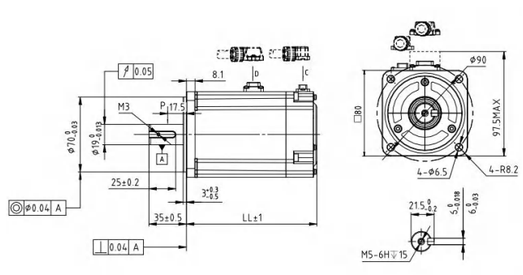




Motor model	LL	Motor model	LL
ELM2L-0200LA60E	101.2	ELM2L-0400LA60E	118.2
ELM2L-0200LA60F	71.8	ELM2L-0400LA60F	88.8

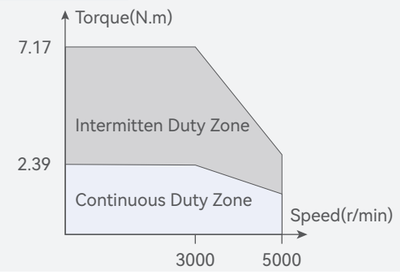
Motor model	LL
ELM2L-0750LA80E	121.9
ELM2L-0750LA80F	90.9

80mm Frame size & 750W~1000W

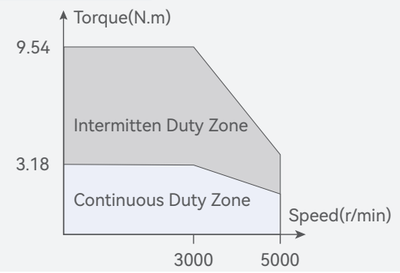
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Arms)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM1H-0750MA80E	□ 80	√	220	750	3000	5000	2.39	7.17	4.1	13.4	392	147	23-bit magnetic encoder	1.65	2.7
ELM1H-0750MA80F		×												1.5	2.12
ELM1H-1000MA80E		√		1000			3.18	9.54	5.7	17.7				2.15	3.4
ELM1H-1000MA80F		×												2.0	2.8
ELM2H-0750LA80E		√		750			2.39	7.17	4.1	13.4			23-bit optical encoder	1.65	2.7
ELM2H-0750LA80F		×												1.5	2.12
ELM2H-1000LA80E		√		1000			3.18	9.54	5.7	17.7				2.15	3.4
ELM2H-1000LA80F		×												2.0	2.8

Speed-Torque characteristics

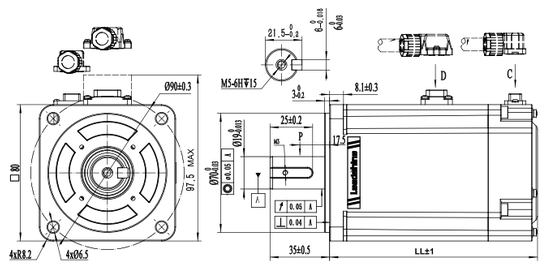
750W Motor



1000W Motor



Dimensions



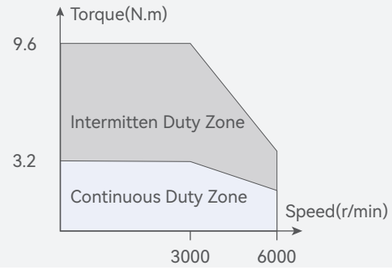
Motor model	LL
ELM*H-0750*A80E	121.9
ELM*H-0750*A80F	90.9
ELM*H-1000*A80E	134.9
ELM*H-1000*A80F	103.9

100mm Frame size & 1000W~1500W

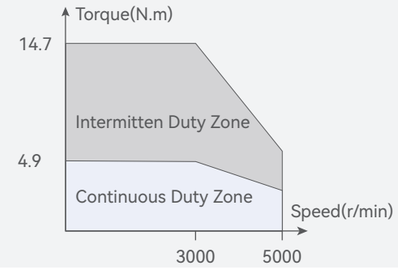
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Arms)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM2L-1000LA100E-H	□ 100	√	220	1000	3000	6000	3.2	9.6	6.5	19.5	490	98	23-bit optical encoder	2.63	5.9
ELM2L-1000LA100F-H		×												2.43	4.6
ELM2L-1500LA100E-H		√		1500		5000	4.9	14.7	8	25.5				3.803	7.1
ELM2L-1500LA100F-H		×												3.503	5.8

Speed-Torque characteristics

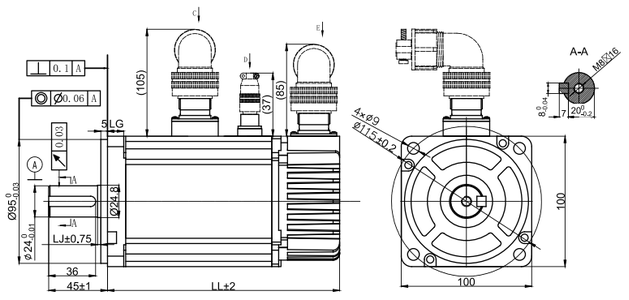
1000W Motor



1500W Motor



Dimensions



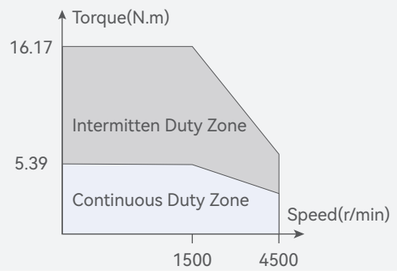
Motor model	LL
ELM2L-1000LA100E-H	194
ELM2L-1000LA100F-H	154
ELM2L-1500LA100E-H	218
ELM2L-1500LA100F-H	178

130mm Frame size & 850W~1800W

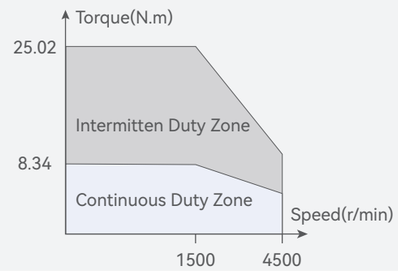
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Arms)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM1H-0850MD130E-H	□ 130	√	220	850	1500	4500	5.39	16.17	6.8	20.4	490	98	23-bit magnetic encoder	14.8	6.9
ELM1H-0850MD130F-H		×												12.5	5.5
ELM1H-1300MD130E-H		√		1300			8.34	25.02	9.3	27.9	686	343		21	8.4
ELM1H-1300MD130F-H		×												18.7	7.0
ELM1H-1800MD130E-H		√		1800			11.5	28.8	11.2	29.3	980	392		26.1	9.7
ELM1H-1800MD130F-H		×												23.8	8.3
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	490	98	23-bit optical encoder	14.8	6.9
ELM2H-0850LD130F-H		×												12.5	5.5
ELM2H-1300LD130E-H		√		1300			8.34	25.02	9.3	27.9	686	343		21	8.4
ELM2H-1300LD130F-H		×												18.7	7.0
ELM2H-1800LD130E-H		√		1800			11.5	28.8	11.7	29.3	980	392		26.1	9.7
ELM2H-1800LD130F-H		×												23.8	8.3

Speed-Torque characteristics

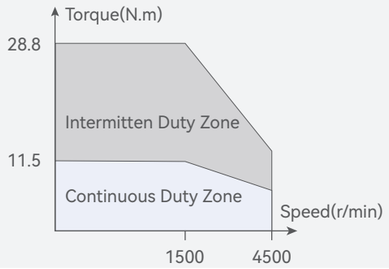
850W Motor



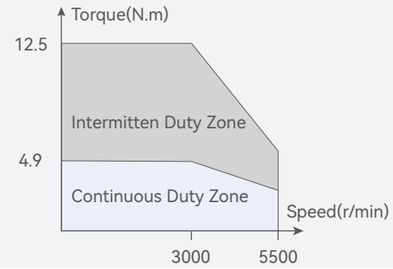
1300W Motor



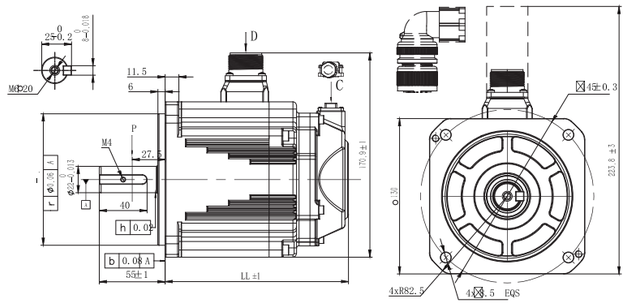
1800W Motor



1500W Motor



Dimensions



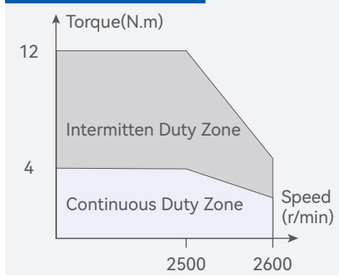
Motor model	LL
ELM*H-0850*D130E-H	153.5
ELM*H-0850*D130F-H	126
ELM*H-1300*D130E-H	171.5
ELM*H-1300*D130F-H	144
ELM*H-1800*D130E-H	189.5
ELM*H-1800*D130F-H	162
ELM1M-1500*A130E-H	153.5
ELM1M-1500*A130F-H	126

130mm Frame size & 1000W~2000W

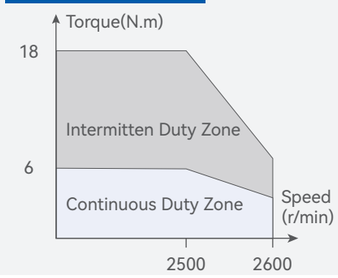
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Arms)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM2M-1000LB130E-H	□ 130	√	220	1000	2500	2600	4	12	4	12	490	196	23-bit optical encoder	8.95	8.3
ELM2M-1000LB130F-H		×												8.5	6.2
ELM2M-1500LB130E-H	□ 131	√		1500			6	18	6	18				12.6	9.5
ELM2M-1500LB130F-H		×												12.6	7.4
ELM2M-2000LB130E-H		√		2000	2500	2800	7.7	22	7.5	22				16.8	11
ELM2M-2000LB130F-H		×												15.3	8.3

Speed-Torque characteristics

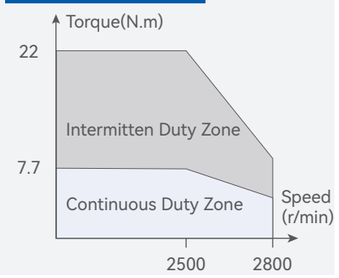
1000W Motor



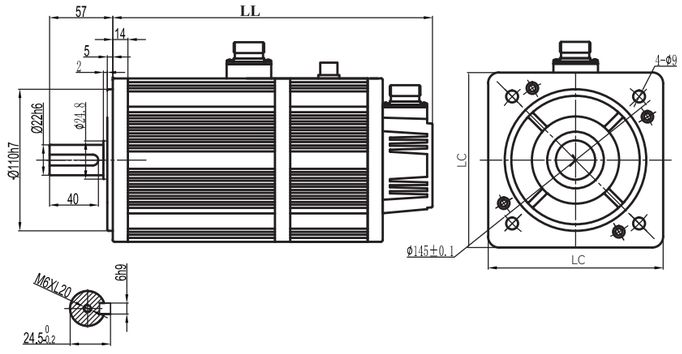
1500W Motor



2000W Motor



Dimensions



Motor model	LL	LC
ELM2M-1000LB130E-H	223	130
ELM2M-1000LB130F-H	166	
ELM2M-1500LB130E-H	236	131
ELM2M-1500LB130F-H	180	
ELM2M-2000LB130E-H	270	
ELM2M-2000LB130F-H	192	

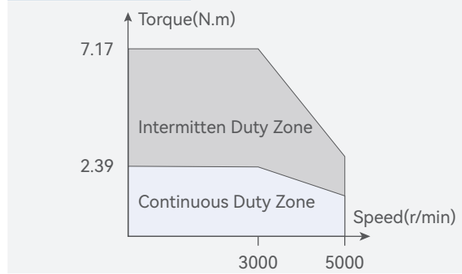
400 VAC

80mm Frame size & 750W~1000W

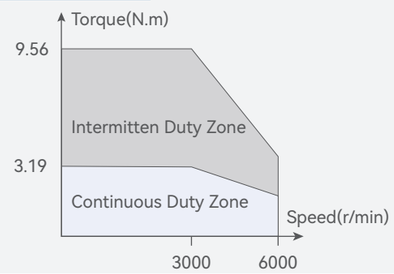
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Arms)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM2H-0750LA80ET	□ 80	√	400	750	3000	5000	2.39	7.17	2.7	8.8	392	147	23-bit optical encoder	1.65	2.7
ELM2H-0750LA80FT		×												1.5	2.12
ELM2H-1000LA80ET		√		1000		5000	3.18	9.54	4	12.4				2.15	3.4
ELM2H-1000LA80FT		×												2.0	2.8

Speed-Torque characteristics

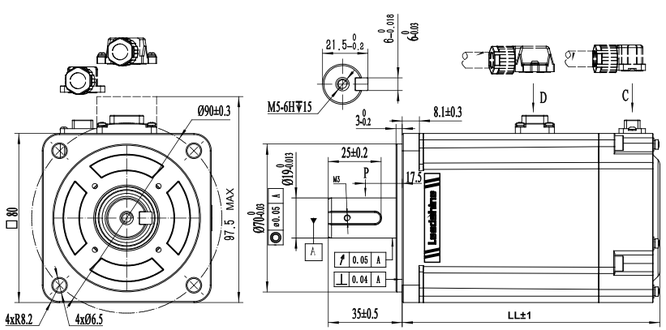
750W Motor



1000W Motor



Dimensions



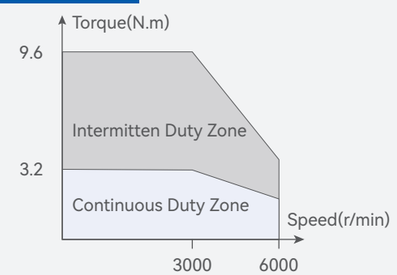
Motor model	LL
ELM2H-0750LA80ET	121.9
ELM2H-0750LA80FT	90.9
ELM2H-1000LA80ET	134.9
ELM2H-1000LA80FT	103.9

100mm Frame size & 1000W~2500W

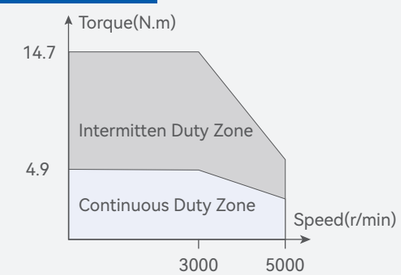
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Arms)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM2L-1000LA100ET-H	□ 100	√	400	1000	3000	6000	3.2	9.6	3.9	11.7	490	98	23-bit optical encoder	2.63	5.9
ELM2L-1000LA100FT-H		×												2.43	4.6
ELM2L-1500LA100ET-H		√		1500		5000	4.9	14.7	4.5	13.5				3.803	7.1
ELM2L-1500LA100FT-H		×												3.503	5.8
ELM2L-2000LA100ET-H		√		2000			6.36	19.1	6.5	19.5		196		3.55	7.86
ELM2L-2000LA100FT-H		×												3.07	6.56
ELM2L-2500LA100ET-H		√		2500			7.96	23.9	7.6	22.8		98		4.16	9.26
ELM2L-2500LA100FT-H		×												3.68	7.96

Speed-Torque characteristics

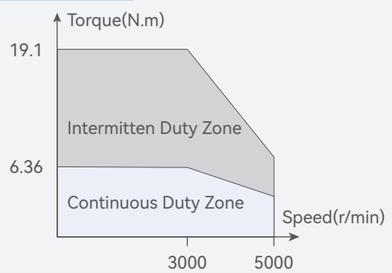
1000W Motor



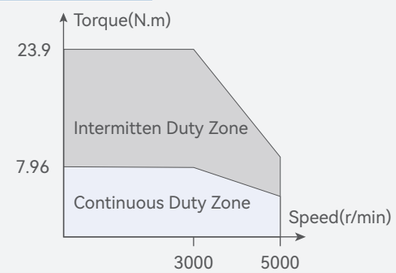
1500W Motor



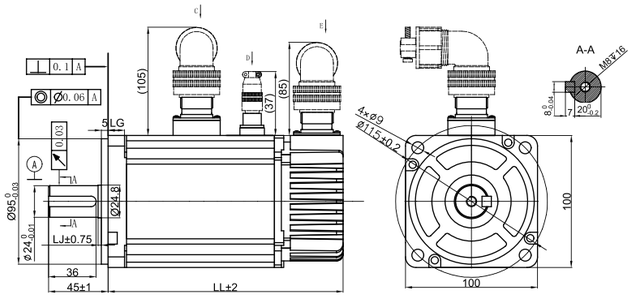
2000W Motor



2500W Motor



Dimensions



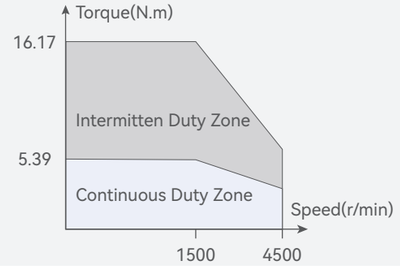
Motor model	LL	LG	LJ
ELM2L-1000LA100ET-H	194	12	2.5
ELM2L-1000LA100FT-H	154		
ELM2L-1500LA100ET-H	218		
ELM2L-1500LA100FT-H	178		
ELM2L-2000LA100ET-H	259	10	2.0
ELM2L-2000LA100FT-H	219		
ELM2L-2500LA100ET-H	285		
ELM2L-2500LA100FT-H	245		

130mm Frame size & 850W~3800W

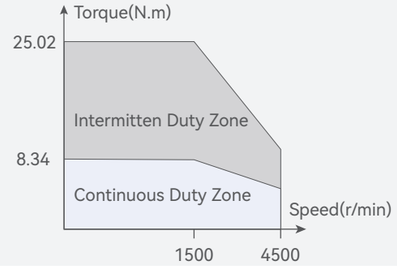
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Arms)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM2H-0850LD130ET-H	□ 130	√	400	850	1500	4500	5.39	15.13	3.5	9.5	98	490	23-bit 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	343	686		21	8.6
ELM2H-1300LD130FT-H		×												18.7	7.3
ELM2H-1800LD130ET-H		√		1800			11.5	32.9	5.6	15.4	392	980		26.1	10.2
ELM2H-1800LD130FT-H		×												23.8	8.8
ELM2M-3800LB130ET-H	□ 131	√		3800	2500	2800	15	30	7.4	15	490	196		27.7	14.8
ELM2M-3800LB130FT-H		×													11.7
ELM2L-3000LA130ET-H	□ 130	√		3000	3000	6000	9.8	29.4	10	30	\	\		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

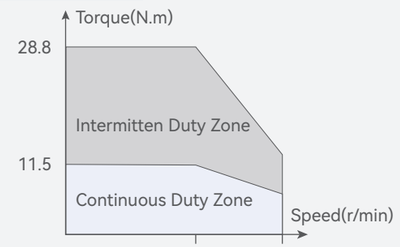
850W Motor



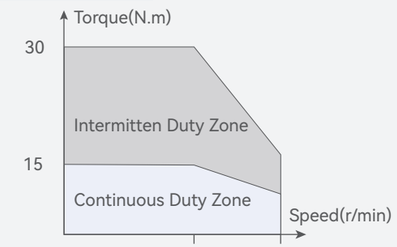
1300W Motor



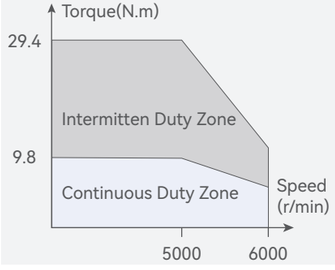
1800W Motor



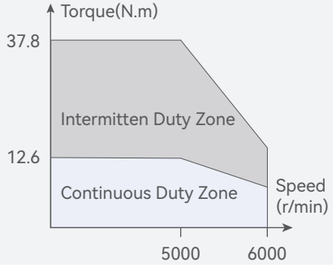
3800W Motor



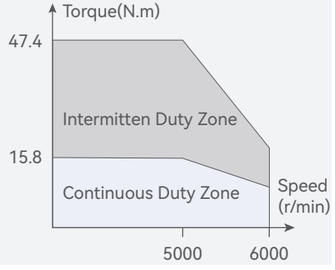
3000W Motor



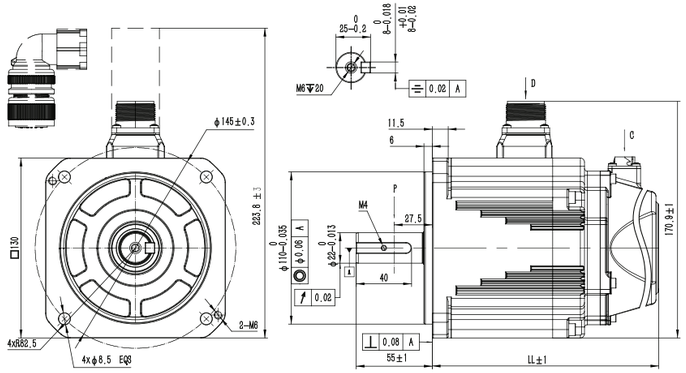
4000W Motor



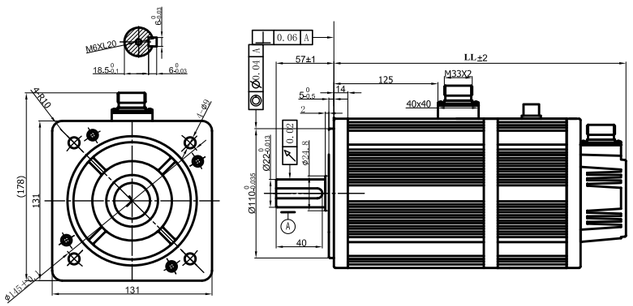
5000W Motor



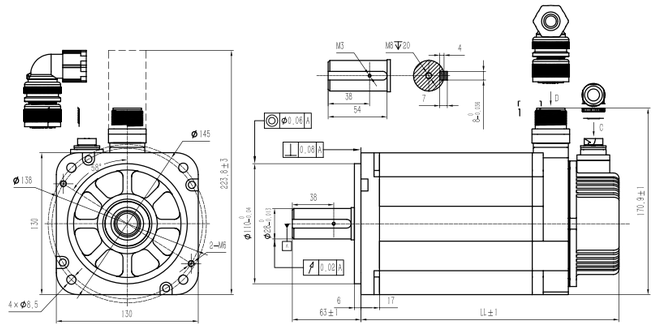
Dimensions



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



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



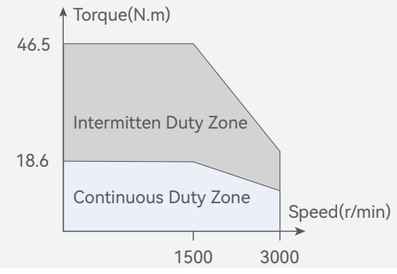
Motor model	LL
ELM2L-3000LA130ET-H	248.5
ELM2L-3000LA130FT-H	236.5
ELM2L-4000LA130ET-H	268.5
ELM2L-4000LA130FT-H	256.5
ELM2L-5000LA130ET-H	288.5
ELM2L-5000LA130FT-H	276.5

180mm Frame size & 2900W~7500W

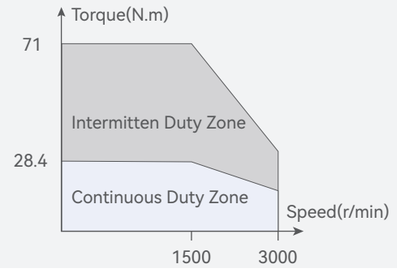
Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Arms)		Permissible load to shaft (N)		Encoder	Inertia (kgm^2*10^{-4})	Weight (kg)
					Rated	Max	Rated	Max	Rated	Max	Radial	Axial			
ELM2M-2900LD180ET-H	□ 180	√	400	2900	1500	3000	18.6	46.5	11.9	30	1470	490	23-bit optical encoder	40.27	20.5
ELM2M-2900LD180FT-H		×												39.78	17
ELM2M-4400LD180ET-H		√		4400			28.4	71	16.3	41				60.41	25.4
ELM2M-4400LD180FT-H		×												59.67	21.9
ELM2M-5500LD180ET-H		√		5500			35	87.5	20.5	51	1764	588		73.84	30.9
ELM2M-5500LD180FT-H		×												72.93	25.9
ELM2M-7500LD180ET-H		√		7500			48	119	25.7	64				100.7	37
ELM2M-7500LD180FT-H		×												99.45	32

Speed-Torque characteristics

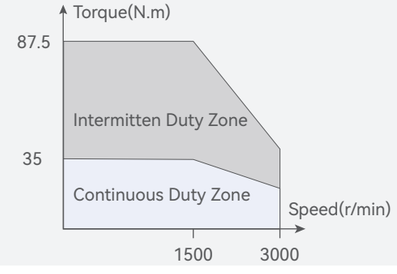
2900W Motor



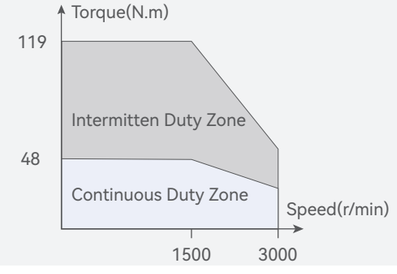
4400W Motor



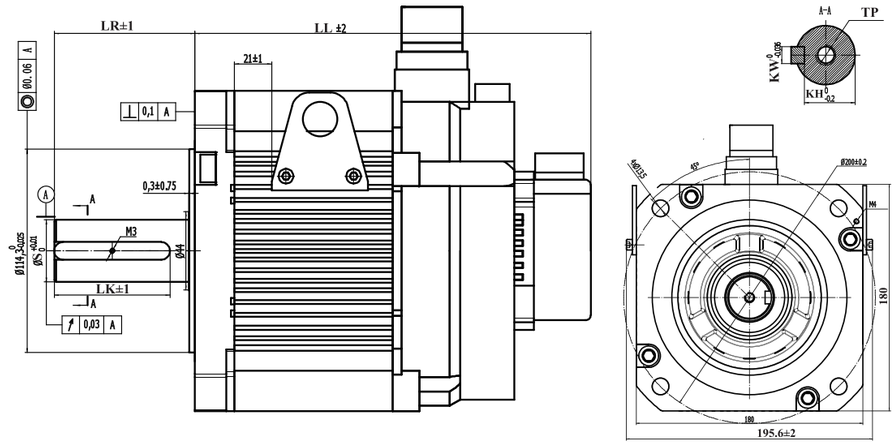
5500W Motor



7500W Motor



Dimensions

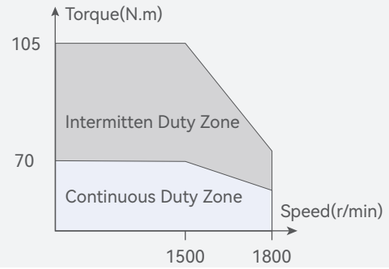


Motor model	LL	LR	LK	S	KW	TP	KH
ELM2M-2900LD180ET-H	241	79	65	35	10	M12×25	30
ELM2M-2900LD180FT-H	193						
ELM2M-4400LD180ET-H	271						
ELM2M-4400LD180FT-H	223						

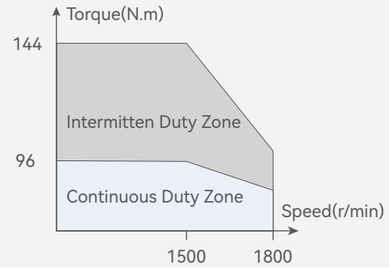
Motor model	LL	LR	LK	S	KW	TP	KH
ELM2M-5500LD180ET-H	291	113	96	42	12	M16×32	37
ELM2M-5500LD180FT-H	243						
ELM2M-7500LD180ET-H	331						
ELM2M-7500LD180FT-H	283						

Speed-Torque characteristics

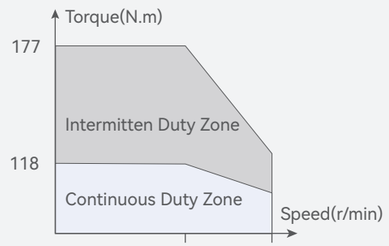
11000W Motor



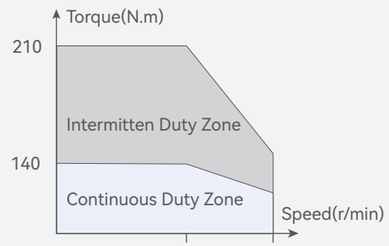
15000W Motor



18500W Motor



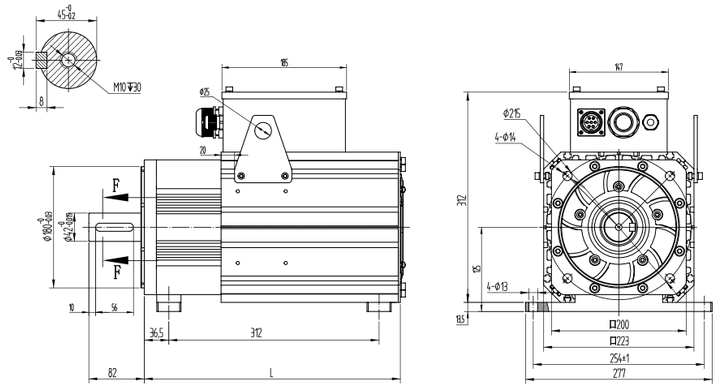
22000W Motor



200mm Frame size & 11000W~22000W

Type Name	Frame Size (mm)	Brake	Voltage (VAC)	Power (W)	Speed (rpm)		Torque (Nm)		Current (Arms)		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

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

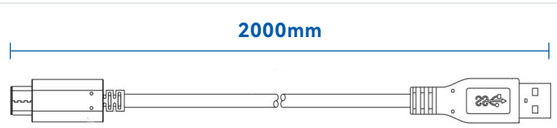
Cable Selection

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, an 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-RSP Series EL7-ECN Series EL6-RSP Series	**CABLE-TYPEC2M0**	
	EL7-ECF series	**CABLE-USB1M5**	
	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: 0.2M, 0.5M, 1.0M, 1.5M, 3M, 5M, 7M, 10M, 13M*
Safe Torque Off STO cable		**CABLE-STOH*M***	 **M*represents the length of the cables. For example, 1M5 = 1.5 meters* *Available length: 0.2M, 1.0M, 1.5M, 2M, 3M, 5M*

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	Incremental encoder cable
BMA	Absolute 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	Special requirements
Blank	Fixed cable
T	flexible cable
TS	flexible & oil proof cable
***	Reserved

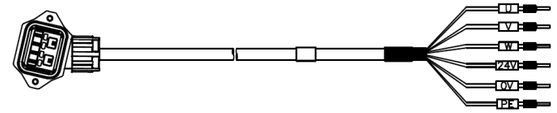
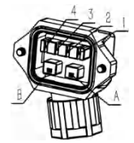
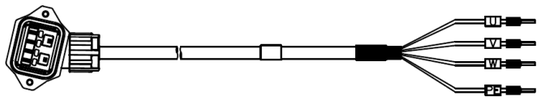
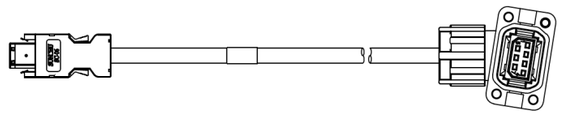
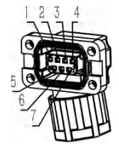
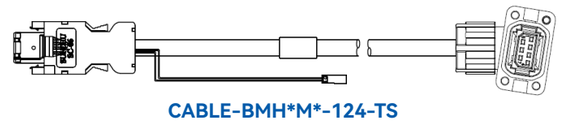
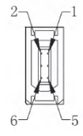
Sign	Motor side terminal type
1	AMP plastic plug
2	Reserved
3	Assembly type aviation plug
4	Terminal type direct plug
***	Reserved

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

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

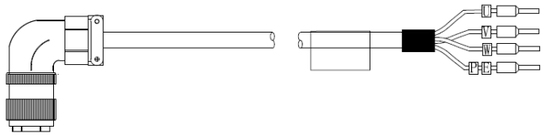
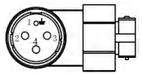
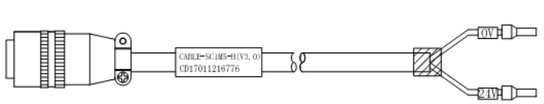
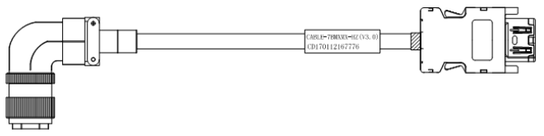
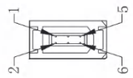
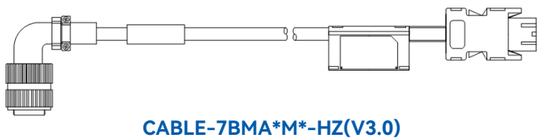
ELM1/ELM2 Series - 40mm/60mm/80mm

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

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	Incremental	 CABLE-BMH*M*-114-TS	
	Absolute	 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 absolute encoder

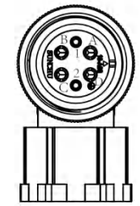
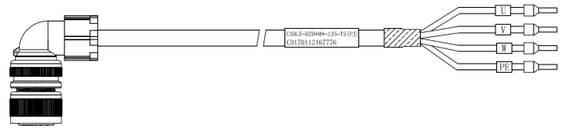
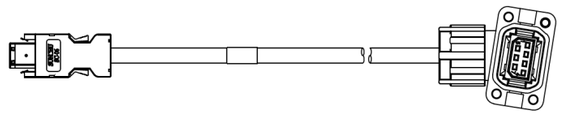
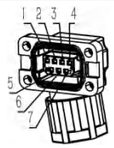
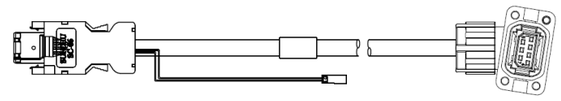
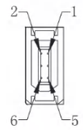
ELM2 Series - 100&130mm

- Frame size:100mm/130mm
- Power rating:1000W/1500W/2000W/2500W/3800W

<table>
<tr><th colspan="2">Cable Type</th><th>Diagram</th><th colspan="4">Pin</th></tr>
<tr><td colspan="2">Motor power</td><td> 
CABLE-RZ*M*-H(V2.0)</td><td colspan="4"> 
1 Yellow PE
2 Red U
3 Green V
4 Black W</td></tr>
<tr><td colspan="2">Motor brake</td><td> 
CABLE-SC*M*-H(V3.0)</td><td colspan="4"> 
1 Black 0V
2 Red 24V</td></tr>
<tr><td rowspan="2">Motor encoder</td><td>Incremental</td><td> 
CABLE-7BM*M*-HZ(V3.0)</td><td colspan="4"> 
  </td></tr>
<tr><td>Absolute</td><td> 
CABLE-7BMA*M*-HZ(V3.0)</td><td>A</td><td>Terminal</td><td>B</td><td>*Terminal 6 & 7 is to be connected to battery kit for absolute encoder</td></tr>
<tr><td colspan="2"></td><td></td><td>1</td><td>PE</td><td>-</td><td></td></tr>
<tr><td colspan="2"></td><td></td><td>2</td><td>5V</td><td>1</td><td></td></tr>
<tr><td colspan="2"></td><td></td><td>3</td><td>0V</td><td>2</td><td></td></tr>
<tr><td colspan="2"></td><td></td><td>4</td><td>SD+</td><td>5</td><td></td></tr>
<tr><td colspan="2"></td><td></td><td>5</td><td>SD-</td><td>6</td><td></td></tr>
<tr><td colspan="2"></td><td></td><td>6*</td><td>BAT+</td><td>-</td><td></td></tr>
<tr><td colspan="2"></td><td></td><td>7*</td><td>BAT-</td><td>-</td><td></td></tr>
</table>

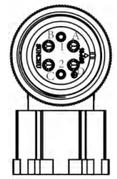
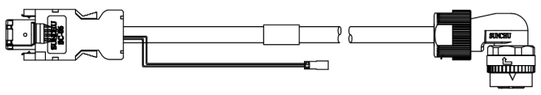
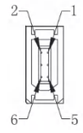
ELM1 Series - 130mm

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

<table>
<tr><th colspan="2">Cable Type</th><th>Diagram</th><th colspan="4">Pin</th></tr>
<tr><td rowspan="6">Motor power</td><td>With brake</td><td> 
CABLE-RZSH*M*-135-TS</td><td colspan="4">  </td></tr>
<tr><td>Without brake</td><td> 
CABLE-RZH*M*-135-TS</td><td>A</td><td>Blue</td><td>U</td><td>*1&2 terminal for motor with brake</td></tr>
<tr><td colspan="2"></td><td></td><td>B</td><td>Black</td><td>V</td><td></td></tr>
<tr><td colspan="2"></td><td></td><td>C</td><td>Red</td><td>W</td><td></td></tr>
<tr><td colspan="2"></td><td></td><td>D</td><td>Yellow Green</td><td>PE</td><td></td></tr>
<tr><td colspan="2"></td><td></td><td>1*</td><td>Black</td><td>0V</td><td></td></tr>
<tr><td colspan="2"></td><td></td><td>2*</td><td>Red</td><td>24V</td><td></td></tr>
<tr><td rowspan="4">Motor encoder</td><td>Incremental</td><td> 
CABLE-BMH*M*-114-TS</td><td colspan="4">  </td></tr>
<tr><td>Absolute</td><td> 
CABLE-BMH*M*-124-TS</td><td colspan="4">  </td></tr>
<tr><td>Battery kit</td><td> 
ER14505 BOX-G DCH ROHS</td><td>A</td><td>Terminal</td><td>B</td><td>*Terminal 6 & 7 is to be connected to battery kit for absolute encoder</td></tr>
<tr><td colspan="2"></td><td></td><td>1</td><td>PE</td><td>-</td><td></td></tr>
<tr><td colspan="2"></td><td></td><td>2</td><td>5V</td><td>1</td><td></td></tr>
<tr><td colspan="2"></td><td></td><td>3</td><td>0V</td><td>2</td><td></td></tr>
<tr><td colspan="2"></td><td></td><td>4</td><td>SD+</td><td>5</td><td></td></tr>
<tr><td colspan="2"></td><td></td><td>5</td><td>SD-</td><td>6</td><td></td></tr>
<tr><td colspan="2"></td><td></td><td>6*</td><td>BAT+</td><td>-</td><td></td></tr>
<tr><td colspan="2"></td><td></td><td>7*</td><td>BAT-</td><td>-</td><td></td></tr>
</table>

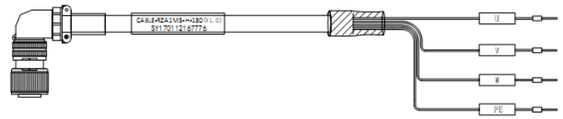
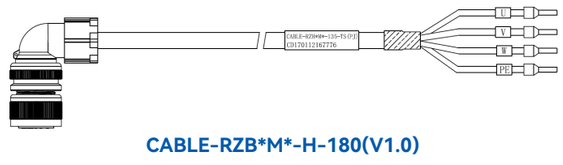
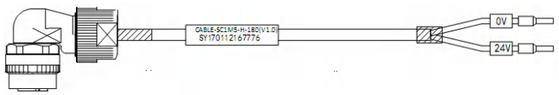
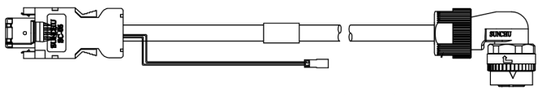
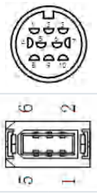
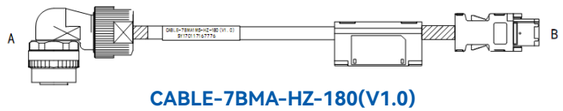
ELM2 Series - 130mm

- **Frame size: 130mm**
- **Power rating: 850W/1300W/1800W/3000W/4000W/5000W**

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	Incremental	 CABLE-BMH*M*-115-TS	
	Absolute	 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 absolute encoder

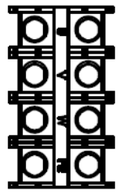
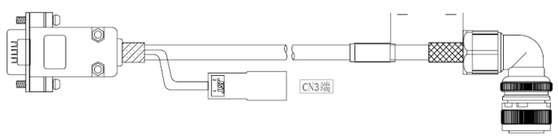
ELM2M Series - 180mm

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

Cable Type		Diagram	Pin
Motor power	2900W	 CABLE-RZA*M*-H-180(V1.0)	 A Blue U B Black V C Red W D Yellow Green PE
	4400W-7500W	 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	Incremental	 CABLE-7BM-HZ-180(V1.0)	
	Absolute	 CABLE-7BMA-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 absolute encoder

ELM2M Series - 200mm

- Frame size:200mm
- Power rating:11000W-22000W

Cable Type		Diagram	Pin
Motor power	11kw&15kw	CABLE-RZH*M*-272	
	18.5kW-22kW	 CABLE-RZH*M*-292	1 Red U 2 Yellow V 3 Blue W 4 Yellow Green PE
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 absolute 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 Currrnt (Arms)	Inertia (kgm2*10^{-4})	Motor Cable	Encoder cable	Brake Cable	Turning Cable
40	50W (220V)	ELM2H-0050LA40F	EL8-RS400F EL8-EC400F	56.7	0.16	3000/5000	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) 【Incremental】 CABLE-BMH*M*-124-TS-(R) 【Absolute】 +ER14505 BOX-G (Battery Kit) (Add "R" after the model for back facing motor wiring)	If you need brake cable, please select power cable with brake in the power cable column.	CABLE-TYPEC2M0
		ELM2H-0050LA40E		84				0.0456				
	100W (220V)	ELM2H-0100LA40F		67.7	0.32	3000/5000	0.92	0.0620				
		ELM2H-0100LA40E		95				0.0721				
60	200W (220V)	ELM2H-0200LA60F		71.6	0.64	3000/5000	1.5	0.29				
		ELM2H-0200LA60E		100.9				0.31				
	400W (220V)	ELM2H-0400LA60F		88.8	1.27	3000/5000	2.1	0.56				
		ELM2H-0400LA60E		118.1				0.58				
80	750W (220V)	ELM2H-0750LA80F	EL8-RS750F EL8-EC750F	90.9	2.39	3000/5000	4.1	1.5				
		ELM2H-0750LA80E		121.9				1.65				
	1000W (220V)	ELM2H-1000LA80F	EL8-RS1000F EL8-EC1000F	103.9	3.18	3000/5000	5.7	2.03				
		ELM2H-1000LA80E		134.9				2.13				
130	850W (220V)	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【Incremental】 CABLE-BMH*M*-125-TS 【Absolute】 +ER14505 BOX-G (Battery Kit)		
		ELM2H-0850LD130E-H		153.5				14.8				
	1300W (220V)	ELM2H-1300LD130F-H	EL8-RS1500F EL8-EC1500F	144	8.43	1500/4500	-	18.7				
		ELM2H-1300LD130E-H		171.5				21				
	1800W (220V)	ELM2H-1800LD130F-H	EL8-RS2000F EL8-EC2000F	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	50W (220V)	ELM2H-0050LA40F	EL7-RS400P EL7-EC400F EL7-EC400N EL7-PN400F	56.7	0.16	3000/5000	0.036	CABLE-RZH*M*-114-TS- (R) 【without brake】 CABLE-RZSH*M*-114-TS- (R) 【with brake】 (Add "R" after the model for back facing motor wiring)	CABLE-BMH*M*-114-TS- (R) 【Incremental】 CABLE-BMH*M*-124-TS- (R) 【Absolute】+ER14505 BOX-G (Battery Kit) (Add "R" after the model for back facing motor wiring)	If you need brake cable, please select power cable with brake in the power cable column.
		ELM2H-0050LA40E		84			0.046			
	100W (220V)	ELM2H-0100LA40F		67.7	0.32	3000/5000	0.062			
		ELM2H-0100LA40E		95			0.072			
60	200W (220V)	ELM2H-0200LA60F		71.6	0.64	3000/5000	0.28			
		ELM2H-0200LA60E		101.1			0.3			
	400W (220V)	ELM2H-0400LA60F		88.8	1.27	3000/5000	0.6			
		ELM2H-0400LA60E		118.1			0.62			
80	750W (220V)	ELM2H-0750LA80F	EL7-RS750P EL7-EC750F EL7-EC750N EL7-PN750F	90.9	2.39	3000/5000	1.8			
		ELM2H-0750LA80E		121.9			1.95			
	1000W (220V)	ELM2H-1000LA80F	EL7-RS1000P EL7-EC1000F EL7-EC1000N EL7-PN1000F	103.9	3.18	3000/5000	2			
		ELM2H-1000LA80E		134.9			2.15			
	750W (380V)	ELM2H-0750LA80FT	EL7-RS750PT EL7-EC750FT EL7-EC750NT EL7-PN750FT	90.9	2.39	3000/5000	2.12			
		ELM2H-0750LA80ET		121.9			2.7			
100	1000W (220V)	ELM2L-1000LA100F-H	EL7-RS1000P EL7-EC1000F EL7-EC1000N EL7-PN1000F	154	3.2	3000/6000	2.43	CABLE-RZ*M*H (V1.1) 【Fixed cable】 CABLE-RZ*M*-H (V2.0) 【Flexible cable】	CABLE-7BM*M*-HZ (V3.0) 【Incremental】 CABLE-7BMA*M*-HZ (V3.0) 【Absolute】	CABLE-SC*M*-H (V3.0)
		ELM2L-1000LA100E-H		194			2.63			
	1500W (220V)	ELM2L-1500LA100F-H	EL7-RS1500P EL7-EC1500N EL7-PN1500F	178	4.9	3000/5000	3.503			
		ELM2L-1500LA100E-H		218			3.803			
130	850W (220V)	ELM2H-0850LD130F-H	EL7-RS1000P EL7-EC1000F EL7-EC1000N EL7-PN1000F	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 【Incremental】 CABLE-BMH*M*-125-TS 【Absolute】 +ER14505 BOX-G (Battery Kit)	If you need brake cable, please select power cable with brake in the power cable column.
		ELM2H-0850LD130E-H		153.5			8.34			
	1300W (220V)	ELM2H-1300LD130F-H	EL7-RS1500P EL7-EC1500N EL7-PN1500F	144	8.34		18.7			
		ELM2H-1300LD130E-H		171.5			21			
	1800W (220V)	ELM2H-1800LD130F-H	EL7-RS2000P EL7-EC2000N EL7-PN2000F	162	11.5	1500/3000	23.8			
		ELM2H-1800LD130E-H		189.5			26.1			

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	850W (400V)	ELM2H-0850LD130FT-H	EL7-RS1000PT EL7-EC1000FT EL7-EC1000NT EL7-PN1000FT	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 【Incremental】 CABLE-BMH*M*-125-TS 【Absolute】+ER14505 BOX-G (Battery Kit)	If you need brake cable, please select power cable with brake in the power cable column.
		ELM2H-0850LD130ET-H		153.5			14.8			
	1300W (400V)	ELM2H-1300LD130FT-H	EL7-RS1500PT EL7-EC1500FT EL7-EC1500NT EL7-PN1500FT	144	8.34		18.7			
		ELM2H-1300LD130ET-H		171.5			21			
	1800W (400V)	ELM2H-1800LD130FT-H	EL7-RS2000PT EL7-EC2000FT EL7-EC2000NT EL7-PN2000FT	162	11.5	1500/3000	23.8			
		ELM2H-1800LD130ET-H		189.5			26.1			
	3000W (400V)	ELM2L-3000LA130FT-H	EL7-RS3000PT EL7-EC3000FT EL7-EC3000NT EL7-PN3000FT	236.5	9.8	3000/6000	9.6			
		ELM2L-3000LA130ET-H		248.5			11.3			
	4000W (400V)	ELM2L-4000LA130FT-H	EL7-RS4400PT EL7-EC4400FT EL7-EC4400NT EL7-PN4400FT	256.5	12.6		11.4			
		ELM2L-4000LA130ET-H		268.5			13.1			
	5000W (400V)	ELM2L-5000LA130FT-H	EL7-RS5500PT EL7-EC5500FT EL7-EC5500NT EL7-PN5500FT	276.5	15.8		13.9			
		ELM2L-5000LA130ET-H		288.5			15.6			
180	2900W (400V)	ELM2M-2900LD180FT-H	EL7-RS3000PT EL7-EC3000FT EL7-EC3000NT EL7-PN3000FT	193	18.6	1500/3000	39.78	CABLE-RZA-H-180 (V1.0)	CABLE-7BM*M*-HZ-180 (V1.0) 【Incremental】 CABLE-7BMA*M*-HZ-180 (V1.0) 【Absolute】	CABLE-SC*M*-H-180 (V1.0)
		ELM2M-2900LD180ET-H		241			40.27			
	4400W (400V)	ELM2M-4400LD180FT-H	EL7-RS4400PT EL7-EC4400FT EL7-EC4400NT EL7-PN4400FT	223	28.4		59.67	CABLE-RZB-H-180 (V1.0)		
		ELM2M-4400LD180ET-H		271			60.41			
	5500W (400V)	ELM2M-5500LD180FT-H	EL7-RS5500PT EL7-EC5500FT EL7-EC5500NT EL7-PN5500FT	243	35		72.93			
		ELM2M-5500LD180ET-H		291			73.84			
	7500W (400V)	ELM2M-7500LD180FT-H	EL7-RS7500PT EL7-EC7500FT EL7-EC7500NT EL7-PN7500FT	283	48		99.45			
		ELM2M-7500LD180ET-H		331			100.7			
	11000W (400V)	ELM2M-11000LD200FT-H	EL7-EC11K0NT	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			
	15000W (400V)	ELM2M-15000LD200FT-H	EL7-EC15K0NT	452	96		114			
		ELM2M-15000LD200ET-H		554.5			120			
	18500W (400V)	ELM2M-18500LD200FT-H	EL7-EC18K5NT	488	118		131			
		ELM2M-18500LD200ET-H		590.5			137			
	22000W (400V)	ELM2M-22000LD200FT-H	EL7-EC22K0NT	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	50W (220V)	ELM2H-0050LA40F	EL6-RS400P EL6-CAN400Z	56.7	0.16	3000/5000	0.036	CABLE-RZH*M*-114-TS- (R) 【without brake】 CABLE-RZSH*M*-114-TS- (R) 【with brake】 (Add "R" after the model for back facing motor wiring)	CABLE-BMH*M*-114-TS 【Incremental】 CABLE-BMH*M*-124-TS- (R) 【Absolute】+ER14505 BOX-G (Battery Kit) (Add "R" after the model for back facing motor wiring)	If you need brake cable, please select power cable with brake in the power cable column.
		ELM2H-0050LA40E		84			0.046			
	100W (220V)	ELM2H-0100LA40F		67.7	0.32	3000/5000	0.062			
		ELM2H-0100LA40E		95			0.072			
60	200W (220V)	ELM2H-0200LA60F		71.6	0.64	3000/5000	0.28			
		ELM2H-0200LA60E		101.1			0.3			
	400W (220V)	ELM2H-0400LA60F		88.8	1.27	3000/5000	0.6			
		ELM2H-0400LA60E		118.1			0.62			
80	750W (220V)	ELM2H-0750LA80F	EL6-RS750P EL6-CAN750Z	90.9	2.39	3000/5000	1.8			
		ELM2H-0750LA80E		121.9			1.95			
	1000W (220V)	ELM2H-1000LA80F	EL6-RS1000P EL6-CAN1000Z	103.9	3.18	3000/5000	2			
		ELM2H-1000LA80E		134.9			2.15			
100	1000W (220V)	ELM2L-1000LA100F-H	EL6-RS1000P EL6-CAN1000Z	154	3.2	3000/6000	2.43	CABLE-RZ*M*H (V1.1) 【Fixed cable】 CABLE-RZ*M*-H (V2.0) 【Flexible cable】	CABLE-7BM*M*-HZ (V3.0) 【Incremental】 CABLE-7BMA*M*-HZ (V3.0) 【Absolute】	CABLE-SC*M*-H (V3.0)
		ELM2L-1000LA100E-H		194			2.63			
130	850W (220V)	ELM2H-0850LD130F-H	EL6-RS1000P EL6-CAN1000Z	126	5.39	1500/4500	12.5	CABLE-RZH*M*-135-TS 【without brake】 CABLE-RZSH*M*-135-TS 【with brake】	CABLE-BMH*M*-114-TS 【Incremental】 CABLE-BMH*M*-124-TS-(R) 【Absolute】+ER14505 BOX-G (Battery Kit) (Add "R" after the model for back facing motor wiring)	If you need brake cable, please select power cable with brake in the power cable column.
		ELM2H-0850LD130E-H		153.5			14.8			

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