



Stock Code: 002979

AC Servo

Product Catalogue

www.leadshine.com





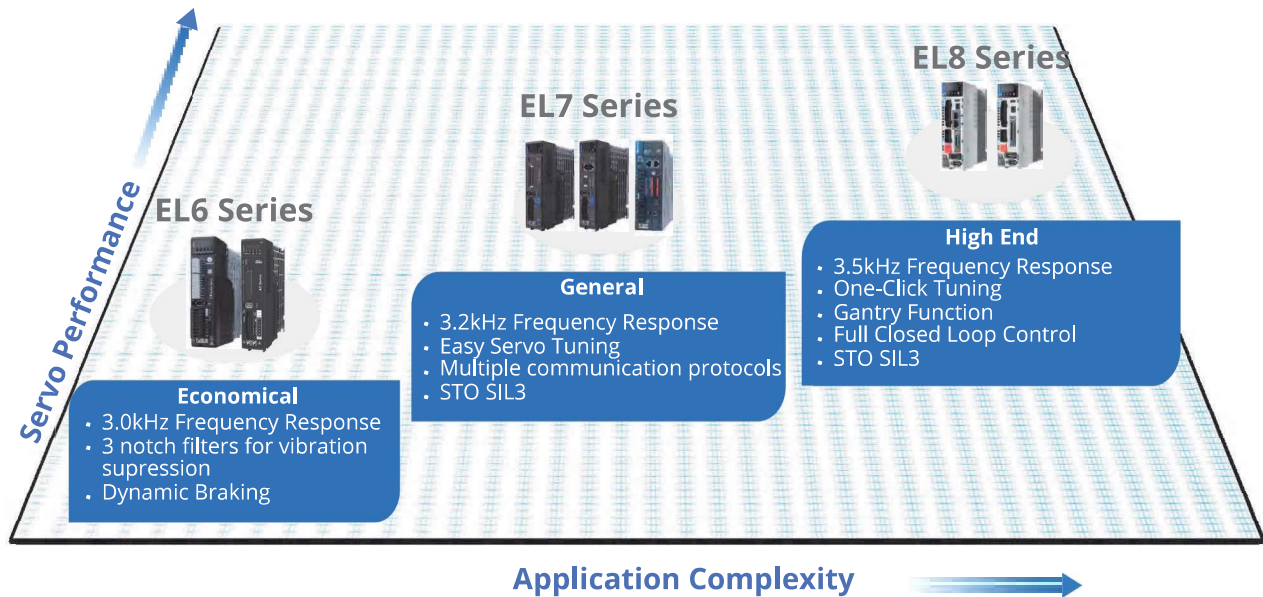
Headquarters in Shenzhen

Leadshine Motion Control Total Product System

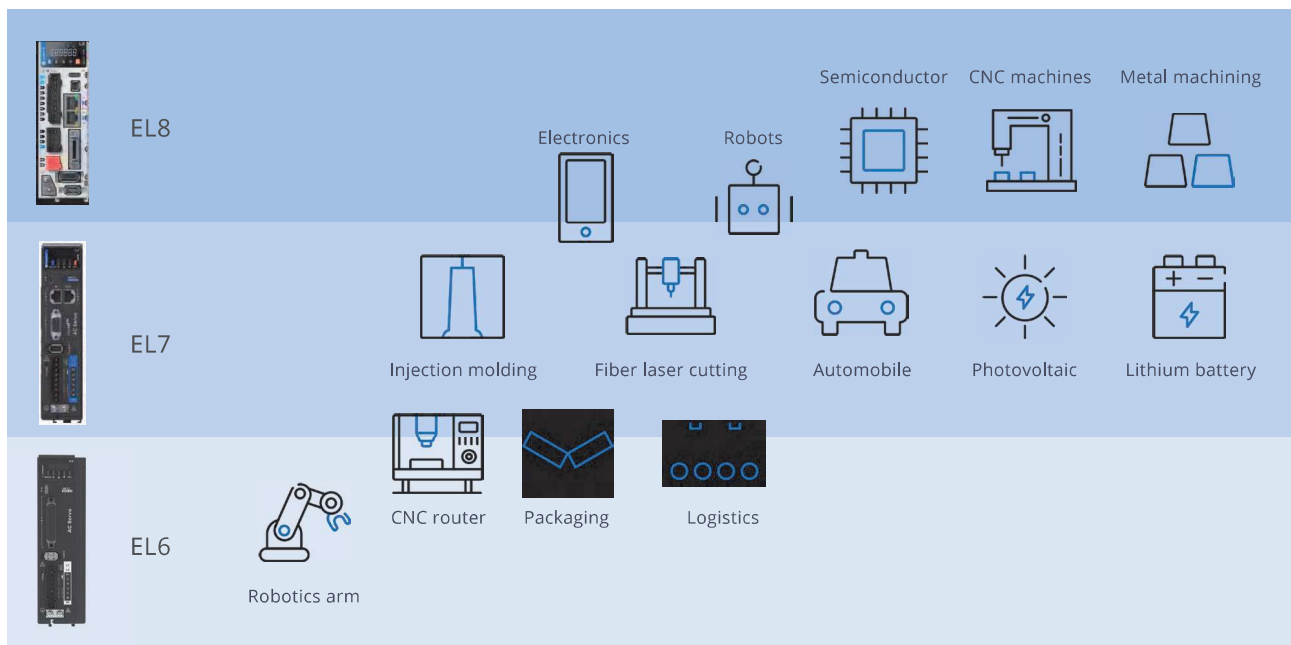


Leadshine Servo Product

Servo Drive Series



Typical Applications



Servo Drive	Model	Power (W)	Voltage (VAC)	Dimensions (mm)	Weight (kg)	Command Source				
						Pulse+Dir	Analog Input			
AC Servo Drive EL8 Series	EL8-EC400F	400	1 Phase/ 3 Phase 220	150*150*43	1		√			
	EL8-RS400F					√	√			
	EL8-EC750F						√			
	EL8-RS750F	750		150*160*55	1.2	√	√			
	EL8-EC1000F						√			
	EL8-RS1000F	1000				√	√			
	EL8-EC1500F			183*168*80	2		√			
	EL8-RS1500F					√	√			
	EL8-EC2000F					√				
EL8-RS2000F	√	√								
AC Servo Drive EL7-RS Series - 220VAC	EL7-RS400P	400	1 Phase 220	175*156*40	0.	√	√			
	EL7-RS750P	750				9	√	√		
	EL7-RS1000P	1000				1.	√	√		
	EL7-RS1500P	1500	1 Phase/ 3 Phase 220	175*156*80	1	√	√			
	EL7-RS2000P	2000				1.	√	√		
EL7-RS750PT	750	2				√	√			
AC Servo Drive EL7 Series - 400VAC	EL7-RS1000PT	1000	3 Phase 400	179*175*55	2.3	√	√			
	EL7-RS1500PT	1500				3	√	√		
	EL7-RS2000PT	2000					√	√		
	EL7-RS3000PT	3000		179*175*80	2.	√	√			
	EL7-RS4400PT	4400				3.9	√	√		
	EL7-RS5500PT	5500					√	√		
	EL7-RS7500PT	7500		230*250*90	3.3	√	√			
	EL7-RS11K0T	11000				√	√			
	EL7-RS15K0T	15000					√	√		
	EL7-RS18K5T	18500		280*170*180		√	√			
	EL7-RS22K0T	22000	√			√				
	EL7-EC400N	400								
	AC Servo Drive EL7 Series - 220VAC	EL7-EC750N	750	1 Phase 220	175*156*40	0.9				
		EL7-EC1000N	1000							
EL7-EC1500N		1500	175*156*50		1.2					
EL7-EC2000N		2000								
		400	1 Phase/ 3 Phase 220	179*175*55	2.3					
		400								
4EL7-ECA05		400								
		750								
		1000		230*200*90						
		1000								
1000										
750										
4EL7-ECA07	750									
	750									
AC Servo Drive EL7 Series - 400VAC	EL7-EC750NT	1000	3 Phase 400	179*175*55	1.3					
	EL7-EC1000NT	1500								
	EL7-EC1500NT	2000								
	EL7-EC2000NT	3000		179*175*80	1.9					
	EL7-EC3000NT	4400								
	EL7-EC4400NT	5500								
	EL7-EC5500NT	7500		230*250*90	3.3					
	EL7-EC7500NT	11000								
	EL7-EC11K0T	15000								
	EL7-EC15K0T	18500		280*170*180						
	EL7-EC18K5T	22000								
	EL7-EC22K0T									
AC Servo Drive EL6 Series - 200VAC	EL6-RS400P	400	1 Phase 220	175*156*40	0.9	√				
	EL6-CAN400Z									
	EL6-RS750P									
	EL6-CAN750Z	750		175*156*50	1.1	√				
	EL6-RS1000P	1000				175*156*50	1.2	√		
	EL6-CAN1000Z									
	EL6-EC400			400	175*156*40					
	EL6-EC750	750								
	EL6-EC1000	1000		175*156*50						
	EL6-EC1500	1500								
	EL6-EC2000	2000			175*179*80					
	2EL6-EC400	400								
	2EL6-EC750	750								
	2EL6-EC1000	1000		168*154*48						
	2EL6-EC1500	1500								
						168*154*55				
				168*183*55						
								168*183*75		

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



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 series 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

Part Numbers

EL8 - EC 400 F

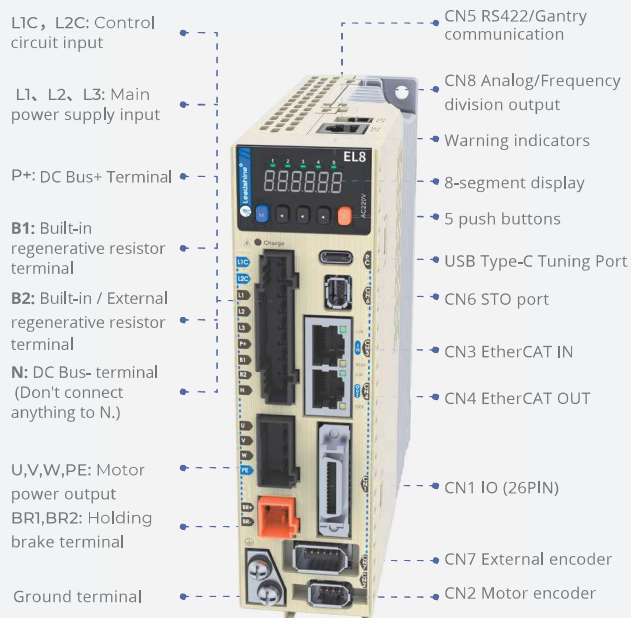
Series Num	
EL8	EL8 series

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

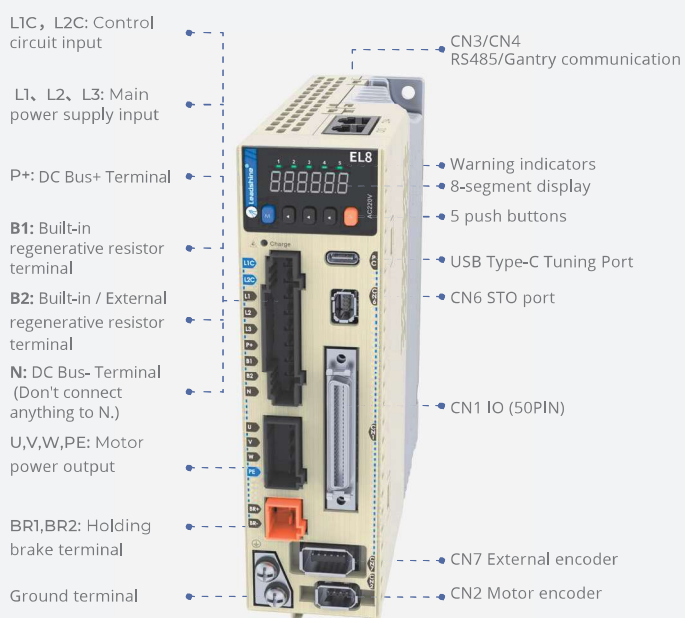
Version	
F	Full Functions

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

Ports & Connectors

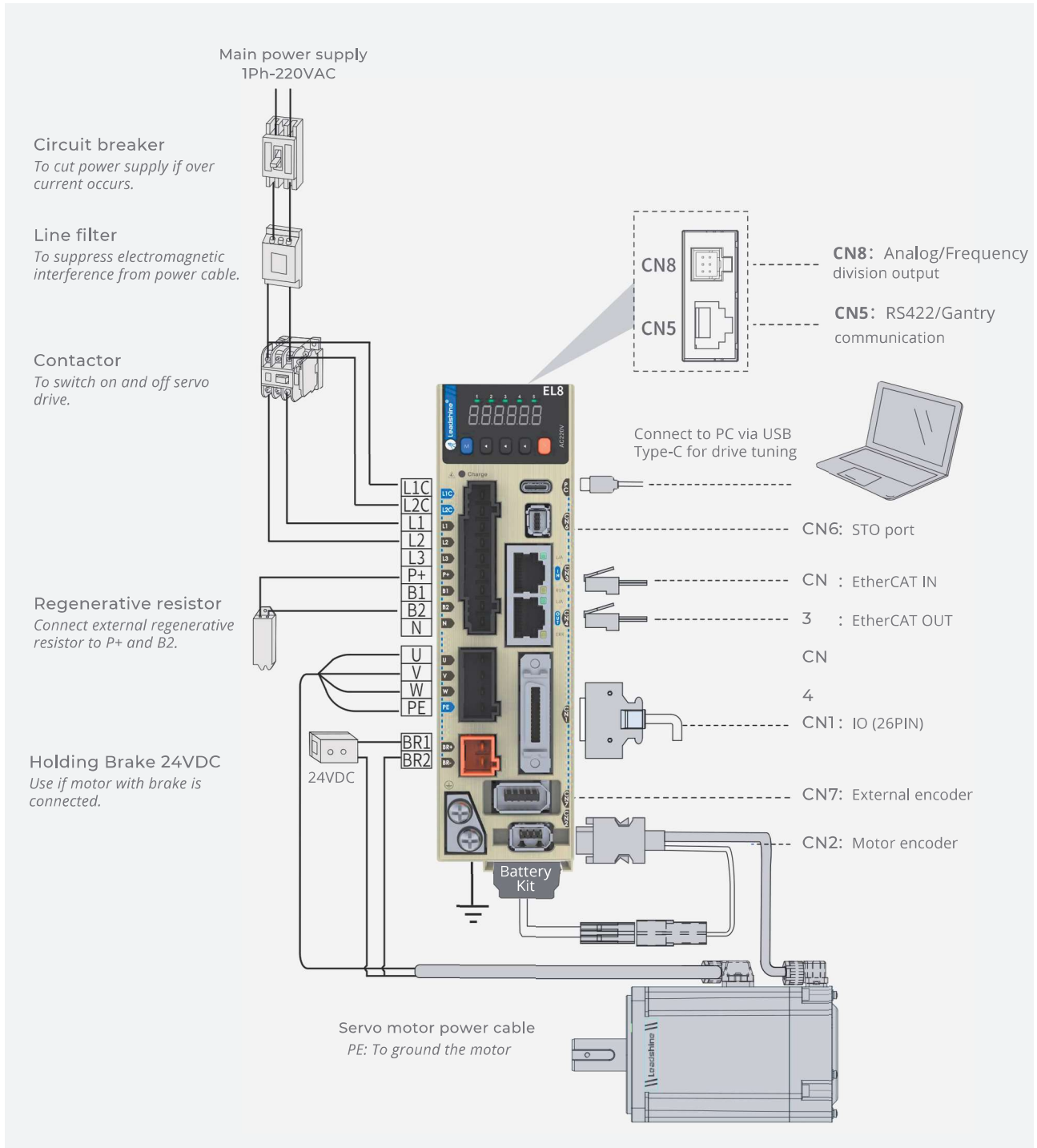


EL8 – EC Series



EL8 – RS Series

EL8-EC & 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: $\pm 12V$,
	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-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

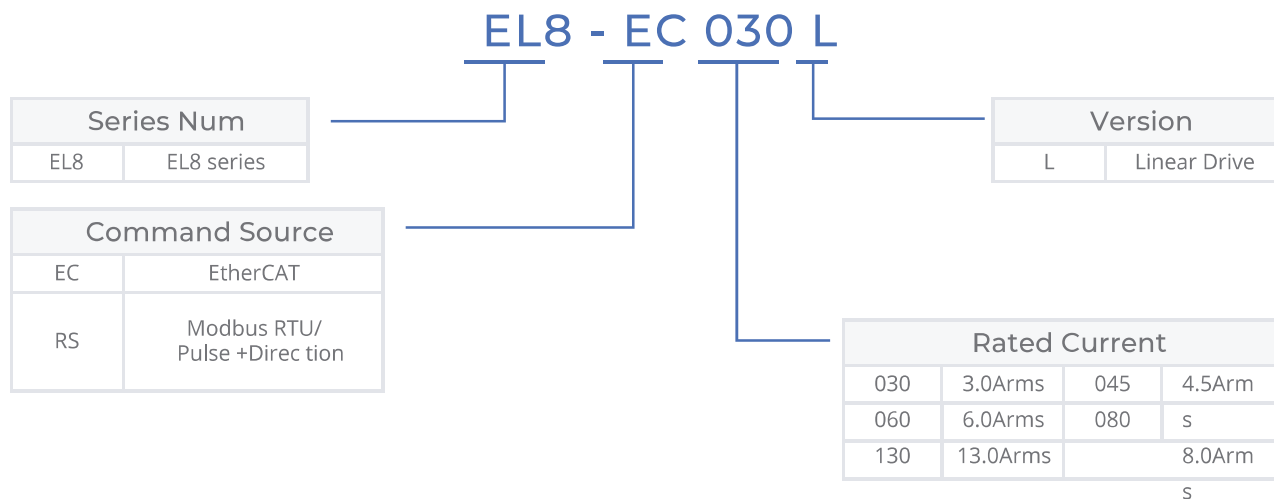


Fiber laser

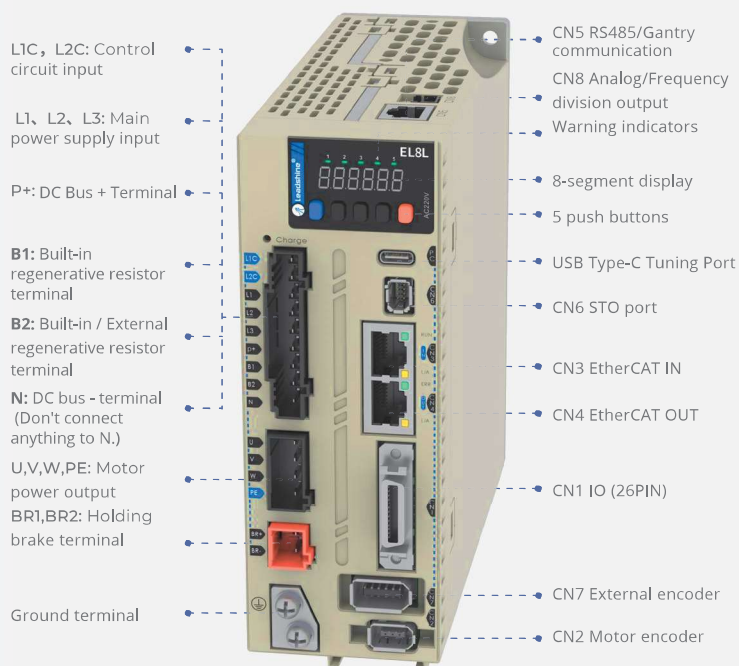


Semiconductor

Part Numbers



Ports & Connectors



Specifications

o 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	160*150*55
EL8-EC060L			
EL8-RS080L	8.0	28.0	183*168*80
EL8-EC080L			
EL8-RS130L	13.0	36.0	183*168*80
EL8-EC130L			



EtherCAT®

Modbus

PROFINET®



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

Part Numbers

EL7 - EC 750 P T

Series Num	
EL7	EL7 series

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

Voltage	
Blank	220VAC
T	400VAC

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

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

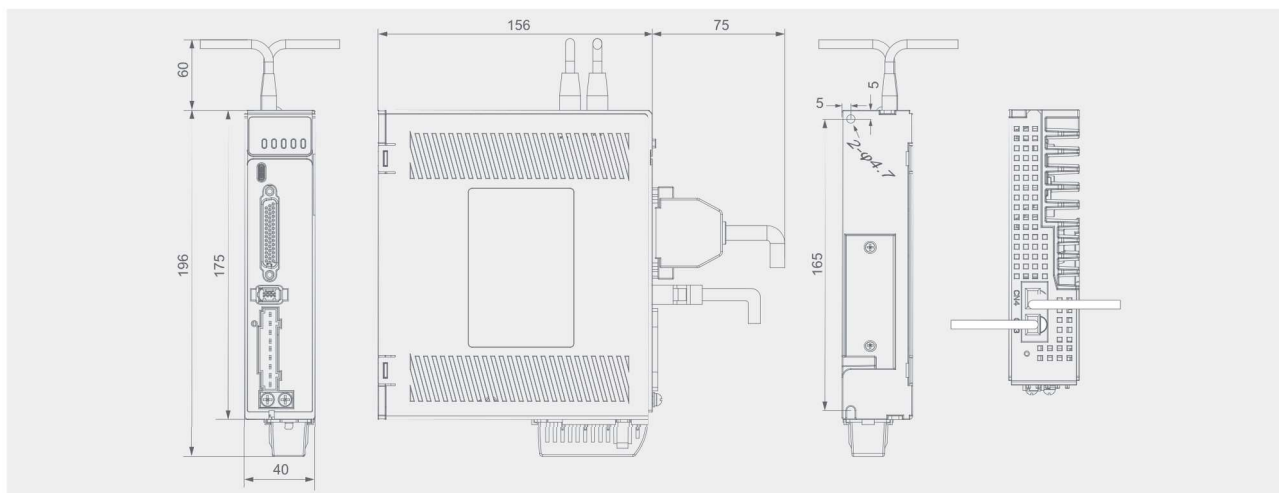
Ports & Connectors

EL7-ECN Series



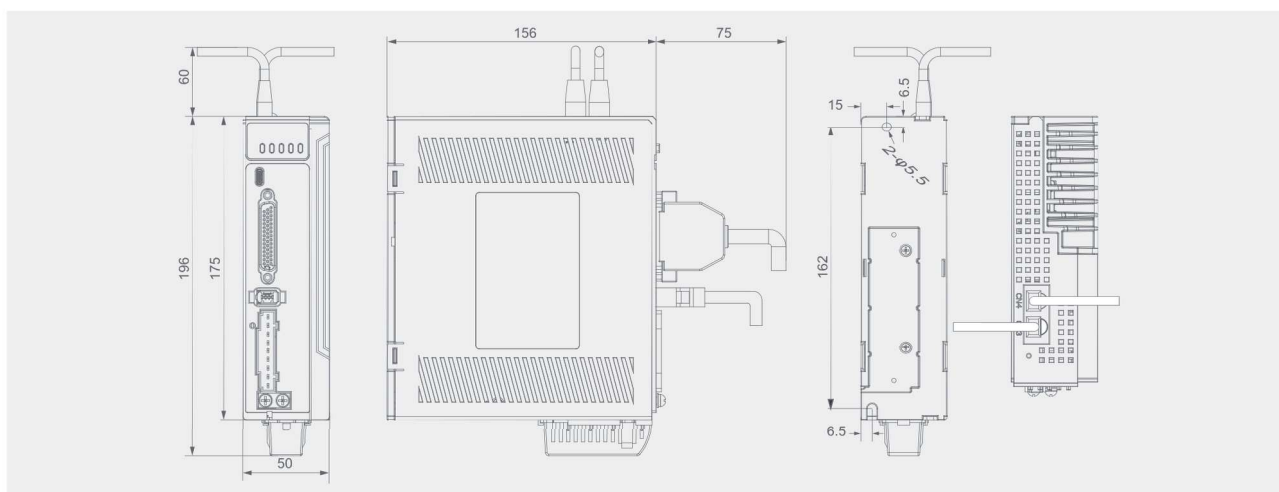
400W (AC 220V)

Unit: mm



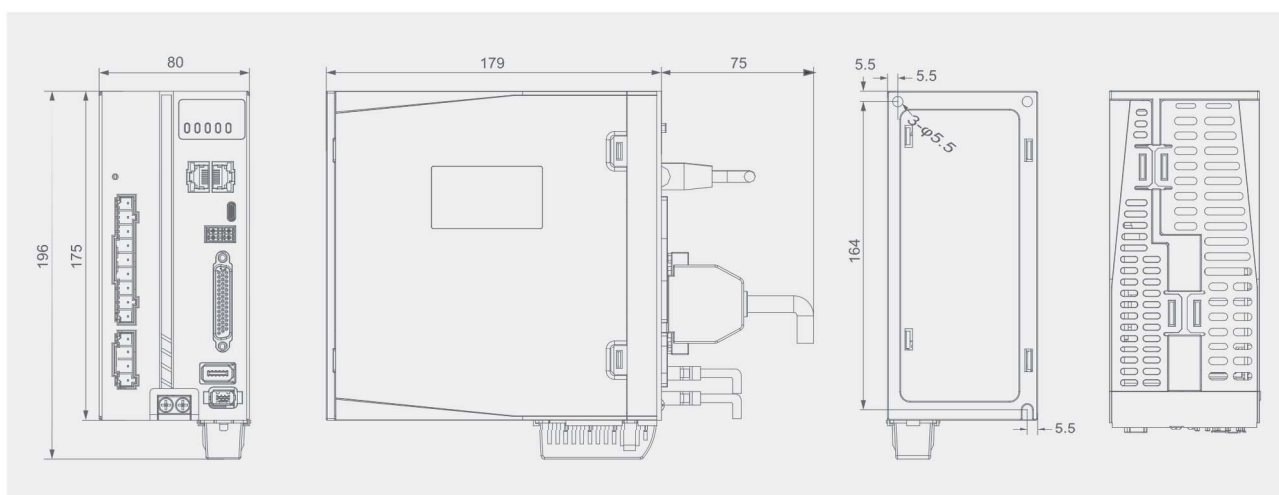
750W/1000W (AC 220V)

Unit: mm

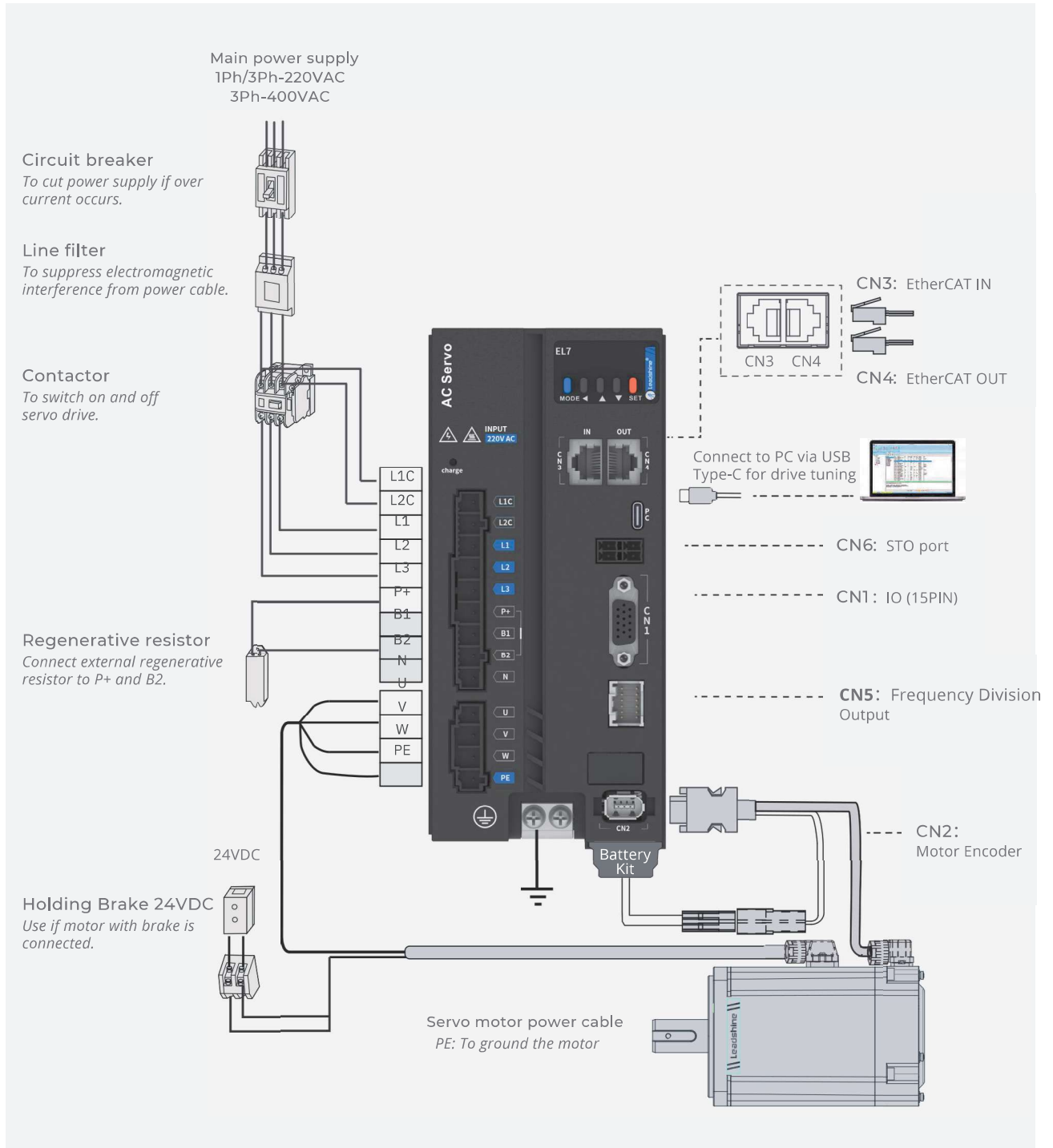


1500W/2000W (AC 220V)

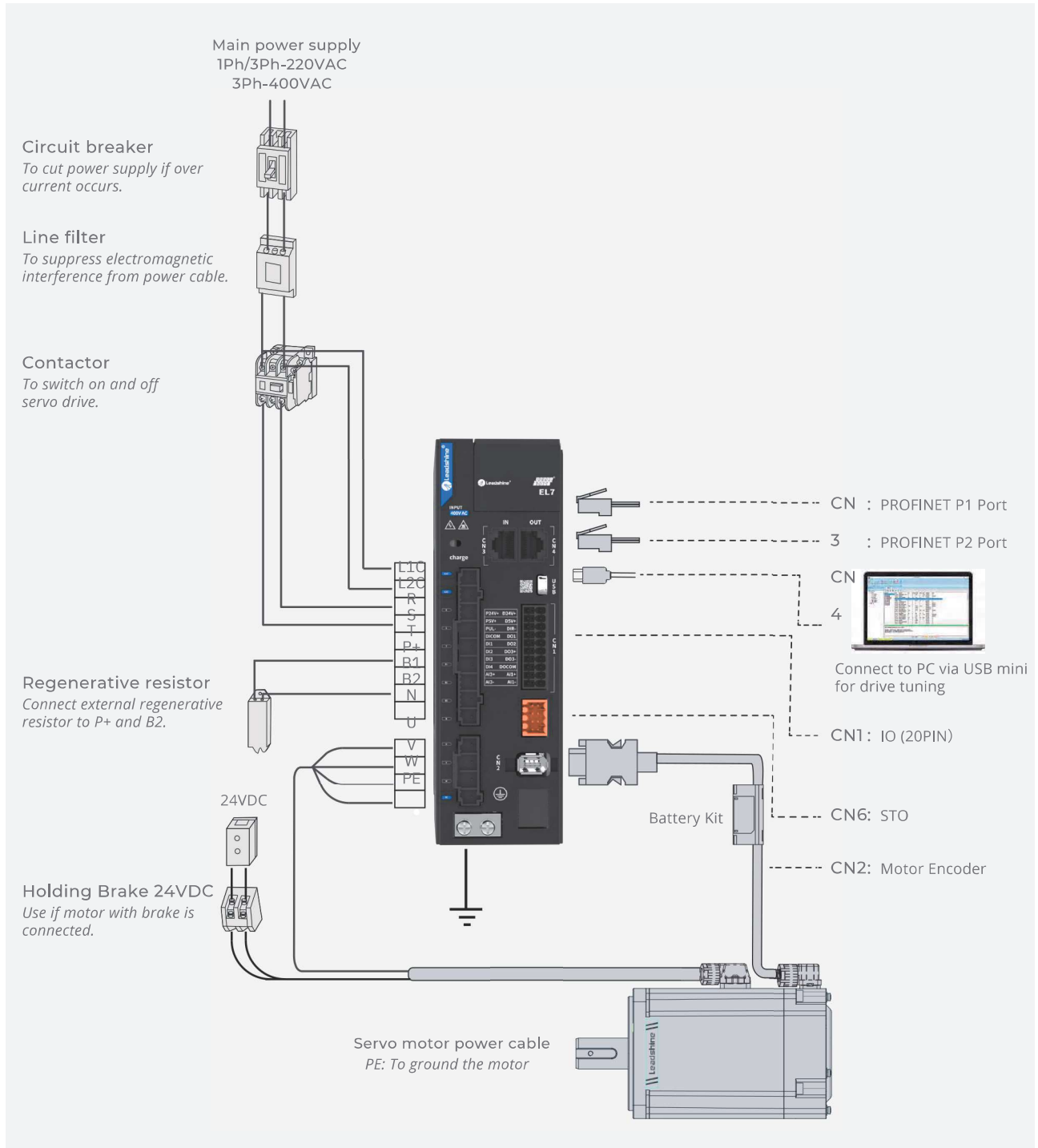
Unit: mm



EL7-ECN & Peripheral Wiring Diagram



EL7-PN & Peripheral Wiring Diagram



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/Velocitv-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



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

Part Numbers

EL7 - EC 11K0 N T

Series Num	
EL7	EL7 series

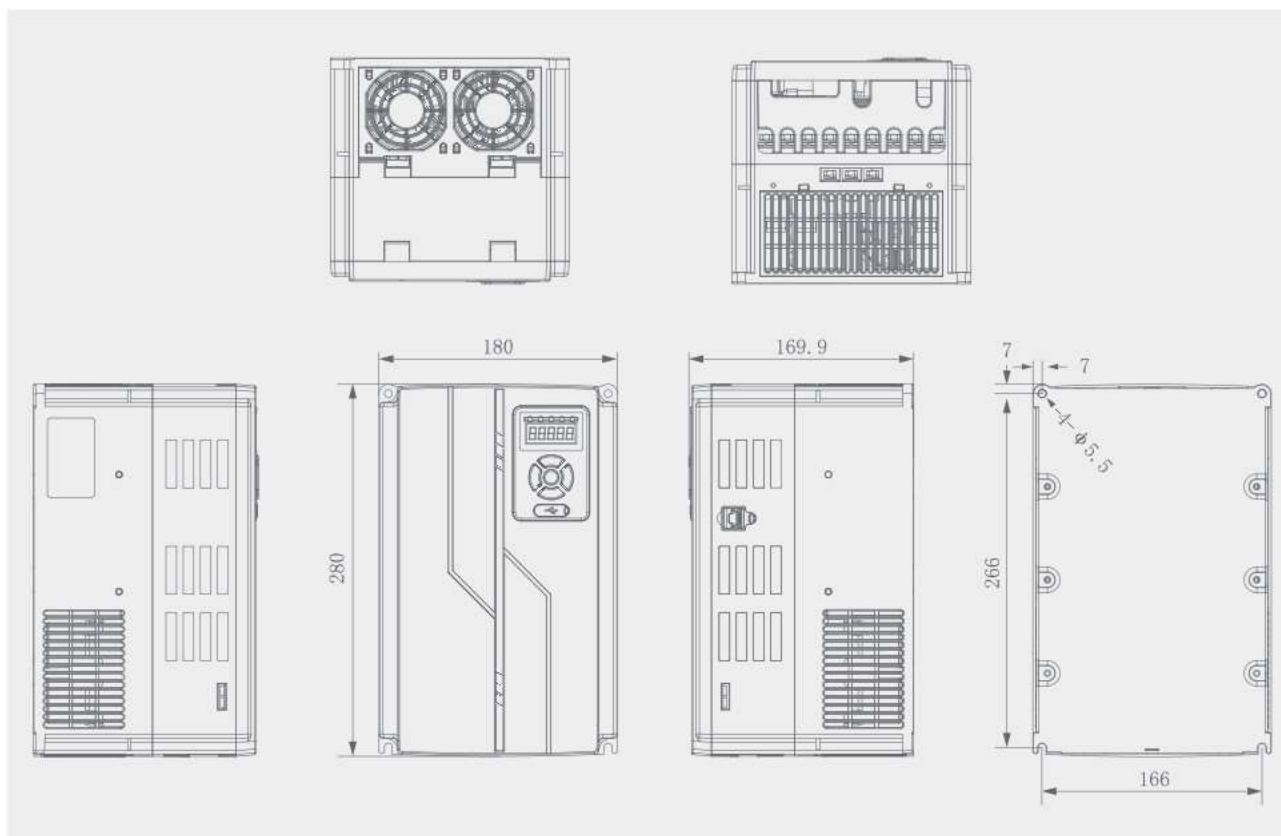
Command Source	
EC	EtherCAT
RS	Modbus RTU/ Analog Input/ Pulse +Direction

Voltage	
Blank	220V
T	400V

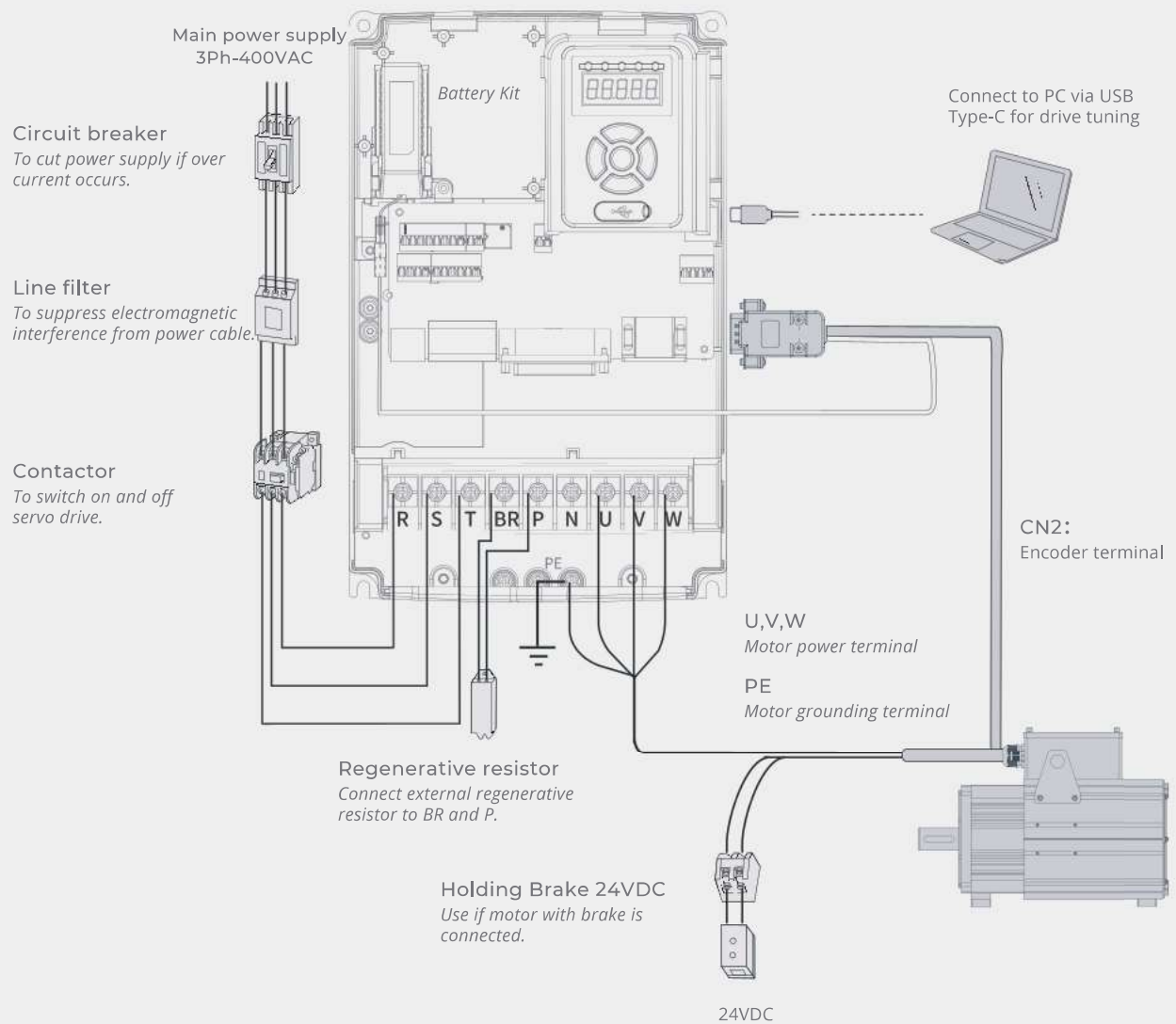
Version	
N	Full function including CE, STO, UL* Certifications

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

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



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 $\pm 10V$ 2 optional voltage/current inputs, input range 0~10V/0~20mA Maximum allowable voltage: $\pm 12V$
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 $\pm 10V$ 2 optional voltage/current inputs, input range 0~10V/0~20mA Maximum allowable voltage: $\pm 12V$
Analogue Output	2 AO(AO1/AO2), output range: 0~10V
Communication Port	RS485 (RJ45 interface)

4EL7-EC Series

4 Axes Drive



4 EL7 - EC A05 □

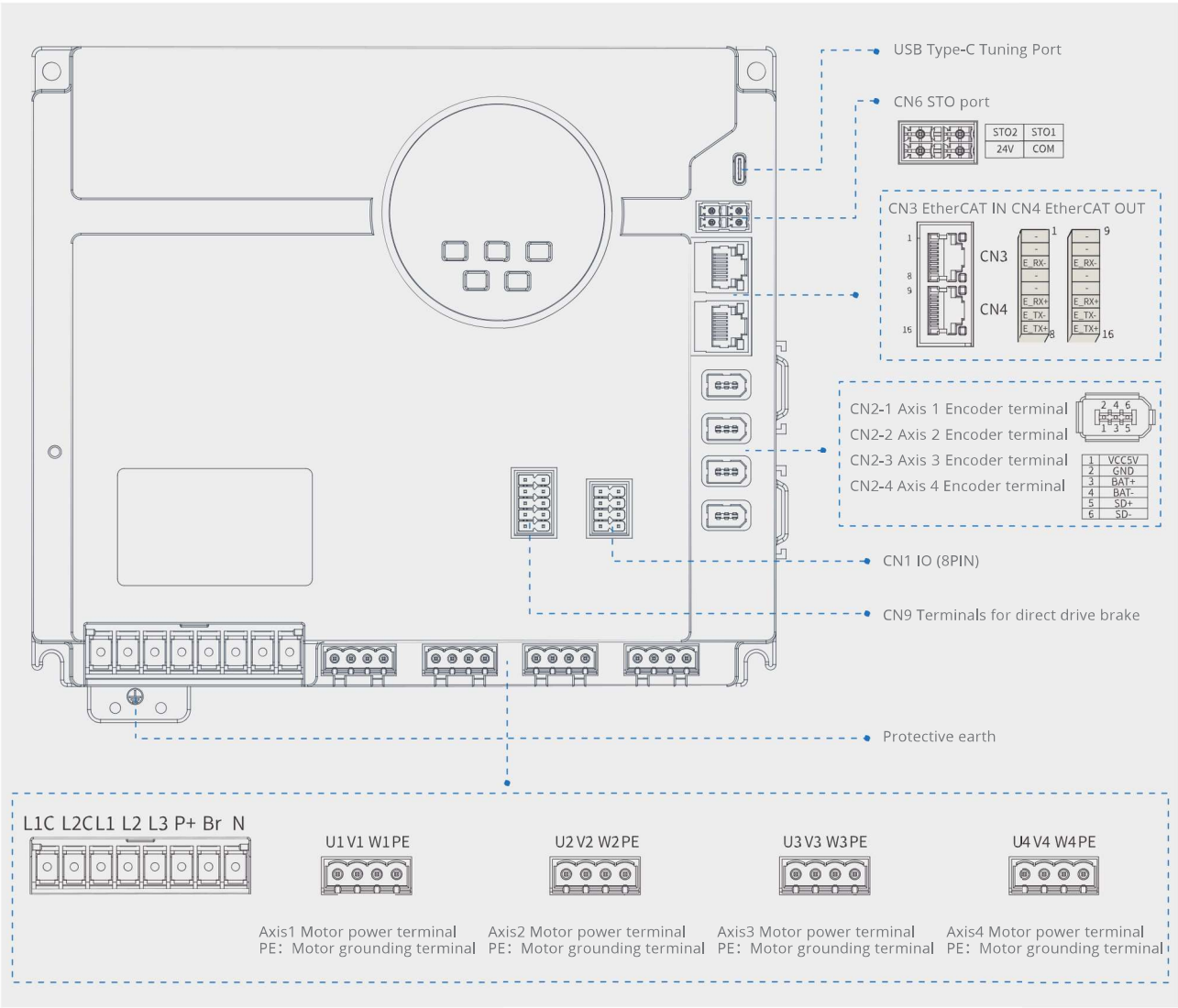
Axes	
2	2
4	axis

Series Num	
EL7	EL7 Series

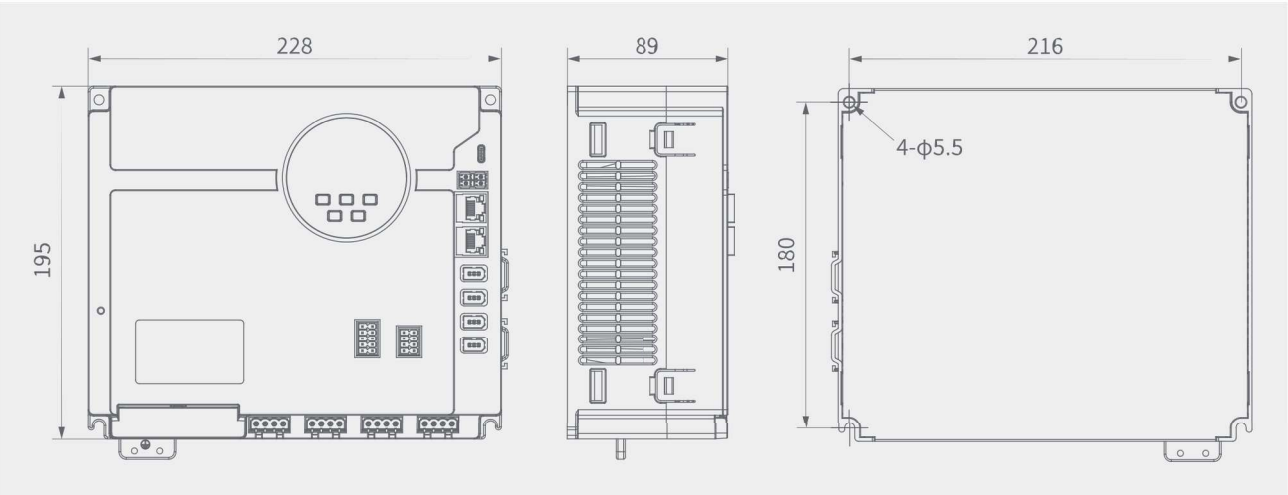
Command Source	
EC	EtherCAT

Voltage	
Blank	220V
T	400V

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



4EL7-EC Series



Specifications

- o 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							

- o 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							



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

Part Numbers

EL6 - EC 400 □ □

Series Num	
EL6	EL6 series

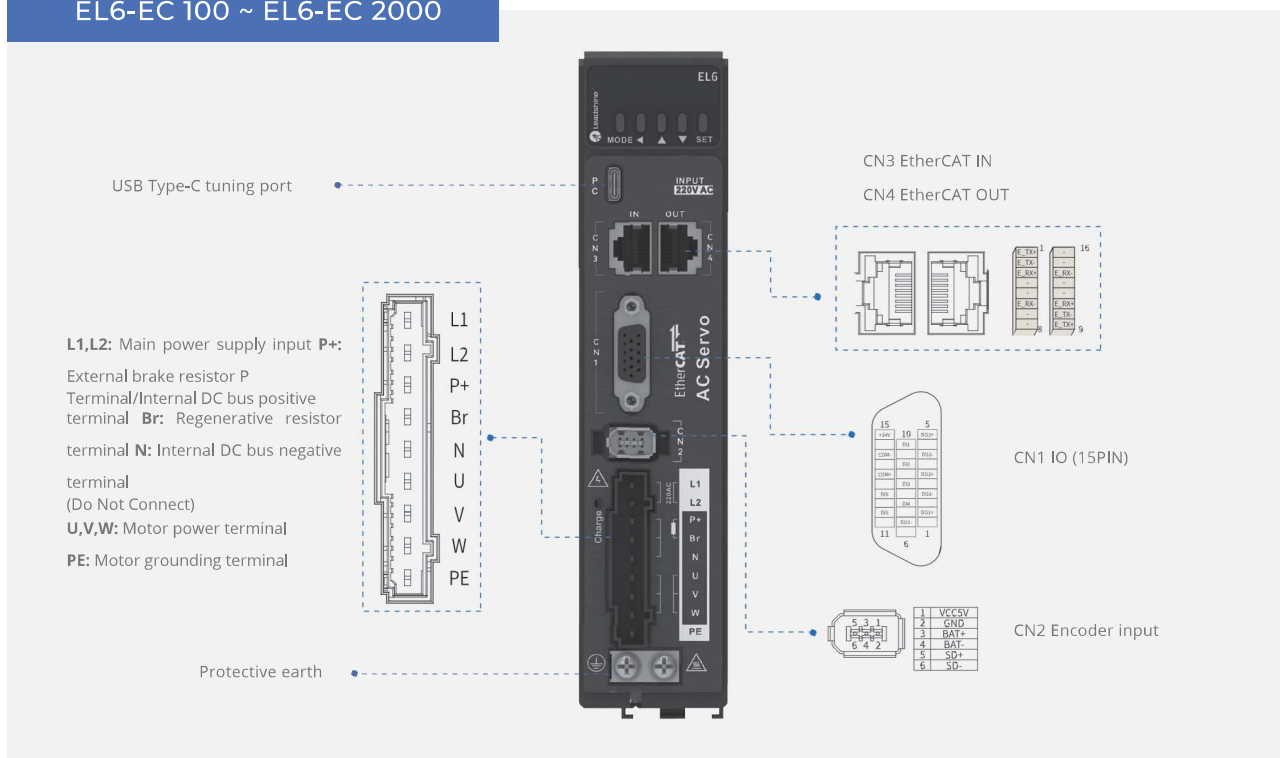
Command Source	
EC	EtherCAT

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

Voltage	
Blank	220V
T	400V

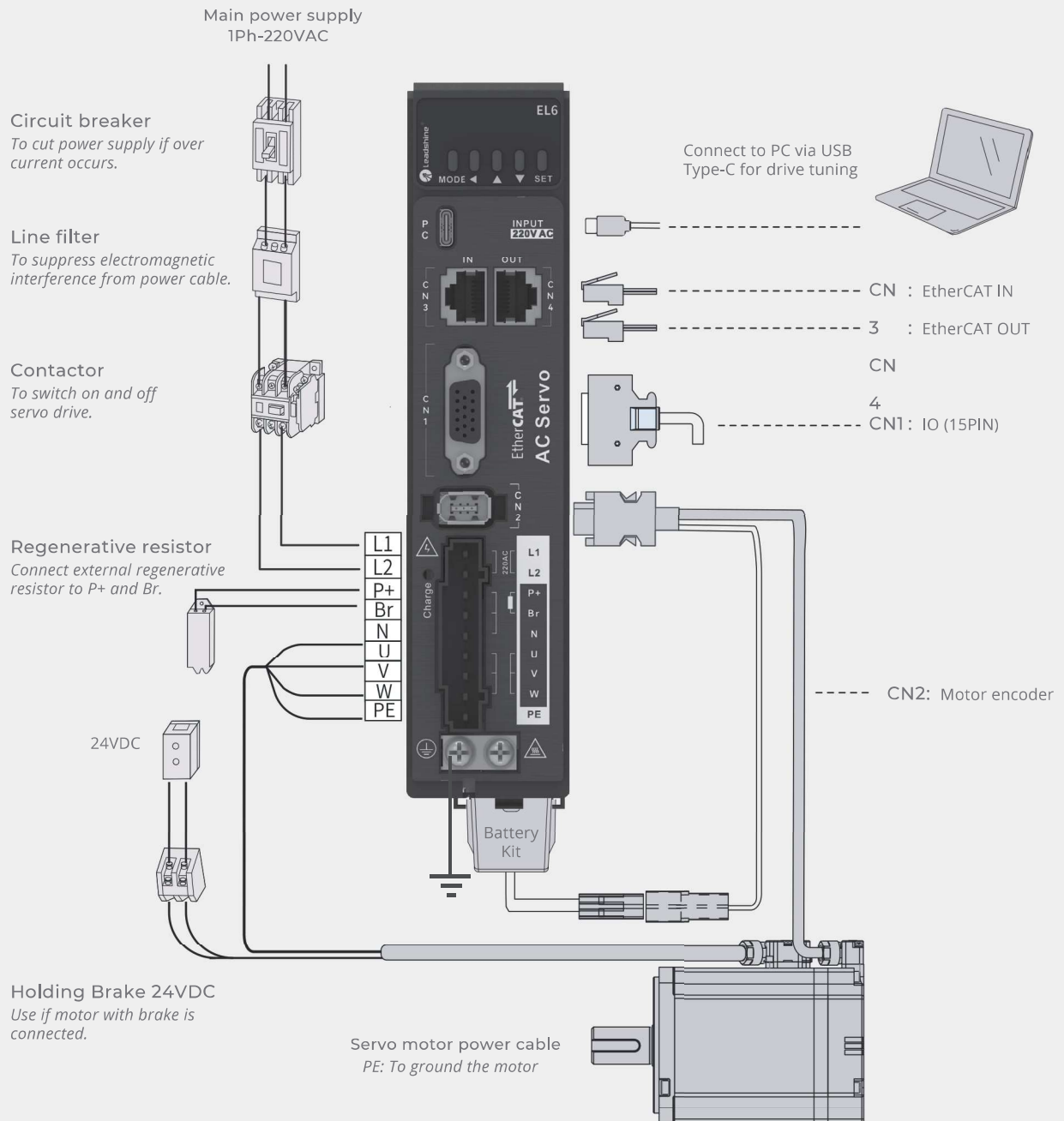
Version	
Blank	Standard Version

EL6-EC 100 ~ EL6-EC 2000



EL6-EC & Peripheral Wiring Diagram

EL6EC-100 ~ EL6EC-1000





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

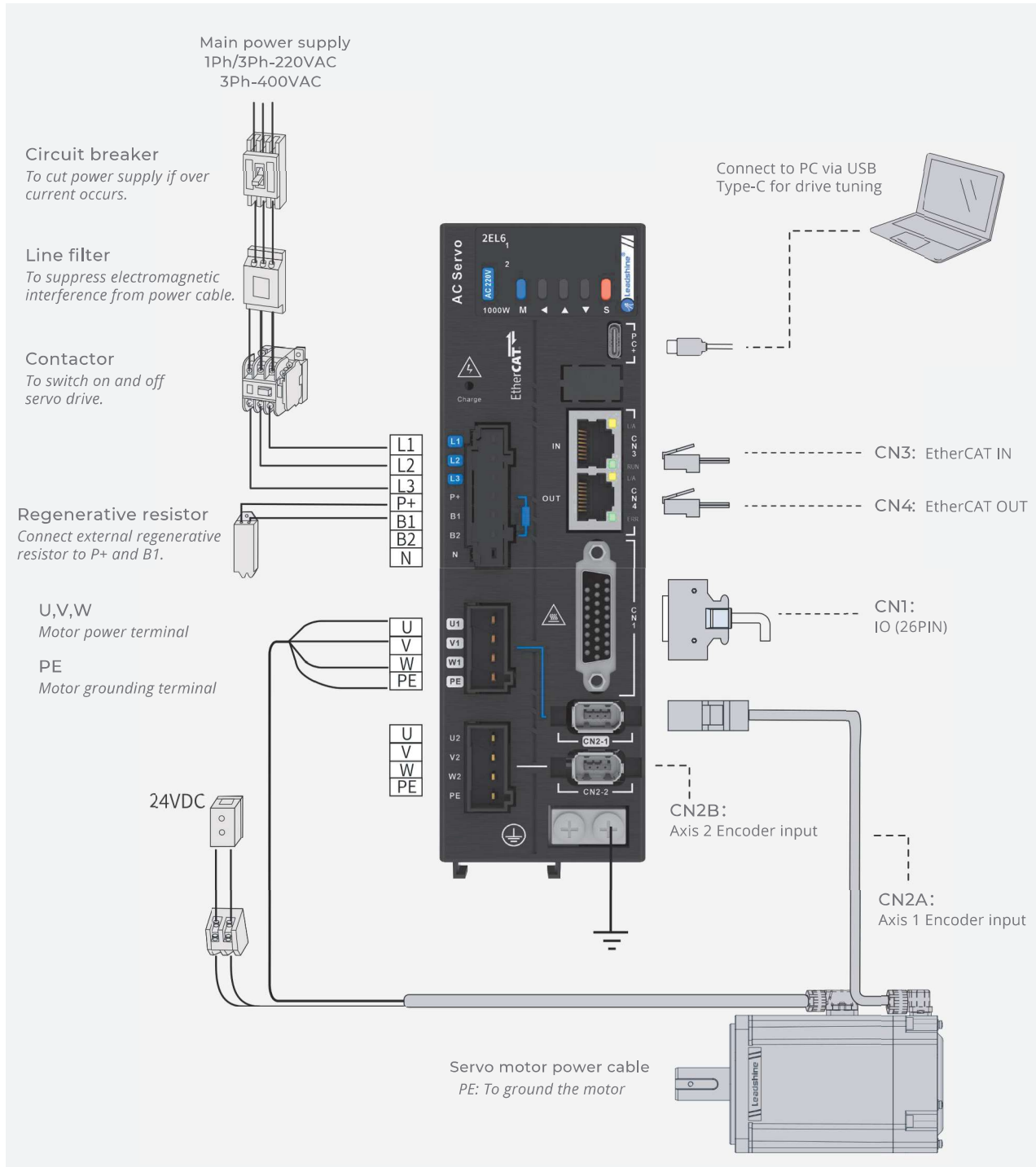


lithium battery

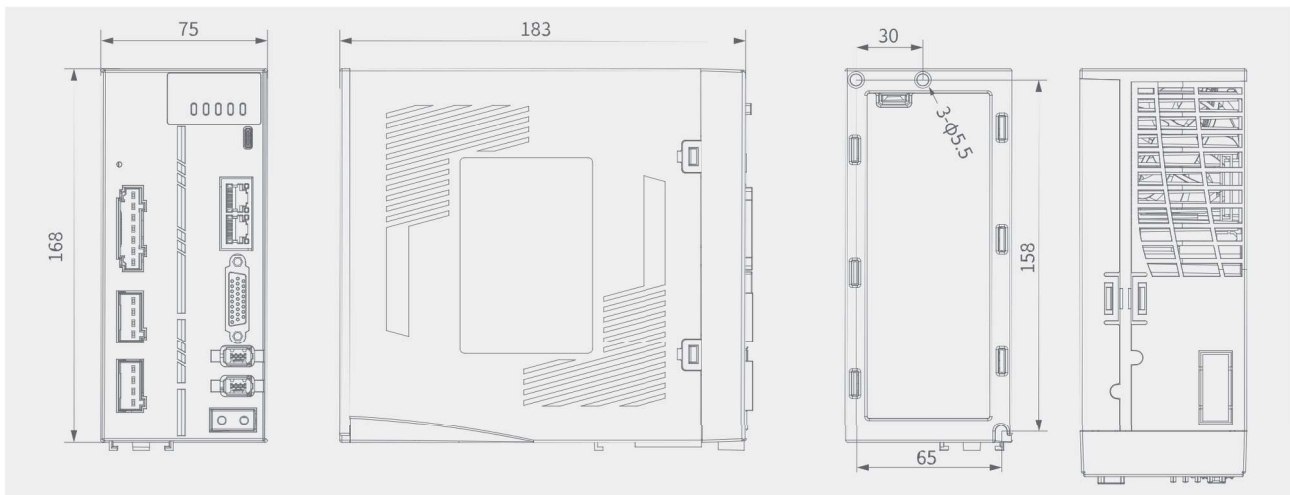


Photovoltaic

2EL6-EC & Peripheral Wiring Diagram



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)



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

Part Numbers

EL6 - RS 750 P

Series Num	
EL6	EL6 series

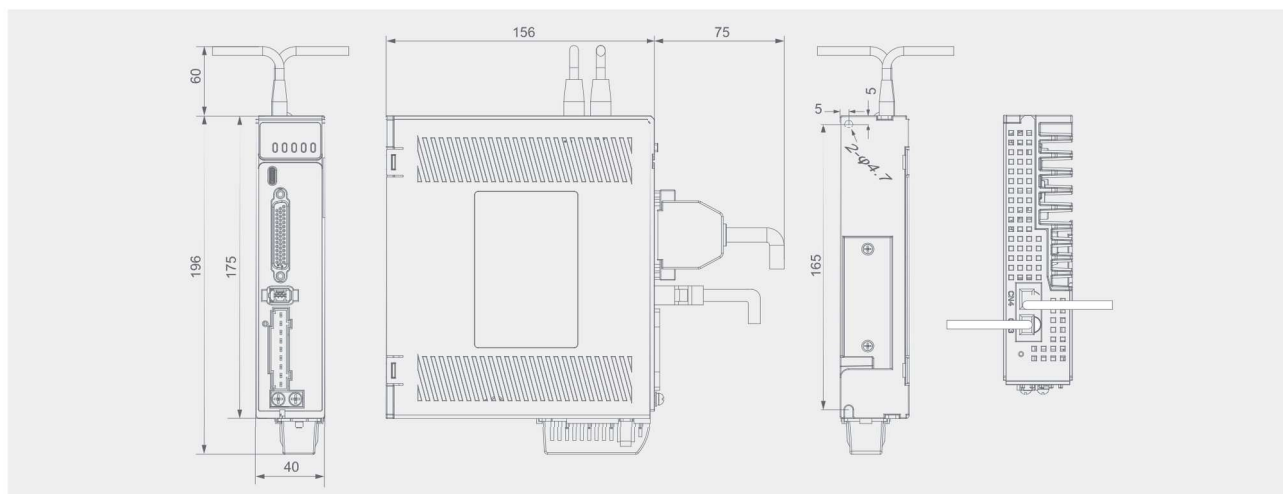
Command Source	
RS	Modbus RTU/ Pulse +Direc tion

Version	
P	Full functions without STO

Rated Power	
400	400W
750	750W
1000	1000W

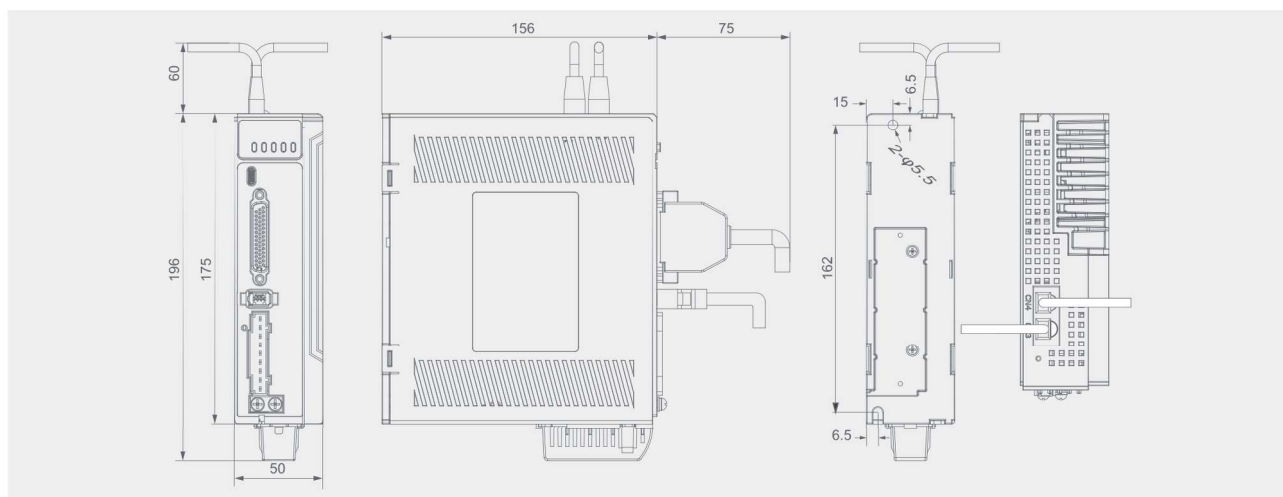
400W (AC 220V)

Unit: mm



750W/1000W (AC 220V)

Unit: mm



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 5V differential signal, 0-4MHz
High-speed pulse input	Supports phase A/B/Z differential frequency division output Supports phase Z open collector frequency division output
Frequency Division Output	8 Digital Inputs (Supports common anode or cathode connection) DI1~DI8
Digital I/O	5 digital outputs (double-ended) DO1~DO5
	RS485 communication, Modbus RTU protocol (RJ45 port)
Communication 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



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

Part Numbers

EL6 - CAN 400 Z

Series Num	
EL6	EL6 servo drive series

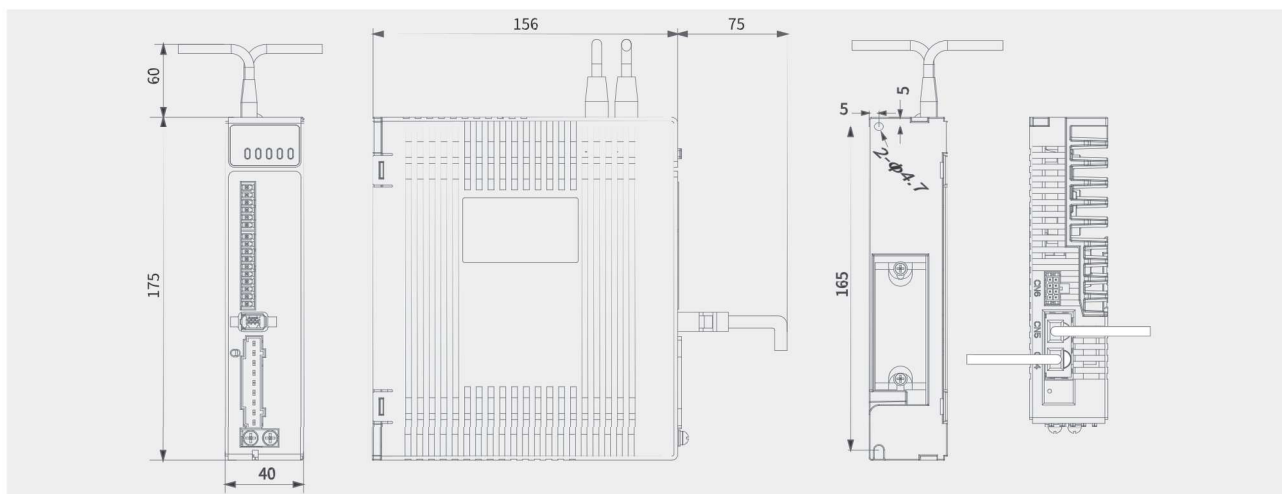
Command Source	
CAN	CANopen

Version	
Z	Standard Version

Rated Power	
400	400W
750	750W
1000	1000W

400W (AC 220V)

Unit: mm



750W/1000W (AC 220V)

Unit: mm

