



Leadshine

EL7-ECS Series

EtherCAT Communication

The EL7-ECS servo represents Leadshine's latest generation EL7 EtherCAT communication AC servo drive, which Speed Loop Bandwidth is up to 3.5 kHz. Operating within a power range of 100–2200 W, its key features include: safety compliance, with control power circuit and mainpower circuit separated, New LTune Intelligent Tuning function.

The minimum communication data update cycle has been reduced from 250–62.5 μ s, enabling faster response times and more precise trajectory control. It satisfies the STO and UL certification. Main applications encompass photovoltaic systems, lithium battery manufacturing, semiconductor production, robotics, electronics, laser technology and so on.

3.5 kHz system response

23 Bit Multi-Turn Absolute Encoder

STO (SIL 3), UL certified

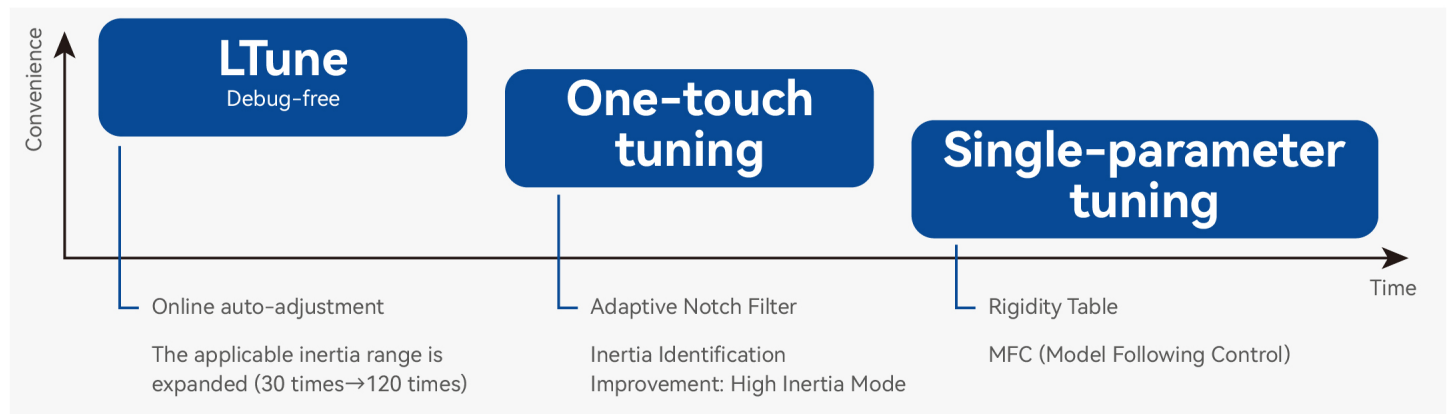
*ongoing

62.5 μ s Synchronisation cycle



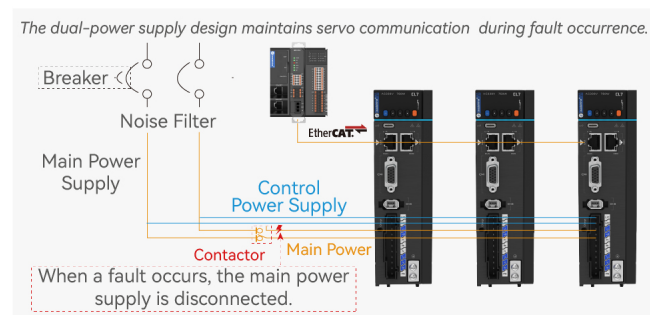
New LTune Intelligent Debugging Function

Implements the online auto-adjustment function and supports one-touch activation via panel buttons.



Dual-power supply design

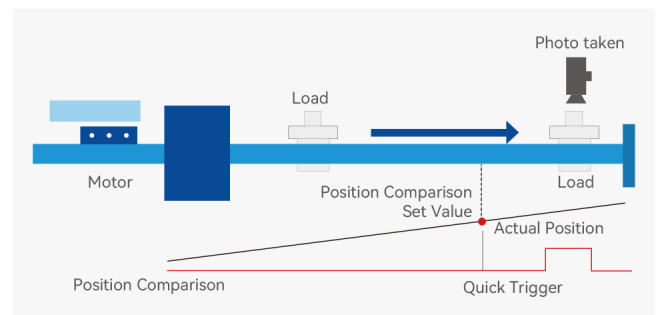
The control power supply and the main power supply are separated, motor shutdown caused by fault will not affect data collection and processing.



Position Comparison

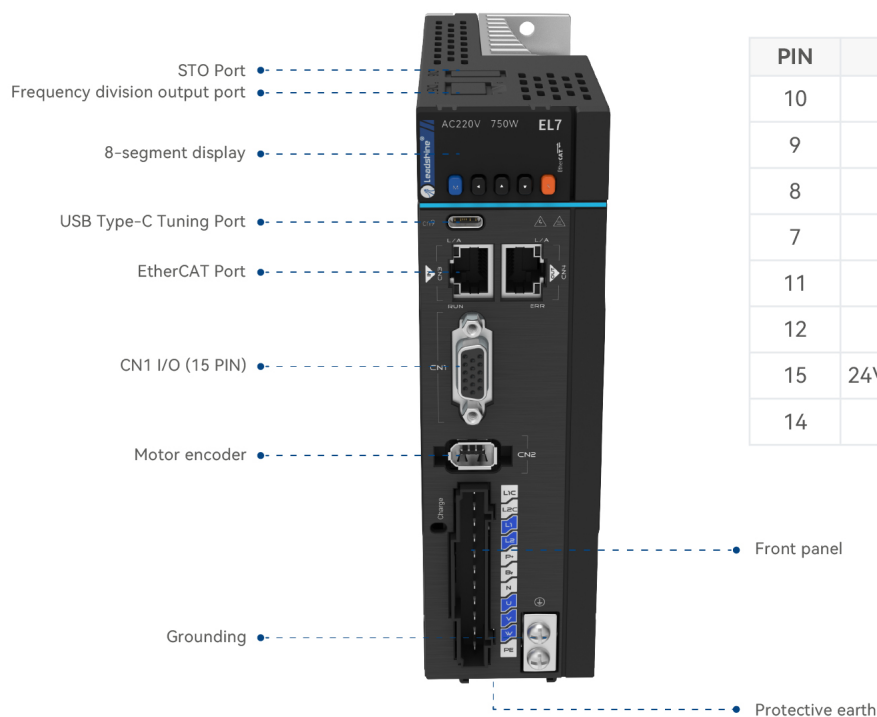
Up to 42 points of position comparison.

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





Connector Specifications



PIN	Function	PIN	Function
10	DI 1	13	COM
9	DI 2	3.0	DO 1+
8	DI 1	6	DO 1-
7	Probe 2	3	DO 2+
11	Probe 1	2	DO 1+
12	DI 6	5	DO 3+
15	24V power supply	4	DO 3-
14	GND		



Peripheral Wiring Diagram

Model	EL7-EC400S	EL7-EC750S	EL7-EC1000S	EL7-EC1500S	EL7-EC2000S		
Voltage	220 V	220 V	220 V	220 V	220 V		
Power	400 W	750 W	1000 W	1500 W	2000 W		
Rated Current	3.5	5.5	7	9.5	12		
Peak Current	9.5	16.6	21	31.1	36		
Size	168*156*40	168*156*50		168*183*80			
Model	EL7-EC1000ST	EL7-EC1500ST	EL7-EC2000ST	EL7-EC3000ST	EL7-EC4400ST	EL7-EC5500ST	EL7-EC7500ST
Voltage	400 V	400 V	400 V	400 V	400 V	400 V	400V
Power	1000 W	1500 W	2000 W	3000 W	4400 W	5500 W	7500w
Rated Current	3.5	5.4	8.4	11.9	16.5	20.8	25.7
Peak Current	10.6	14	24.8	33.2	38.9	51.6	63.6
Size	168*183*55		168*183*80		250*230*89		
Certification	CE, STO, UL (ALL models are in plan)						
Function	Positional comparison						
Synchronization Cycle	62.5 μs						
Motor	Adapt to 23 Bit encoder (battery-free)						
New Technology Enhancement	Better self-tuning technology and ease of use						
Encoder	The encoder meets 5 Mbps High-Speed Serial Communication Standard and Leadshine's encoder protocol						
Overload multiple	3.5 times for the motor, 2.5 times for the driver						

