

Brushless & Brushed DC Servo Systems

ELD2 Servo Drives + ELDM Servo Motors

- Position/Velocity/Torque control
- 24-70Vdc
- Up to 90Amp peak current
- Up to 1200Watt
- Pulse+Dir / Analog Input / Modbus /CANopen
- Compact size/high power density
- Brushless motor + Brushed motor supported
- Model Following Control
- Easy tuning



ELD2 series brushless + Brushed drives, power range from 25W to 1200W, are special DC input, motion control product designed for machines and applications that request a best balance between reasonable cost and outstanding performance with MFC + vibration suppression.

ELD2 Series Brushless + Brushed Drives

Control Types

- Pulse+Direction(for position control)
- Analog input(for velocity/torque control)
- Modbus based on RS485
- CANopen, CiA402
- Built-in indexer
Programmable 16-segment position table, support positioning/homing/ limit/ quick stop/ JOG...

Inputs/Outputs

ELD2-RS

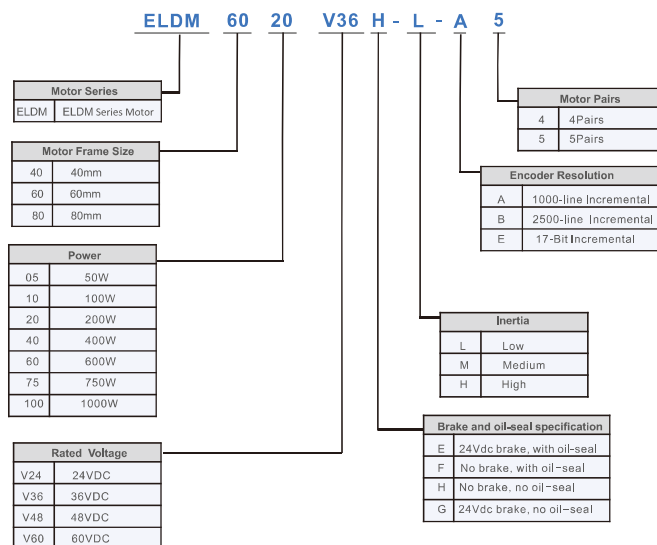
- 2 fast pulse input, 5V only
- 4 programmable OC inputs, 24V
- 1 programmable differential outputs
- 2 programmable OC outputs, 24V
- 1 analog input: -10V to +10V

ELD2-CAN

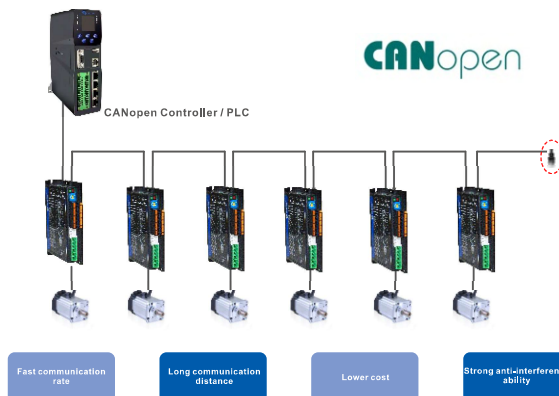
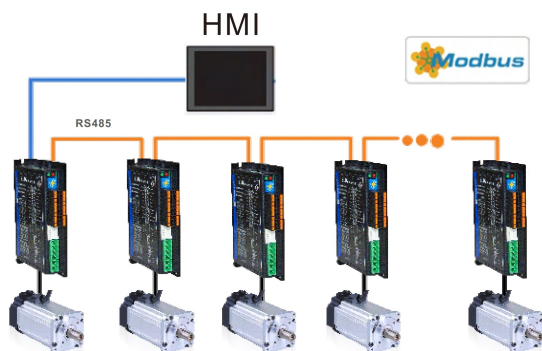
- 4 programmable OC inputs, 24V
- 1 programmable differential outputs
- 2 programmable OC outputs, 24V

ELDM/BLM Series Brushless Servo Motors

- Power Range: 25W – 1200W
- Low / medium inertia for different applications
- 40/42/57/60/80mm frame size motor supported
- 1000line/2500line /17-Bit incremental encoder feedback
- Small torque ripple with new design of magnetic circuit



Communication Network



Specifications

Power & Environment

Driver Model	ELD2-RS7010B	ELD2-CAN7010B	ELD2-RS7015B ELD2-CAN7015B	ELD2-RS7020B ELD2-CAN7020B	ELD2-RS7030B ELD2-CAN7030B
Size(mm)	118*75.5*25.5	140*79.5*25.5	175*100.5*31	175*100.5*31	175*100.5*31
Rated Power (kw)	0.4	0.4	0.6	0.75	1.2
Rated Output Current (A)	10	10	15	20	30
Max Output Current (A)	30	40	45	60	90
Main Power	Voltage (V)	DC24-70	DC24-70	DC24-70	DC24-70
	Current (A)	48-60 Vdc: 7Arms 60-70Vdc: 6Arms	48-60 Vdc: 7Arms 60-70Vdc: 6Arms	48-60 Vdc: 10Arms 60-70Vdc: 9Arms	48-60Vdc: 14Arms 60-70Vdc: 12Arms
Control Method	IGBT PWM Sinusoidal Wave Drive				
Overload	300%				
Brake Resistor	External Connection				
Communication Interface	RS485/CAN				
Protection Rank	IP20				

CANopen Specifications

Link Layer Protocol	CAN Field-bus
Application Layer Protocol	CANopen protocol
CAN-ID Type	CAN 2.0A
Communication Rate	1Mbit/s, 500Kbit/s, 250Kbit/s, 125Kbit/s, 100Kbit/s, 50Kbit/s, 20Kbit/s
Sub-protocol	DS 301 V4.02: CANopen application layer protocol and communication protocol DSP 402 V2.0: Device profile for drives and motion control
CANopen Length	0 – 8bit
Support Service	NMT: Network Management Service SDO: Service Data Object PDO: Process Data Object Devices Monitor: Node protection and heartbeat message SYNC: Synchronous generator and synchronous detection, applied to the PDO transmission EMCY: Emergency object Services
PDO Transmission Modes	Time trigger, event trigger, asynchronization/synchronization trigger(configurable)
PDO Number	4 TPDOs, 4 RPDOs
Control Modes	PP (Profile Position) PV (Profile Velocity) PT (Profile Torque) HM (Homing)

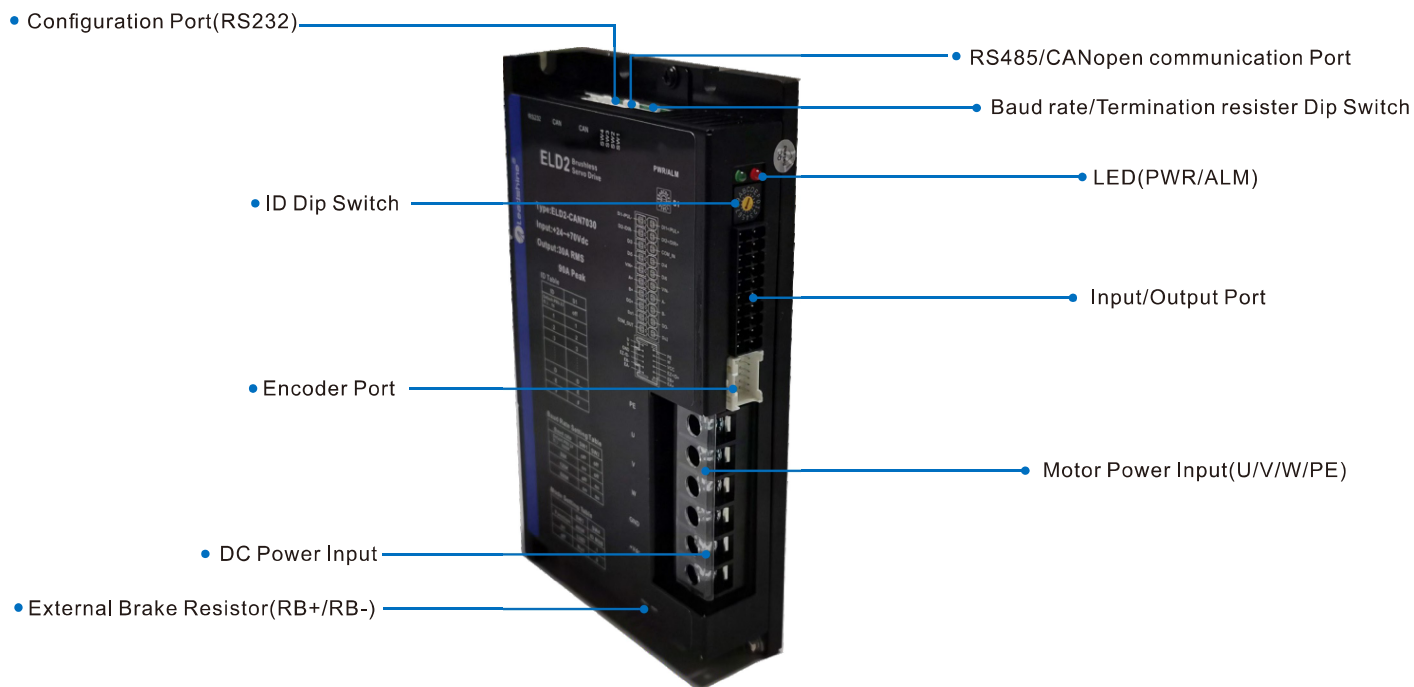
Communication & Connection

	ELD2-RS	ELD2-CAN
Pulse Input	2 fast pulse input, 5V-24v only	-
Pulse Encoder Output	5V differential outputs, A/B phase	5V differential outputs, A/B phase
Digital Input/Output	4 programmable OC inputs, 1 programmable differential output 2 programmable OC outputs, 24V	4 programmable OC inputs, 2 programmable OC outputs, 24V
Analog Input	1 analog input: -10V to +10V	-
Feedback Supported	1000line, 2500line, 17-Bit incremental encoder	

Matched Motors

Motor Model	BLM Series / ACM Series / ELDM Series / Third-party Brushless + Brushed motor
Power Range	25W - 1200W
Voltage Range	24 - 70Vdc
Encoder Type	1000-line, 2500-line, 17-Bit
Motor Size	40mm, 42mm, 57mm, 60mm, 80mm Frame Size
Other Requirements	Brake. oil-seal. protection level. shaft & connector can be customized

ELD2 Connectors and Terminals



Typical Applications



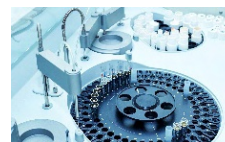
Printing Machines



Logistic



AGV Machines



Medical



Motor Type

1000line Incremental Encoder

Servo Motor model	Frame Size [mm]	Voltage [V]	Rated Output [Watts]	Rated Torque [Nm]	Max Torque [Nm]	Rated Current [Amps]	Max Current [Amps]	Rated Speed [rpm]	Max Speed [rpm]	Back EMF Constant [V/KRPM]	Inertia [Kg.m ² 10 ⁻⁴]	Brake	Length [mm]	Shaft Diameter [mm]
ACM4204V24H-01-A4	42	24	40	0.125	0.37	2.7	8	3000	4000	3.51	0.048		81	6
ACM4206V24H-01-A4	42	24	60	0.185	0.56	3.7	11.5	3000	4000	3.76	0.072		101	6
ACM4210V24H-01-A4	42	24	100	0.2	0.75	5.5	16.5	3000	4000	3.42	0.096		121	6
BLM57025-1000	57	36	25	0.08	0.16	1.6	3.2	3000	3500	5.2	0.03		70	6.35
BLM57050-1000	57	36	50	0.16	0.32	3	6	3000	3500	5.55	0.075		80	6.35
BLM57090-1000	57	36	90	0.29	0.58	3.45	6.9	3000	3500	8.8	0.119		100	6.35
BLM57130-1000	57	36	130	0.41	0.82	5.3	10.6	3000	3500	8.2	0.173		120	8
BLM57180-1000	57	36	180	0.57	1.14	6.7	13.4	3000	3500	8.9	0.23		140	8
57BL180D-1000	57	36	180	0.57	1.14	6.7	13.4	3000	3500	6.6	0.23		140	8
ELDM6010V24HL-A5	60	24	100	0.32	0.96	5.8	17.4	3000	4000	3.6	0.11		78	14
ELDM6010V24GL-A5	60	24	100	0.32	0.96	5.8	17.4	3000	4000	3.6	0.11	●	110	14
ELDM6020V24HL-A5	60	24	200	0.64	1.92	11	33	3000	4000	3.9	0.21		90	14
ELDM6020V24GL-A5	60	24	200	0.64	1.92	11	33	3000	4000	3.9	0.21	●	122	14
ELDM6020V36HL-A5	60	36	200	0.64	1.92	7	21	3000	4000	6.19	0.21		90	14
ELDM6020V36GL-A5	60	36	200	0.64	1.92	7	21	3000	4000	6.19	0.21	●	122	14
ELDM6040V24HL-A5-HD	60	24	400	1.27	3.84	20	65	3000	4000	4.2	0.43		117	14
ELDM6040V24GL-A5-HD	60	24	400	1.27	3.84	20	65	3000	4000	4.2	0.43	●	149	14
ELDM6040V48HL-A5	60	48	400	1.27	3.81	10	31	3000	4000	7.68	0.42		114	14
ELDM6040V48GL-A5	60	48	400	1.27	3.81	10	31	3000	4000	9.73	0.56	●	147	14
ELDM6040V60HL-A5	60	60	400	1.27	3.81	9	27	3000	4000	9.73	0.42		114	14
ELDM6040V60GL-A5	60	60	400	1.27	3.81	9	27	3000	4000	9.73	0.42	●	147	14
ELDM8075V48HM-A5-HD	80	48	750	2.39	7.17	19	57	3000	4000	8.7	1.5		142	19
ELDM8075V48GM-A5-HD	80	48	750	2.39	7.17	19	57	3000	4000	8.7	1.5	●	177	19
ELDM80100V48HM-A5-HD	80	48	750	3.2	9.6	28	86	3000	4000	7.7	2.2		165	19
ELDM80100V48GM-A5-HD	80	48	750	3.2	9.6	28	86	3000	4000	7.7	2.2	●	201	19
ELDM6005V24HM-A5-600	60	24	50	0.8	2.4	11	35	600	1200	5	0.27		96	14
ELDM6013V24GM-A5	60	24	125	0.4	1.2	9	28.5	3000	5000	3.2	0.15	●	113	14
ELDM8006V24HM-A5-150	80	24	55	3.5	10.5	7.5	24	150	300	30	1.2		116	19
ELDM8006V24GM-A5-150	80	24	55	3.5	10.5	7.5	24	150	300	30	1.2	●	151	19

2500line Incremental Encoder

Servo Motor model	Frame Size [mm]	Voltage [V]	Rated Output [Watts]	Rated Torque [Nm]	Max Torque [Nm]	Rated Current [Amps]	Max Current [Amps]	Rated Speed [rpm]	Max Speed [rpm]	Back EMF Constant [V/KRPM]	Inertia [Kg.m ² 10 ⁻⁴]	Brake	Length [mm]	Shaft Diameter [mm]
ELDM4005V24HL-B5	40	24	50	0.16	0.48	3.8	12	3000	4000	3	0.02		71	8
ELDM4005V24GL-B5	40	24	50	0.16	0.48	3.8	12	3000	4000	3	0.021	●	103	8
ELDM4010V24HL-B5	40	24	100	0.32	0.96	5.7	18.1	3000	4000	3.8	0.038		85	8
ELDM4010V24GL-B5	40	24	100	0.32	0.96	5.7	18.1	3000	4000	3.8	0.039	●	117	8
ELDM4010V48HL-B5	40	48	100	0.32	0.96	4.0	12.5	3000	5000	5.5	0.04		85	8

Extension cable:

Power Cable: CABLE-ACM*M* / CABLE-PL*M*-H (length: 1.2m, 2.2m, 3m, 5m, 7m, 10m optional)
Encoder Cable: CABLE-LD2-BM*M* / CABLE-LD2-BM*M*-S (length: 1.2m, 2.2m, 3m, 5m, 7m, 10m optional)
Brake Cable: CABLE-SC*M*-S (length: 1.2m, 2.2m, 3m, 5m, 7m, 10m optional)
Configuration Cable: CABLE-PC-1
Communication Cable: CABLE-TX*M*-LD2