

# EtherCAT Closed Loop Stepper Drive

## CS3E Series

### Features

- No loss of step, No hunting, No torque reservation, No tuning
- Smooth, Quick, Accurate, Low heating
- 7 configurable digital inputs include touch probe, limit, origin and GPIOs
- 6 optically isolated digital outputs include alarm, in position and GPIOs
- Brake output with 24/500mA, connects motor brake cable directly without additional relay and diode
- USB port for parameters configuration
- Motor encoder with Z index signal optional, resolution 1000, 2500, 5000 ppr
- Two 7-segments display velocity or slave ID or operation mode or error code
- Protections for over voltage, over current and position following error, encoder cable error, etc.

### Overview

The CS3E series drives support CANopen over EtherCAT (CoE) control and CiA 402 operating modes including Profile Position (PP), Profile Velocity (PV), Homing (HM) and Cyclic Synchronous Position (CSP). They can power 2-phase NEMA 8, 11, 14, 17, 23, 24, 34 stepper motors with 1000 ppr to 5000 ppr incremental encoders, for reduced heating, no hunting, lower noise and vibration, improved acceleration, etc.

### Specifications

Models				
	CS3E-D503	CS3E-D507	CS3E-D728	CS3E-D1008
Operating Voltage	20-50VDC	20-50VDC	20-72VDC	20-80VAC or 30-110 VDC
Output Current	0.3-2.5A(RMS 1.8A)	1.0-7.0A(RMS 5A)	2.1-8.0A(RMS 6A)	3.2-8.2A(RMS 6A)
Matched Motor	NEMA 11,14,17	NEMA 23,24	NEMA 23,24,34	NEMA 34

### EtherCAT Specifications

Physical Layer	100BASE-TX
Communication Connector	RJ45 × 2 (ECATIN, ECATOUT)
Topology	Field bus
Baud Rate	2 × 100 Mbps (full-duplex channel)
Frame Data Length	1484 bytes (Max)
Synchronization Manger	Sm0: email received (from master station to slave station) Sm1: email sent (from slave station to master station) SM2: process data output (from master station to slave station) SM3: process data input (from slave station to master station)
FMMU	FMMU0 FMMU1 FMMU2
Synchronization Mode	DC Synchronization ( SYNC0 ) Free Run
Communication Event	SDO, PDO, EMCY
LED indicator	L/A IN (Link/Activity IN) × 1 L/A OUT (Link/Activity OUT) × 1 RUN × 1 ERR × 1
Application Layer	IEC61800-7 CiA402 Drive Profile
Operation Modes	CSP, PV, PP, HM
Cycle Time	500us, 750us, 1ms, 2ms, 3ms, 4ms, 5ms

### Application Sample

- Packing machine
- Automatic production line
- Stage entertainment equipment
- Automation equipment

### System Configuration



### Sales Area and Language



- English
- Chinese

### For More Information

Website URL: [www.leadshine.com](http://www.leadshine.com)

Email: [sales@leadshine.com](mailto:sales@leadshine.com)

Address: 11/F, Block A3, iPark, No.1001 Xueyuan Blvd. Nanshan District, Shenzhen, China