

LDHD2

High-performance Servo Drives

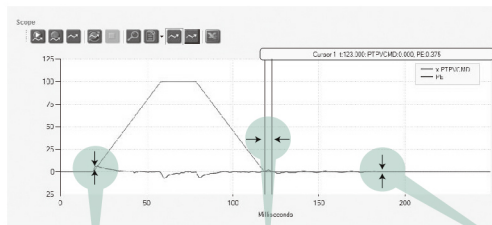
LDHD2 is a new generation Servotronix servo driver, focusing on linear motor control, with advanced control algorithms, and easy to use.

Focusing on linear motor applications, providing precise motion control

LDHD2 drives provide self-developed HD control loops with a graphical interface debug wizard to ensure control accuracy while making debugging easier and more reliable. LDHD2 drives support EtherCAH field bus, pulse control, and incremental encoders, Hall sensors, and SSI encoders for the perfect combination of linear motor applications.

HD control loop optimizing servo control

An adaptive non-linear control algorithm was developed to optimize servo performance in high precision motion applications. This proprietary algorithm uses a parallel configuration, in which position and velocity branches are on the same level and executed in each sampling period. A variable gain parameter is introduced and automatically optimized for high gain and stability. As a result, position error and settling time are minimized to levels far superior to those of other controllers.



Minimum position error

Settling time of almost zero

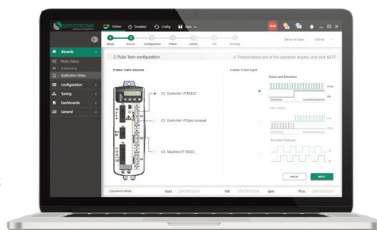
No oscillations at stand-still

High bandwidth current loop achieves and industry-leading frequency response

The current loop design achieves an outstanding frequency response of 3-5 kHz. High sampling rates and flexible filtering options provide a faster response and ensure maximum machine accuracy and throughput.

ServoStudio™ wizard for simple commissioning

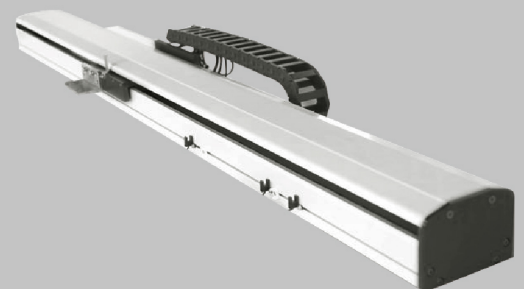
- Step-by-step guidance through the motor setup, application configuration and tuning process
- Innovative and self explanatory user interface
- Excellent results for novice users within minutes
- Real-time data recording and plotting
- Easy integration of servo axes
- Plug-and-play motor library



Key benefits

- Supports direct-drive linear motor, direct-drive rotary motor control
- High performance HD and HDM control loops
- 5kHz current loop bandwidth
- Supports differential pulse control
- ServoStudio™ for easy commissioning
- EtherCAT bus communication support
 - PP/PV/PT/CSP/CSV/CST
- Supports online enabling and control mode switching
- Touch Probe
- Supports FOE function
- More than 40 types of zero return methods
- CE certification

Match the linear motor to get the best performance

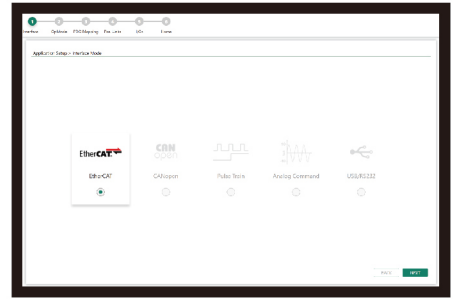
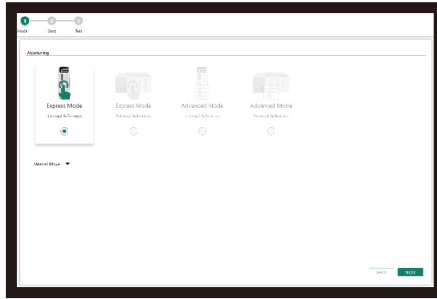
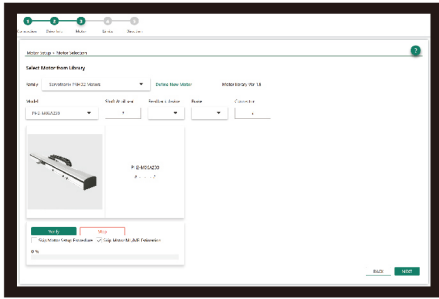


Comes with a graphical configuration wizard to complete drive setup in three steps!

Motor Installation

Gain Tuning

Application Settings



Rating and Dimension

LDHD2	Units	Model 3A	Model 6A
Input Mains Voltage	VAC	Single-phase 240 L-N VAC, +10%-15%	
Control power	VAC		
Input Frequency	Hz		
Rated Current	A_{rms}	3	6
Peak Current	A_{rms}	9	18
Peak Current Period	s	2	
PWM frequency	kHz	8/16	
Operating Temperature	°C	0~55	
Dimension	mm	166*53*174	

Communication:

EtherCAT®
USB

Motor Feedback:

Incremental Encoders
Hall Sensors
SSI encoders (EnDat®, BISS-C®)

I/Os: *

Digital: 6x Inputs, 4x Outputs
Pulse and Direction
Equivalent encoder output
* Fan only for model 006

Ordering Information

		LDHD2	-	006		2A		EC	-	000
LDHD2 Servo Drive-HD Series										
Power Rating										
120 / 240 VAC										
		Continuous		Peak						
		[A rms]		[A rms]						
003		3		9						
006		6		18						
Input power										
2A		Single-phase 120 L-N VAC + 10% -15% 50/60 Hz Single-phase 240 L-N VAC + 10% -15% 50/60 Hz								
Communication Interface										
EC		EtherCAT, Pulse, USB								
Special Options										
[blank]		Standard								



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