



High-Performance Servo Drives

Hardware and software design innovations deliver superior servo performance, high power density, simple commissioning, and extensive versatility in a cost-effective package.

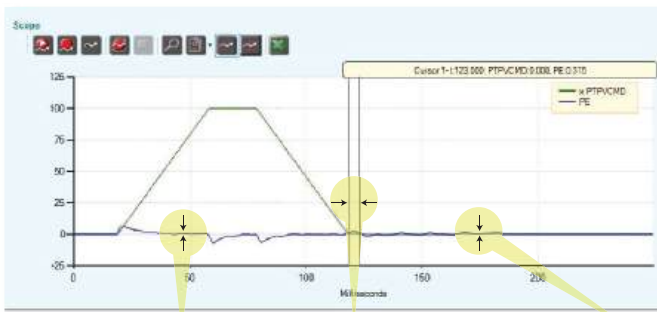
New current loop design achieves an industry-leading frequency response of 3-5 kHz

5
kHz

High sampling rates and flexible filtering options provide a faster response, and ensure maximum machine accuracy and throughput.

Advanced autotuning minimizes position error and settling time to almost zero

Engineering experience and expertise has been implemented in a sophisticated autotuning function that performs optimal configurations for a difference making performance.



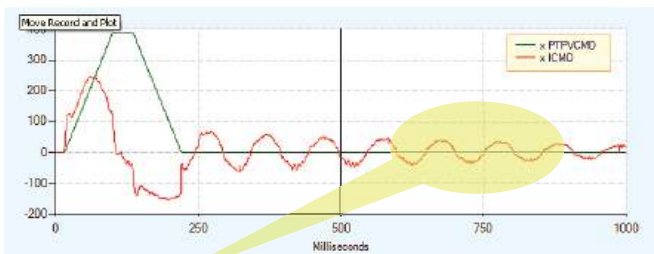
Minimum position error

Settling time of almost zero

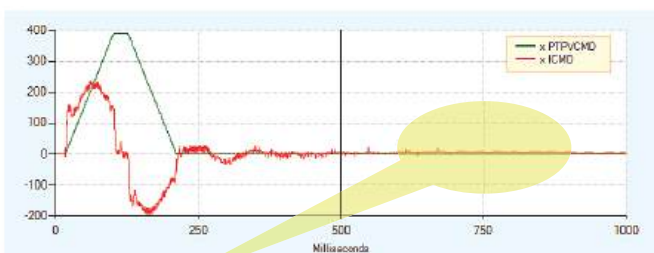
No oscillations at stand-still

Innovative anti-vibration control algorithm eliminates mechanical resonance

An active non-linear algorithm eliminates vibration in highly flexible resonant systems. Commissioning is easy, using just a few gain parameters.



Without anti-vibe control



With anti-vibe control



Wichtigste Vorteile

- High performance control of all synchronous servo motors
- Interfaces multiple feedback devices
- I/O programming for any drive functionality
- High power density in a small footprint
- Advanced control algorithms achieve maximum machine accuracy and throughput
- Safe Torque Off (STO)
- Simple commissioning using ServoStudio™ GUI along with comprehensive parameterization options for optimal configuration
- Fast firmware modifications to meet particular application needs
- CE and UL compliance
- Competitive price
- 30-month warranty

Offered with matched PRO2/PRHD2 servo motors for optimal performance



PRO/PRO2-Series

50 W – 7,5 kW
0,16 Nm – 48 Nm



PRHD2-Series

50 W – 3 kW
0,16 Nm – 14,3 Nm

ServoStudio™ wizard for simple commissioning in 4 steps

- Step-by-step guidance through the setup and tuning process
- Excellent results for novice users within minutes
- Real-time data recording and plotting
- Easy integration of servo axes
- Plug-and-play motor and feedback wiring



Rating and dimensions

Model	Input Voltage	Input Power Main Circuit	Continuous Current (Arms)	Peak Current (Arms)	Width (mm)	Height (mm)	Depth (mm)
CDHD-1D5	120/240	1 Phase	1,5	4.5	43,2	150	143,7
CDHD-003	120/240	1 Phase	3	9	43,2	150	143,7
CDHD-4D5	120/240	1/3 Phase	4,5	18	54,7	150	167,4
CDHD-006	120/240	1/3 Phase	6	18	54,7	150	167,4
CDHD-008	120/240	1/3 Phase	8	28	61,8	170	181,6
CDHD-010	120/240	1/3 Phase	10	28	61,8	170	181,6
CDHD-013	120/240	3 Phase	13	28	61,8	170	181,6
CDHD-020	120/240	3 Phase	20	48	117,4	233,8	193,5
CDHD-024	120/240	3 Phase	24	48	117,4	233,8	193,5
CDHD-003	400/480	3 Phase	3	9	110	162,8	193,1
CDHD-006	400/480	3 Phase	6	18	110	162,8	193,1
CDHD-012	400/480	3 Phase	12	24	117,4	234	193,5
CDHD-024	400/480	3 Phase	24	72	149.1	353	200.9
CDHD-030	400/480	3 Phase	30	90	149.1	353	200.9

Communication:

CANopen®*
EtherCAT®*
USB*
RS232
Daisy Chain
PWM**

Motor feedback:

Incremental Encoder
Hall Sensors
Resolver*
Sine Encoder (e.g., EnDat®, HIPERFACE®)
sensAR absolute encoder
SSI Encoder (e.g., EnDat®, Nikon®, Tamagawa®)
Motor Temperature

I/Os:*

Digital: 11 x Input, 6 x Output
Analog: 1 x Input or 2 x Input*, 1 x Output
Pulse & Direction
Equivalent Encoder Output
Secondary Feedback
Fault Output Relay

*Some features are not available on all models. |**Power block only, without motor feedback and I/Os

Ordering information

	CDHD	006	2A	AP1	ST
CDHD Servo Drive – HD Series					
Rating					
	120 / 240 VAC	400 / 480 VAC			
	Cont. [A rms]	Peak [A rms]	Cont. [A rms]	Peak [A rms]	
1D5	1.5	4.5			
003	3	9	3	9	
4D5	4.5	18			
006	6	18	6	18	
008	8	28			
010	10	28			
012			12	24	
013	13	28			
020	20	48			
024	24	72	24	72	
030			30	90	
033	33	88			
044	44	120			
055	55	138			
AC and Controller Input Power Supply					
2A	Input Single Phase 120 L-L VAC +10% -15% 50/60 Hz Input Single Phase 240 L-L VAC +10% -15% 50/60 Hz Input Three Phase 120-240 L-L VAC +10% -15% 50/60 Hz				
4D	AC Input Power Supply: • Input Three Phase 400 L-L VAC +10% -15% 50/60 Hz • Input Three Phase 480 L-L VAC +10% -15% 50/60 Hz 24 VDC input for control board power supply				
Communication Interfaces			Analog Inputs		
PB0	PWM Power Block		none		
APx	Analog Voltage, Pulse Train Ref, RS232		1" or 2"		
AFx	Analog Voltage, Pulse Train Ref, CANopen, USB, RS232		1" or 2"		
ECx	EtherCAT, USB, RS232		1 or 2"		
EB2	EtherCAT, USB		2"		
x = 1: One analog input, 16 bit x = 2: Two analog inputs, 14 bit each			* = Standard configuration		
Motor Type and Safe Torque Off (STO) Function			Functional Safety Certified*		
[blank]	Rotary and linear servo motors		No		
-RO	Rotary servo motors. Available in Asia market only.		No		
-ST	Rotary and linear servo motors. Available for 120/240 VAC drives: models 1D5, 003, 4D5, 006, 008, 010, 013.		Yes		
-RT	Rotary servo motors. Available for 120/240 VAC drives: models 1D5, 003, 4D5, 006, 008, 010, 013. Available in Asia market only.		Yes		
* Functional safety certification option not available for following: 120/240 VAC drives: models 020, 024 400/480 VAC drives: all models					



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