AKD® PDMM Drive-Resident Controller

Build Simpler and Better with Drive-Resident Machine and Motion Control

Extend your design options. Control as many as eight axes or more without the need for a PLC or PAC. Reduce cabinet space and wiring requirements. Program perfect machine and motion control for any project using a single, fully integrated programming environment. Build a better machine at a lower cost.

Our new addition to the AKD® drive family combines one servo axis, a master controller that supports multiple additional axes, and the full automation capability of Kollmorgen Automation Suite™ —all in a single, compact package.

Welcome to the AKD® PDMM programmable drive, multi-axis master.

Performance Specifications

120/240 V AC 1- and 3-Phase	Continuous Current (Arms)	Peak Current (Arms)	H (mm)	W (mm)	D (mm)
AKD-M00306-MCEC-0000	3	9	168	89	156
AKD-M00606-MCEC-0000	6	18	168	89	156
AKD-M01206-MCEC-0000	12	30	196	107	187
AKD-M02406-MCEC-0000	24	48	248	96	228

240/400/480 V AC 3-Phase	Continuous Current (Arms)	Peak Current (Arms)	H (mm)	W (mm)	D (mm)
AKD-M00307-MCEC-0000	3	9	256	99	185
AKD-M00607-MCEC-0000	6	18	256	99	185
AKD-M01207-MCEC-0000	12	30	256	99	185
AKD-M02407-MCEC-0000	24	48	306	99	228
AKD-M04807-MCEC-0000	48	96	385	185	225

Features

- Kollmorgen Automation Suite™ provides fully integrated programming, testing, setup and commissioning
- Embedded web server utility simplifies service
- Control 32 axes or more* while reducing machine footprint
- EtherCAT® multi-axis master motion controller integrated with a standard AKD® drive axis
- Full IEC61131-3 soft PLC for machine control, with support for all 5 programming languages
- Choice of PLCopen for motion or Pipe Network™ for programming motion control
- 32 KB non-volatile memory stores machine data to eliminate scrap upon restart after power failure
- SD Card slot simplifies backup and commissioning, with no PC required
- On-board I/O includes 13 digital inputs, 4 digital outputs, 1 analog input, 1 analog output (expandable with AKT series of remote I/O)
- Works with Kollmorgen Visualization Builder for programming AKI human-machine interface panels

*Maximum axis count depends on motion/automation complexity and performance (8 axes nominal based on medium complexity at 4 kHz network update rate)

A Single, Scalable Development Suite

Kollmorgen Automation Suite™ simplifies and accelerates development through a unified system of software, hardware, and collaborative co-engineering. This scalable solution provides a fully integrated development environment for any application, whether you're programming a single axis of motion, a multi-axis AKD® PDMM system, or a PCMM-based system up to 64 axes or more. Kollmorgen Automation Suite has been proven to:

- Improve product throughput by up to 25% with industry-leading motion bandwidth

- Reduce scrap by up to 50% with world-class servo accuracy, seamless power-failure recovery and highly dynamic changeovers

- Increase precision for better quality, reduced waste and less downtime using EtherCAT®—the field bus with motion bus performance

- Enable more adaptable, sustainable and innovative machines that measurably improve marketability and profitability

A Single Family of Servo Drives

Kollmorgen AKD® servo drives deliver cutting-edge performance in a compact footprint. From basic torque-and-velocity applications, to indexing, to multi-axis programmable motion, these feature-rich drives offer:

- Plug-and-play compatibility with your servo motor

- All the advantages of Kollmorgen´s breadth of motor platforms including AKM®, CDDR®, and other direct-drive technologies

- The fastest velocity and position loop updates

- Full-frequency auto-tuning for perfect motion across the performance spectrum

- Real-time feedback from a wide variety of devices

Our Best Drive and Automation Solution in a Single Package

The AKD PDMM programmable drive, multi-axis master combines our AKD drive platform with the full feature set of Kollmorgen Automation Suite in a single package – providing complete machine and motion control for up to eight axes or more.
You need only one development suite and one drive family for all your projects. And you can rely on one source for allthe motion components and
 co-engineering expertise you need to build a better machine.
With AKD PDMM, the best in machine engineering has never been easier, faster or more cost-effective.

Kollmorgen Workbench

Our simple Graphical User Interface (GUI), Kollmorgen WorkBench, is designed to expedite and streamline the user's experience with the AKD® servo drive. From easy application selection and reduced math, to a sleek six-channel scope; the user interface is extremely easy to use. Kollmorgen WorkBench supports intuitive access to the exclusive Performance Servo Tuner (PST) available inside AKD. The patent pending PST makes auto-tuning the AKD high-performance servo drive with world-class Kollmorgen motors very simple.

User-Friendly Environment

Logical flow, colorful icons and easy access simplify interactions with the AKD servo drive. The folder structure allows for instant identification and easy navigation.
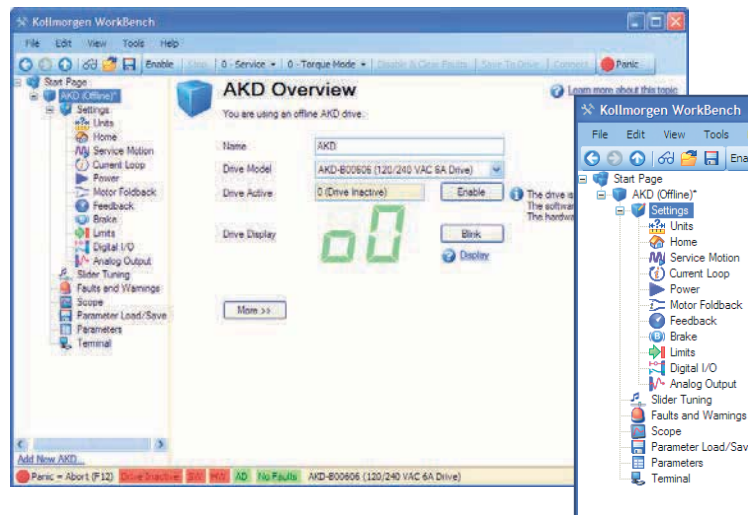
Sleek Six-Channel "Real-Time" Software Oscilloscope

The easy-to-use AKD servo drive interface has a sleek digital oscilloscope that provides a comfortable environment for users to monitor performance. There are multiple options to share data in the format you prefer at the click of a button.
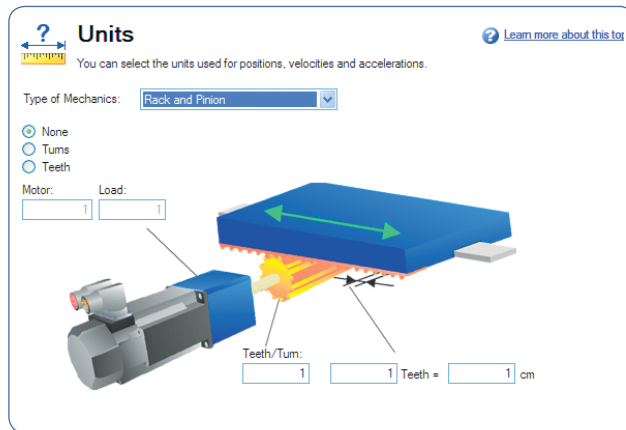- Save as an image
- Load to an e-mail
- Print
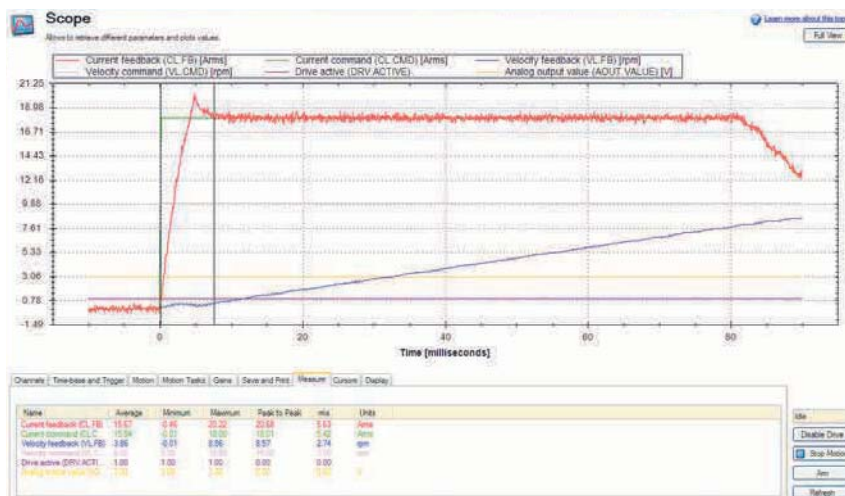
Application Selection

Simplifies set-up by allowing use of machine or application-based units. Nip roller and rack and pinion set-ups shown.

Nip Roller Application Selection
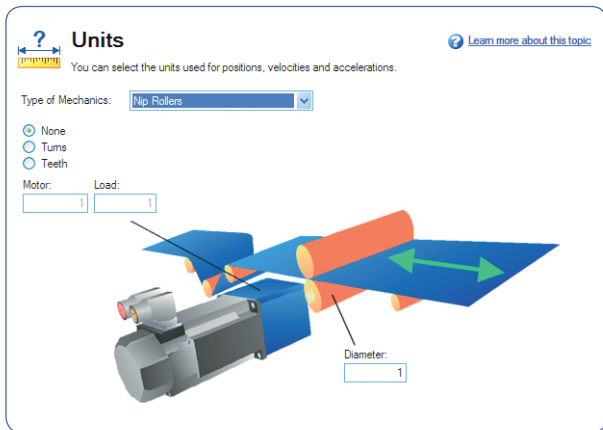
Rack and Pinion Application Selection

Data-Sharing

The ease-of-sharing continues in the parameters window. Kollmorgen WorkBench provides the user the easy options of printing or emailing the parameter values at the click of a button.