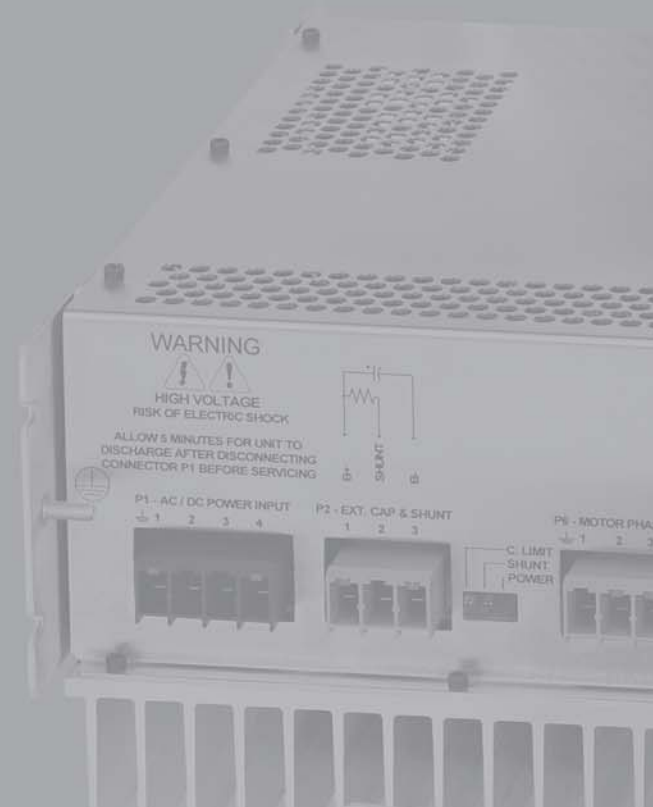


 **AUTOMOTION**

INFANOR GROUP COMPANY

4480 Varsity Drive, Suite G  
Ann Arbor, MI 48108

**DIGITAL SERVO DRIVES** **Product Selector Guide**





## Experience That Speaks For Itself

- Designing and manufacturing brushless motor drives since 1983
- A proven family of motion products to solve application problems
- Ability to adapt existing products or create new ones to fit your application
- State-of-the-art technology used in design and manufacturing



## Serving Your Market Today

- Semiconductor
- Centrifuge
- Electric Tools
- Printing
- Consumer Electronics
- Heavy Machinery
- Automotive
- Food and Pharmaceutical
- Machine Tools
- Medical Equipment



**...still trying find  
an off-the-shelf  
drive that fits  
your OEM Servo  
Application?**

**...then drop the  
shoehorn and Call  
Automation.**

**We Can Help.  
734-662-7771**

# What Can Engineered Servo Solutions by Automation Do For You?

## Offer Unique Form Factor Options

Embedded applications often need components that fit the available space or to be as small as possible. However, off-the-shelf drives can have a rectangular circuit board or a chunky housing that doesn't fit. Automation can design the electronics to fit your application. L-shaped, circular, polygon-shaped, and low-profile drives are just some of the possibilities.

## Combine Drive/Controller

Programmable motion or speed controllers are convenient for prototype or low-quantity OEM systems. But in many cases, a few dedicated position or velocity profiles are all a particular OEM machine will ever need. Automation can often eliminate the need for a separate controller, its programming interface, and its power supply, too. We can add dedicated position and velocity control to a drive designed specifically for your motor.

## Optimize Motor/Drive Performance

Leading-edge OEM machine designers need more than the basic performance shown by speed-torque curves for off-the-shelf drives. Some examples:

- **High speed** - Over 100,000 RPM available for high-speed applications such as centrifuge or geared electric tools

- **Ultra-smooth motion** - Low torque ripple when an application requires highly uniform grinding, coating, cutting, etc.
- **Highly regenerative loads** - Decelerating high-speed flywheel loads quickly
- **Extreme precision in positioning** - Positioning the load accurately while using a low-cost encoder



## Develop Custom Software Features

Advanced applications need control algorithms that are beyond the reach of Off-the-shelf drives. Custom drive software can provide the algorithm needed for specific applications.

- **Nut-running application** - Precision torque and speed control to stop a motor from 60,000 RPM in less than one half motor revolution, while achieving precision torque control
- **Inertia mismatch** - Specialized PID control capable of handling 5000:1 inertia mismatch (load-to-motor inertia ratio)
- **Force feedback** - Provide joystick feedback to operate heavy machinery with an agile touch by the machine operator
- **Special I/O processing** - Discrete I/O can interact with or indicate the status of the motor control profile



## Cut Down On Wiring and Connectors

Streamlined systems can help you lower costs and increase reliability. With fewer wiring harnesses, your system will be easier to build and service.

- **Low Cost and Reliable Board-level Communications** - I<sup>2</sup>C or SPI serial communications
- **Device-level Communications** - RS-232/RS-485 serial port standard, CAN Bus optional










## Meet Regulatory Agency Approvals

Off-the-shelf drives that have various regulatory agency approvals are available, but the required circuitry can add cost. By using a custom design, Automation can include the capability to meet the specific agency approvals that are required in your market and for your machine.

- **Safety compliance** - UL508c, UL1950, EN60950, and CSA950. Low Voltage Directive, CE mark, and CB scheme reports
- **Compliance services** - EMC testing and certification. Environmental HALT "shake and bake" testing through qualified outside labs



## LEGACY ANALOG SERVO DRIVES

						
<b>ALC253X</b>	<b>ALC-CM</b>	<b>DPS1100 DPS1200 DPS1300</b>	<b>IDS1100 IDS1200 IDS1300</b>	<b>IPS1100 IPS1200 IPS1300</b>	<b>ISS1100 ISS1200 ISS1300</b>	<b>LC4 LC5</b>
Voltage Mode Analog Servo Drive	Current Mode Analog Servo Drive	Digital Power Stage	Intelligent Current Mode Servo Drive	Intelligent Positioning Servo Drive	Intelligent Sensorless Servo Drive	Voltage Mode Analog Servo Drive
115 - 230VAC	115 - 230VAC	48 - 264VAC 68 - 373VDC	48 - 264VAC 68 - 373VDC	48 - 264VAC 68 - 373VDC	48 - 264VAC 68 - 373VDC	115 - 230VAC
+5 user supplied	+5 user supplied	N/A	Built-in	Built-in	Built-in	Built-in
55 to 360	8 to 360	70 to 400	50 to 400	50 to 400	50 to 400	160 or 320 typical
7/14/21	3/6/12	7/14/21	7/14/21	7/14/21	7/14/21	2.25 - 8
15/20/30	6/12/20	10/20/30	10/20/30	10/20/30	10/20/30	4.5 - 15
2.2/4.3/6.5kW	3/6/6.5kW	2.2/4.3/6.5kW	2.2/4.3/6.5kW	2.2/4.3/6.5kW	2.2/4.3/6.5kW	720W - 3.2kW
5 to 20	5 to 20	5 to 20	18	18 to 20	18	18
1.8 kHz. typ.	1.8 kHz. typ.	Digitally tunable, 2 kHz. typ.	Digitally tunable, 2 kHz. typ.	Digitally tunable, 2 kHz. typ.	Digitally tunable, 2 kHz. typ.	2 kHz. typ.
4.5 to 5.5VDC, 100 max. mA	4.5 to 5.5VDC, 200 max. mA	250/25/25 max. mA	250/25/25 max. mA	250/25/25 max. mA	250/25/25 max. mA	250/25/25 max. mA
0 to 50°	0 to 50°	0 to 50°	0 to 50°	0 to 50°	0 to 50°	0 to 50°
-20° to 85°	-20° to 85°	-20° to 85°	-20° to 85°	-20° to 85°	-20° to 85°	-20° to 85°
N/A	N/A	N/A	RS-232 RS-485	RS-232 RS-485	RS-232 RS-485	N/A
-	UL508C, E114915	-	UL1950 CSA22.2.14 CE (IEC60950)	UL1950 CSA22.2.14 CE (IEC60950)	UL1950 CSA22.2.14 CE (IEC60950)	-
Brushed Brushless Linear Voice Coil	Brushed Brushless Linear Voice Coil	Brushed Brushless Linear Voice Coil	Brushed Brushless Linear Voice Coil	Brushed Brushless Linear Voice Coil	Brushed Brushless Linear Voice Coil	- Brushless Linear -
-	-	-	-	Step & Direction	-	-
+/- 10VDC PWM	+/- 10VDC PWM	+/- 10VDC PWM	+/- 10VDC PWM	+/- 10VDC PWM RS-232	+/- 10VDC PWM	+/- 10VDC -
-	-	-	-	-	-	-
Hall only	Hall only	-	- Hall only Resolver	TTL Encoder w/hall Hall only Resolver, Analog	Sensorless	Hall only
Internal/External	Internal/External	Internal/External	Internal/External	Internal/External	Internal/External	Internal/External
*	*	*	*	*	*	*
*	*	*	*	*	*	*
-	-	-	Windows Interface S/W Real Time Tuning Motor Setup Utility	Windows Interface S/W Real time Oscilloscope Real Time Tuning Motor Setup Utility	-	-

\* Consult factory for availability.