ZDR-Series

Voted Best! design news BEST PRODUCTS 2004

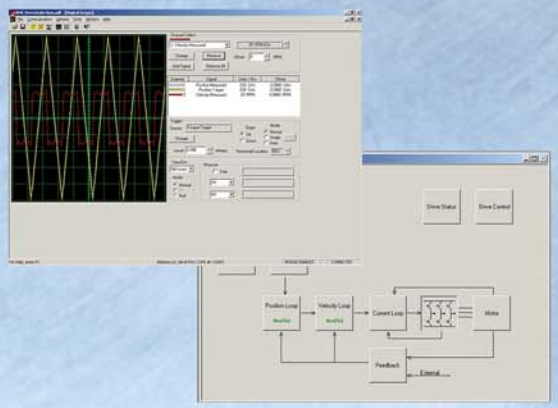
Low Cost, Small Size Performance Digital Servo Drives

- Compact digital servo for brushless or brushed motors: rotary, linear, voice coils
- Designed to be PCB embedded for demanding OEM equipment
- Multi-mode operational to solve varying applications
- Nearly 1000 Watts of peak power availability
- Footprint 30% less than standard business card
- Weighs <100 grams, about the same as two golf balls!
- Extremely High power density; 250 Watts/in^3 (~16 Watts/cm^3)
- Software has diagnostics with built in multi-channel oscilloscope and status indications

Does your application require a servo drive with as small a footprint as possible, digital I/O, position control, or advanced tuning capabilities?

The Digital Z series servo drives have all this and more!

This drive has many of the same features as its larger counterparts at a fraction of the size. The provided software will allow you to tune your motor, assign I/O, and set up drive features to get your system up and running – fast!



Screen captures from free DriveSuite™ setup and diagnostic software

Available Features

- External analog input command for: Torque, Velocity or Position Control
- External digital input command for: Encoder Following or Step & Direction
- Programmable digital I/O: 5 in and 3 out
- Fast servo loops: 50µsec for current, 100µsec for velocity and position
- Comprehensive PID adjustable gains with Feed Forward and Filtering
- DriveSuite™ Software included with purchase
- Optional Mounting Card available (see reverse)

ADVANCED MOTION CONTROLS

3805 Calle Tecate Camarillo, CA 93012

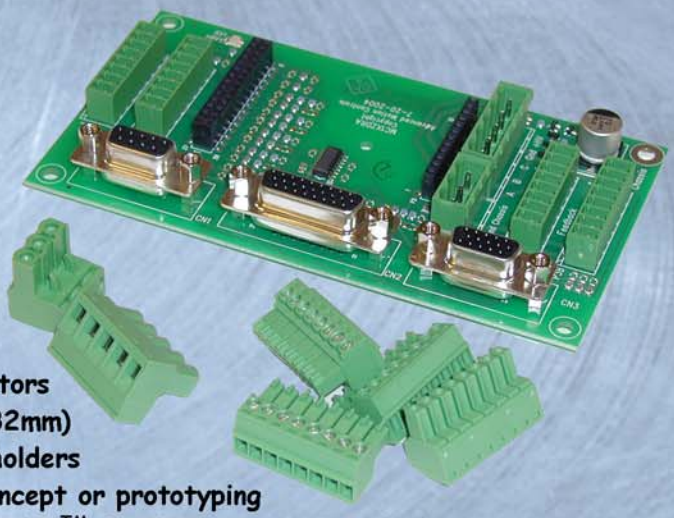
Tel: (805) 389-1935 **www.a-m-c.com** Fax: (805) 389-1165

p/n: **ZDR150EE12A8LDC**	
Power Specifications	
DC INPUT SUPPLY VOLTAGE	20-80 VDC
DC LOGIC SUPPLY VOLTAGE	5 VDC
PEAK CURRENT (2 sec. maximum)	12 A (8.4 A rms)
MAXIMUM CONTINUOUS CURRENT	6 A (4.2 A rms)
MINUMUM LOAD INDUCTANCE	250 µH
SWITCHING FREQUENCY	20 kHz
HEATSINK (BASE) TEMPERATURE RANGE	0 - 65 C
POWER DISSIPATION AT CONTINUOUS CURRENT	30 W
OVER-VOLTAGE SHUTDOWN (self reset)	88 VDC
BANDWIDTH (load dependent)	2.5 kHz

Mechanical Specifications	
Connector: POWER	12-pin, 0.1 inch spacing, 1 row Molex connector
COMMUNICATIONS & SIGNAL	24-pin, 0.1 inch spacing, 2 row Molex connector
SIZE	2 x 2.5 x 0.73 in (50.8 x 63.5 x 18.5 mm)
WEIGHT (with heatsink!)	3.4 oz (96.4 g)

Available Programmable Digital Inputs: (Selectable active high or low)
Inhibit - Motor Over Temperature - Load Measured Position -
Positive Inhibit - Negative Inhibit - Phase Detection - Dynamic Brake

Available Programmable Digital Outputs: (Selectable active high or low)
Short Circuit Fault - Over Voltage - Under Voltage - Drive Over Temperature - Over Current -
Positive Inhibit - Negative Inhibit - Startup Disable - Drive Internal Error - Parameter Restore Error -
User Inhibit - Current Limiting - Cont. Current Limit Reached - Current Loop Saturated User Under Voltage -
User Over Voltage - Commanded Dynamic Brake - User Dynamic Brake - Feedback Sensor Error -
Phase Synchronization Error - Non-Sinusoidal Commutation - Phase Detection - Phase Detection Complete -
Phase Detection Fault - Motor Over Speed - Zero Velocity - At Velocity - Velocity Following Error -
Parameter Store Error - Commanded Inhibit - Positive Velocity Limit - Negative Velocity Limit -
Command Profiler Active - Log Entry Missed



Optional Mounting Card

p/n: **MC1XZDR**

- **Quick connection and easy wiring access via removable terminal strips or D-shell connectors**
- **Card is small in size - 2.8" x 5.2" (72mm x 132mm)**
- **Adaptable to 'snap on' style of DIN rail card holders**
- **Ideal for fast installation such as proof-of-concept or prototyping**
- **D-shell connectivity compatible with AMC's DigiFlex™ family of DR100EE.. higher power servos**

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