

**FEATURES**

- Wide voltage range:  
+24 to +190V
- 13A continuous, 26A peak
- 25 kHz pwm frequency
- Drives motors with 60° or 120° Halls.
- Fault protections:  
Output shorts  
Over/under voltage  
Over temperature
- 2.5kHz Bandwidth
- 0.2-40 mH load inductances
- +5,+15V Hall voltages
- Separate peak, peak-time, and continuous current limits
- Simplified compensation adjustments
- Surface mount technology

**Resolver option 513R**

- Replaces Hall sensors  
Tachometer emulation  
Encoder emulation
- Interface motors to microprocessor controls and PLC's.

**APPLICATIONS**

- X-Y stages
- Automated assembly machinery
- Robotics
- Component insertion machines

**THE OEM ADVANTAGE**

- Component header customizes amps for different motors
- Conservatively rated components for high MTBF

**±180 Volts at ±26A Peak, ±13A**

**Model 513**

**Model 513R**

**PRODUCT DESCRIPTION**

**Standard Amplifier (513)**

Model 513 is a complete pwm servoamplifier that operates from transformer-isolated single-voltage power supplies and provides six-step commutation of dc brushless servomotors.

Power output is four-quadrant for rapid acceleration and deceleration. Amplifier operates in torque ( current ) mode for use with microprocessor based control cards.

Analog ( brush ) tachometers can be used to make velocity loops. New servo preamplifier circuits give improved control over frequency response for faster setup and adjustment.

An internal header socket holds components that configure current limits and load-inductance compensation to set up the Model 513 for different loads and applications. Separate peak current, continuous current, and peak-time limits allow high acceleration without sacrificing protection against continuous motor overloads.

Over and under-voltage conditions will cause the unit to shutdown temporarily. Heatplate over-temperature and shorts from output to output, or output to ground will cause a latching disable that can be reset by grounding the Reset input, or by

powering off & on. Self-reset will occur if /Reset input is wired to ground. High quality components and conservative design insure long service life and high reliability in industrial installations.

Potentiometers may be replaced with fixed resistors for OEMs which require amplifiers that have no adjustments (contact factory).

DC brush motors also can be driven from the Model 513 by setting the DIP switch to 60°, leaving the Hall inputs open, and connecting the motor between the U and V outputs.

**Resolver Option (513R)**

Provides velocity-loop operation using resolver-derived analog tachometer signal. Encoder outputs give position feedback, emulate 1024 line quadrature encoder. Both permit use with programmable logic controls ( PLC's ) that require speed-loops for motion modules.

Option card installs inside drive case and interfaces with standard two-phase resolvers. A read-only memory chip converts resolver position data to Hall signals that control motor commutation for motors with 1-4 electrical cycles per revolution. Custom eproms available to interface with most motors ( contact factory ). Option eprom supports DC brush motors with resolvers.











