

3400A Spindle Motor SmartDriver Board

For OEM Applications



- Unique design:
 - Unidirectional closed loop motor quick start: Zero reverse motor rotation.
 - Active Brake for quick motor stop
 - Step mode for indexing the motor at zero speed
 - Requires external step & direction signals
 - Possible slight reverse rotation when mode is engaged
 - Constant current ramp for rapid start time while providing motor protection
 - Over-current and lock rotor protection: Virtually eliminates motor or driver damage
 - Automatic retries for motor stalls
 - Speed control: High-resolution for accuracy and precision with or without load
 - 100 kHz pwm current regulator for better speed control
 - Very low once-per-rev jitter typically <1uS
 - Motor speed: Maximum 30krpm+
- Programmable motor power supply
 - 3.3-24V, 0-4A output
 - Better than +/-1% full-scale voltage output adjustment accuracy
- Easy to Use:
 - Setup through a simple PC program
 - Operate the motor through PC program or use stand-alone.
- Easy integration into your test environment:
 - Pluggable headers for power, motor, communication and IO allows for quick modular installation
 - Corner mounting holes on 100mm x 170mm pc board
 - Communicate through a standard USB port using included RS232 adaptor
 - Includes SmartDriver Configuration Utility, LabVIEW Library with example code, and a Windows DLL
- Communications Port functions:
 - Motor Configuration for Speed; Motor poles; Max drive current; Over-current limit: start and run; Time limit expired: start, ramp, lock.
 - Motor Control Commands for Run; Step; Coast; Brake; Stop; Clear errors; Reset.
 - Data Query for Run current; Speed; State: off, stepping, starting, ramping locking, locked, active brake, coasting, braking; Over-current limit error: step, start, run; Time limit expired error: start, ramp, lock