

Advanced Drive Capabilities

Mode Torque Brake (MTB)

Intended as a means to quickly stop shaft motion in the event of drive fault or drive disable.

- Dynamically shunts windings for quick stops
- 60% peak overload stopping power
 - In other words, the motor has 60% more stopping power than its peak published torque at stall when MTB is activated
- Automatically engaged under any shaft protection fault :
 - Position Error (Following Error)
 - Travel Limit Error
 - Over Temperature
 - RMS Over Current

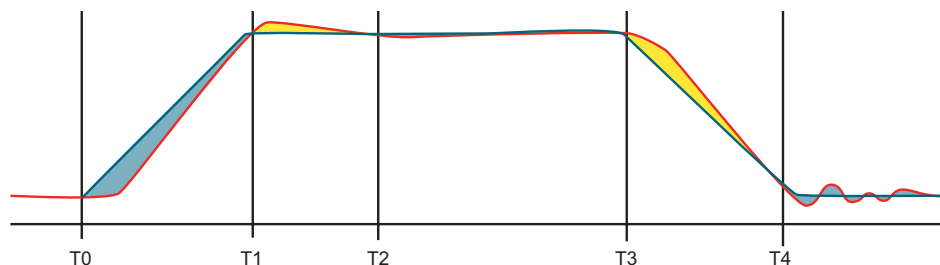
By connecting the travel limits to the E-stop circuitry, the motor can be quickly driven to a stop without the need of complete power removal. MTB only requires control power, not drive power.

Note: MTB can produce Peak torques as much as 60% beyond advertised stall torque of any given applicable Animatics SmartMotor™. It is imperative that any gear head or other shaft loads be capable of handling such a peak torque.

Trajectory Overshoot Braking (TOB)

Allows for smooth controlled deceleration and stabilization of high moment-of-inertia mismatch loads.

- PWM controlled Dynamic braking
 - >30% better slowing power to prevent overshoots in speed or deceleration during the entire trajectory path
- Provides protection against exceeding critical speed limits of lead screws



Yellow Areas above Indicate where TOB takes Effect

Contouring Mode (Host Mode):



Contouring Mode allows for true multi-axis coordinated motion. Contouring Mode is typically used by CNC software packages to control multiple motors within a well-defined path. Highly precise motion may be achieved with potentially no diminished capacity regardless of the number of motors being commanded to move. It is ideal for any applications requiring Linear, Circular, Curvilinear or spline paths.

Note: Contouring Mode typically cannot be commanded from a PLC. It is best suited for PCs or embedded controllers.