



The field-proven, digital soft start solution

The XLD Series Specifications

by  **MOTORTRONICS**

Acceleration Adjustments

Ramp types	Voltage ramp or current ramp
Starting torque	0 - 100% of line voltage or 0 - 600% of FLA
Ramp time	1 to 120 seconds
Current limit	200 - 600%

Dual Ramp Settings*

Four (4) programmable ramp options

Deceleration Adjustments

Begin decel level	0 - 100% of line voltage
Stop level	0 to 1% less than begin decel
Decel time	0 - 60 seconds
Operation during overload	Ramp down or coast-to-stop

Jog Settings*

Jog at set current	100 - 500% of FLA
Jog at set voltage	0 - 100% of line voltage
Voltage jog max time	0 - 20 seconds

Kick Start Settings

Kick start	0 - 100% of line voltage
Kick start time	0.1 - 2 seconds

Programmable Output Relays

Three (3) relays can be individually programmed for change of state indication for any one of 18 conditions.

Type / Rating	FORM C (SPDT), rated 5 amps, 240VAC max (1200VA)
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Protection

Start & Run Protection

Two programmable overload trip curves allow for the thermal capacity required to start the load while providing motor overload protection needed during the run time.

Start:	Programmable for Class 5 - 30
Run:	Programmable for Class 5 - 30, enabled when starter detects motor is "At-Speed"
Reset:	Manual or automatic, selectable via programming

The **XLD Series** recognizes motor cool-down rates are a function of the run time and that sometimes a motor will cool faster if allowed to run.

Real-Time Thermal Modeling Continuously calculates motor operating temperature even when your motor isn't running. Knows when your motor is cool enough for a successful restart.

Retentive Thermal Memory Remembers the thermal condition of the motor even in the event of a power brown-out or black-out. Extrapolates motor temperature using a real-time clock.

Dynamic Reset Capacity Overload will not reset until thermal capacity in the motor is sufficient for a successful restart. Starter learns and retains this information from previous starts.

Phase Current Imbalance/Loss Protection

Imbalance trip level	5 - 30% current between any two phases
Imbalance trip delay	0 - 20 seconds
Phase loss	Trips on any phase current loss

Electronic Shear Pin Protection

Shear pin trip level	50 - 300% of motor FLA
Shear pin trip delay	0 - 20 seconds

Load Loss Trip Protection

Under current trip level	10 - 90% of motor FLA
Under current trip delay	0 - 20 seconds

Coast Down (Back Spin) Lockout Timer

Coast down time	0 - 60 minutes
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Starts-per-Hour Lockout Timer

Starts-per-hour	1 - 10 successful starts per hour
Time between starts	0 - 60 min. between start attempts

Phase Rotation Phase sequence insensitive

Shorted Load During start, injects voltage for ¼ second and will trip if it sees a 9x unit current surge

Short Circuit Trips in 12.5 ms at 10x unit current rating during run

Shorted SCR Trips on a voltage drop of less than 1½ V across any SCR pair

Shunt Trip Separate relay trips on current flow while in the OFF mode (multiple shorted SCRs)

Over Temperature Thermal sensors on heat sinks trip when temperature exceeds 185° F

