



100C

Cableform, Inc.

MILL DUTY PRODUCTS

Making Electricity Work for You



LMC™ DC Solid State IGBT Crane & Hoist Products
Bridge and Trolley Controllers
Hoist Controllers

OPTIMIZER™ Solid State IGBT Magnet Controllers

LMC™ DC Solid State IGBT Soft Starts

*Designed for **SAFETY, RELIABILITY & EFFICIENCY***

ENERGY SAVINGS \$\$

LOW MAINTENANCE \$\$

DECREASED DOWNTIME \$\$

[**www.cableform.com**](http://www.cableform.com)



OPTIMIZER™ SOLID STATE IGBT MAGNET CONTROLS

"Optimize Every Magnet™"

Solid State IGBT Control of Lifting Magnets

- Provides adjustable current and times for all operating modes
- Current is controlled to generate the magnetic force required to perform the work
- Produces much lower hold currents versus contactor control
- Excess current (and heat) is minimized
- For use with steel, scrap, slag, railroad, shipbuilding and mining magnet applications

Operating Modes

- LIFT, HOLD, FEATHER, DRIBBLE, CLEAN, SWEEP

Improve Production Capacity - Run Cooler - Save Energy \$\$

- ✓ Reduces magnet energy consumption by up to 75%
- ✓ Increases throughput up to 50%
- ✓ Reduces cycle time up to 38%
- ✓ Improves lift capacity throughout the shift by 10-25%,
- ✓ Reduces discharge and cleaning times
- ✓ Reduces magnet operating temperatures
- ✓ Increases magnet life, resulting in less down time and fewer magnet change outs

Additional Benefits

- Solid state construction – no wear components
- Less maintenance
- Uses existing connections
- Can be used with existing magnet, operator controls, DC power supply
- Eliminates the need for dual voltage magnet controls
- Voltage spikes eliminated – protects the entire electrical system

Specifications

- Voltage: 230 VDC nominal, 300 VDC max, 120 VDC min
- Standard ambient temperature range: +50° C to -10° C
- Rated cold magnet current at 50% duty cycle
 - M150-GENII: 150 amps max
 - M350-GENII: 350 amps max





LMC™ DC SOLID STATE IGBT CRANE & HOIST PRODUCTS

Bridge, Trolley and Hoist Controllers

Solid State IGBT Control of Series Wound DC Motors

- Standard models up to 200hp (Bridge & Trolley) and 500hp (Hoist)
- Available for standard (50°C) and high ambient (60°C) environments
- Simplex, Duplex & Quadraplex configurations
- Patented Hoist Control: true series motor hoist circuit, true shunt motor lowering circuit
- High startup torque, adjustable speed points, acceleration/deceleration ramps
- Electric braking

Save on Energy Costs \$\$

- ✓ Motor energy consumption reduced up to 50% versus contactor speed control (Bridge/Trolley)
- ✓ Motor energy consumption reduced up to 66.5% versus contactor speed control (Hoist)
- ✓ Energy is not dissipated (wasted) in resistor banks at lower speed points
- ✓ LMC™ current multiplication reduces required supply current draw

Reduce Maintenance Costs \$\$

- ✓ IGBT control eliminates the need for accelerating/decelerating contactors
- ✓ Provides non-load switching of directional contactors – reducing tip wear
- ✓ Motor works easier, runs cooler and lasts longer

Easy Retrofit Installation

- ✓ Connect existing power, motor and brake cables
- ✓ Connect existing operator controls
- ✓ Fine-tune pre-set acceleration ramps, speed points and braking

Additional Benefits

- All components easily accessible
- Fault register for easy troubleshooting
- Hand-held data terminal for setup, fine tuning and diagnostics
- Works with series and/or shunt brakes – specify when ordering

Specifications

- Voltage: 230 VDC, 360 VDC, or 480 VDC nominal – specify when ordering
- Ambient operating temperatures:
Standard Models:
+50°C to -10°C
High Ambient Models:
+60°C to -10°C



- HEAVY INDUSTRIAL / MILL DUTY PRODUCTS -

DC Series, Shunt & Compound Motor Soft Starts

- Microprocessor logic with IGBT power section
- Single Direction
- Settable speed targets
- Horsepower range: 5-100hp
- Motor protection features
 - Min/max field current
 - Armature peak and average current
 - Over temperature limit
 - In-rush current limit



DC Electromechanical Contactors

- NEMA models (Size 1-8)
- Definite purpose models (200a to 5000a)
- Rugged encapsulated magnet coils
- High quality contact tips



Power Resistors

- Stainless steel elements
- Continuous construction
- No weld joints
- 38 amp to 695 amp ratings



Pushbutton Pendants

- Single-speed 2,4,6,8, & 12 positions mechanically Interlocked buttons
- Compact, lightweight, high-strength case
- Easy-to-hold one-hand operation
- Correct thumb movement between buttons
- UL Listed - USA & Canada



Master Switches

- Provides multi-speed control
- Cam operated
- 600 volt rating
- Lever action or joy stick



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