



MAGNIFIER^{DC}

Digital Magnet Control System

Monitor, protect, and control magnets for increased reliability and safety



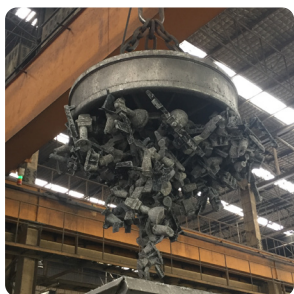
Digital Controls Keep Your Magnets At Optimal Temperature

The Hubbell MagnifierDC™ digital magnet control system reduces magnet heating, magnet rewinds, and magnet inventory, reducing your cost and downtime. The advanced, solid-state controller replaces contactor control with a system that continuously monitors, protects, and controls your lifting magnets.

The system's internal monitoring helps lifting magnets to run cooler and reduce maintenance time. You experience more efficient scrap handling and precise finished goods handling, which enhances production in the mill.

Applications

Perfect for all magnet crane applications in steel mills and similar harsh environments. Controls both single and dual voltage magnets.



Scrap



Slabs & Billets



Finished Materials

Ratings

- Input: 120VDC to 300VDC
- Maximum Magnet Cold Current rating: 350A at 60°C
- Minimum Magnet Cold Current rating: 10A
- Ambient: Temperature range: 0°C to 60°C

Construction

- NEMA 12 (enclosure) / NEMA 1 (resistor on top)
- Sunshield (by others) required for outdoor use when exposed to direct sunlight
- Dimensions: 44 H x 32 W x 17 D

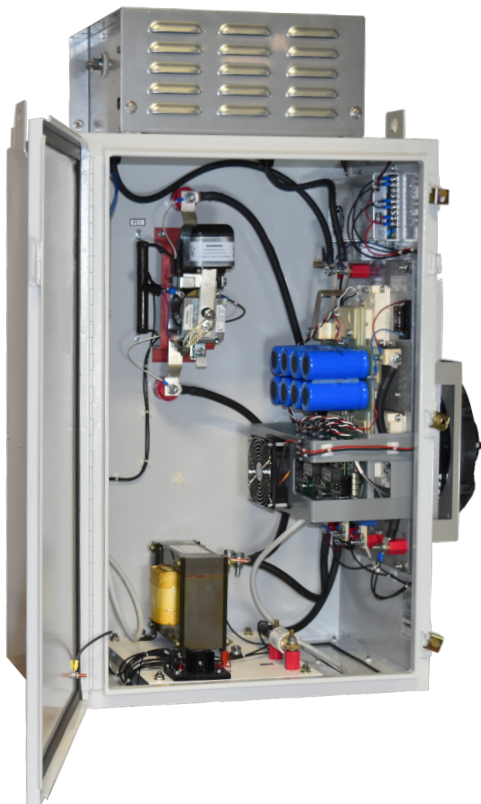
Full Control Saves You Money

Experience fully customizable settings for faults and alarms. The MagnifierDC™ system works on any size magnet. Prevent, protect, monitor, and alarm:

- Instantaneous and long-time overcurrent
- Magnet (output) short circuit
- System open circuit detection
- Overheated Magnet (value per customer setpoint)
- Adjustable LIFT watchdog time (alarm only, based on time on in LIFT without DROP)
- Heat sink overtemperature
- 20 “Last Faults and Alarms” recorded; without HMI connected*.

4275 Controller Features

- Up to 4 sets of magnets, each magnet setup selectable via external contacts
- Operate via LIFT/DROP switch, pushbuttons, master switch, or radio control
- Adjust control of voltage and current for the full magnet operating cycle



- Tailor holding current for reduced energy consumption and cooler magnet operation
- Configurable Ethernet connection for customer read-only remote monitoring of all parameters, faults, and operations
- Alarms and trips for Overcurrent (OC) setpoints provide digital protection:
 - Instantaneous OC level
 - Regen (Dump) system for overvoltage protection, with analog backup in case of CPU failure, includes continuous regen resistor failure monitoring, and the regen circuit is tested prior to every lift
- Up to 6 different control methods for Fanning/Dribble and single plate release (requires field adjustment and operating pushbuttons or pilot devices, supplied separately)

HA1 HMI interface Features

- Connects via a serial Cat6 (PoE) cable to RJ45 connector (up to 200ft.)
- Full text setup, adjustments and fault logs for magnets and operations
- Secure access, with two level password protection (User/Admin)
- Fault and Alarm log (with HMI continuously connected) for up to 5000 events, time & date stamped
- Operations Counts, Time on, Parameter settings for each set of magnet data
- While MagnifierDC™ is in operation, provide live screen data of magnet current, voltage, and calculated magnet resistance
- Transfer stored HMI parameter data sets and fault log via USB memory stick
- Quick Start menu available

MAGNIFIERDC™

Bulletin 4275 DC Lifting Magnet Controller

Simplify training with MagnifierDC™ digital controls. Part of the Hubbell family of lifting magnet controllers, the design and interface correspond to the AC controls you already know.

Optional Features

- Cut Back Mode reduces power supply to prevent overheating
- Next Alarm Level turns off the next time an operator tries to run

