



MAGNIFIER AC™



Powered by AC. Magnifying DC.

When it comes to EC&M's MAGNIFIER AC, less is more. After more than 100 years designing crane control, we've got the experience to engineer and package crane systems like no one else in the industry. Just one MAGNIFIER AC replaces four traditional AC to DC magnet system products — the AC transformer, rectifier, DC magnet disconnect and magnet controller. That means less maintenance, space, weight and wiring. And while traditional AC to DC magnet control systems require five to seven seconds for each magnet charge and discharge, the MAGNIFIER AC takes less than one.

Simply connect the AC power and the DC magnet to the MAGNIFIER AC and you'll lift more material and move it faster. The results? Improved efficiency, greater throughput, usable energy savings and increased profits.

The Brains Behind Cranes.

EC&M's MAGNIFIER AC

Ratings

- INPUT: 380/480VAC $\pm 10\%$, 3 Ph, 50/60 Hz
- OUTPUT: 100-650 Volts DC, 20-500 Amps DC
- Operating Ambient: 0°C to 55°C
- Enclosure: NEMA 3R, Wall Mount

Product Features

- Voltage boosts for the fastest magnet charge available
- Voltage cutback for cooler running magnets
- Magnet discharge energy is regenerated to the AC supply for the fastest discharge available and maximum energy savings
- Voltage spikes eliminated in the magnet
- Integrated magnet disconnect with a remote operated electronic circuit breaker
- Integrated protection for magnet cut cables and short circuits
- Magnet temperature monitoring and alarm
- Status & Diagnostic Indicators
- Suitable for full or partial voltage magnets
- Eliminates traditional DC equipment (transformer, rectifier, DC disconnect switch) required on AC sourced EOT Cranes.
- Standard Lift/Drop master switch or pushbuttons
- Manages the entire charge and discharge cycle by controlling the voltage *and* current in the magnet
- All contactor maintenance is eliminated
- Patent pending design

Applications

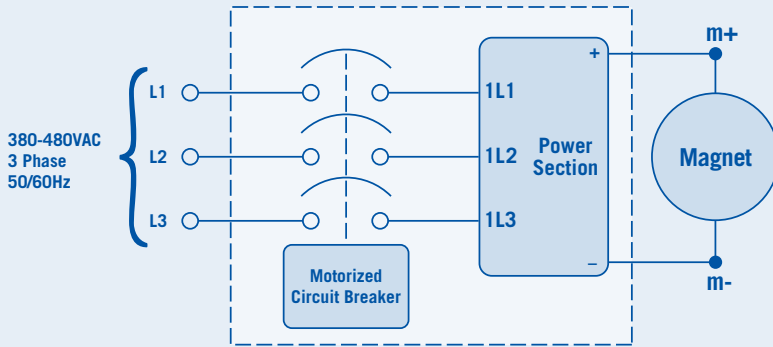
- Typical applications for this product include:
 - Scrap cranes
 - Slab handling cranes
 - Coil handling cranes



The Electric Controller and
Manufacturing Company, LLC

800.240.1230 www.ecandm.net

MAGNIFIER^{AC}™



Simplified Power Wiring:

- 3-phase AC input
- DC output to the magnet
- No other electrical components are required to operate a magnet

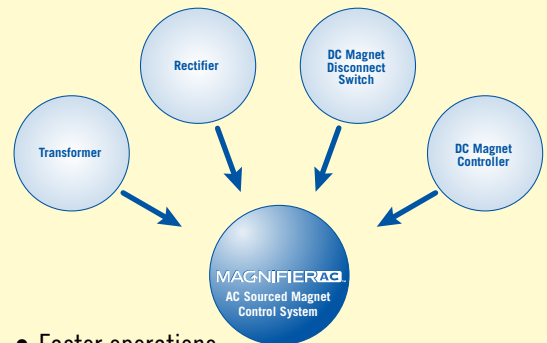


Reduced Cycle Time Benefit Example

Operation	15 Second Carry Time		30 Second Carry Time	
	MAGNIFIER AC	Traditional Magnet Control	MAGNIFIER AC	Traditional Magnet Control
Magnet Turn-On and Pick-Up Time	1	4	1	4
Carry-the-Load Time	15	15	30	30
Magnet Turn-Off and Drop Time	1	4	1	4
Return Trip Time	13	13	28	28
Total Cycle Time	30	36	60	66

Savings Example — Cycle Time Reduction		
Cycle Time Improvement	30 Seconds vs. 36 Seconds	60 Seconds vs. 66 Seconds
% Reduction in Cycle Time	17%	9%
Hourly Rate	\$50.00	\$50.00
Weeks / Year	48	48
Hours / Week	40	40
Total Cycle Time Improvement \$	\$16,000	\$8,727

Savings Example — Overtime Reduction	
Overtime Hour Reduction Due to Improved Cycle Time	6
Hourly Rate	\$75.00
Weeks / Year	48
Total Overtime Reduction \$	\$21,600



- Faster operations
- More protection and control
- More energy savings
- Less wiring
- Less maintenance
- 75% reduction in weight and space when replacing a typical 100A magnet controller, rectifier, and DC disconnect switch



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