

IMC: Intelligent Motion Control

Performa | SCR | AC | MG

Digital, integrated controls for premium elevator performance

Intelligent Motion Control leads the industry in digital elevator control technology. Highly integrated digital logic and motor control provide premium performance for mid- and high-rise applications. Powerful processing algorithms eliminate the need for trim pots. All parameters are set and adjusted digitally via the system's computer keyboard.

IMC controls continually create an idealized velocity profile. Exact car position and speed are tracked using a sophisticated distance and velocity feedback system. The result: not only a high-quality ride, but the fastest possible floor-to-floor time.

IMC Performa

Top 12-pulse technology performance with simpler, faster adjustment for prestige projects

IMC-SCR

Proven 12-pulse reliability and lower harmonics for DC-SCR applications

IMC-AC

Flux vector technology for AC geared and gearless applications

IMC-MG

Ward Leonard technology for elevators with motor generators



IMC-AC

Advantages

- Superior ride quality
- Easy startup and adjustment
- Integrated drive and control
- Modular design

Applications

- Modernization or new construction
- High-rise or mid-rise
- Gearless or geared
- Groups to 12 cars or simplex
- 1800 fpm, 9.15 mps

Benefits

- Non-proprietary
- Superior technology
- 12-pulse drive designed for elevators
- Field-proven performance
- Lifetime technical support

Features/options

- SmarTraq™ door operator
- CMS remote monitoring system
- SmartLink™ communication
- M3 group dispatching
- Load weighing
- Choice of landing systems
- TLS terminal limit switches
- Factory matched motors
- ASME A17.1-2000/B44-00 compliant
- Seismic sensor
- Counter weight displacement kit

www.mceinc.com

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MCE
Motion Control Engineering®
A Kinetek Company®

The leader in non-proprietary controllers, technical services and repair solutions for elevator modernization.

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IMC specifications

	IMC Performa	IMC-SCR	IMC-AC	IMC-MG
Maximum car speed	1800 fpm 9.14 mps	1800 fpm 9.14 mps	700 fpm 3.56 mps	1800 fpm 9.14 mps
Landings/ group size	64/12	64/12	64/12	64/12
Drive type	12-pulse fully regenerative	12-pulse fully regenerative	AC 16K pulse width modulation	Ward Leonard
Harmonic distortion	THD 1/2 that of six-pulse	THD 1/2 that of six-pulse	Industry standard	N/A
Motor control	Digital quad closed loop	Digital dual closed loop	Digital dual closed loop	Digital dual closed loop
Dispatching	M3 group system utilizing ETA scheme and three minimization algorithms to optimize performance			
Monitoring	Central or remote; CMS or iMonitor			
Security options	Access control for elevators, keyboard control for elevators, card reader interface, basic security			
Field connections	SmartLink serial communication, conventional wiring or a combination of both			
Choke/filter	Included internal to control cabinet — no external cabinet required for drives to 180 amps			
Environment	32–104°F, 0–40°C, humidity non-condensing up to 95%; harsh environment rugged service options available			
Standard enclosure	39" w x 82 3/8" h x 16" d, 990.6 x 2092.33 x 406.4 mm; custom configurations available			

IMC controller family

IMC Performa

- Takes MCE 12-pulse technology to a new level. Sophisticated software simplifies system setup and operation.
- Interactive automation reduces calibration from hours to minutes.
- Embedded coaching and context-based help make parameter adjustment intuitive.
- Precise velocity control is achieved using advanced Digital Signal Processing (DSP) and MCE's sophisticated velocity control software algorithm.
- Powerful Performa microprocessors work in tandem with high-resolution digital components, using software optimization to provide tighter tracking and greater position and leveling accuracy.

IMC-SCR

- With the System 12 drive, it is the ideal solution for DC modernization and new installations worldwide.
- Designed specifically for elevator applications, the System 12 drive uses high-resolution 12-pulse technology to provide an exceptional elevator ride.
- Cuts current harmonic distortion in half (when compared to controls with conventional six-pulse drives). Audible noise is also significantly reduced.

IMC-AC

- Combines digital control and tight integration to deliver premium AC elevator performance.
- A powerful 32-bit processor provides smooth, continuous pattern generation.
- MCE TorQmax™ AC drive virtually eliminates takeoff lag and raises the bar for AC performance.
- The optional MCE PowerBack™ AC regeneration system recaptures energy for other uses. Eliminates unnecessary heat dissipation in the machine room while reducing cooling capacity required.

IMC-MG

- The control of choice for motor generator applications. The drive, microprocessor and controller are combined into one fully integrated system.
- A single user interface provides access to all parameter adjustments and diagnostics.
- Status of rotating equipment — including armature voltage and current, brake, motor field and generator shunt field voltage — is continuously displayed.

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