



EMX3 SOFT STARTER

# Take control from the start

**AuCom**  
MOTOR CONTROL SPECIALISTS

RIGHT FROM  
THE START

# Take control from the start

The EMX3 is a comprehensive motor management system for the most demanding soft starting and stopping applications.

With an impressive range of features, the EMX3 delivers superior performance and an unprecedented level of flexibility in a compact and user-friendly package.

A quick setup guide helps you configure the starter for common applications by suggesting a typical setting, which you can then fine tune to suit your needs, all accessible from the easy to use keypad. The keypad is easily mounted on the exterior of your enclosure, using an optional keypad mounting kit, and a single keypad can be used to transfer settings between starters.

The EMX3 doesn't just start and stop your machinery with constant current and current ramp, it also features the innovative XLR-8 Adaptive Acceleration Control. XLR-8 gives you the ability to precisely manage your starting and stopping acceleration, reducing downtime and addressing water hammer problems.

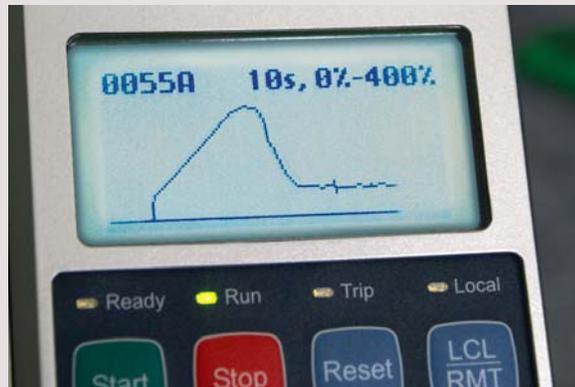


The EMX3 comes in a range of sizes to suit the demands of your application. See rating and sizes for details.

## XLR-8: Adaptive Acceleration Control



AuCom's industry-leading motor control technology XLR-8 Adaptive Acceleration Control, gives you precise control over your motor's acceleration and deceleration profiles, eliminating problems caused by water hammer.



Using XLR-8, the soft starter learns your motor's performance during start and stop, then adjusts control to optimize performance. Simply select the profile that best matches your load type and the soft starter automatically ensures the smoothest possible acceleration for your load.

### ADAPTIVE ACCELERATION PROFILE OPTIONS



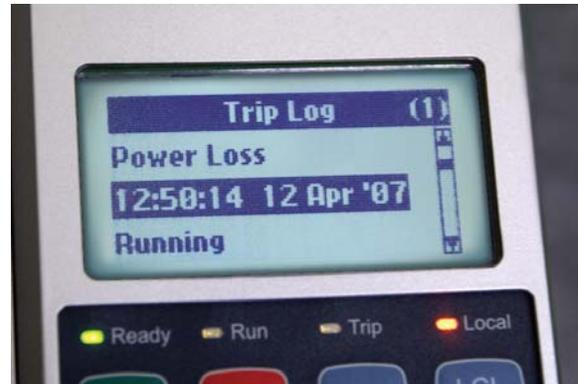
Adaptive acceleration offers three start and stop profiles according to your needs

# Easy installation and operation

The EMX3 is easy to use during installation, commissioning, operation and even troubleshooting.

## REAL LANGUAGE IN REAL TIME

We've packed the EMX3 with features designed to make your life easier, including real-language feedback messages, so you don't have to look up codes to know what's happening. Real-time graphs of motor operating performance and current quickly and clearly illustrate exactly how your motor is performing.



## REMOVABLE CONNECTORS & UNIQUE WIRE WAY

Installation is easy, with plug-in control terminal blocks. simply unplug each block, complete the wiring and re-insert the block.

Using the EMX3's unique and flexible cable ways, cables can be efficiently organized for wiring from either the top, left or from below.



## REMOTE DISPLAY MOUNTING

The keypad is easily mounted on the exterior of your enclosure. When mounting multiple soft starters in a single enclosure, this allows centralized control from a single location, with all the relevant information. A single keypad can be used to transfer settings between starters.



# Engineered packages

As well as chassis starters, EMX3 is available in enclosures as standard packages, or we will custom engineer a solution to your specifications. With a choice of NEMA 12, NEMA 3R and other enclosures, standard or heavy duty rating and optional line-rated bypass contactor and circuit breaker, there's an EMX3 package to suit your requirements.

## FULLY CUSTOMIZABLE

Any EMX3 starter can be built into a package with your choice of options, including:

- NEMA 12, NEMA 3R and other enclosures
- Line-rated bypass contactor and circuit breaker
- SS/Off/ATL switch
- Control power transformer
- Pushbuttons and indicator lights
- Door-mounted keypad
- Space heater with thermostat
- and more



## METERING AND MONITORING

The EMX3 delivers an extensive range of information to replace an additional power meter (amps, kW, kVA, pf).

With real-time metering displays and a 99-place event log recording time-stamped details of operation and performance, it has never been easier to track how your motor is behaving.



MOTOR TEMPERATURE



CURRENT



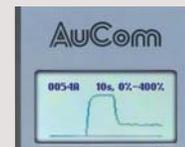
MOTOR POWER



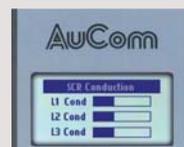
LAST START INFORMATION



DATE AND TIME



PERFORMANCE GRAPH



SCR CONDUCTION



USER-PROGRAMMABLE SCREEN



TRIP MESSAGES

# Features and options

## ADVANCED OPERATION

To meet the unique requirements of your application, the EMX3 offers a range of advanced features. The EMX3 meets the needs of specific applications including:

- Pumping (such as high head applications)
- Compressors (optimizing load control)
- Bandsaws (easy blade alignment)
- Irrigation systems (built-in timer)

## SIMULATIONS

Need to test the installation before connecting a motor? The EMX3 simulation functions let you test the soft starter's operation, external control circuits and associated equipment without connecting the soft starter to line voltage or a motor. The EMX3 has three simulation modes:

Run simulation: simulates a motor starting, running and stopping to ensure correct installation.

Protection simulation: simulates activation of each protection mechanism to confirm correct protection response.

Signalling simulation: simulates output signalling.

## REMOVABLE CONNECTORS

Installation is easy with plug-in control terminal blocks. Simply unplug each block, complete the wiring and re-insert the block.

Using the EMX3's unique and flexible cable ways, cables can be efficiently organized for wiring from either the top, left or from below.

Features	EMX3
<b>MOTOR CONTROL</b>	
Dual motor set	•
Constant current and current ramp start	•
XLR-8 adaptive control starting/stopping	•
Kickstart	•
Coast to stop and TVR stop	•
DC brake	•
Jog (forward and reverse)	•
Inside delta (6 wire) control	•
<b>MOTOR PROTECTION</b>	
Motor thermal model	•
Motor thermistor	•
Current imbalance	•
Under/Overcurrent	•
Phase sequence	•
Phase loss	•
Power loss	•
<b>INTEGRATION AND MANAGEMENT</b>	
Multi-language graphical display	•
I/O expansion options	•
Analog output	•
Emergency run	•
SCR fail PowerThrough operation	•
Auto restart	•
<b>COMMUNICATIONS OPTIONS</b>	
Modbus RTU	•
Profibus	•
DeviceNet	•
Modbus TCP	•
ProfiNET	•
Ethernet/IP	•
<b>ACCESSORIES</b>	
Remote keypad	•
Finger guards	•

## CURRENT RATINGS

Internal Bypass	Light 300%, 10 s	Standard 350%, 30 s	Heavy 450%, 30 s
	Max FLC	Max FLC	Max FLC
EMX3-0023B	23 A	21 A	16 A
EMX3-0043B	43 A	39 A	29 A
EMX3-0050B	50 A	46 A	35 A
EMX3-0053B	53 A	53 A	45 A
EMX3-0076B	76 A	65 A	46 A
EMX3-0097B	97 A	79 A	58 A
EMX3-0100B	100 A	84 A	65 A
EMX3-0105B	105 A	105 A	79 A
EMX3-0145B	145 A	124 A	90 A
EMX3-0170B	170 A	141 A	110 A
EMX3-0200B	200 A	159 A	135 A
EMX3-0220B	220 A	180 A	156 A
EMX3-0255B	255 A	205 A	180 A
EMX3-0350B	360 A	302 A	240 A
EMX3-0425B	425 A	360 A	302 A
EMX3-0500B	515 A	384 A	324 A
EMX3-0580B	590 A	426 A	360 A
EMX3-0700B	700 A	515 A	431 A
EMX3-0820B	820 A	605 A	509 A
EMX3-0920B	920 A	673 A	590 A
EMX3-1000B	1000 A	783 A	720 A
Non Bypassed			
EMX3-0255C	242 A	220 A	160 A
EMX3-0360C	360 A	302 A	242 A
EMX3-0380C	380 A	341 A	272 A
EMX3-0430C	430 A	360 A	302 A
EMX3-0620C	620 A	493 A	394 A
EMX3-0650C	650 A	515 A	414 A
EMX3-0790C	790 A	661 A	527 A
EMX3-0930C	930 A	751 A	597 A
EMX3-1200C	1200 A	1148 A	932 A
EMX3-1410C	1410 A	1200 A	979 A
EMX3-1600C	1600 A	1444 A	1181 A

All ratings are at 40 °C and <1000 meters.  
 To calculate inside delta ratings, multiply by 1.5  
 B = Internally bypassed, C = Non-bypassed



## APPROVALS



UL Listed or UL Recognized status varies by model.

# The future starts with AuCom

We develop motor control products for industrial applications across the world. Our focus on research and development, as well as manufacturing, supply and support, ensures that when you choose to work with AuCom, you're working with a global leader. Almost 40 years of experience added to our expertise and ability means you can rely on us to get it right from the start.

## OUR APPROACH

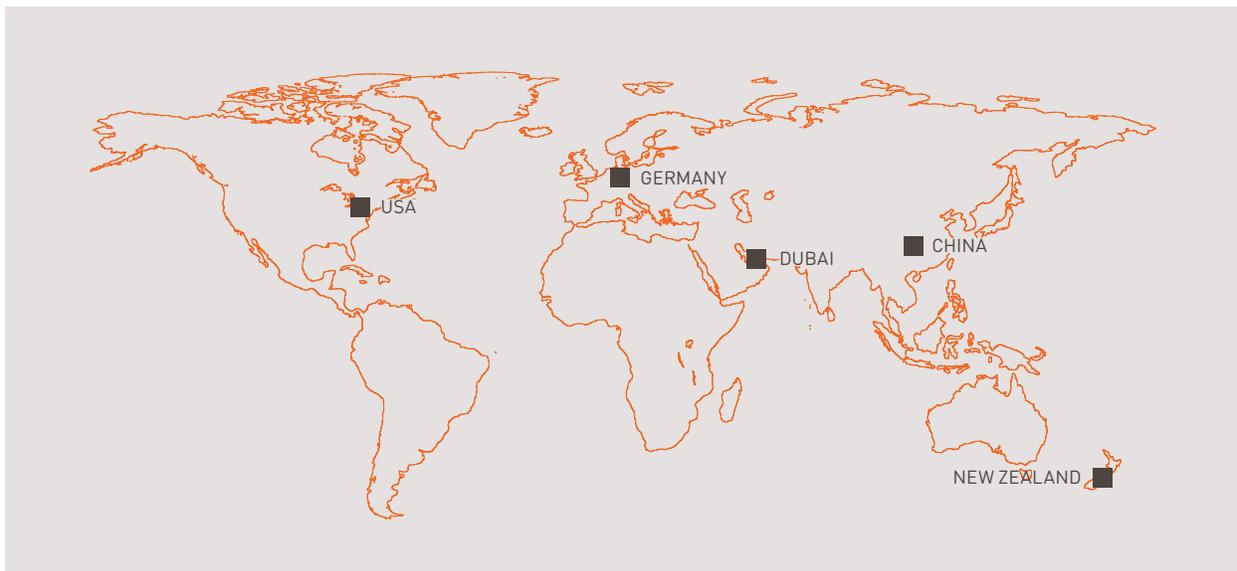
We start with a challenge or application, working with you to define and develop a solution that's not only fit for purpose today, but fully supported into tomorrow.

## OUR PEOPLE

The power behind our success doesn't rely on our innovative products alone. Our people play a pivotal role. That's why, with AuCom, it's always personal. Combining dedication and experience with ability and passion, we don't just listen more closely, we draw on the breadth of our expertise to better understand your unique requirements and offer real solutions and ongoing support.

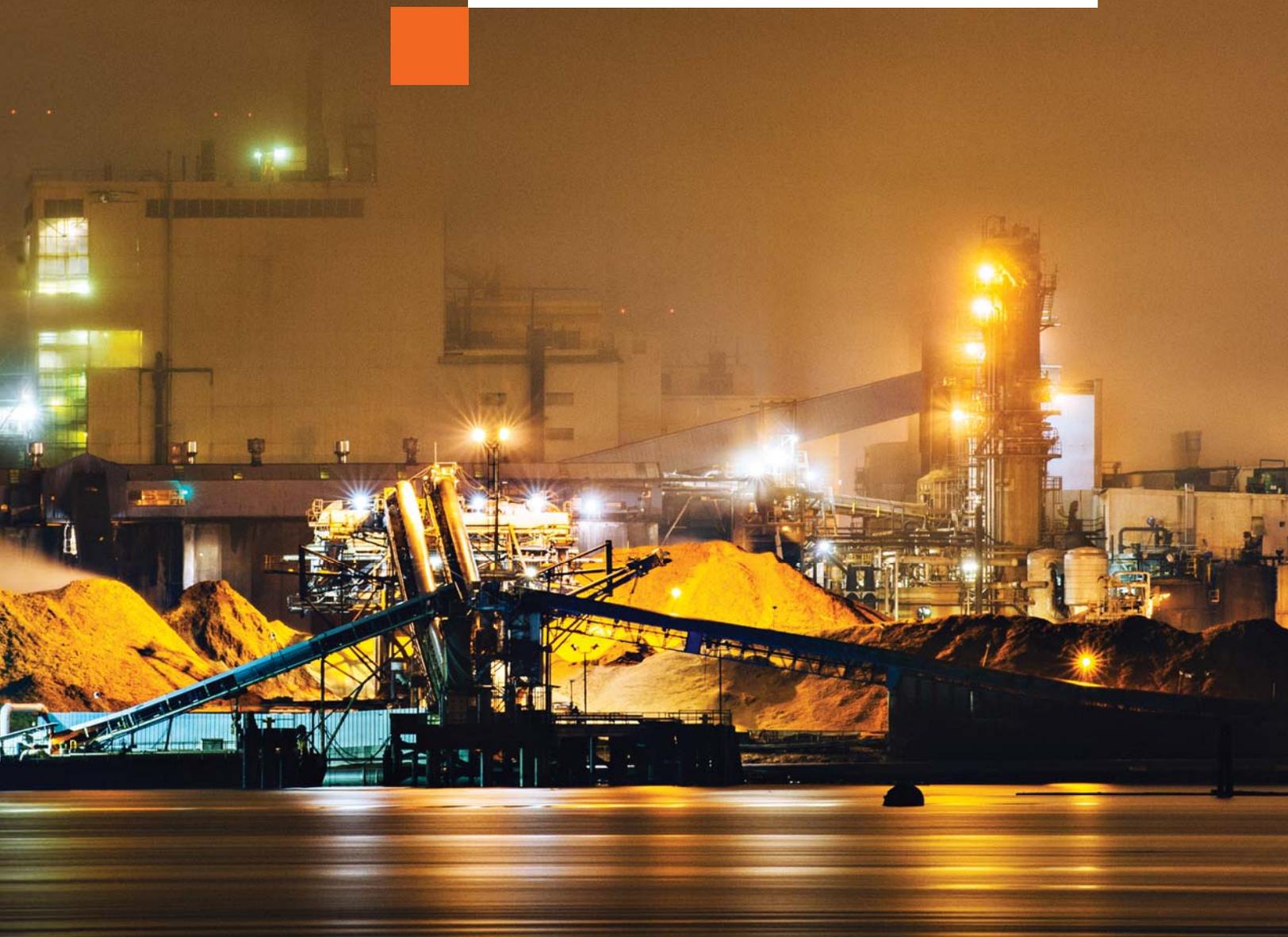
## OUR PARTNERS

We choose partners that are experts, not only in soft start and motor control, but in understanding the needs of their industry. We work closely with our partners to ensure customers receive only the best support and advice.



# We have high standards

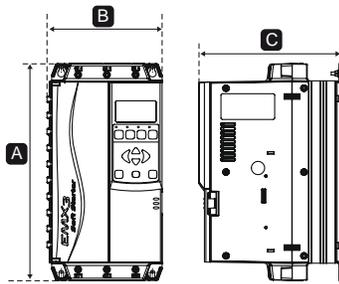
AuCom is accredited to ISO9001:2000, with all products designed and tested to international standards such as IEC 60947-4-2, UL 508, CCC and CISPR-11. All of our products are thoroughly tested in certified facilities and in the field before release, and every soft starter is tested before leaving the factory.



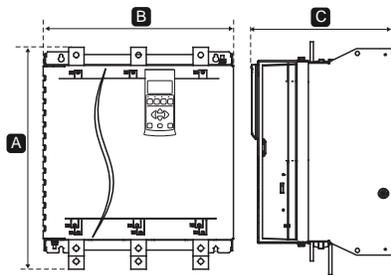
# EMX3 dimensions

## COMPACT DESIGN

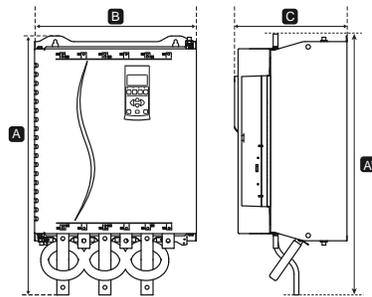
The design of the EMX3 allows for multiple units to be mounted side by side, or in a bank of starters due to the flexibility in cabling options. Internally bypassed starters further reduce the overall size of your soft starter.



EMX3-0023B ~ 0105B



EMX3-0145B ~ 1000B



EMX3-0360C ~ 1600C

	A Height*	A' Height**	B Width	C Depth	Weight lbs
inches					
EMX3-0023B					
EMX3-0043B					
EMX3-0050B				7.6	9.3
EMX3-0053B					
EMX3-0076B	11.7	n/a	6.2		9.9
EMX3-0097B					
EMX3-0100B				8.8	11.0
EMX3-0105B					
EMX3-0145B					30.9
EMX3-0170B					31.3
EMX3-0200B	17.3	n/a	11.2	9.9	33.1
EMX3-0220B					33.1
EMX3-0255B					57.3
EMX3-0350B	17.4	n/a	16.7	11.8	64.8
EMX3-0425B					
EMX3-0500B					110.2
EMX3-0580B					
EMX3-0700B					
EMX3-0820B	25.2	n/a	17.1	11.7	140.0
EMX3-0920B					141.1
EMX3-1000B					
EMX3-0255C	18.2	n/a	15.4	11.0	50.7
EMX3-0360C					
EMX3-0380C					79.4
EMX3-0430C					
EMX3-0620C	27.2	27.5	17.0	11.9	
EMX3-0650C					87.1
EMX3-0790C					
EMX3-0930C					113.5
EMX3-1200C					283.3
EMX3-1410C	33.8	34.0	22.6	14.3	286.6
EMX3-1600C					308.6

\* Dimension A is the height when input and output busbars are at the same end of the unit (top in/top out or bottom in/bottom out).

\*\* Dimension A' applies for either top in/bottom out or bottom in/top out configuration.



## We've got you covered

AuCom's expertise and knowledge extends well beyond the products we make. We're about helping you achieve efficient and effective control of your machines and processes no matter what the industry or application.



New Zealand

123 Wrights Road, PO Box 80208, Christchurch 8440, New Zealand

T +64 3 338 8280 F +64 3 338 8104

China

203-1 JH Plaza, 2008 Huqingping Road, Shanghai 201702, China

T +86 21 5877 5178 F +86 21 5877 6378

Germany

Am Mergelberg 2, 48324 Sendenhorst, Germany

T +49 2526 93880 140 F +49 2526 93880 100

Middle East

10th Floor, Swiss Tower, Jumeirah Lakes Towers, Dubai, UAE

T +971 4279 8349 F +971 4279 8399

North America

2528 Lovi Road, Building 2-2A, Freedom, PA 15042, USA

T 855 928 2666 (855 9 AUCOM NA), +1 724 987 4952 F +1 724 510 3005

 <https://my.aucom.com>

---

For more information and your local contact visit [www.aucom.com](http://www.aucom.com)

**AuCom**  
MOTOR CONTROL SPECIALISTS

**RIGHT FROM  
THE START**