EMX3 SOFT STARTER

Take control from the start

AuCom
MOTOR CONTROL SPECIALISTS

**RIGHT 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.

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 eliminating water hammer problems.

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

Quick setup gets your machinery running in next to no time, informative screens advise your operator on the performance of your motor and real language trip messages pinpoint exactly where any issues lie.

Options for control wiring from the top, bottom or left side provide greater flexibility, plus unique wiring looms and cable retainers make for a faster, tidier install.
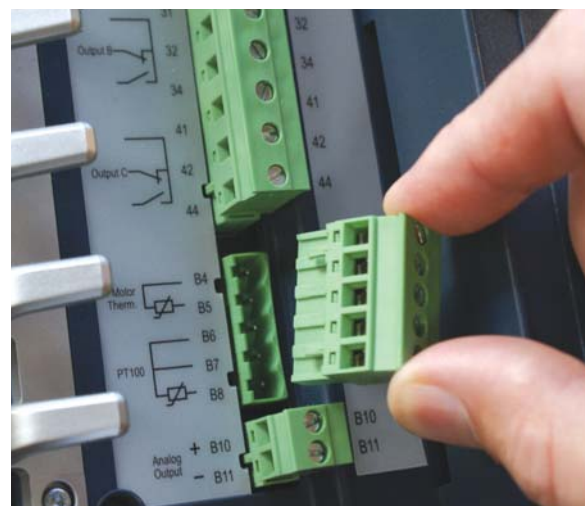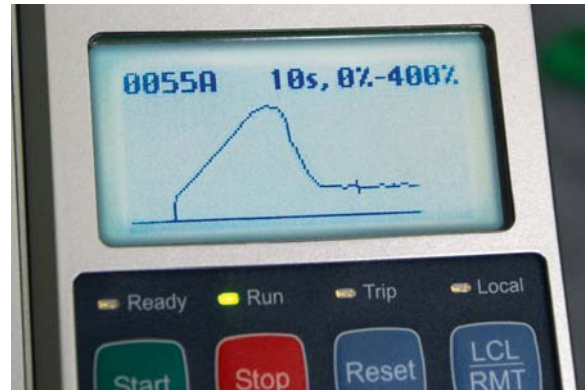
Take control from the start

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.

We also use real-time graphs of motor operating performance and current, intended to quickly and clearly illustrate exactly how your motor is performing.

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.

The keypad is easily mounted on the exterior of your enclosure, using an optional keypad mounting kit. When mounting multiple soft starters in a single enclosure, this allows centralised control from a single location, with all the relevant information. Mount a number of displays next to each other for quick diagnosis of problems. (IP65 when mounted).

The EMX3 has been designed for ease of use, and the user-friendly menu is no exception. After a tidy installation, 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.

If space is at a premium in your motor control centre, the EMX3's compact size will save you space and trouble. Internal bypass contactors, built-in monitoring and indicators, and extensive on-board input and output functionality reduce the need for space and cost of external equipment, as well as simplifying installation.

METERING AND MONITORING

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

PROGRAM MULTIPLE UNITS

When programming multiple units, simply plug the keypad into different starters for immediate download of your data. No fuss, no trouble – a smoother start in every sense.

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 (eg high head applications)

– Compressors (optimising load control)

– Bandsaws (easy blade alignment)

– Irrigators (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 & UNIQUE WIRING LOOM

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 organised for wiring from either the top, left or from below.

Feature Sets	EMX3
MOTOR CONTROL	
Motor sets	2
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	•
MOTOR PROTECTION	
Motor thermal model	•
Motor thermistor	•
Current imbalance	•
Under/Overcurrent	•
Phase sequence	•
Phase loss	•
Power loss	•
INTEGRATION AND MANAGEMENT	
Multi-language graphical display	•
I/O expansion options	•
Analog output	•
Emergency run	•
SCR fail PowerThrough operation	•
Auto restart	•
COMMUNICATIONS OPTIONS	
Modbus RTU	•
Profibus	•
DeviceNet	•
Modbus TCP	•
ProfiNET	•
Ethernet/IP	•
ACCESSORIES	
Remote keypad	•
Finger guards	•

CURRENT RATINGS

Internal Bypass	Light AC53b 3.0-10:350	Medium AC53b 3.5-15:345	Heavy AC53b 4.0-20:340	Severe AC53b 4.5-30:330
EMX3-0023B	23 A	20 A	17 A	15 A
EMX3-0043B	43 A	37 A	31 A	26 A
EMX3-0050B	50 A	44 A	37 A	30 A
EMX3-0053B	53 A	53 A	46 A	37 A
Internal Bypass	AC53b 3.0-10:590	AC53b 3.5-15:585	AC53b 4.0-20:580	AC53b 4.5-30:570
EMX3-0076B	76 A	64 A	55 A	47 A
EMX3-0097B	97 A	82 A	69 A	58 A
EMX3-0100B	100 A	88 A	74 A	61 A
EMX3-0105B	105 A	105 A	95 A	78 A
EMX3-0145B	145 A	123 A	106 A	90 A
EMX3-0170B	170 A	145 A	121 A	97 A
EMX3-0200B	200 A	189 A	160 A	134 A
EMX3-0220B	220 A	210 A	178 A	148 A
EMX3-0255B	255 A	231 A	201 A	176 A
EMX3-0350B	350 A	329 A	284 A	244 A
EMX3-0425B	425 A	411 A	355 A	305 A
EMX3-0500B	500 A	445 A	383 A	326 A
EMX3-0580B	580 A	492 A	425 A	364 A
EMX3-0700B	700 A	592 A	512 A	438 A
EMX3-0820B	820 A	705 A	606 A	516 A
EMX3-0920B	920 A	804 A	684 A	571 A
EMX3-1000B	1000 A	936 A	796 A	664 A
Non Bypassed	AC53a 3-10:50-6	AC53a 3.5-15:50-6	AC53a 4-20:50-6	AC53a 4.5-30:50-6
EMX3-0255C	255 A	231 A	201 A	176 A
EMX3-0360C	360 A	360 A	310 A	263 A
EMX3-0380C	380 A	380 A	359 A	299 A
EMX3-0430C	430 A	430 A	368 A	309 A
EMX3-0620C	620 A	620 A	540 A	434 A
EMX3-0650C	650 A	650 A	561 A	455 A
EMX3-0790C	790 A	790 A	714 A	579 A
EMX3-0930C	930 A	930 A	829 A	661 A
EMX3-1200C	1200 A	1200 A	1200 A	1071 A
EMX3-1410C	1410 A	1410 A	1319 A	1114 A
EMX3-1600C	1600 A	1600 A	1600 A	1353 A

Mounting holes for easy mounting and removal

Large viewable screen with real language text, no more trip codes!

Start, Stop, Reset, Local/Remote

Status LEDs for immediate feedback

Top and bottom retainers for tidier wiring

Small footprint and depth saves space

Unique wiring loom separates wires for easy install and allows access from top, left or bottom for more flexibility

Easy access door hides cables from operator, but allows easy access for installers

IP65 Removable keypad for mounting on cabinet exterior

Shortcut buttons for quick access to common tasks

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

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.
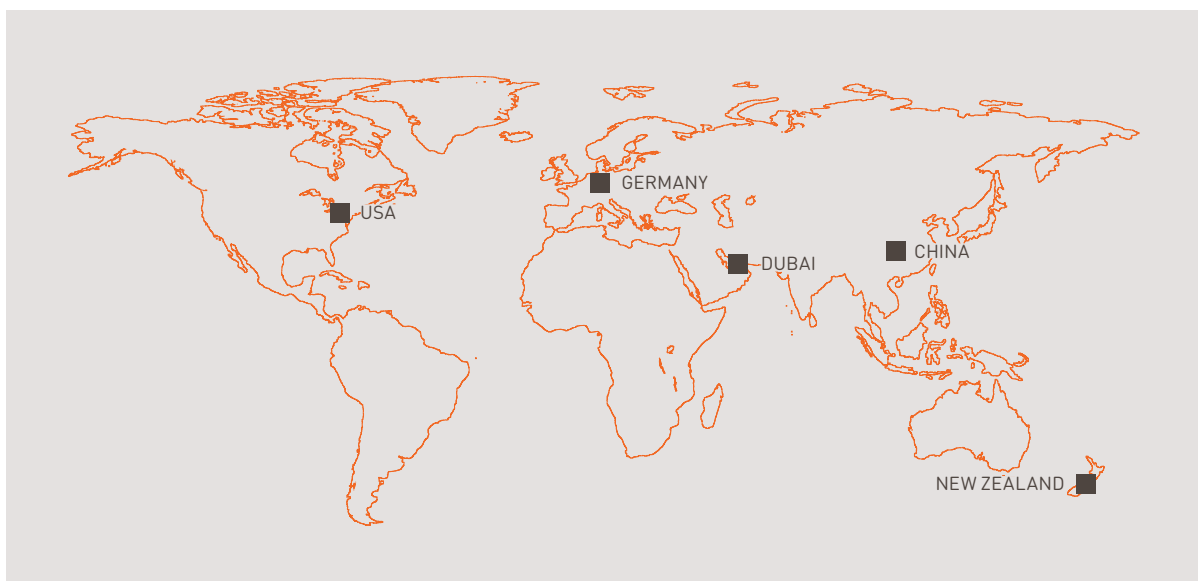
OUR APPROACH

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.
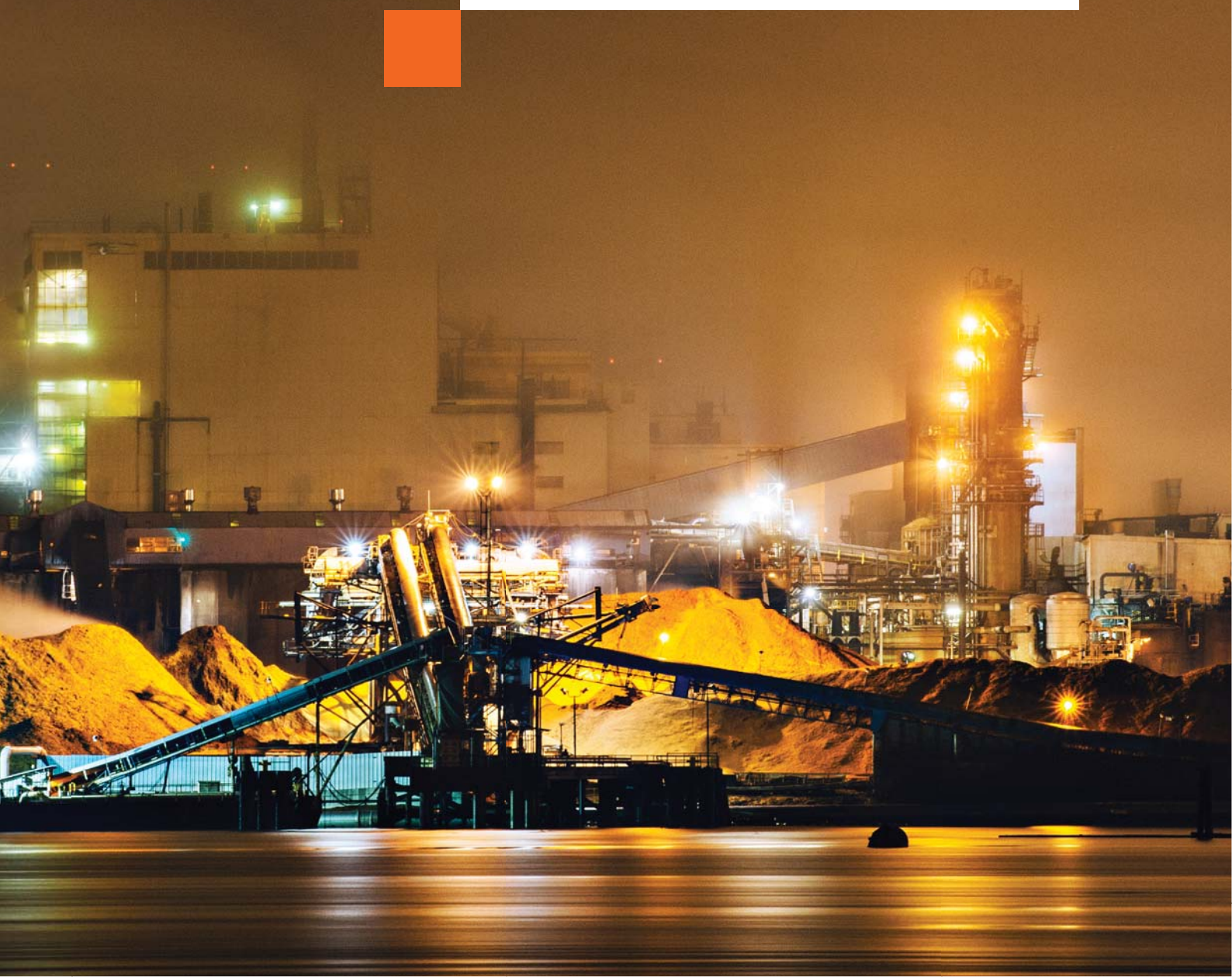
OUR PARTNERS

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.
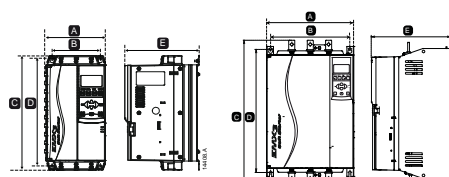
We have
high standards

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 dispatch.
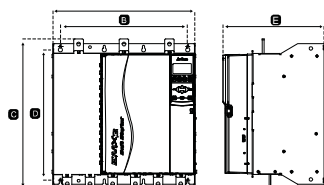
EMX3 dimensions

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.
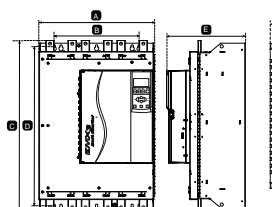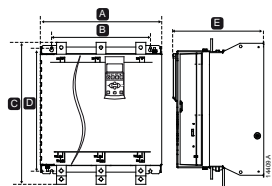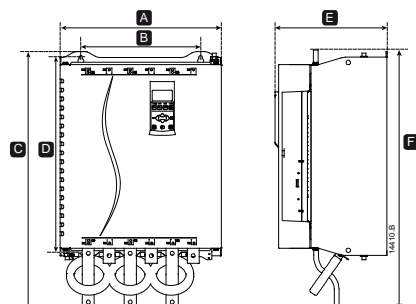

EMX3-0023B ~ 0105B

EMX3-0145B ~ 0220B

EMX3-0255B ~ 425B

EMX3-0500B ~ 1000B

EMX3-0255C

EMX3-0360C ~ 1600C

	A	B	C	D	E	F	Weight kg (lbs)
			mm (inch)				
EMX3-0023B							
EMX3-0043B					192 (7.6)	N/A	4.2 (9.3)
EMX3-0050B							
EMX3-0053B	156 (6.2)	124 (4.9)	295 (11.7)	278 (11)			
EMX3-0076B							4.5 (9.9)
EMX3-0097B					223 (8.8)	N/A	
EMX3-0100B							5 (11)
EMX3-0105B							
EMX3-0145B							14 (30.9)
EMX3-0170B	282 (11.2)	250 (9.9)	438 (17.3)	380 (15)	250 (9.9)	N/A	14.2 (31.3)
EMX3-0200B							
EMX3-0220B							15 (33.1)
EMX3-0255B							26 (57.3)
EMX3-0350B	424 (16.7)	376 (14.9)	440 (17.4)	392 (15.5)	298 (11.8)	N/A	29.4 (64.8)
EMX3-0425B							
EMX3-0500B							50 (110.2)
EMX3-0580B							
EMX3-0700B	433 (17.1)	320 (12.6)	640 (25.2)	600 (23.7)	295 (11.7)	N/A	63.5 (140)
EMX3-0820B							
EMX3-0920B							64 (141.1)
EMX3-1000B							
EMX3-0255C	390 (15.4)	320 (12.6)	460 (18.2)	400 (15.8)	279 (11)	N/A	23 (50.7)
EMX3-0360C							
EMX3-0380C							36 (79.4)
EMX3-0430C							
EMX3-0620C	430 (17)	320 (12.6)	689 (27.2)*	522 (20.6)	300 (11.9)	696 (27.5)**	
EMX3-0650C							39.5 (87.1)
EMX3-0790C							
EMX3-0930C							51.5 (113.5)
EMX3-1200C							128.5 (283.3)
EMX3-1410C	574 (22.6)	500 (19.7)	856 (33.8)*	727 (28.7)	361 (14.3)	862 (34)**	130 (286.6)
EMX3-1600C							140 (308.6)

* Dimension C 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 F 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.

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AuCom

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