



AUCOM NORTH AMERICA

Complete range of motor starting solutions

AuCom
MOTOR CONTROL SPECIALISTS

RIGHT FROM
THE START



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. More than 40 years of experience added to our technical expertise 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.

THE PRODUCTS YOU NEED

From off-the-shelf, standard stock units to custom engineered package products, AuCom North America is your reliable source for all your AC motor control needs.



Our extensive inventory of low voltage and medium voltage soft starters allows us to offer the shortest lead times in the industry. So whether you need us to ship a standard unit from stock or design a custom engineered system built to your specifications, look to AuCom North America to make it happen.



We've got you covered

LOW VOLTAGE SOFT STARTERS

- 208 V-690 VAC, up to 3000 A
- Heavy duty & standard duty
- Custom packaged solutions
- Marine / Mine duty models

MEDIUM VOLTAGE SOFT STARTERS

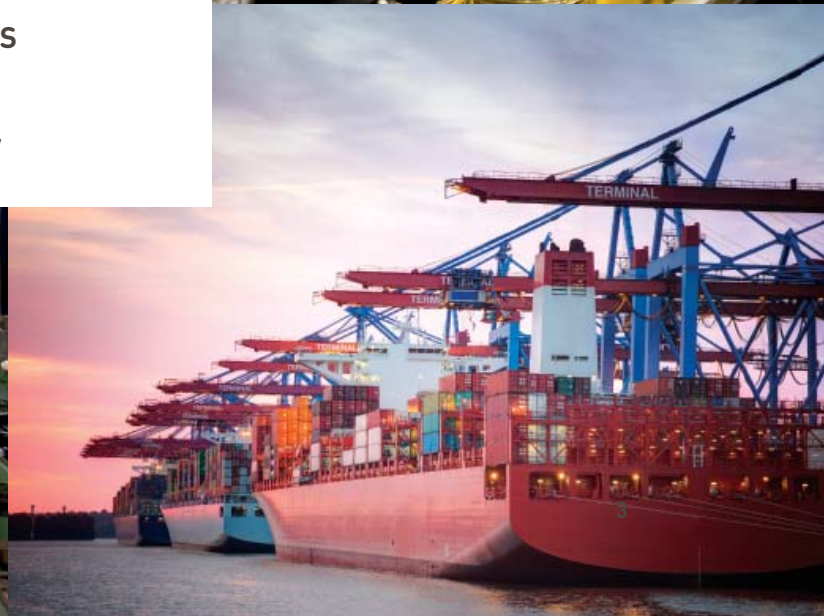
- 2.3 kV - 15 kV
- Ratings up to 30,000 HP
- Outdoor duty design option
- Retrofit units

CUSTOM LINE-UPS

- Low voltage
- Medium voltage
- Synchronous exciters
- UL 508A panel shop

FULL VOLTAGE CONTROLS

- Low voltage up to 600 VAC
- Medium voltage up to 15 kV



CSXi: Compact and simple solution

Our CSXi soft starters allow you greater control over the starting and stopping of three phase motors. The CSXi is ideal as a simple soft start control device which also provides motor protection.



COMPACT DESIGN

The CSXi soft starter is a compact unit suitable for mounting in a motor control center without the need for an external bypass contactor. At only 165 mm (6.5 inches) deep it is easy to mount in shallow enclosures.

For motors up to 60 A the soft starter can be mounted on a DIN-rail, or the CSXi may be mounted horizontally to use less space.

APPROVALS



SPECIFICATIONS

General

Current range 18 A ~ 200 A (nominal)
 Motor connection In-line
 Bypass Internal

Supply

Mains voltage
 CSXi-xxxx-V6 ... 3 x 200 VAC ~ 575 VAC (+10% / -15%)
 Control voltage (A1, A2, A3)
 C1 110 VAC ~ 240 VAC (+10% / -15%)
 380 VAC ~ 440 VAC (+10% / -15%)
 C2 (optional) 24 VAC / 24 VDC (±20%)
 Mains frequency 45 Hz to 66 Hz

Control made easier

PACKAGED OR CHASSIS MODULES FOR
YOUR SMALL PANEL NEEDS



CSXi RATINGS AND DIMENSIONS

Model	Motor HP (Standard Duty 40 °C)			Max FLC (amps)	Motor HP (Standard Duty 50 °C)			Max FLC (amps)	Height	Width (inches)	Depth	Weight (lbs)
	230 VAC	460 VAC	575 VAC		230 VAC	460 VAC	575 VAC					
CSXi-007	5	10	15	18	5	10	15	17	7.99	3.86	6.50	5.29
CSXi-015	10	25	30	34	10	20	30	32				
CSXi-018	15	30	40	42	—	30	—	40				
CSXi-022	—	—	—	48	15	—	40	44				
CSXi-030	20	40	50	60	20	40	50	55				
CSXi-037	25	—	60	75	25	50	60	68	8.46	5.71	7.60	9.48
CSXi-045	30	60	75	85	30	60	75	78				
CSXi-055	—	75	100	100	40	75	100	100				
CSXi-075	50	100	125	140	50	100	125	133				
CSXi-090	60	125	150	170	60	125	150	157				
CSXi-110	—	150	200	200	—	150	—	186	9.45	7.95	8.43	14.99

Ratings are based on 6 second start time at 400% FLC.
Contact us for other duty ratings or for help with sizing.

EMX3: Full featured soft starter

The EMX3 is a comprehensive motor management system for the most demanding soft starting and stopping applications, offering superior functionality and flexibility

OPTIMIZED PERFORMANCE

AuCom's industry-leading XLR-8 Adaptive Acceleration Control gives you precise control over your motor's acceleration and deceleration profiles.

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.

APPROVALS



SPECIFICATIONS

General

Current range 23 A - 3000 A (nominal)
Motor connection In-line or inside delta
Bypass Integrated internal or external

Supply

Mains voltage
EMX3-xxxx-V4 200 ~ 440 VAC ($\pm 10\%$)
EMX3-xxxx-V7 380 ~ 690 VAC ($\pm 10\%$)
..... Control voltage (A1, A2, A3)
..... 110 ~ 210 VAC ($[+ 10\% / -15\%]$)
..... or 220 ~ 440 VAC ($+ 10\% / -15\%$)
..... (optional) 24 VAC/VDC ($\pm 20\%$)
Mains frequency 45 Hz to 66 Hz



Easy installation and operation

Mounting holes for easy mounting and removal

Top and bottom retainers for tidier wiring

Small footprint and depth saves space

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

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

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

Status LEDs for immediate feedback

Start, Stop, Reset, Local/Remote

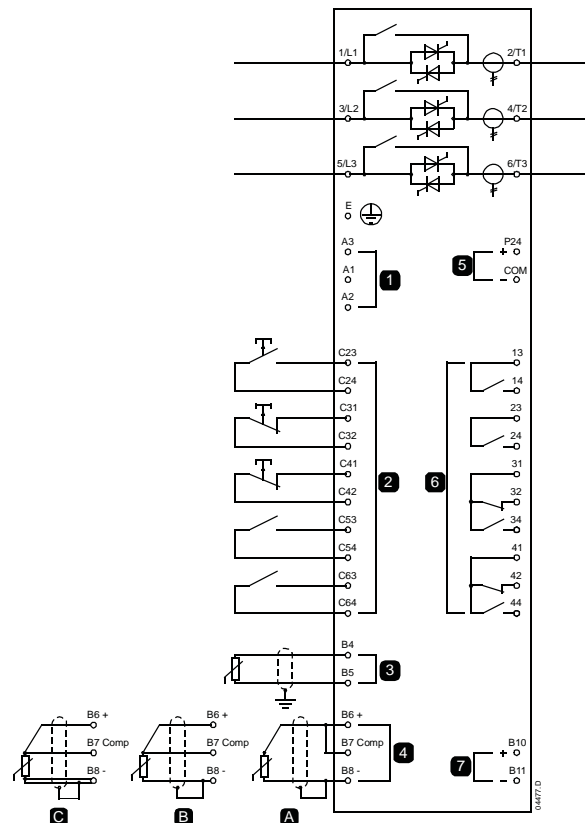
Shortcut buttons for quick access to common tasks

Removable keypad for remote mounting

Uploadable / downloadable smart keypad

1	Control voltage (model dependent)
2	Remote control inputs
3	Motor thermistor input
4A	RTD/PT100 input - 2-wire
4B	RTD/PT100 input - 3-wire
4C	RTD/PT100 input - 4-wire
5	24 VDC output
6	Relay outputs
7	Analog output
<hr/>	
C23, C24	Start
C31, C32	Stop
C41, C42	Reset
C53, C54	Programmable input A
C63, C64	Programmable input B
13, 14	Relay output A
23, 24	Run relay output
31, 32, 34	Relay output B
41, 42, 44	Relay output C

Note: Schematic shown is for internally bypassed models only. Contact us for non-bypassed model schematic.



EMX3 ratings and dimensions

CURRENT RATINGS

Internal Bypass	Light 300%, 10 s Max FLC	Standard 350%, 30 s Max FLC	Heavy 450%, 30 s 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
 Contact us for ratings above 1600 A.

DIMENSIONS

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



Communications modules are available for use with all AuCom soft starters. Options include Profibus, Profinet, DeviceNet, Ethernet/IP, Modbus RTU or Modbus TCP protocols.

MVE: The power of medium voltage starting

The MVE soft starter is a powerful and reliable solution for your medium voltage motor starting requirements.



Available in NEMA 1, NEMA 12, NEMA 3R and outdoor rated enclosures, MVE comes as a fully-finished cabinet including load break disconnect switch with fuses, in-line vacuum contactor, and line-rated bypass vacuum contactor, as well as built-in motor overload protection.

Extensive personnel safety features, an easy-to-use graphical interface, and comprehensive built-in motor/load protection make this a well balanced solution for your medium voltage motor starting needs. MVE brings together sophisticated soft starter motor control functionality in a robust yet compact physical configuration. In addition to standard packages, we can supply custom cabinets to deliver a complete line-up to meet your requirements.

SPECIFICATIONS

General

Current range 17 A - 1200 A (nominal)
Bypass Fully rated, vacuum type

Supply

Mains voltage 2.3 kV - 15 kV ($\pm 10\%$)
Control voltage 120 VAC or 230 VAC
Mains frequency 45 Hz to 66 Hz

Environment

Operating temperature $-10\text{ }^{\circ}\text{C}$ to $+50\text{ }^{\circ}\text{C}$
..... max $+60\text{ }^{\circ}\text{C}$ with derating
Altitude 1000 m ASL, higher with derating

Approvals

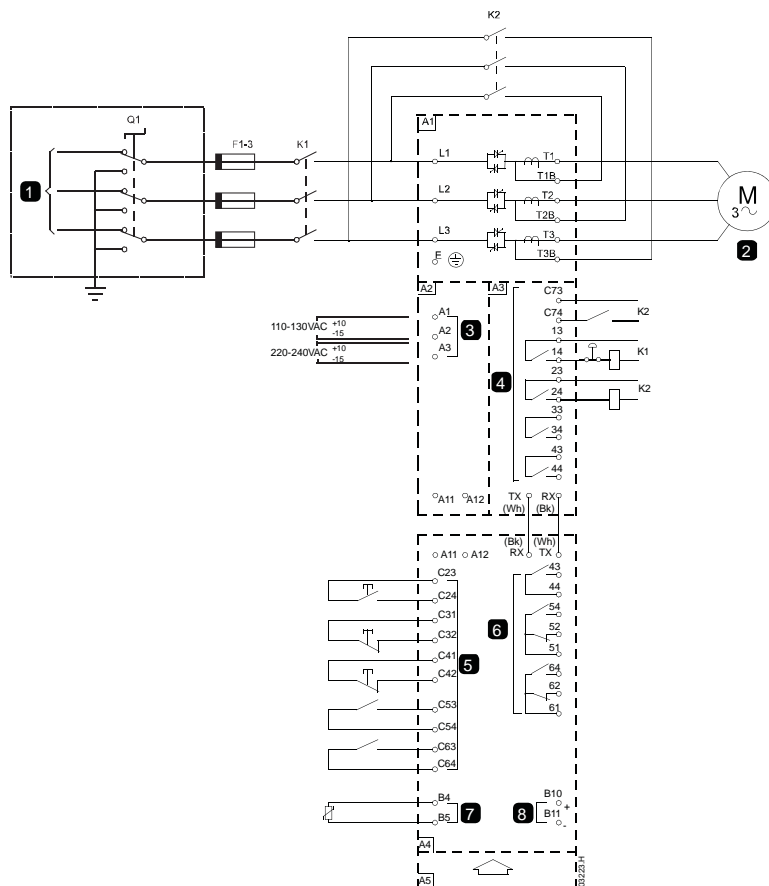
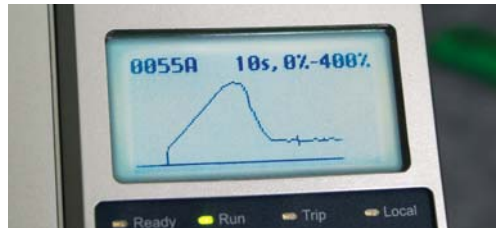


MVE puts you in control

STANDARD CONTROL FEATURES

All control components are mounted in the low voltage compartment and wired to a customer terminal strip. The low voltage compartment door can be safely opened without turning off the soft starter.

- Digital control module
- Starter/Off/Bypass selector switch
- Start/Stop pushbuttons
- Emergency Stop button
- Run/Stop/Fault indicator lights
- Smart keypad with graphical display
- Full metering and control



A1	Power assembly
1	3 Phase 50/60 Hz Supply
Q1	Main isolator / Earth switch
F1-3	R-Rated protection fuses
K1	Main contactor
K2	Bypass contactor
2	To motor
A2	Control voltage terminals
3	Control supply
A3	Power interface PCB
4	Relay outputs
C73-C74	Bypass contactor feedback signal
13-14	Main contactor K1
23-24	Bypass contactor K2
33-34	Run output (PFC)
A4	Controller
5	Remote control inputs
C23-C24	Start
C31-C32	Stop
C41-C42	Reset
C53-C54	Programmable input A
C63-C64	Programmable input B
6	Programmable outputs
43, 44	Programmable output A
51, 52, 54	Programmable output B
61, 62, 64	Programmable output C
7	Motor thermistor input
8	Analog output
A5	Communication module (optional)

MVE ratings and protection features

RATINGS

System Voltage	Starter Current	Motor HP	Motor kW
2.3 kV	110	500	360
	200	900	660
	400	1750	1330
	600	2500	2000
	800	3425	2660
	1100	4275	3330
4.2 kV	60	500	360
	110	900	660
	200	1500	1200
	360	3000	2238
	400	3250	2400
	500	4000	3000
	600	4500	3610
	800	6175	4820
	1000	7725	6030
	1200	9250	6900
6.6 kV	70	850	670
	140	1725	1340
	200	2680	2000
	300	3500	2870
	400	5000	3820
	500	6000	4700
	600	6750	5600
	700	8575	6740
	800	9800	7650
	1000	12250	9570
	1200	14700	11500
13.8 kV	70	1800	1400
	140	3600	2800
	200	5600	4150
	300	8000	6000
	400	10000	8000
	700	18000	14000
	800	20000	16000
	1000	25000	20000
	1200	30000	24000

PROTECTION FEATURES

ANSI Code	Description	Built-in Protection
48	Maximum start time	Excess start time
66	Too many starts	Restart delay and dynamic thermal model
37	Undercurrent	Undercurrent
51L	Load Increase (alarm)	High current frequency output
51R	Overcurrent - jam	Excess start time, electronic shearpin
50	Overcurrent - short	Shorted SCR, electronic shearpin
49/51	Thermal overload	Thermal overload - dynamic model
46	Current imbalance	Current imbalance
27	Undervoltage	Undervoltage
59	Overvoltage	Overvoltage
47	Phase loss	Phase loss
47	Phase sequence	Phase sequence
50G	Ground fault	Ground fault
85	Communications failure	Communications failure
85	Internal failure	Internal failure
94/95	Ext. fault 1/code - 1	Auxiliary trip A
	Ext. fault 1/code - 2	Auxiliary trip B
23	Motor overtemperature	Thermistor protection*
49	Stator winding overtemperature	Thermistor protection*
32	Under power	Power Loss

* Optional RTD relay.

DIAGNOSTICS

The MV Diagnostic Board is a data acquisition and recording board that is provided as standard with all AuCom MV products.



MV Diagnostic Board

Custom capabilities

MV SYSTEMS, RETROFITS AND MORE

Medium voltage line ups are available with a range of options/configurations including:

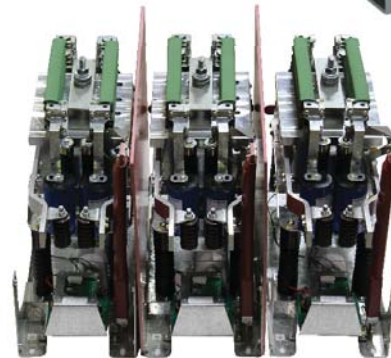
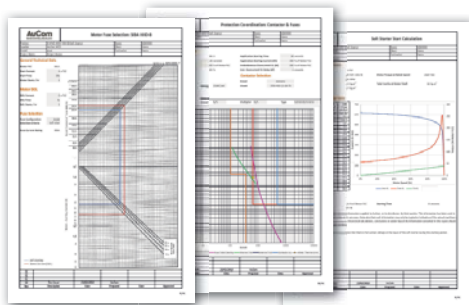
- Door-in-door, outdoor rated design
- Custom line ups
- ATL MV starters
- Synchronous exciters
- NEMA or IEC (M-Series)
- Arc fault, Type-tested design (L-Series)

ALSO AVAILABLE

- MVE retrofit kits
- Across-the-line full voltage starters (200 & 360 A, 2.3 - 4.16 kV)

TECHNICAL ASSISTANCE

Our medium voltage soft start specialists use advanced proprietary tools to specify the ideal AuCom medium voltage solution for your application. We provide a detailed technical datasheet including calculations for motor starting, heat dissipation, supply capacity, transformer & cable voltage drops, and selection of fuses and power factor correction.



Low voltage packaged solutions

EMX3 ENGINEERED PANELS (5 - 1500 HP)

- Nema 4/12/3R or custom packaging
- Power IN / Power OUT ready
- With or without circuit breakers
- Shunt or full rated bypass
- Reversing, braking or jogging
- Soft start/VFD packages
- Standard or customized to your design
- UL/cUL listed



CSXI COMPACT PANELS (5 - 150 HP)

- NEMA 3R enclosure
- CSXi soft starter with built-in bypass
- Circuit breaker with door operator (35 kAIC)
- Control power transformer
- Space heater with thermostat
- UL/ cUL listed



ATL (ACROSS-THE-LINE) MOTOR STARTERS (5 - 600 HP)



- Service entry rated
- NEMA 4/12/3R enclosure
- Circuit breaker with lockable handle
- Full rated contactor
- Motor overload
- 110 VAC control power transformer
- Run light
- HOA selector (local/off/remote)
- UL/ cUL listed

The soft start specialists

At AuCom our focus is exclusively on soft starters. We provide a range of industry leading products utilizing the latest technology.

LOW VOLTAGE APPLICATIONS

Packages to meet your needs or chassis starters to upgrade your system.



MEDIUM VOLTAGE APPLICATIONS

When you need the power to get the job done...



PROVIDING TRAINING & SUPPORT

Friendly application assistance is just a call away.



A world of experience

	Water / Wastewater	Food and beverage	Power generation	Pulp / Paper	Chemical / Petrochemical	Mining	Cement / Stone	Wood processing	Building technology	Marine / Off shore	Industry / Production
Pump	■	■	■	■	■				■	■	■
Fan/Blower/Aerator	■	■	■		■	■	■		■		■
Compressor		■	■		■				■	■	■
Chiller		■			■				■	■	■
Refiner				■				■			
Extruder		■			■						
Centrifuge					■						■
Crusher			■			■	■				
Chipper				■				■			
Conveyor		■	■			■	■				■
Roller			■								■
Saw		■		■				■			■
Rotating converter			■						■	■	■
Bow thruster										■	
Main propulsion										■	



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**RIGHT FROM
THE START**