

A close-up photograph of industrial machinery, likely a motor or soft starter, featuring various metal components, bolts, and a large white gear. A white rectangular text box is overlaid on the center of the image.

MVE SOFT STARTER

The power of
medium voltage
soft starting

AUCom
MOTOR CONTROL SPECIALISTS

RIGHT FROM
THE START

Powerful and reliable

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

Available in NEMA1, 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 needs. Based on AuCom's successful MVS and MVX starters, 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.



Safer and easier to use

Low voltage circuits are fully isolated from the medium voltage power electronics, using a high quality fiber-optic connection. To simplify commissioning, MVE supports testing with a low voltage motor to fully test power and control circuits using the built-in simulation modes.

MVE's phase arms have been designed for maximum versatility in installation. For common ratings, power terminations can be made at either the top or bottom of the input and output busbars. Modular design means each phase arm is separate, and can be individually removed for maintenance if required.



METERING AND MONITORING

The large format keypad delivers an extensive range of information, eliminating the need for an external power meter.



MOTOR TEMPERATURE



CURRENT



USER-PROGRAMMABLE SCREEN



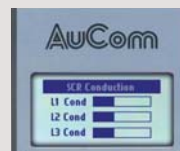
MOTOR POWER



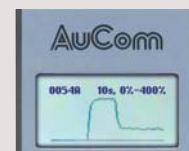
LAST START INFORMATION



TRIP MESSAGES



SCR CONDUCTION

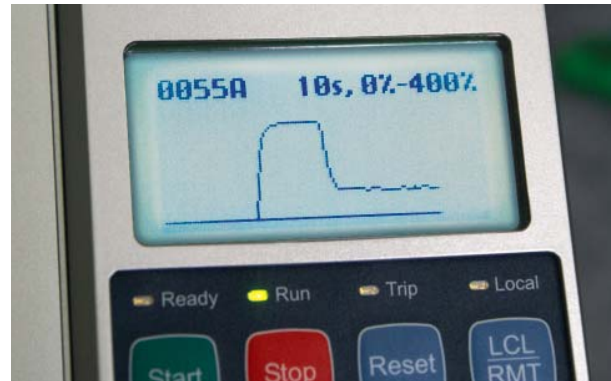


PERFORMANCE GRAPH

Take control from the start

Medium voltage installations are complex enough without making the starter hard to use as well. MVE is packed 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.

Built-in monitoring and indicators, and extensive on-board input and output functionality reduce the need for space and cost of auxiliary equipment, while simplifying installation. Real-time graphs of motor operating performance and current quickly and clearly illustrate exactly how your motor is performing. No fuss, no trouble - a smoother start in every sense.



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



Knowledge is power

We don't just get you started – we're committed to keeping you running smoothly too. Our dedicated diagnostic tools simplify support and maintenance.

DETAILED EVENT LOG

The 99-place event log records time-stamped details of operation and performance, making it easier than even to track how your motor is performing.

ANALYSIS SOFTWARE

Logs can be viewed directly on the controller, or can be downloaded from the starter for offline analysis using AuCom's Trip and Event Logger Software.

WAVEFORM RECORDING

Installations with challenging electrical environments also benefit from our purpose-designed diagnostic board, which records waveforms that can help diagnose conditions interfering with operation.

When you send the recorded data to AuCom, our expert team can analyze the waveforms to identify factors that may be affecting the starter's performance.

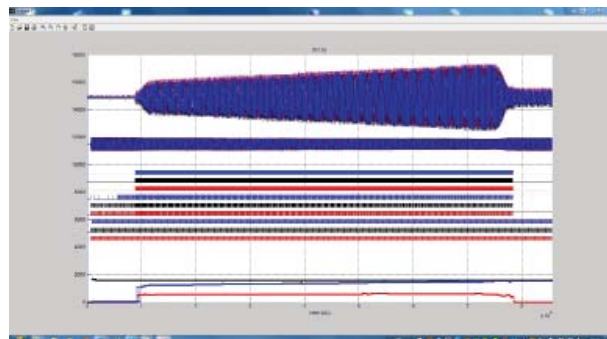
The diagnostic board records information on characteristics including:

- voltage
- current
- frequency
- conduction period

PROTECTION CODES

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.



Example waveform

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

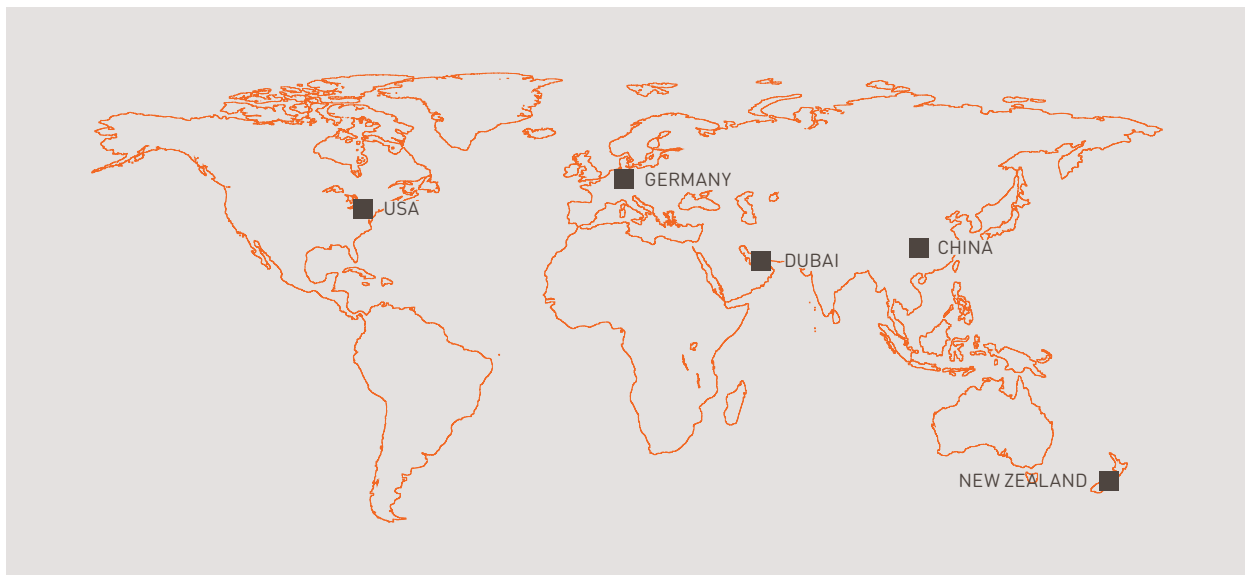
We start with a challenge or application, working with you to define and develop a solution that's not only fit for purpose today, but fully supported into tomorrow.

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 387, 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.



Key specifications

CURRENT 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	

DIMENSIONS

Height	Width	Depth	Weight (lb)
92.5	36.0	30.0	1100
92.5	36.0	30.0	1100
92.5	36.0	30.0	1250
92.5	72.0	30.0	2400
92.5	96.0	36.0	3500
92.5	96.0	36.0	3500
92.5	36.0	30.0	1250
92.5	36.0	30.0	1250
92.5	36.0	30.0	1250
92.5	36.0	30.0	1300
92.5	36.0	30.0	1300
92.5	72.0	30.0	2400
92.5	72.0	30.0	2400
92.5	109.0	36.0	2800
92.5	109.0	36.0	3500
92.5	109.0	36.0	3500
92.5	36.0	30.0	1300
92.5	36.0	30.0	1300
92.5	45.0	30.0	1750
92.5	45.0	30.0	1750
92.5	72.0	30.0	1750
92.5	72.0	30.0	2600
92.5	109.0	36.0	3100
92.5	109.0	36.0	3500
92.5	109.0	36.0	3500
92.5	109.0	36.0	3500
92.5	109.0	44.0	4000
92.5	126.0	44.0	6200
92.5	126.0	44.0	6200
92.5	126.0	44.0	6200
92.5	126.0	44.0	6200
92.5	126.0	55.0	6400
92.5	166.0	55.0	6400
92.5	166.0	55.0	7000
92.5	166.0	55.0	7000

* Dimensions are in inches, for a complete cabinet.

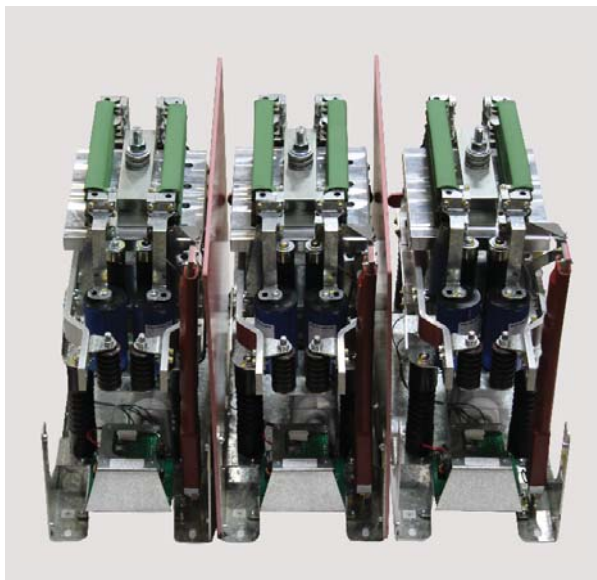
Flexible solutions

RETROFIT SOLUTIONS

We can retrofit MVE into your existing system. Turn-key MVE kit type soft starters can be installed with minimal downtime. Update your old equipment with a cost-effective, reliable retrofit solution.

CHASSIS KITS FOR INTEGRATORS

Chassis “OEM kits” are available for qualified integrators to incorporate into their enclosures and switchgear. OEM kits include the SCR power section, controller module, fiber-optic cables and 24VAC/VDC power supply.



FEATURES

Features	MVE
MOTOR CONTROL	
Dual motor set	•
Constant current and current ramp start	•
Kickstart	•
Coast to stop and TVR stop	•
Slip-ring motor 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	•
Customizable I/O operation	•
Analog output	•
Emergency run	•
Programmable auto-stop	•
Simulation modes	•
Real-time performance graph	•
Detailed event and trip logs	•
COMMUNICATIONS OPTIONS	
Modbus RTU	•
Profibus	•
DeviceNet	•
Modbus TCP	•
Profinet	•
Ethernet/IP	•

Other solutions

AuCom offers a complete range of soft starters. Whether you need a simple product for starting only, or a comprehensive motor control package you can trust AuCom to offer a product to match.

	Soft Start	Motor Protection	Current Range	Voltage Range
CSXi	•	•	≤ 200 A	≤ 575 VAC
EMX3	•	•	< 1600 A	< 690 VAC
MVE	•	•	≤ 1200 A	≤ 15 kV
MVS	•	•	< 700 A	≤ 15 kV
MXV	•	•	< 1200 A	≤ 15 kV

MVE – NEMA3R0D STARTER



MVE NEMA3R0D

MVS – FULLY WITHDRAWABLE STARTER

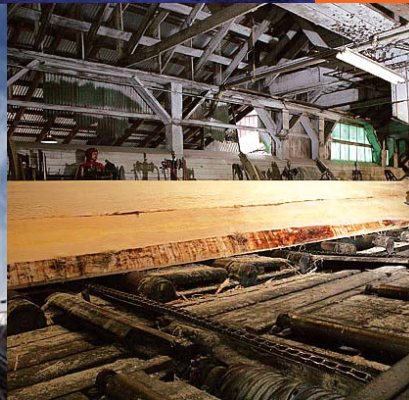
For installations requiring a compact soft start solution for a complete cabinet using withdrawable switchgear, MVS is the ideal solution.

- individually withdrawable phase arms to simplify maintenance

MXV – CERTIFIED ARC-PROOF STARTER

Where safety is paramount, ask us about the MXV soft starter, specifically designed to keep your staff and plant safe from arc faults. This compact, high-power starter has been fully type-tested to the most stringent international standards:

- IEC62271-200 for switchgear and apparatus, and internal arc fault resistance (IAC classified: AFLR, 31.5A/1s)
- IEC62271-304 for switchgear and apparatus
- IEC60664-1 for electrical insulation



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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