



# MOTORTRONICS™

Solid State AC Motor Control



## MOTOR CONTROL INNOVATION

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# Motortronics Product Line-up



## Medium Voltage Soft Starters

### MVC4 SERIES

Meet the number one Medium Voltage Soft Starter in the world. The MVC4 Medium Voltage Series Soft Starter is designed to start AC motors in any fixed speed application. It provides maximum protection with "True Thermal Modeling" while allowing smooth, stepless control of acceleration and deceleration. The MVC4 Series guarantees power control and protection for your most important assets.

### MVC-ARC SERIES

Medium Voltage soft starter with ARC protection up to 50 KA.

### MVC WEATHERPROOF SERIES

Medium Voltage soft starter for harsh environments.

### MVC COMPACT SERIES

Medium Voltage soft starter for space restricted installations.

**Modbus RTU communication is standard on all Soft Starters, Motor Protection Relays and RTD Monitor Devices. Other network communication options available.**

## Enclosed Soft Starters

Application Specific and Heavy Duty Enclosed Soft Starters in a NEMA 4 and 12 enclosure.

### VMX-P PLUS SERIES (IEC RATED)

Premium Configured VMX-synergy Soft Starter in NEMA 4 /12 Enclosure with integrated bypass.

### VMX-U SERIES (IEC RATED)

Universal Configured IEC rated VMX-agility Soft Starter in NEMA 4 /12 Enclosure with integrated bypass.

### VMX-B PLUS SERIES (ANSI RATED)

Basic Configured VMX-Synergy Plus Soft Starter in NEMA 4/12 Enclosure with start rated bypass contactor. 65kA service entrance rated.

### VMX-H PLUS SERIES (ANSI RATED)

Full Featured Configured VMX2 Synergy Plus Soft Starter in NEMA 4/12 Enclosure with start rated bypass contactor. 65kA service entrance rated.

## VMX S.A.F.E. PLUS

The New Standard of Safety for Electricians. The VMX S.A.F.E. Plus Series in a NEMA4/IP67 enclosure is the ultimate product on the market today for Low Voltage Control. The service engineer or electrician can safely enter the low-voltage compartment knowing that no voltage is present and limited PPE is required, due to the voltage indication on the front door.

An in-line isolation contactor is standard on all S.A.F.E. units so when the motor is off no voltage will be present on the motor leads. Safe for anyone working on the motor, equipment or soft starter control enclosure. Visual live line indication ensures the safety for all Service engineers and Electricians during lockout / tag out procedures.

The VMX S.A.F.E. Plus incorporates a VMX soft starter. The 65 kA breaker at 480 Vac and surge device are located inside the line-voltage compartment for safety. S.A.F.E. has an LED live voltage indicator connected to the output of the main breaker. The visual voltage indication would indicate the breaker is open and no voltage is present before entering the line voltage compartment.

# Motor Control & Protection



## Reduced Voltage Soft Starters

Having shipped millions of solid state starters and controllers to virtually all industries around the world, we have amassed more real world experience than any other manufacturer in the business. Motortronics is now one of the largest manufacturers of solid state power controls in the world.

### VMX-SYNERGY PLUS SERIES

IEC, ANSI and NEMA rated Premium reduced voltage soft starter with easy to use touch screen and iERS Energy Savings function.

### VMX2 SERIES

ANSI Rated reduced voltage compact soft starter available as Module Only or in NEMA 1/12 Enclosure with Contactor Bypass.

### VMX-SYNERGY SERIES

IEC Rated premium reduced voltage soft starter with easy to use touch screen and iERS Energy Savings function.

### VMX-AGILITY SERIES

IEC Rated application driven reduced voltage compact soft starter.

### VMX-PFE SERIES

IEC Rated rated reduced voltage soft starter, The choice for Light and Medium Duty Industrial Applications.



## Msmart

### 7" FULL COLOR TOUCH SCREEN

Msmart is a unified touch screen for all Motortronics products and consists of an active touch screen display.

In addition, Msmart supports multiple languages, dedicated information and graphs for each product. Msmart also has built-in an auto sleep function with wake-up on motion.

### Features

- Color Touch Panel
- HW Pushbuttons for Harsh Environments
- Auto Sleep Function with Motion Sensing
- Support for 6 Languages
- Unified Touchscreen for MT Products
- Virtual MVC Keypad

### Compatible with

- MVC4, VMX2, VMX-Synergy Plus,
- VMX-Synergy, Smart TCB, RX Series,
- TE-RTD12 Series



## Motor Protection

### RX SERIES

Take your motor protection to a new level. The RX Series provides more than just solid state overload or power protection relays.

By using features previously found only in large expensive Motor Protection Relays, such as the Thermal Memory function, the RX Series allows even small to medium sized motor applications to be protected by the best technology available, yet at a price affordable to all.

### TE-RTD12 SERIES

The TE-RTD12 Relay device adds advanced RTD (Resistor Temperature Detector) and differential current monitoring capability to your new or existing motor system.

The TE-RTD12 Relay device offers 12 built-in RTD inputs, programmable output relays, isolated digital and analog inputs, isolated analog output and differential current feedback monitoring.

# Motor Control Solutions for any Application



## Motor Winding Heaters & Brakes

### MWH SERIES

Motor winding insulation materials become water permeable with repeated exposure to temperature extremes and moisture. If the ambient temperature is below the dew point when a motor is turned off, condensation will form inside the motor as it cools down. The MWH Series provides a cost effective solution to these problems by preventing condensation build-up in motors.

### ABC SERIES

Electronic braking stops the load by injecting a controlled amount of DC current into a 3ph AC motor. The ABC Series "automatic braking controller" features full-wave DC Braking which can be adjusted to stop your load quickly, repeatably and reliably...even if load conditions change.

The ABC Series meets the three main objectives that are important in every industry: Maximized Safety, Increased Productivity and Maintenance-Free Operation.



## Mlink Software

### COMMUNICATION SOFTWARE

Mlink software tools can be used to commission, start-up, diagnose and troubleshoot soft starters, motor protection relays and RTD monitors.

All software has an easy to use interface with built-in trend recorder, monitor and status panel.

### Features

- Parameter editing and commissioning
- Parameter compare functions
- Parameter settings export function
- Application Setup Wizard
- Visual Programming, point and click
- Monitor Panel with 4 programmable sig.
- Trend-recorder with 6 programmable ch.
- Trend-recorder signal measuring mode
- Status and Diagnostics Panel
- Event History and Log
- Communication via serial, USB, Ethernet
- Built-in comprehensive help
- Multi-drop network support
- Demo modes for all interactive functions.
- Built-in Automatic Software Updates



## Current & Voltage Transformers

### CT TRANSFORMERS - 600V CLASS

Frequency: 50 - 400 Hz  
Insulation Level: 600 Volts, 10 kV BIL fw

### LV TRANSFORMERS

Frequency: 60 Hz (50 Hz available)  
Insulation Level: 600 Volts, 10 kV BIL fw  
Primary Voltage: 69.3V - 690V (1ph/3ph)  
Standard Secondary Voltage: 120 Volts

### MV TRANSFORMERS

Frequency: 60 Hz  
Primary Voltage: 2.3 to 35kV  
Secondary Voltage: 120 Volts

### MV CONTROL POWER TRANSFORMERS

Frequency: 60 Hz (50 Hz available)  
Primary Voltage: up to 6.9 kV  
Secondary Voltage: 120 Volts (others available)

# Custom Solutions & Services

**Motortronics offers custom engineering, testing, training / commissioning and service.**

## **Custom Engineering:**

Medium Voltage Line-ups; Breaker sections, Disconnect Sections, Across the line systems, w/wo VFD or transformer feeder sections

OEM Panel Design and brand-labeling for all major industries, such as HVAC, Water Wastewater, Oil, Gas, Marine, Manufacturing, etc..

Motor Control Design for LV and MV motors, such as Brush-type packages, Wound Rotor packages, Sync Exciter Packages, etc...

Control System Design with PLC and Communication, etc...

Phase and Heater Controls for LV and MV Applications

Solutions for unique Applications

## **Testing:**

UL 508 and ETL certified panel manufacturer

In-house Engineering, design validation and development

Factory Acceptance Testing (Virtual available)

Motor Starting and Voltage Drop Analysis

UL and ETL Testing

Lab Testing (R & D)

Partial Discharge (PD) / Corona Testing

Hi-Pot / Dielectric strength Testing

Full load thermal / Heat-run testing

Full voltage active starter testing on motors up to 15 KV

Impulse Level Testing up to 300kV

## **Training / Commissioning:**

Factory Certified In-house Hands on Training

Customer In-house Training (Lunch and Learn, Virtual available)

Onsite or virtual commissioning available w/ 3 year extended - warranty with start-up

## **Service and Field Support:**

24/7 Live Technical Phone / Field Service Support (Virtual available)



# Global Sales and Support Locations

## AMERICAS / HEADQUARTERS

### **Motortronics / Phasetronics**

1600 Sunshine Drive  
Clearwater, Florida 33765  
Tel: + 727-573-1819 / 888-767-7792  
Fax: + 727-573-1803 / 800-548-4104  
E-mail: sales@motortronics.com  
[www.motortronics.com](http://www.motortronics.com)

## ASIA

### **Motortronics International Korea Co. Ltd.**

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## EUROPE

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### **M & P Machinery & Electronics Control Part of the Motortronics Group**

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## MIDDLE EAST

### **Motortronics MEA, LLC**

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