



MOTORTRONICS™

Solid State AC Motor Control

MARINE

Certified Products



Applications

- Propulsion Systems
- Bow Thrusters
- Azimuth Pods
- Fluid Pumps
- Water Pumps
- Ballast Pumps
- Compressors
- Chillers

Product Certifications



ABS Marine and Offshore Classification



Bureau Veritas



Lloyd's Register
Quality Assurance



International Certification
ISO 9001

MVC4

Input Voltage: 2300 - 7200, 11 - 15 kV

Current Rating: up to 1500 Amps

Motor Power: up to 15MW / 20,000HP

Medium Voltage Soft Starter

Marine Applications

Propulsion Systems, Bow Thrusters,
Azimuth Pods, Fluid Pumps, Water Pumps,
Ballast Pumps, Compressors and Chillers

The Power of Performance for the toughest Marine Applications

With the MVC4, motor and starter protection are taken to a new level by combining a high-end motor protection relay with a heavy duty starter with flexible control features and selectable ramping profiles to match any application... no need to compromise performance.

High level circuit isolation via fiber optics (standard on all units) for safety and power quality immunity and sealed NEMA 12 enclosures are standard equipment, not an expensive option.



Soft start & protect any AC motor

the **MVC4 Series** 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.

Heavy-duty attitude

Highest rated power devices for maximum current carrying capacity. Rated at 500% for 60 seconds, the MVC4 Series starter will never be the limiting factor in your application. Powerful sustained gate pulse insures reliable SCR firing without reactors (unlike "wimpy" pulse train designs that require a reactor to prevent SCR and motor damage).

Experience where it counts

With over 500,000 low voltage and medium voltage soft starters in operation, Motortronics has the application expertise you need. No other soft starter manufacturer takes this product more seriously or has as much experience applying solid state starters. The **MVC4 Series** is the pinnacle of product development and is recognized by users and OEMS around the world as the best Medium Voltage Soft Starter on the market today.

Lower Your Maintenance Cost and Reduce Mechanical Stress

VMX2 Series

Low Voltage Soft Starter

Marine Applications

Input Voltage: 200 ~ 600VAC

Current Rating: 18 to 1250A

Motor Power: up to 900kW / 1200HP

Fluid Pumps, Water Pumps, Ballast Pumps
Compressors and Chillers

Digital Soft Starter with built-in bypass contactor

Integral Bypass Contactors are standard on all sizes and provide maximum efficiency of panel space while maintaining the Motortronics reputation for being able to soft start most any load. The VMX2 Series is the only fully integrated, compact, world-class design offering uncompromised power and control capabilities.

Pump Applications

Eliminate the damaging effects of "Water Hammer" A gradual reduction in the output torque of your pump motor is provided when a stop signal is initiated. When the motor output reaches a point where the check valve can be safely and gently closed, the Pump-Flex circuit automatically turns itself off.

Since no two pumps or pump applications are exactly the same, the flexible settings of Pump-Flex decel control allow you to tailor the output to precisely match your application requirements. No need for external timers or auxiliary controls.

Minimize maintenance costs & downtime By gradually reducing motor torque using Pump-Flex decel control, the potentially destructive pump output pressure is allowed to slowly dissipate in the system during the stopping process. Check valves close gently and other fluid system components including pipes, valves, flanges, couplings and hangers are no longer subjected to the shock and destructive potential of water hammer.

The VMX2 Series also includes...

Built-in Functions

Operator Interface, Ramp Control Choices (4)
Dual Ramps, Jog Function, Kick Start Function
Pump-Flex Deceleration Ramp, Restart Delay Timer
24 hour / 7 day Time Clock Controller
RS-485 Serial Communications
Metering Elapsed time meter, run cycle counter, remaining lock-out time
and fault history for maximum control and status of your pumps or processes.

Compressor and Chiller Applications

Current Current Ramp

This function provides a linear increase in output current during acceleration.

Closed Loop Torque /Current (CLT™)

This function provides a linear increase in output torque during acceleration. It maximizes the available torque using an internal PID feedback loop, insuring a smooth, linear ramp up to full speed.



Lower Your Maintenance Cost and Reduce Mechanical Stress

World Class Products & Service

Other products available from Motortronics



VMX "Configured" Soft Starter

- Combination Starter with built-in CB
- NEMA 12 (IP54) Enclosure
- "Smart Door" Operator Panel
 - Programming
 - Diagnostics
 - Metering
 - Pilot lights, Pushbuttons and Switches
- Control Power Transformer
- Terminal strip for Customer Interface



VMX-synergy™

- Premium Soft Starter
- 10 - 400 HP
- 3.5" Full Color Touch Screen
- iERS Intelligent Energy Recovery
- 42 Application Profiles
- Internally Bypassed



VMX-agility™

- Application Soft Starter
- 3 - 350 HP
- OLED Display
- 23 Application Profiles
- Internally Bypassed
- 3S technology



RX Motor Protection Relay

Monitors:

- Line Power
- Thermal Overload
- Current Imbalance
- Over/Under Voltage

Real-time Clock

RS485



TE-RTD12 Relay

- Motor RTD Monitoring (12 Inputs)
- Differential Current Monitoring
- 3 Programmable Relay Outputs
- 3 Isolated Inputs
- 1 Isolated Analog Output

Real-time Clock

RS485

USA HEADQUARTERS

Motortronics / Phasetronics

1600 Sunshine Drive
Clearwater, Florida 33765
USA

Tel: + 727-573-1819 / 888-767-7792

Fax: + 727-573-1803 / 800-548-4104

E-mail: sales@motortronics.com

www.motortronics.com

UNITED KINGDOM

Motortronics UK

Bristow House,
Gillard Way, Ivybridge,
Devon, PL21 9GG,
United Kingdom

Tel: +44 (0)1752-894554

www.motortronics-uk.co.uk

SOUTH KOREA

Motortronics Int'l Korea Co Ltd

#1607, 128 Gasan digital 1-ro,
Gasan digital 1-ro,
Geumcheon-gu,
Seoul 08507, Republic of Korea

Tel: 82-2-867-5808

Fax: 82-2-867-6004

www.motortronics-korea.com

CHINA

M & P Machinery & Electronics Control

Part of the Motortronics Group

32 Jiaxin Road,
Jimo,
Qingdao, China 266229

Tel: 86-532-81725028

Fax: 86-532-81725038

www.mp-cn.com

UNITED ARAB EMIRATES

Motortronics MEA, LLC

Sharjah Media City,
Sharjah,
United Arab Emirates

Tel: +1 971-50 763 4920

www.motortronics.com

PN: MT-MRN-102521