

Compact  
Soft Starter with  
Standard Duty &  
Heavy Duty ratings



*The control & protection you expect  
in an innovative, compact soft starter*

# The VMX Series Specifications

by  **MOTORTRONICS**

## Power Components

- 6 SCRs in inverse parallel pairs for full phase angle soft start control
- 1600V PIV rating on all units
- RC snubber for dv/dt protection of each SCR pair

## Line Voltage Range

- 200 to 600 VAC, 3 phase +10% -15% on all units, 50/60Hz

## Current Ratings

- 18 - 1250A depending on unit selection
- Range of each unit is 50-100% of maximum current rating based on 1.0 service factor

## AC Supply Voltage

- User supplied 120VAC +10% -15% tolerance, 60Hz
- Optional 240VAC 50Hz control available

## Overload Capacity (% of motor FLA)

- Standard Duty: 350% for 30 seconds, 1.0 SF
- Heavy Duty: 500% for 30 seconds, 1.15 SF

## Bypass Contactor

- Standard on all units
- Standard Duty: Shunt rated bypass
- Heavy Duty (Across-the-Line) line start rated bypass

## Start/Stop Control Choices

- 2-wire Run-Stop using dry contacts
- 3-wire Start/Stop with built-in seal in contact
- N.C. Interlock input (dry contact) for remote devices

## Ramp Control Choices (4 built-in)

- Voltage Ramp
- Voltage Ramp with Current Limit
- CLT<sup>®</sup> Closed Loop Torque Ramp (Current Ramp)
- Current Step (current limit only)
- Ramp times adjustable 1 - 120 seconds
- Current Limit adjustable 200 - 600% of FLA

## Dual Ramps

- Select via dry contact closure between any combinations of the above

## Jog

- Dry contact closure selects a non-ramping Jog function at an adjustable torque

## Kick Start

- 10 - 100% starting torque for 0.1 - 2 seconds

## Pump-Flex™ Deceleration Ramp

- Fully adjustable to match field conditions:
- Begin Decel setting, 0 - 100% of line voltage
- Decel ramp time, 1 - 60 seconds
- End Decel setting (Off), 0 - 1% of Begin setting

## Restart Delay Timer (Sequential Start Delay)

- Programmable time delay 1 - 999 seconds after loss of control power for staggered restarts

## Time Clock Controller

- 24 hour/7 day time clock to provide automatic start
- Up to 7 start events per day
- Select operation from 1 through 7 days per week
- Run time determined by process control timer

## Process Control Timer (choice of either)

- Minimum Run (Batch) Timer
- 1 - 999 minutes
- Runs until time expires, resets only if expired
- Resumes and finishes if stopped or power is lost

## Permissive Run Timer

- 1 - 999 minutes
- Only allows operation during active run time

## RS-485 Serial Communications

- Up to 247 starters per link
- Modbus RTU protocol built-in
- Full programming over the serial link
- Programmable remote starter control

## Operator Interface

- Tactile feedback keypad
- Easy to read LED display
- Run and fault status indicators



