

Enclosed NEMA Starter, Soft Starter and Drive Solutions

Features and Benefits

- Basic pump control to complex, full control offerings
- Fusible disconnect switch or circuit breaker types
- Includes service entrance rating
- Narrow enclosure sizes and enclosures with extra panel space
- NEMA Type 3R water-tight enclosure
- Up to 100 kA short-circuit rating

Applications

- Crop irrigation
- Golf courses
- Oil & gas pumping
- Commercial fish farming
- Waste water treatment
- Marina slip power hook-ups

Designed for a wide variety of pumping applications



Overview

Rockwell Automation® offers a robust and complete range of Allen-Bradley® pump control panels designed for a wide variety of pumping applications. Our product offering includes durable direct-on-line (DOL) NEMA starters, the soft starting of Smart Motor Controllers (SMC™), and variable speed control of PowerFlex® drives.

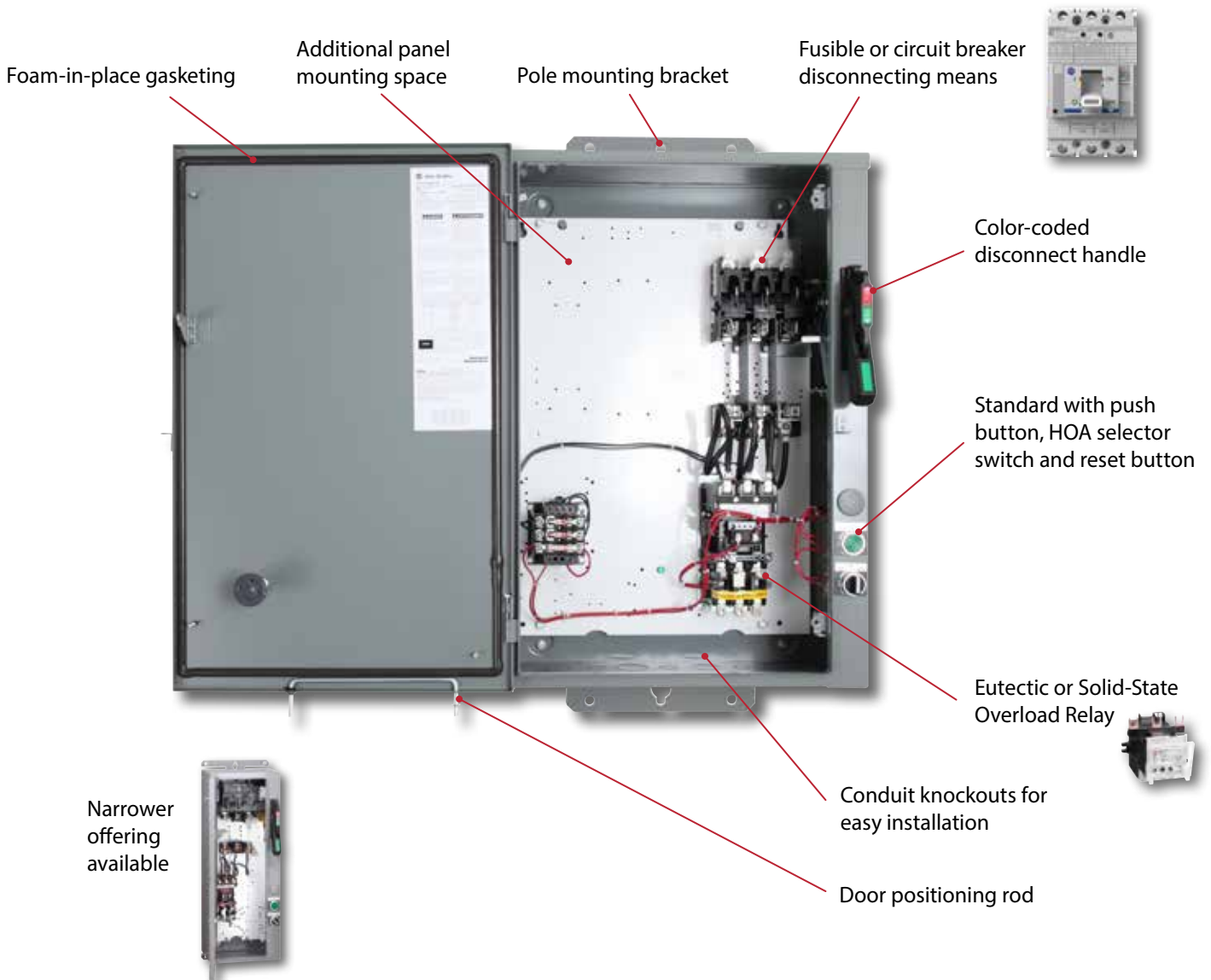
Designed for standalone usage, the water-tight NEMA Type 3R enclosure can be placed either indoors or outdoors. The pole mounting brackets on the enclosure allow the panel to be installed on a utility pole or in a rack-mounting configuration. These panels offer solutions for a wide variety of pumping applications.

LISTEN.
THINK.
SOLVE.®

Enclosed NEMA Starters

Available as a direct-on-line starters or vacuum starters, they provide a dependable and simple starting solution for pumping applications. The simple set-up and smaller footprint offer a reduced installation cost.

Features a fusible or circuit breaker disconnecting means, HOA selector switch, start push button, and an external reset. Additional factory installed options such as pilot lights, power monitor, and lightning arrestors are available.



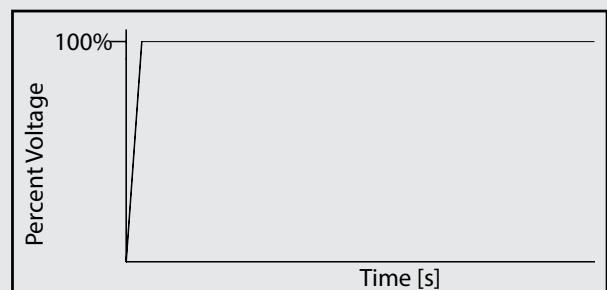
Bulletin Numbers: (up to 400 Hp)

- 1232/1233: NEMA Size 1...3
- 1232X/1233X: NEMA Size 1...6
- 1232V/1233V: NEMA Size 4...6

Features and Benefits:

- Lowest cost of ownership
- Quick installation
- Long mechanical and electric life
- Optional smart overload relays for overcurrent protection and remote monitoring

Operating Mode

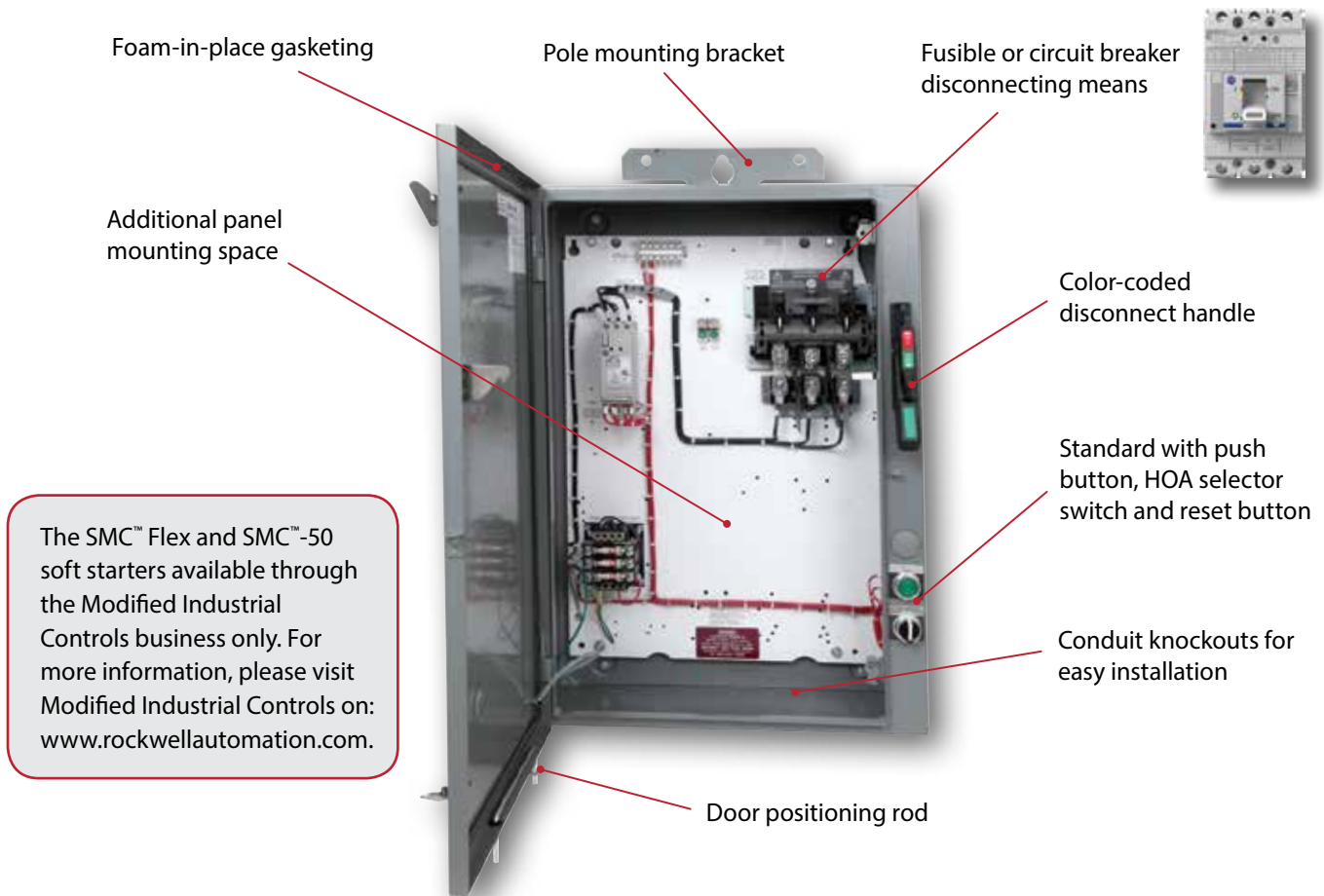


Direct-on-Line Starter

Enclosed Soft Starters

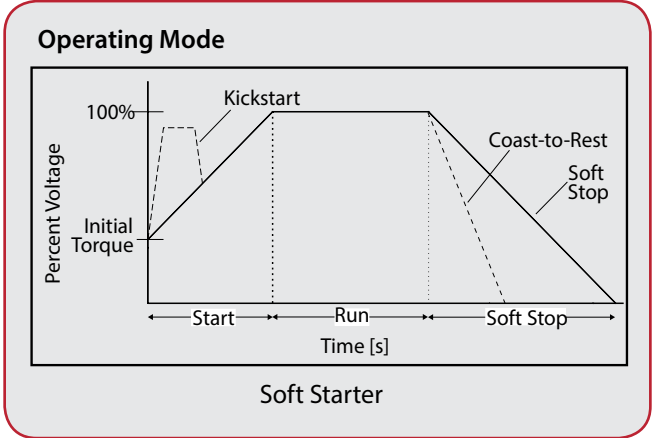
The soft starting of Smart Motor Controllers is ideal for limiting the inrush of current to the pump. This limits the stress on the system by reducing the torque during startup and helps to avoid pressure surges and water hammer.

The SMC™-3 soft starter offers five start/stop modes and built-in overload protection. They come standard with start push button, HOA selector switch, transformer, and external reset. Other factory installed options are available. The SMC-3 soft starter is a cost efficient full speed solution with basic control and easy startup.



The SMC™ Flex and SMC™ -50 soft starters available through the Modified Industrial Controls business only. For more information, please visit Modified Industrial Controls on: www.rockwellautomation.com.

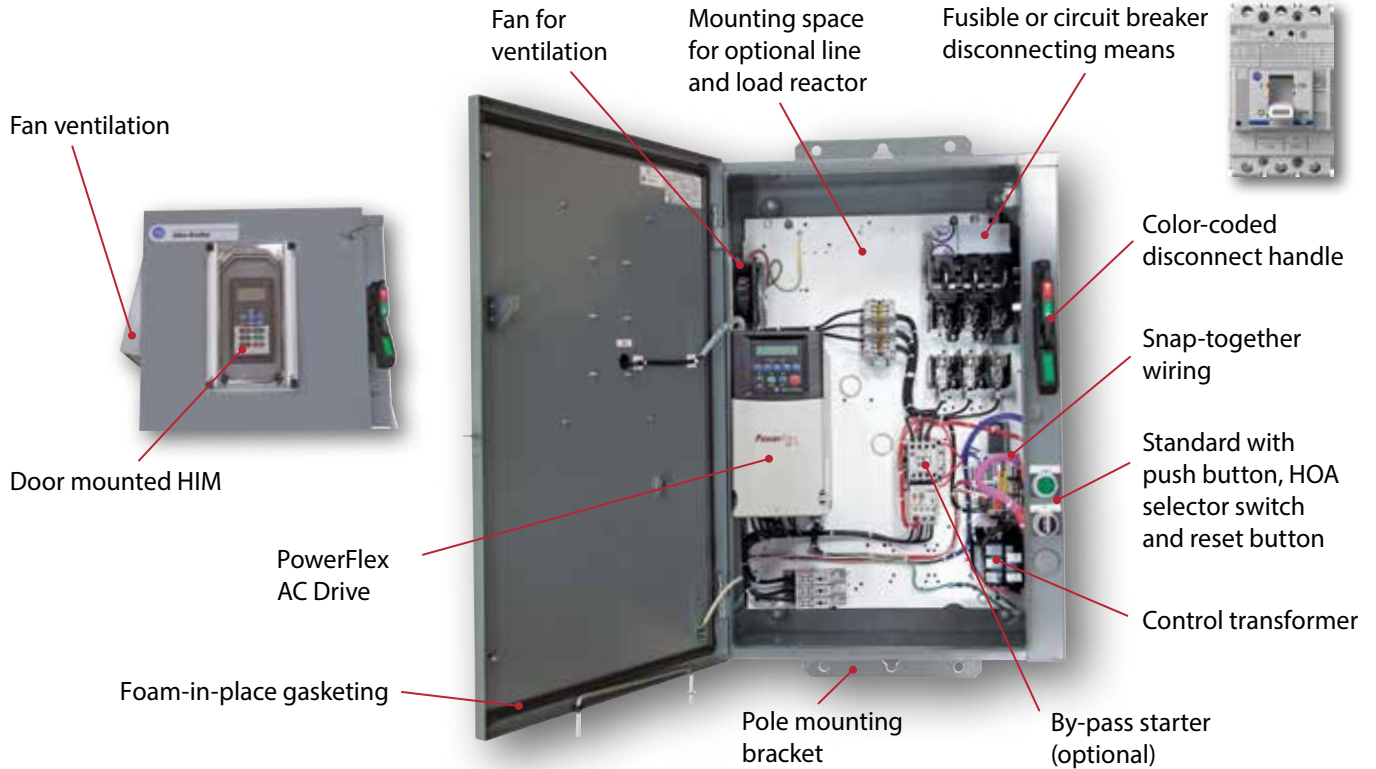
- Bulletin Numbers: (up to 300 Hp)**
- 1232S/1233S-F: SMC-Flex soft starter
 - 1232S-C/1233S-C: SMC-3 soft starter
 - 1232S-S/1233S-S: SMC-50 soft starter
- Features and Benefits:**
- Internal bypass to reduce heat; long mechanical life
 - Cost-effective replacement solution for traditional electro-mechanical soft starting methods.
 - Control start-up torque to less mechanical and thermal stresses on motor winding and bearings
 - Lower peak currents during starting reduces system maintenance, driving operating costs down
 - Line and motor diagnostics detect single-phase conditions, protecting against motor damage



Enclosed Drives

PowerFlex® AC drives offer selectable pump curves that provide reduced voltage patterns for pump loads. Proportional integral derivative (PID) controller allows a process variable to be maintained by automatically adjusting the output frequency. This allows the drive to be used in a wide range of simple to complex pumping applications.

The PowerFlex drive communication allows for easier integration, configuration, and system control. The PowerFlex drive solution offers full speed control in variable torque fan and pump applications.



Bulletin Numbers: (up to 350 Hp)

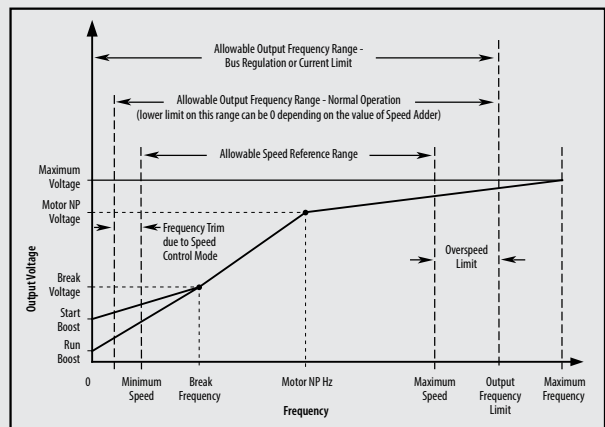
1232D: PowerFlex 523/753 AC Drive

1233D: PowerFlex 523/753 AC Drive

Features and Benefits:

- Low energy consumption
- Patented snap-together wiring technology for quick installation
- Starting and stopping controls
- Communication capabilities for monitoring and control
- Control start-up torque translate to less mechanical and thermal stresses on motor windings and bearing
- Lower peak currents during starting reduces system maintenance, driving operating cost down

Operating Mode



Variable Frequency Drive

Allen-Bradley, Listen. Think. Solve. and PowerFlex are trademarks of Rockwell Automation Inc.

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