



**BENSHAW**  
Applied Motor Controls

## Dual-High MV Solid State Starters



### DUAL STANDARD DUTY, ISOLATED MEDIUM VOLTAGE SOFT STARTERS TOGETHER IN ONE PACKAGE

Benshaw MVDH Dual-High Solid State Starters provide separate medium and low voltage sections for each starter. Both sections include a complete starter - load break disconnect switch, Class R rated fuses, inline and bypass contactors and power stacks, to allow complete independent control of two motors.

*Rapid | Rugged | Global*



# MVDH Series | Dual-High Solid State Starters

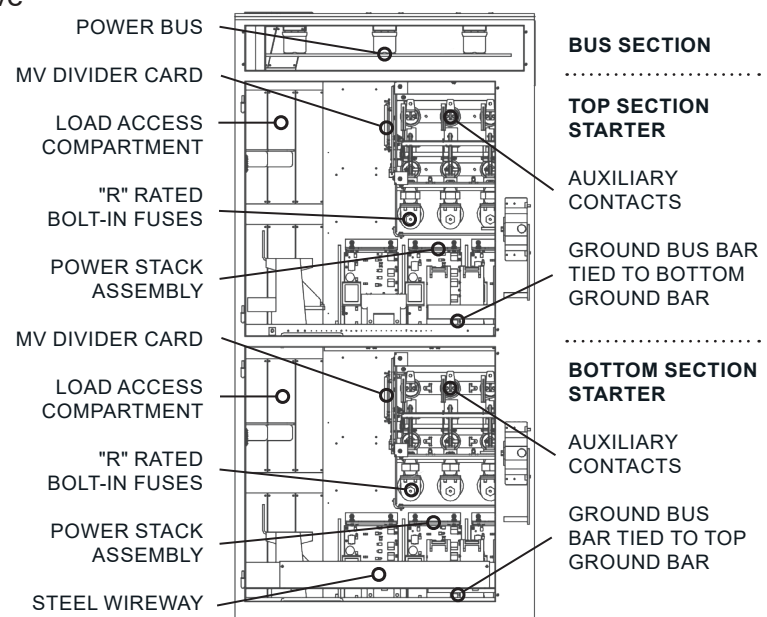
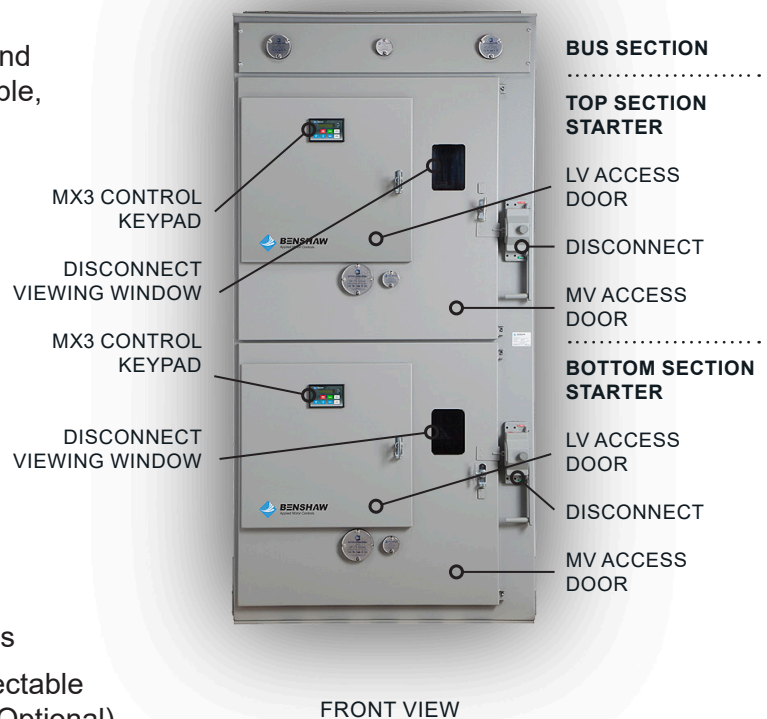
***Benshaw's dual-high medium voltage soft starters set new industry standards for flexibility, performance and reliability.***

Each starter has its own MX3 control board and keypad — to allow separate protection and starting parameters — and is fully customizable, with options such as grounding balls and infrared viewing windows available. This design allows for an integral power bus for use in medium voltage lineups and motor control centers.

MVDH Dual-High Solid State Starters are UL labeled up to 195A (per motor) through 4160V with NEMA 1 enclosure.

## KEY FEATURES

- Two 350% – 30 seconds rated solid state starters
- Compact footprint — use for standalone, back-to-back and MCC/lineup applications
- Dual redundant configuration (switch-selectable emergency backup full voltage starters) (Optional)
- Rugged, welded enclosure with chain drive flange handle mechanism
- Benshaw's advanced, digital MX3 control and protection
- 50 KAIC (2600 or 4800 VAC) short circuit fault rated
- 45 kV BIL
- Built-in self test features
- NEMA 1, UL 347 listed



## STANDALONE, OR AS PART OF MCC/LINEUP ASSEMBLY



## INDUSTRIES/APPLICATIONS

***Benshaw's medium voltage solid state controls offer proven performance, with a track record of mission critical reliability in the most demanding continuous process applications.***

With more than 10,000 units operating in over 40 countries, Benshaw has more experience in mission critical motor control applications than any other company in the world.

Benshaw motor controls start and protect many different motors in many industries, but we're particularly well known for rugged, reliable performance in demanding, continuous process applications.

Typical applications for Benshaw MVDH Series soft starters include:

- General purpose industrial applications
- Retrofits for legacy FV and RV starters
- Space limited HVAC/R control rooms

# MVDH Series | Dual-High Solid State Starters

## TECHNICAL DATA

FEATURE	SPECIFICATION/RATING
Disconnect Switches	400A fixed mount
Fuses	Class R - sized as per motor FLA
Inline Contactor	400A fixed mount
Bypass Contactor	400A fixed mount
SCR Power Stack	350% for 30 seconds; 2 starts per hour
No. SCRs per phase	6/phase; 18 total
CT Ratio	5A secondary - sized as per motor FLA
Control Power Transformer	Included, 120V secondary
PIV Rating	12KV
BIL Rating	45KV
Short Circuit Rating	50KAIC
Controller Class	E2
Bypass Type	Running duty (Optional starting duty)
Communication Protocol	Modbus RS-485 (Optional Ethernet, DeviceNet or Profibus module)
Amp Rating	Max 195A for each starter
Voltage Rating	Up to 4160V
Enclosure	NEMA 1
Dimensions	92.5" H x 45" W x 36" D
Operating Temperature	0 to 40°C (14 to 104°F) without derating
Storage Temperature	-20 to 70°C (-4 to 155°F)
Altitude	Up to 1000m (3300 ft) above sea level without derating
Certification	UL 347



**Benshaw, Inc.**  
615 Alpha Drive  
Pittsburgh, PA 15238 United States  
Toll Free: 1-800-441-8235  
Phone: 412-968-0100  
Fax: 412-968-5415  
Benshaw.com