

MTSTR-MV-3P-4160V-800HP-125A-M1

Medium Voltage Soft Starter – 125A – 4160V 3PH 60Hz – 600 kW

Product ID: 327597

Please see last page for supporting documentation for this product (certificates, CAD files & drawings, IES files, wiring diagrams, etc).



Image: MTSTR-MV-3P-4160V-800HP-125A-M1

Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.

MTSTR-MV-3P-4160V-800HP-125A-M1 Medium Voltage Soft Starter

Unit Type: Medium Voltage Soft Starter

Load Type: Three-phase medium voltage squirrel cage asynchronous and synchronous motors

Dimensions: 31.5" x 59" x 90.5"

Weight: 1,873.93 lbs

Rated Power: 800 HP ($\approx$ 600 kW)

Nominal Voltage: 4160V

Rated Voltage: 10 kV $\pm$ 15%

Control Circuit Voltage: 220VAC $\pm$ 15%

BIL Rating: 60 kV

Short-Circuit Withstand: 63 kA for 1 second

Phase: Three-Phase

Mutually Phase Sequence: Any

Bypass Contactor: Included, Contactor with direct starting capacity

Frequency: 60 Hz $\pm$ 2HZ

Current Rating: 125A

Current Limiting Multiple: 100%~500% adjustable

Starting Frequency: 1-6 times (hourly)

Start Timeout: 0~120S

Features/Ratings

Digital Panel Interface w/ Keypad

Protective Functions

Power Bus: Silver-Plated Copper Bus

Bypass Contactor: Vacuum Bypass Contactor, direct-starting capable

Communication Protocol: Modbus

Communication Interface: RS485

LCD Display: Included

Keyboard: 6 touch-sensitive membrane buttons

Metering: Included, 3-Ph Voltage/Current Meter

Fault Record: Records the latest 15 fault information

Protection: Phase loss protection (During starting or operation, disconnect any phase of the main power supply), Overcurrent protection (Adjustable setting: $20 \square 500\% I_e$), Phase current unbalance protection ($0 \square 100\%$), Overload protection (Adjustable levels 10A, 10, 15, 20, 25, 30), Underload protection (Adjustable level: $0 \square 99\%$), Underload protection action time (Adjustable time: 0~250S), Overvoltage protection (When the main power supply voltage is higher than 120% of the rated value), Under voltage protection (When the main power supply voltage is lower than 70% of the rated value), Phase sequence protection (Allows operation in any phase sequence (can be set by parameters)), Grounding protection (Protection when ground current is greater than the set value)

Status Indicators: LEDs (Power, Run, Alarm, Trip, Aux Relays)

Cable Entry: Bottom Entry

Cabinet Color: RAL7035

Cabinet Rating: IP41

Enclosure Type: Indoor, Metal-Clad (Arc-Resistant option available)

Operating Temperature Range: 0°C to +50°C with built-in space heaters

Humidity: 5-95% RH/NC

Elevation: 0-4,920 Feet w/o Derating

Vibration: < 0.5G

Mount: Floor Mount

Wiring: Terminals

Special Orders - Special Requirements

Contact us for special requirements

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The Larson Electronics MTSTR-MV-3P-4160V-800HP-125A-M1 Medium Voltage Soft Starter provides controlled, reduced-voltage motor starting for heavy-duty industrial applications. Designed for 4160V three-phase 60 Hz systems, this 800 HP unit utilizes SCR power modules and a vacuum bypass contactor to ensure smooth acceleration, reduced mechanical stress, and enhanced motor lifespan. The system supports a control voltage of 220VAC and is floor-mountable for integration into existing motor control rooms.

Built for demanding environments, the MTSTR-MV-3P-4160V-800HP-125A-M1 features a 60 kV BIL rating, 63 kA (1 sec) short-circuit withstand, and silver-plated copper buswork for high-integrity power distribution. Operators have access to an alphanumeric LCD interface, Modbus/RS485 communications, eight function keys, and multiple LEDs for real-time status monitoring. The device stores recent fault events for diagnostics and includes a full suite of protections: overload, overcurrent, phase imbalance, ground fault, undervoltage/overvoltage, and underload safeguards.

The medium voltage soft starter comes in a durable IP41 indoor enclosure, suitable for motor rooms, MCC buildings, and controlled electrical environments. Internal space heaters support operation in 0–50°C ambient temperatures with up to 95% non-condensing humidity. Recommended installation environments include locations below 4,920 feet elevation and with vibration levels under 0.5G.

Mount: The MTSTR-MV-3P-4160V-800HP-125A-M1 can be securely mounted on floor.



Applications: LNG send-out pumps, industrial motors, compressor stations, pump control, material-handling belts, reduced-voltage motor starting, process equipment preservation, and high-inrush mitigation.

At Larson Electronics, we do more than meet your lighting needs. We also provide replacement, retrofit, and upgrade parts as well as industrial grade power accessories. Our craftsmen can custom build any lighting system and/or accessories to fit the unique demands of your operation. A commitment to honesty, quality, and dependability has made Larson Electronics a leader in the lighting and electronics business since 1973. Contact us today at 800-369-6671 or message sales@larsonelectronics.com for more information about our custom options tailored to meet your specific industry needs.



Frequently Asked Questions (FAQ)

There are no Faqs



Export Control Classification Number (ECCN): EAR99



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