

# Class J Fuse Disconnect Switch

## LM3100 Series

100 A

REACH **RoHS**  



\*Handle and fuses sold separately

## Description

The Class J Fuse Disconnect Switch combines a switch and multiple fuses in a single, compact device. This switch, with both front or side operation, offers a simpler way to manually open and close a circuit while safeguarding against overcurrent and short circuits. When it detects an overload or short circuit, the fuse blows automatically to open or break the circuit both upstream and downstream and shuts off the equipment.

When installing or maintaining equipment, the Class J Fuse Disconnect Switch makes it easier to connect or disconnect the power in an isolated area. With a higher interrupting rating, it delivers more robust protection, increases personnel safety and offers a longer switch life.

## Features & Benefits

| FEATURES                                                                                                                       | BENEFITS                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Fuse isolation</b>                                                                                                          | Makes it easy to segregate a particular fuse on the circuit for safe repair or maintenance                                                                                        |
| <b>Double break contact system</b>                                                                                             | Breaks circuit upstream and downstream enabling the switch to handle higher voltages and provide a longer switch life                                                             |
| <b>Small footprint</b>                                                                                                         | Saves space and provides design flexibility                                                                                                                                       |
| <b>Optional handles (direct handle with push-to-detach system or external handle with shaft) with front or side operations</b> | Offer adaptability to system design. In addition, no tools are required for the frontal direct handle providing easy and quick installation                                       |
| <b>Safe-to-touch transparent fuse covers</b>                                                                                   | Cannot be opened in the "ON" position for extra protection and provides visibility to fuses—without opening module—for added convenience                                          |
| <b>Lockout-tagout</b>                                                                                                          | When the device is in the "OFF" position, a padlock can be added to ensure equipment is properly shut off during maintenance or repair to prevent the release of hazardous energy |
| <b>Horizontal (standard), vertical and 45-degree mounting orientations</b>                                                     | Offer switch installation options to adapt to system design                                                                                                                       |
| <b>Test position on handle</b>                                                                                                 | Permits control circuit auxiliary testing without switching the main contacts on for added safety                                                                                 |

## Applications

- Industrial: service switchboards, distribution panels, control panels/motor control centers, compressors, drives, voltage stabilizers, UPS systems
- HVAC/R: air handling units, rooftop systems, compressors, chillers, refrigeration racks
- Mining: conveyor systems, main substations
- Solar: auxiliary services transformers
- Battery Energy Storage Systems: auxiliary services transformers

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### Specifications

#### UL 98 Standards

|                                                   |                                   |
|---------------------------------------------------|-----------------------------------|
| Voltage Rating                                    | 600 V Ac                          |
| Amperage Rating                                   | 100 A                             |
| SCCR Rating                                       | 200 kA                            |
| Ambient Temperature                               | -20 °C to 50 °C (-4 °F to 122 °F) |
| Insulation Voltage Rating U <sub>i</sub>          | 1000 V Ac                         |
| Impulse Withstand Voltage Rating U <sub>imp</sub> | 12 kV                             |

#### Other Characteristics

|                                                 |                                                                                              |
|-------------------------------------------------|----------------------------------------------------------------------------------------------|
| Three Phase Maximum HP Rating/Motor FLA Current | 240 V ac: 30 HP/80 A<br>480 V ac: 60 HP/77 A<br>600 V ac: 75 HP/77 A                         |
| Fuse                                            | Class J*                                                                                     |
| Fuse Size                                       | 29 x 117 mm (1.14 x 4.60")                                                                   |
| Connection                                      | Terminal                                                                                     |
| Maximum Width Terminal Busbar Connection Range  | 30 mm                                                                                        |
| Tightening Torque                               | 159 lb-in                                                                                    |
| Flange Wire Range                               | AWG #3/0 - 300 kcmil (terminal lug required)                                                 |
| Base Mounting                                   | Screws                                                                                       |
| Materials                                       | Plastic housing, tin-plated copper terminals                                                 |
| Flammability Rating                             | UL 94 V-0                                                                                    |
| Applicable Standards                            | UL98 & UL 94<br>UL Guide WHTY<br>UL Guide WHTY7<br>UL Listed E513470<br>CSA C22.2 NO 4<br>CE |
| Environmental                                   | RoHS Compliant<br>REACH                                                                      |
| Country of Origin                               | Spain                                                                                        |

\*Fuses sold separately.

### Certification & Compliance

|       |                                                                                                                   |
|-------|-------------------------------------------------------------------------------------------------------------------|
| cULus | UL 98, Fourteenth Edition, E513470                                                                                |
| CE    | Declaration of Conformity<br>(Main Device): EU_DOC-LM3_230731_0<br>(Accessories): EU_DOC-LM3_Accessories_230731_0 |
| RoHS  | RoHS 2 Directive 2011/65/EU; Directive (EU) 2015/863                                                              |
| REACH | REACH declaration: Regulation (EC) No 1907/2006                                                                   |

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### Accessories

#### Frontal Direct Handle LDM3SI11

For open panel door access. Offers front operation. Features an easy push-to-detach system that requires no tools to attach or disassemble the handle.

#### Frontal External Handle with Shaft ON-OFF-TEST LDM3SA11

For closed panel door access. Includes the 'TEST' position to enable testing of the control circuit auxiliaries without switching the main contacts on to simplify maintenance and increase safety. Offers front operation only.

#### Lateral External Handle with Shaft ON-OFF-TEST LDM3SB11

For closed panel door access. Includes the 'TEST' position to enable testing of the control circuit auxiliaries without switching the main contacts on to simplify maintenance and increase safety. Offers side operation only.

#### Terminal Shrouds LDM3CU13

Protect against direct contact with the terminal.

#### Auxiliary Contact LDM3AUB1

Provides a signal to indicate the position of the switch.

#### Phase Barriers LDM3SF12

Isolates/separates active parts to increase clearance and decrease creepage.

#### Key Lock Device LDSCA11 (single)

Locks the operation of the switch with a key to prevent accidents and increase safety.

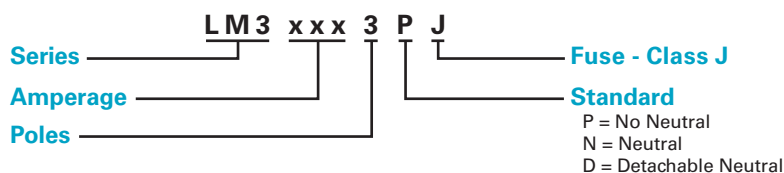
#### Key Lock Device LDSCE11 (double)

Locks the operation of the switch with a key to prevent accidents and increase safety.

#### Terminal Lugs LDM3TLU11 (1 pair)

Fastens the cable to a cage for stability.

### Part Numbering System



### Ordering Information

| PART NUMBER | AMPERAGE | VOLTAGE | NUMBER OF POLES | STANDARD           | FUSE CLASS J* | FUSE SIZE   |
|-------------|----------|---------|-----------------|--------------------|---------------|-------------|
| LM31003PJ   | 100 A    | 600     | 3               | No Neutral         | JTD/JLS       | 29 x 117 mm |
| LM31003NJ   | 100 A    | 600     | 3               | Neutral            | JTD/JLS       | 29 x 117 mm |
| LM31003DJ   | 100 A    | 600     | 3               | Detachable Neutral | JTD/JLS       | 29 x 117 mm |

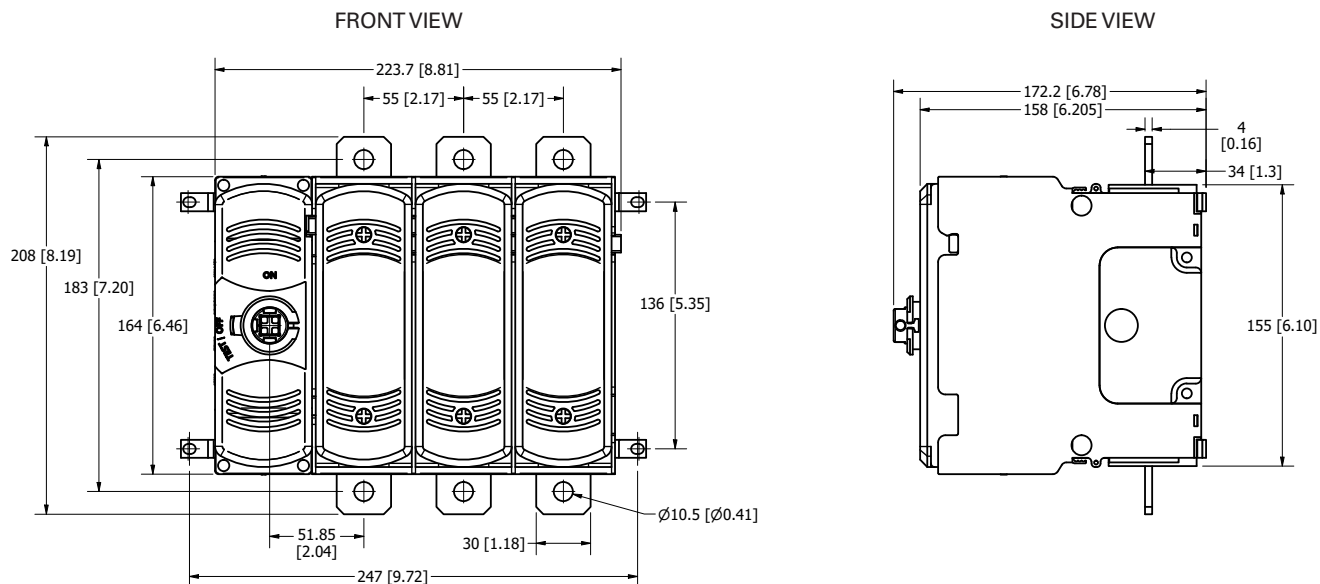
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### Dimensions Millimeters (inches)

#### LM31003PJ – No Neutral



#### LM31003NJ – Neutral

