

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
Fuse isolation	Makes it easy to segregate a particular fuse on the circuit for safe repair or maintenance
Double break contact system	Breaks circuit upstream and downstream enabling the switch to handle higher voltages and provide a longer switch life
Small footprint	Saves space and provides design flexibility
Optional handles (direct handle with push-to-detach system or external handle with shaft) with front or side operations	Offer adaptability to system design. In addition, no tools are required for the frontal direct handle providing easy and quick installation
Safe-to-touch transparent fuse covers	Cannot be opened in the "ON" position for extra protection and provides visibility to fuses—without opening module—for added convenience
Lockout-tagout	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
Horizontal (standard), vertical and 45-degree mounting orientations	Offer switch installation options to adapt to system design
Test position on handle	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_i	1000 V Ac
Impulse Withstand Voltage Rating U_{imp}	12 kV

Other Characteristics

Three Phase Maximum HP Rating/Motor FLA Current	240 V ac: 30 HP/80 A 480 V ac: 60 HP/77 A 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 UL Guide WHTY UL Guide WHTY7 UL Listed E513470 CSA C22.2 NO 4 CE
Environmental	RoHS Compliant REACH
Country of Origin	Spain

*Fuses sold separately.

Certification & Compliance

cULus	UL 98, Fourteenth Edition, E513470
CE	Declaration of Conformity (Main Device): EU_DOC-LM3_230731_0 (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.

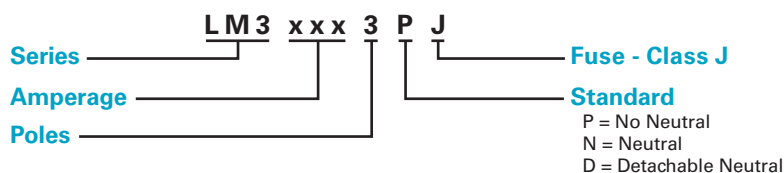
Key Lock Device LDSCE11 (double)

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

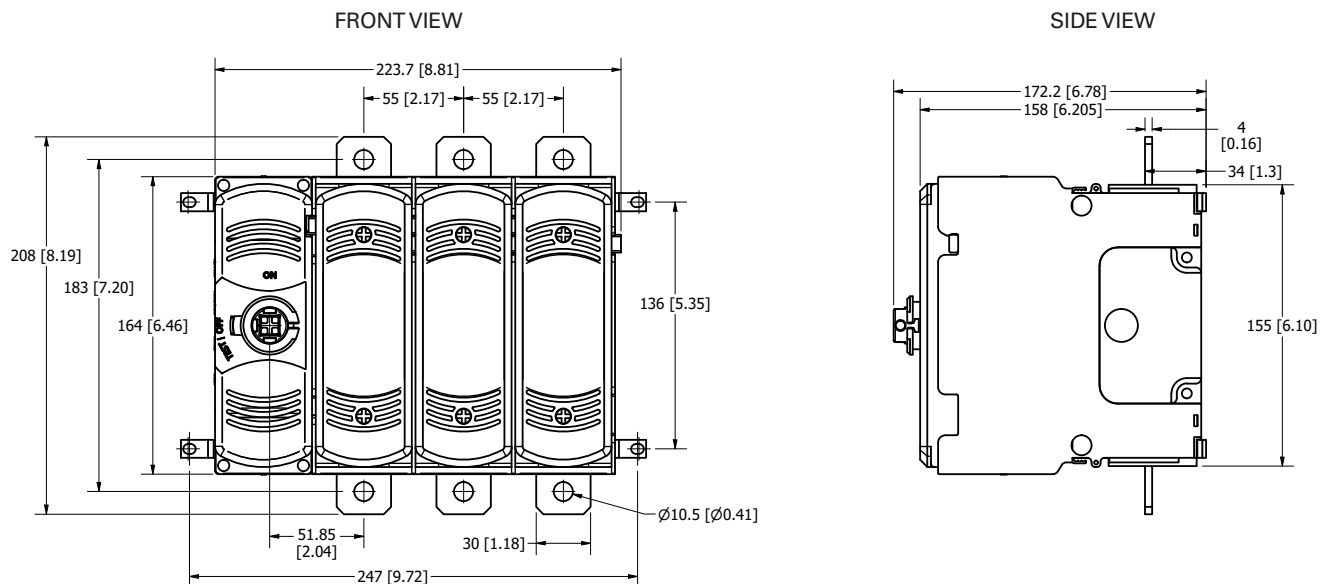
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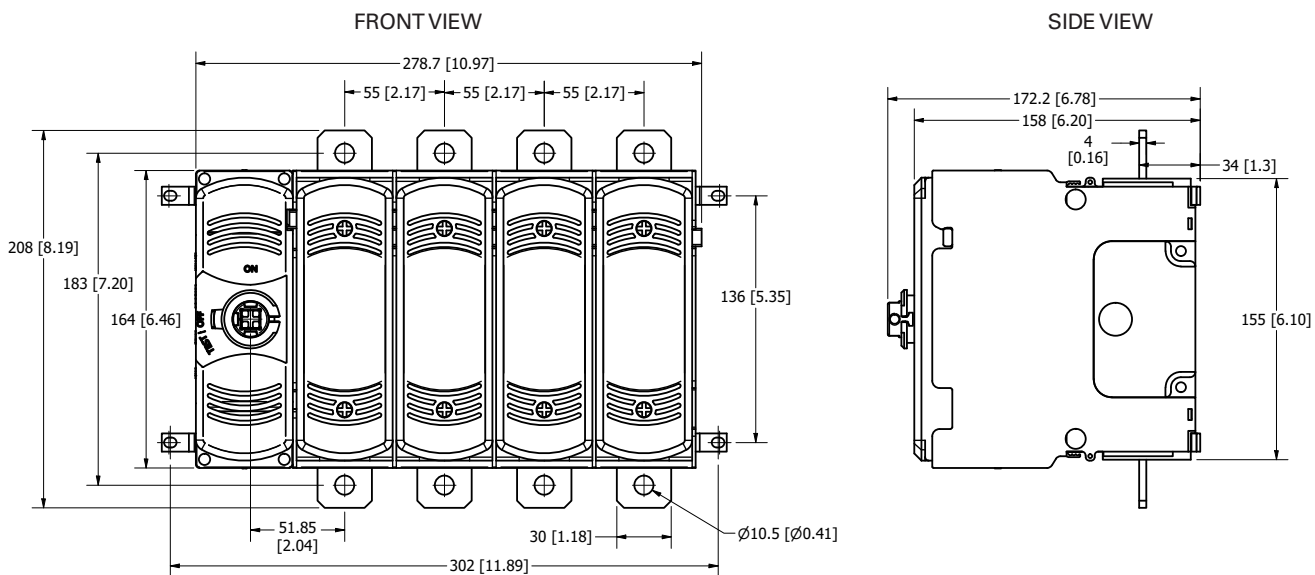
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Dimensions Millimeters (inches)

LM31003PJ – No Neutral



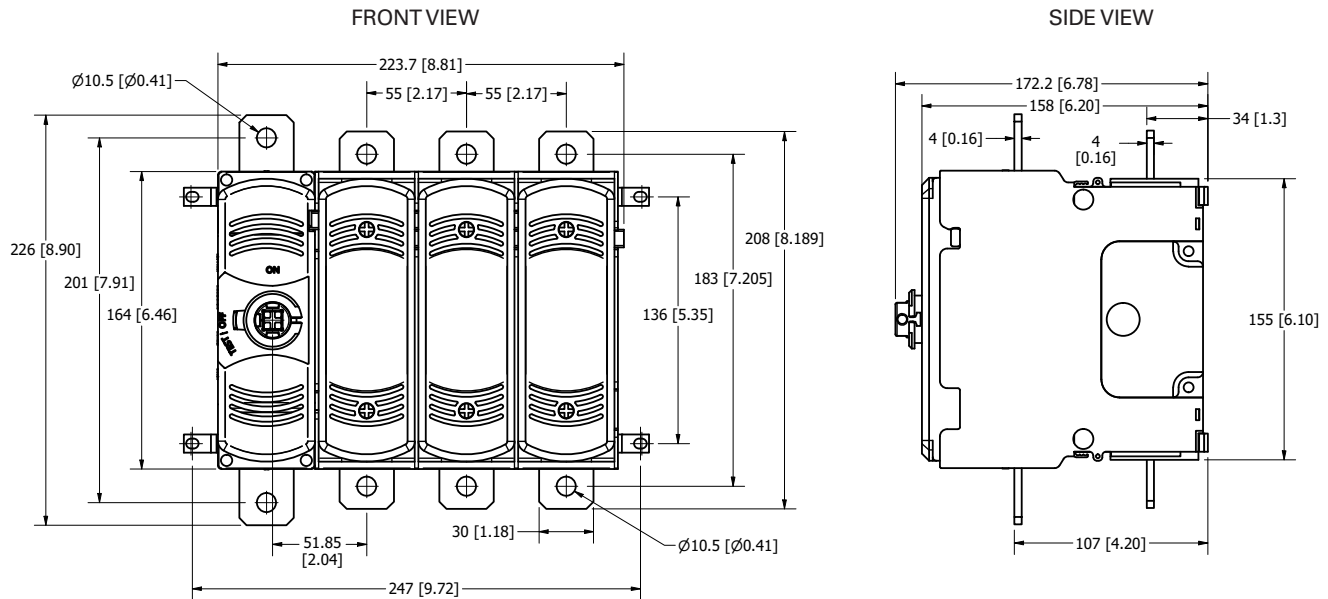
LM31003NJ – Neutral



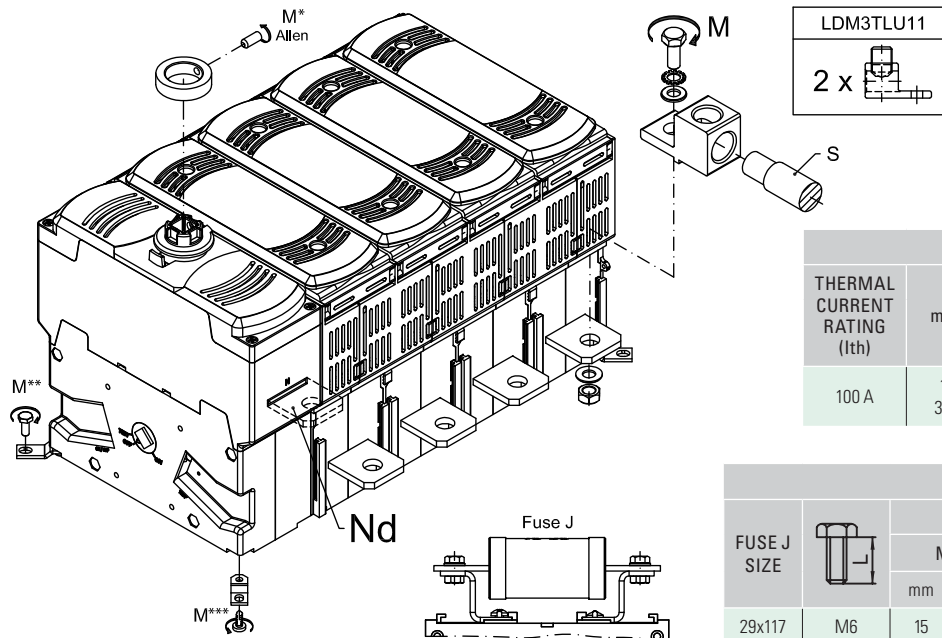
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LM31003DJ – Detachable Neutral



Switch – 3D Installation View



M		M (+5 % -10 %)	
		N•M	LBF•INCH
*	M5	1.2	10.6
**	M4	1.5	13.3
***	P4	0.8	7.1

COPPER (CU) WIRE - S MAX					
THERMAL CURRENT RATING (lth)	mm ²	AWG		M (+5 % -10 %)	
				N•M	LBF•INCH
100 A	1x 300	1x 6	M10	18	159

FUSE J							
FUSE J SIZE		SCREW LENGTH				M (+5 % -10 %)	
		MIN		MAX		N•M	LBF•INCH
		mm	In	mm	In		
29x117	M6	15	0.59	20	0.78	5	44.2

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