

# Class J Fuse Disconnect Switch

## LM3100 Series

100 A

REACH RoHS CE cUL US



## 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
<b>High short circuit rating</b>	Can safely withstand currents up to 200 kA with Class J fuses to protect equipment.

## 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 Ui	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 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 - 300 kcmil
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.

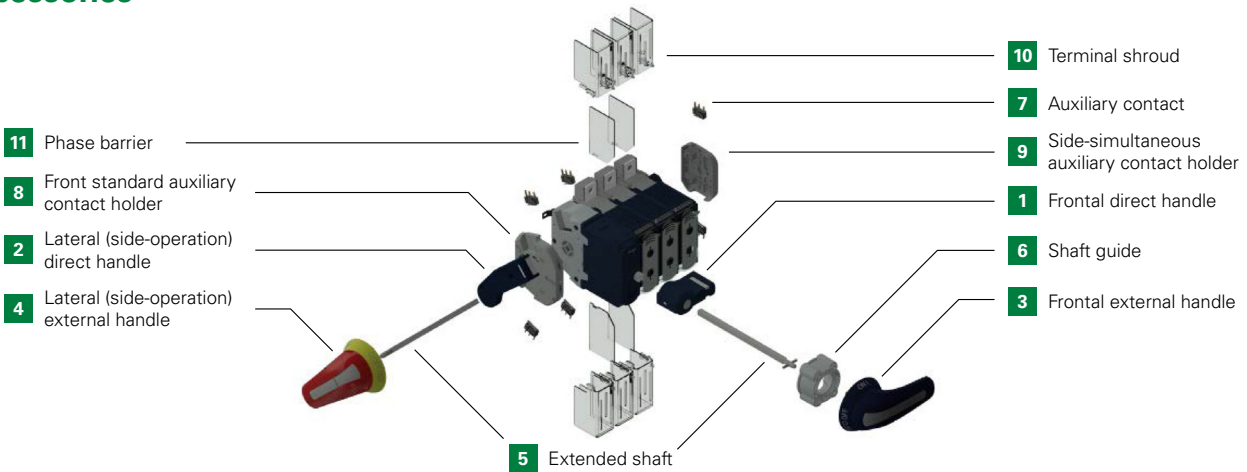
### Certification & Compliance

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

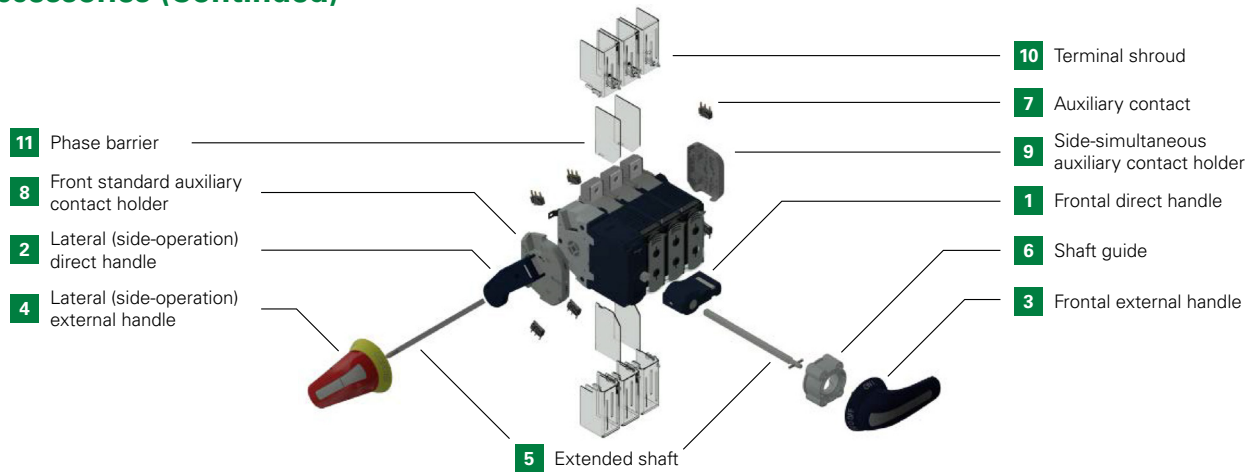


ACCESSORY CATEGORY	ACCESSORY NAME	DESCRIPTION	ACCESSORY PART NUMBER	IMAGE REFERENCE NUMBER
Direct Handle	Frontal Direct Panel Handle	For open panel door access. Offers front operation. Features an easy push-to-detach system that requires no tools to attach or disassemble the handle.	LDM3SI11	1
	Lateral (Side-operation) Direct Panel Handle	For open panel door access. Offers side operation only and includes the side-simultaneous auxiliary contact holder housing.	LDM3SS11	2
Front External Panel Handle	Frontal External Panel Handle with Shaft ON-OFF	For closed panel door access. Includes 277 mm (10.91 in) shaft and provides front operation only. NEMA 4, 4X	LDM3SA12	3
	R/Y Frontal External Panel Handle with Shaft ON-OFF	For closed panel door access. Includes 177 mm (6.97 in) shaft and provides front operation only. Red and yellow color handle. NEMA 4, 4X	LDM3SR12	
	Frontal External Panel Handle with Shaft ON-OFF-TEST	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. Includes 277 mm (10.91 in) shaft and provides front operation only. NEMA 4, 4X	LDM3SA11	
	R/Y Frontal External Panel Handle with Shaft ON-OFF-TEST	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. Includes 177 mm (6.97 in) shaft and provides front operation only. Red and yellow color handle. NEMA 4, 4X	LDM3SR11	
Lateral (Side-operation) External Panel Handle	Lateral (Side-operation) External Panel Handle with Shaft ON-OFF	For closed panel door access. Includes 177 mm (6.97 in) shaft and provides side operation only. NEMA 4, 4X	LDM3SB12	4
	R/Y Lateral (Side-operation) External Panel Handle with Shaft ON-OFF	For closed panel door access. Includes 177 mm (6.97 in) shaft and provides side operation only. Red and yellow color handle. NEMA 4, 4X	LDM3SE12	
	Lateral (side-operation) External Panel Handle with Shaft ON-OFF-TEST	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. Includes 177 mm (6.97 in) shaft and provides side operation only. NEMA 4, 4X	LDM3SB11	
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### Accessories (Continued)

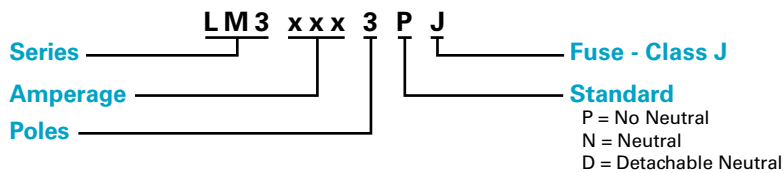


ACCESSORY CATEGORY	ACCESSORY NAME	DESCRIPTION	ACCESSORY PART NUMBER	IMAGE REFERENCE NUMBER
Shaft	Extended Shaft	Shaft extension: 375 mm (14.76 in)	LDM3EP11	5
	Shaft Guide	Provides support ensuring that the shaft moves smoothly and accurately.	LDSEC00	6
Auxiliary Contact	Auxiliary Contact	Provides a signal to indicate the position of the switch. 1NO+1NC.	LDM3AUB1	7
	Front Standard Auxiliary Contact Holder	Holds contact in place.	LDM3AM11	8
	Side-Simultaneous Auxiliary Contact Holder	Holds contact in place.	LDM3AS11	9
Key Lock	Key Lock Device (Single)	Locks the operation of the switch with a key to prevent accidents and increase safety. (Single lock)	LDSCA11	N/A
	Key Lock Device (Double)	Locks the operation of the switch with a key to prevent accidents and increase safety. (Double lock)	LDSC11	
Terminal Shroud/Lug	Terminal Shrouds	Protects against direct contact with the terminal. Includes one set of shrouds (three shrouds) for the 3-Pole, 100 A version.	LDM3CU12	10
	Terminal Shrouds	Protects against direct contact with the terminal. Includes one set of shrouds (four shrouds) for the 4-Pole, 100 A version.	LDM3CU13	
	Terminal Lugs	Fasten the cable to a cage for stability. (1 pair)	LDM3TLU11	N/A
Phase Barrier	Phase Barriers	Isolates/separates active parts to increase clearance and decrease creepage. Includes two phase barriers for the 3-Pole, 100 A version.	LDM3SF12	11
	Phase Barriers	Isolates/separates active parts to increase clearance and decrease creepage. Includes three phase barriers for the 4-Pole, 100 A version.	LDM3SF13	

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### Part Numbering System



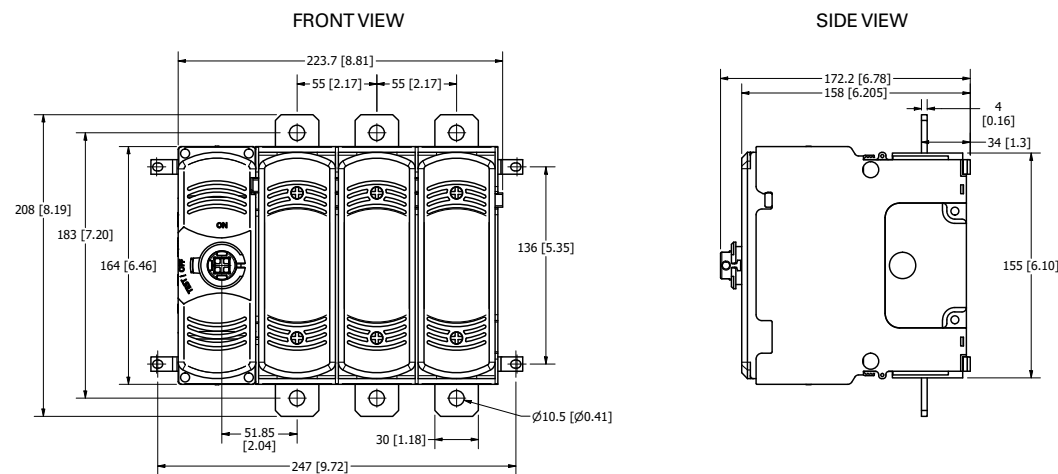
### Ordering Information

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 + N	Neutral	JTD/JLS	29 x 117 mm
LM31003DJ	100 A	600	3 + DN	Detachable Neutral	JTD/JLS	29 x 117 mm

\*Fuses sold separately

### Dimensions Millimeters (inches)

#### LM31003PJ – No Neutral



#### LM31003NJ – Neutral

