

Series L11 Fusible up to 800A & Non-fusible Disconnect Switches up to 1200 Amps

Suitable as a UL98
Service Entrance
Disconnecting Means



TIP!



To learn the basic differences between control, load and fusible disconnect switches and how to apply them, see our white paper Tech-LMSD in the online library.

Sprecher + Schuh's L11 series of fused and nonfused disconnect switches complies with UL98 service entrance requirements and is NFPA 79 compliant. This family of rod operated switches is suitable for applications that require small panel space and superior short circuit protection.

Big performance in a small package

L11 disconnects are rated up to 1200A and can be operated at up to 600V. They protect motors up to 500HP (@480V). The L11 may be installed on circuits capable of delivering up to 200,000A of short circuit fault current levels typically found in modern industrial facilities.

The new expanded offering of the L11 disconnect series ranges from 100A through 1200A. The L11 Fusible switches are available from 100A up to 800A, and are designed to be used with Class J & L fuses. The L11 Non-Fusible switches are available from 100A up to 1200A. Optional auxiliary contacts can also be mounted on the switch for control circuit use. The L11 family performance comes in a compact design, leaving room for additional branch circuit components within the panel.

Maximum protection for downstream equipment

L11 switches are UL98 approved as a branch circuit protection device and are engineered to provide excellent short-circuit protection for downstream equipment up to 200kA. The L11 fusible switches accept the latest small dimension Class CC, J, L and HRCII fuses.

This Type 2 protection limits let-through currents to levels specified for IEC equipment, and ensures that when the short circuit is cleared, the device will be operable.

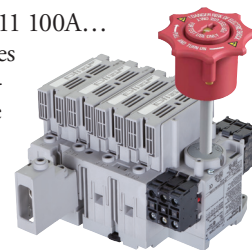


Meets the toughest safety standards

The L11 offers a modular universal internal handle which provides an interlocked handle for test mode use (30A/60A) and UL508A and NFPA 79 compliance in North America. The L11 30A & 60A are equipped with removable fuse carriers which provide dead-front switch protection during fuse change-out. Fuse carriers with neon blown fuse indicators are also available as an option on 30A & 60A models. Test mode D7 auxiliary contacts may be installed to provide test capability of control circuit without energizing the main contacts for the L11-30A/60A switches. The L11 switches meet IP20 for finger-safe wiring terminals and IP30 for touch-safe fuse carriers.

NFPA 79 Compliant

All L11 30/60A & L11 100A... 800A Fusible switches are NFPA79 compliant, which meets the following guidelines under the NFPA 79 standards 5.3.3.1 and 6.2.3.1.2.



The supply Circuit Disconnecting Device shall:

- Be provided with a permanent means permitting it to be locked in the open position only independent of the door position.
- Be operable, by qualified persons, independent of the door position without the use of accessory tools or devices.



The interlocking means shall:

- Be reactivated automatically when the door is closed.
- Prevent closing of the disconnecting means while the enclosure door is open, unless an interlock is operated by deliberate action.

International standards and approvals


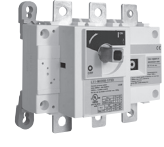
All Sprecher + Schuh L11 disconnect switches are UL Listed under File Number E47426, CSA, CE Marked and are designed to meet IEC 947-3, and applicable NEMA requirements.

UL/CSA Fused Disconnect Switches ⑤

Switch	Amp Rating (A)	Maximum Horsepower ①							Catalog Number	Dimension Code	
		1 Ø (60Hz)		Three Phase (60Hz)			DC				
		120V	240V	240V	480V	600V	125V	250V			
UL Class CC and CSA HRCI-Misc Fuses ②											
 30A & 60A Typical  L11-J100A...L800A Typical	30	2	3	7.5	15	20	3	5	L11-C30-1753	A1	
	UL Class J and CSA HRCI-J Fuses ②										
	30	2	3	7.5	15	20	3	5	L11-J30-1753	A1	
	60	3	10	15	30	50	5	10	L11-J60-1753	B1	
	100	7.5	15	30	60	75	7.5	20	L11-J100-1753	F5	
	200	~	25	60	125	150	15	40	L11-J200-1753	F6	
	400	~	50	125	250	350	20	50	L11-J400-1753	F7	
	600	~	~	200	400	500	~	~	L11-J600-1753	F8	
	UL Class L and CSA HRCII-L Fuses										
	800	~	~	200	500	500	~	~	L11-L800-1753	F9	
CSA HRCII-C Fuses											
30	2	3	7.5	15	20	3	5	L11-H30-1753	B1		
60	3	10	15	30	50	5	10	L11-H60-1753	B1		

Items in Gray available by Special Order only.

UL/CSA Non-Fused Disconnect Switches ③

Switch	Amp Rating (A)	Maximum Horsepower							No. of Poles	Catalog Number	Dimension Code
		1 Ø (60Hz)		Three Phase (60Hz)			DC				
		120V	240V	240V	480V	600V	125V	250V			
 30A & 60A Typical  NU100A...1200A Typical	30	2	3	7.5	15	20	3	5	3	L11-N30-1753	A2
	60	3	10	15	30	40	5	10	3	L11-N60-1753	B2
	100	7.5	15	30	75	100	10	15	3	L11-NU100-1753	F1
	200	~	50	75	150	200	15	15	3	L11-NU200-1753	F1
	400	~	~	125	250	350	20	50	3	L11-NU400-1753	F2
	600	~	~	200	400	350	20	50	3	L11-NU600-1753	F3
	800	~	~	200	500	500	~	~	3	L11-NU800-1753	F4
	1200	~	~	200	500	500	~	~	3	L11-NU1200-1753	F4


L11 Disconnect Switches

Ordering Instructions

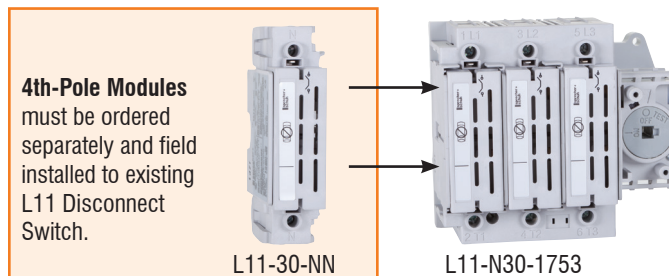
- Specify Disconnect Switch catalog number (this page)
- Specify desired switch handle catalog number (page L30)
- Specify desired operating shaft catalog number (page L31)
- Specify desired accessories (starting on page L32)

- ① Time delay fuses may be required to utilize the disconnect switch at its maximum horsepower rating.
- ② Only UL listed Class CC, J and CSA Certified HRCI-J fuses are suitable for use with these disconnect switches.
- ③ Non-fused disconnect switches must use separately installed fuses for upstream short circuit protection.
- ④ 30A UL-rated device has lthe of 40 A per IEC. 60A UL-rated device has lthe of 80A per IEC.
- ⑤ To order a fusible switch with fuse status indicator on 30A and 60A switches, add an "S" to the end of the catalog number. For example, L11-J30-1753 changes to L11-J30-1753S. Not available on J100...J600, or L800 devices.


4th-Pole Modules (for 30A & 60A only) ④

Switch (typical)	Amp Rating (A)	Maximum Horsepower ①							Fuses	Catalog Number	Dimension Code
		1 Ø (60Hz)		Three Phase (60Hz)			DC				
		120V	240V	240V	480V	600V	125V	250V			
 <p>L11-30-NJ</p> <p>L11-30-NN</p>	UL Class CC and CSA HRCI-MISC Fuses										
	30	2	3	7.5	15	20	3	5	30A CC, HRCI-Misc	L11-30-NC	A1
	UL Class J and CSA HRCI-J Fuses										
	30	2	3	7.5	15	20	3	5	30A J, HRCI-J	L11-30-NJ	A1
	60	3	10	15	30	50	5	10	60A J, HRCI-J	L11-60-NJ	B1
	CSA HRCII-C Fuses										
	30	2	3	7.5	15	20	~	~	30A HRCII-C	L11-30-NH	B1
	60	3	10	15	30	50	~	~	60A HRCII-C	L11-60-NH	B1
	Non-Fused										
	30 ②	2	3	7.5	15	20	3	5	~	L11-30-NN	A2
60 ③	3	10	15	30	40	5	10	~	L11-60-NN	B2	

Items in Gray available by Special Order only.



Replacement Mounting Hardware

Accessory	Description	Switch Dimension Code	Pkg Qty	Catalog Number
	(1) set screw, (1) shaft clip, and (2) #8 M4 screws	A1, A2	2	L11-30-HDWR
	(1) set screw, (1) shaft clip, and (4) #8 M4 screws	B1, B2	4	L11-60-HDWR
	(8) HM10 25mm bolts, (8) HM10 nuts, (16) M10 washers	F1	1	L11-HF-200-4U
	(8) HM12 30mm bolts, (8) HM12 nuts, (16) M12 washers	F2	1	L11-HF-400-4U
	(8) HM10 16mm bolts, (8) HM10 washers	F6	1	L11-HF-250-3BDU
	(8) HM8 16mm bolts, (8) HM8 washers, (6) HM10 35mm bolts, (6) M10 nuts, (12) M10 washers	F7	1	L11-HF-400-3BU
	(8) HM12 30mm bolts, (8) HM12 washers	F8, F9	1	L11-HF-800-3U



① Time delay fuses may be required to utilize the disconnect switch at its maximum horsepower rating.

② 30A UL-rated device has Ithe of 40 A per IEC.

③ 60A UL-rated device has Ithe of 80A per IEC.

④ To order a 4th pole module for 30A or 60A switches with fuse status indicator, add an "S" to the end of the catalog number. For example, L11-30-NC changes to L11-30-NCs. Not available on J100...J600, or L800 devices.

Switch Handle Assemblies (accepts 3 Padlocks)

Switch Handle Assembly ①②	Description	For use with	Color	Degree of Protection	Catalog Number
 L11-PY	Padlockable Handle - Standard • 80 x 114 mm • Configurable for defeatable or non-defeatable ③	L11-30...60A	Black	Type 3R, 3, 12, 4, 4X, IP66	L11-PB
			Red/Yellow	Type 3R, 3, 12, 4, 4X, IP66	L11-PY
 L11-PBT	Padlockable Handle - Test Mode • 80 x 114 mm • Configurable for defeatable or non-defeatable ③	L11-30...60A	Black	Type 3R, 3, 12, 4, 4X, IP66	L11-PBT
			Red/Yellow	Type 3R, 3, 12, 4, 4X, IP66	L11-PYT
 L10-HM4	Padlockable Operating Handle • Standard orientation with defeater	L11-100...400A	Black	Type 1, 3R, 12, 4, 4X - IP66	L10-HM4
			Red/Yellow	Type 1, 3R, 12, 4, 4X, IP66	L10-HM4E
 L10-HM4E-N2	Padlockable Operating handle • Standard orientation without defeater	L11-100...400A	Black with light grey	Type 1, 3R, 12, 4, 4X - IP66	L10-HM4-N2
			Red/Yellow	Type 1, 3R, 12, 4, 4X - IP66	L10-HM4E-N2
 L11-HM4-L	Padlockable Operating Handle • Standard orientation with defeater	L11-600...1200A	Black with light grey	Type 1, 3R, 12, 4, 4X, IP65	L11-HM4-L
			Red/Yellow	Type 1, 3R, 12, 4, 4X, IP65	L11-HM4E-L
 L11-HM4-N2-L	Padlockable Operating Handle • Standard orientation without defeater	L11-600...1200A	Black with light grey	Type 1, 3R, 12, 4, 4X, IP65	L11-HM4-N2-L
			Red/Yellow	Type 1, 3R, 12, 4, 4X, IP65	L11-HM4E-N2-L

L11 Disconnect Switches

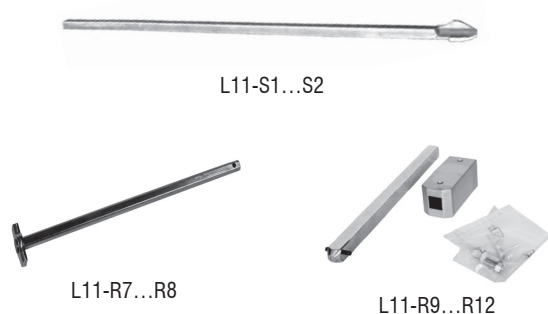



OSHA Lock Out/Tag Out Compliance (LOTO)

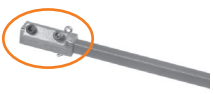
OSHA CFR36 Section 1910 mandates that disconnects be able to be locked out while in the OFF position during servicing. All L11 handles comply with this important safety requirement. *Please see NFPA Article 430 for disconnect requirements of motor applications.*

- ① Mounting screws included with Switch Handle Assembly.
- ② Lockable in OFF position (and ON position with special modification).
- ③ Switch handle can be field modified to be defeatable or non-defeatable.

Metal Operating Shafts ①

Shaft (typical)		For use with handle type...	Operating Shaft Length mm (in)	Catalog Number
 <p>L11-S1...S2</p> <p>L11-R7...R8</p> <p>L11-R9...R12</p>		L11-P/L11-P_T for L11-30...60A	305 (12)	L11-S1
			533 (21)	L11-S2
		L10-HM for L11 100...400A	320 (12.6)	L11-R7
			560 (22)	L11-R8
		L11-HM for fused L11 600...800A	320 (12.6)	L11-R11
			560 (22)	L11-R12
		L11-HM for Non-fused L11 600...1200A	320 (12.6)	L11-R9
			560 (22)	L11-R10
<p>NFPA 79 Handle Kit - Internal handle that permits operation of the disconnect when the panel door is open, in compliance with NFPA79.</p> <ul style="list-style-type: none"> Includes NFPA 79 internal operating handle with shaft 	 <p>②</p>	L11-P/L11-P_T	305 (12)	L11-N1
			533 (21)	L11-N2
		L10-HM4 (L11 fused 100...400A)	320 (12.6)	L11-HM4-NFPA1
			560 (22)	L11-HM4-NFPA3
		L11-HM4_-L (L11 fused 600...800A)	320 (12.6)	L11-HM4-NFPA2
			560 (22)	L11-HM4-NFPA4


Operating Shaft Accessories

Accessory	Description	Switch Dimension Code	Pkg Qty	Catalog Number
	<p>Operating Shaft Coupler - Used with L11-S1 and L11-S2 shafts to extend shaft length an additional 120 mm (4.75 in).</p>	A1, A2, B1, B2	1	L10-SC1


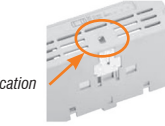
① See page L50 for Shaft dimensions.

② The L11-NU100...NU1200 Non-Fused switches do not have a means to be locked in the OFF position, therefore are not in compliance with NFPA79 and should not be used with L11-HM4-NFPA* handle kits.

Disconnect Switch Padlock Accessory (for 30A & 60A only) ①⑤



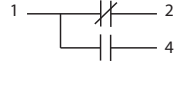
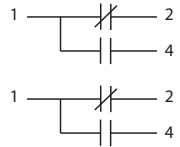
Accessory	Description	Switch Dimension Code	Pkg Qty	Catalog Number
	Disconnect Switch Padlock Accessory	A1, A2, B1, B2	1	L11-PLA1

Replacement Fuse Carriers (for 30A & 60A only)

Accessory	Description	Pkg Qty	Without Fuse Status Indication	With Fuse Status Indication
			Catalog Number	Catalog Number
 L11-J30-FC  L11-J30-FCS <i>Neon Fuse Status Indication</i>	30A CC Fuse Carrier	1	L11-C30-FC	L11-C30-FCS
	30A J Fuse Carrier	1	L11-J30-FC	L11-J30-FCS
	60A J Fuse Carrier	1	L11-J60-FC	L11-J60-FCS
	30A CSA HRCII-C Fuse Carrier	1	L11-H30-FC	L11-H30-FCS
	60A CSA HRCII-C Fuse Carrier	1	L11-H60-FC	L11-H60-FCS
	30A Non-Fuse Carrier	1	L11-N30-FC	
	60A Non-Fuse Carrier	1	L11-N60-FC	

Items in Gray are Special Order.

Auxiliary Contact Blocks

Accessory	Description	For use with ...	Contact Material	Pkg Qty	Catalog Number
	Contact Block ②③ Note: Sold only in multiples of 10. Order (quantity of) 10 to receive one package of 10 pieces.	All L11-30...60A All Fusible switches L11-100...800A	N.O.	10	D7-X10
			N.C.		D7-X01
			N.O.E.M.		D7-X10E
			N.C.L.B.		D7-X01L
			N.O. w/ spring-clamp		D7-Q10
			N.CO. w/ spring-clamp		D7-Q01
	Auxiliary Contact Block ④ N.O.E.B./N.C.	All L11 Non-Fused 100...1200A		1	L11-1STNONC
				1	L11-2NDNONC

① For Padlock with ø3...6mm.

② Also used for test mode function on 30A...60A switches.





③ Maximum auxiliary contact blocks allowed to be mounted on switches:

- Max 6 for 30A...60A switches
- Max 4 for L11-J100...200A switches
- Max 8 for L11-J400...J600, & L800 switches


④ Only one auxiliary type can be mounted on switch. Auxiliaries cannot be combined.

⑤ Fusible L11-100...800A has built in lockable feature on switch.

Terminal Protective Covers ①②③

Accessory	Description	No. of poles Protected per pkg.	Mounting Position	Switch Dim. Code	Qty per Pkg	Pkg qty req. for Line & Load protection	Catalog Number
 order 2 for 1 pkg of 2 shrouds	30A Terminal Shroud	6	line or load side	A1, A2	2	1	L11-30-C3
	60A Terminal Shroud	6	line or load side	B1, B2	2	1	L11-60-C3
 order 2 for 1 pkg of 2 shrouds	30A Terminal Shroud	2	line or load side	A1, A2	2	1	L11-30-C1
	60A Terminal Shroud	2	line or load side	B1, B2	2	1	L11-60-C1
 order 1 for 1 package of 3 shrouds	UL Terminal Shroud for L11-UL Fused 600A...800A	3	line or load side	F17	3	2 ③	L11-LNC29
	UL Terminal Shroud for L11-UL Fused 200A	3	line or load side	F6	3	2	L11-LNC31
	UL Terminal Shroud for L11-UL Fused 400A	3	line or load side	F7	3	2	L11-LNC32
 1 shield covers all 3 poles	UL Terminal Shield for L11-UL Non-fused 100A...200A	3	line side	F1	1	1	L11-LNC17
		3	load side	F1	1	1	L11-LNC18
	UL Non-fused 400A	3	line side	F2	1	1	L11-LNC20
		3	load side	F2	1	1	L11-LNC21
	UL Non-fused 600A	3	line or load	F3	1	1 ③	L11-LNC23
	UL Non-fused 800A...1200A	3	line or load	F4	1	1 ③	L11-LNC25

Multi-Tap Terminal Lugs ①





Accessory	Description	Switch Dimension Code	Pkg Qty	Catalog Number
	For 30A L11 Switches • Wire: (3) 8-14 AWG/1.5-10 mm ² • Torque: 14 lb-in/1.6 Nm	A1, A2	1	L11-30-MTL3
	For 60A L11 Switches • Wire: (3) 4-14 AWG/2-25 mm ² • Torque: 24 lb-in/2.8 Nm	B1, B2	1	L11-60-MTL3

③ L11 Switches include various protection covers as standard. See table to order optional shrouds/shields separately.

Switch Type	Terminal Shrouds	Terminal Shields	Terminal Lugs	Notes
L11-J30/60 A	N/A ②	N/A	Built-in	IP20 Touch-Safe by design
L11-J100 A	N/A	N/A	Built-in	IP20 Touch-Safe by design
L11-J200/400 A	Optional	N/A	Optional	Purchase optional items separately
L11-J600/L800 A	Includes 1 pkg L11-LNC29 for line side	N/A	Optional	Purchase optional items separately
L11-N30/60 A	N/A	N/A	Built-In	IP20 Touch-Safe by design
L11-NU100/400 A	N/A	Optional	Optional	Purchase optional items separately
L11-NU600 A	N/A	Includes 1 pkg L11-LNC23 for line side	Optional	Purchase optional items separately
L11-NU800/1200 A	N/A	Includes 1 pkg L11-LNC25 for line side	Optional	Purchase optional items separately

- ① Includes integral plastic cover (not shown), for IP10 ingress rating only.
- ② L11-XX-CX shrouds are typically used to re-label power terminals when rotating the switch 180°.

Terminal Lug Kits ①

Accessory	For use with...	Wire Size	Pkg Qty	Catalog Number
 order 1 for 1 package of 3 lugs	L11-J200 Fused L11-NU100, L11-NU200 Non-Fused	(1) #6 - 300 MCM	3	L11-TL1
 order 1 for 1 package of 3 lugs	L11-J400 Fused L11-NU400 Non-Fused	(1) #4 - 600 MCM	3	L11-TL3
 order 1 for 1 package of 3 lugs	L11-J400 Fused L11-NU400 Non-Fused	(2) #6 - 350 MCM	3	L11-TL5
	L11-J600...L800 Fused L11-NU600 Non-Fused	(2) #2 - 600 MCM	3	L11-TL7
 order 1 for 1 package of 6 lugs	L11-NU800...NU1200 Non-Fused	(2) #2 - 600 MCM	6	L11-TL9

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L11 Disconnect Switches

① L11-30/60 Fused and Non-fused, and L11-J100 Fused disconnect switches are equipped with built-in terminal lugs.

L11 Enclosed Motor Disconnects (UL and CSA Approved Enclosures)

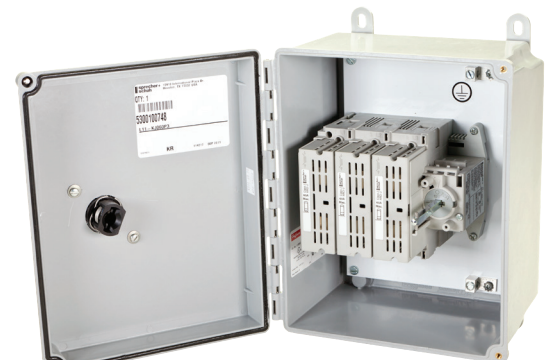
Amp/Horsepower Rating							Type 3/4/12 Watertight, Dusttight Sheetmetal Enclosure		Type 4/4X Watertight, Corrosion-Resistant Stainless Steel Enclosure		Type 4/4X Watertight, Corrosion-Resistant Non-metallic Enclosure	
							Image		Image		Image	
UL/ CSA Amps	Horsepower					Catalog Number	Dimension Code	Catalog Number	Dimension Code	Catalog Number	Dimension Code	
	1Ø (60 Hz)		3Ø (60 Hz)									
	120V	240V	240V	480V	600V							
Class CC Fused												
30	2	3	7.5	15	20	L11-FC030P3	A1	L11-CC030P3	A1	L11-KC030P3	A1	
Class J Fused												
30	2	3	7.5	15	20	L11-FJ030P3	A1	L11-CJ030P3	A1	L11-KJ030P3	A1	
60	3	10	15	30	50	L11-FJ060P3	B1	L11-CJ060P3	B1	L11-KJ060P3	B1	
100	7.5	15	30	60	75	L11-FJ100P3	C1	L11-CJ100P3	C1	L11-KJ100P3	C1	
200	~	25	60	125	150	L11-FJ200P3	D1	L11-CJ200P3	D1	L11-KJ200P3	D1	
400	~	50	125	250	350	L11-FJ400P3	F1	L11-CJ400P3	F1	L11-KJ400P3	F1	
Non-Fused												
30	2	3	7.5	15	20	L11-FN030P3	A2	L11-CN030P3	A2	L11-KN030P3	A2	
60	3	10	15	30	50	L11-FN060P3	B2	L11-CN060P3	B2	L11-KN060P3	B2	
100	7.5	15	30	75	100	L11-FN100P3	C1	L11-CN100P3	C1	L11-KN100P3	C1	
200	~	50	75	150	200	L11-FN200P3	D1	L11-CN200P3	D1	L11-KN200P3	D1	
400	~	~	125	250	350	L11-FN400P3	F1	L11-CN400P3	F1	L11-KN400P3	F1	

Larger sizes available. Contact your Sprecher + Schuh representative.

Enclosed Disconnect Assemblies Include:

- Disconnect Switch
- Black handle/shaft with ON/OFF marking. For a yellow and red handle, add suffix "E" to the end of the catalog number. Example: change L11-FN030P3 to L11-FN030P3E.
- Line & Load Terminal Lugs for Fused 200/400A & Non-Fused 100A...400A (Lugs are built-in on Fused 30/60/100A & Non-fused 30/60A switches).
- Two Ground Lugs mounted on back-panel

NOTE: Fusible accessory Shrouds, Non-Fusible accessory Shields must be purchased separately and installed by user. To add any accessory items into these standard assemblies, please contact your Sprecher+Schuh representative for a custom enclosed L11 request.



L11-KJ060P3

Applications Within the United States and Canada

General

The requirements for disconnect switches used in motor branch circuits rated 600V and less are defined in Article 430, Part J of the U.S. National Electrical Code (NEC), NFPA70. Canadian Electrical Code (CEC) requirements are very similar in the area of motor branch circuit disconnect requirements. For simplicity, we will treat the NEC and CEC requirements as being the same – and reference specific sections of the US National Electrical Code.

The requirements for properly sizing a disconnect switch are dependent on the type of application. The NEC refers to two types of applications: single motor and combination loads. A combination load consists of an application where two or more motors are used together or where one or more motors are used in combination with other loads, such as resistance heaters.

Single Motor Applications

Section 430-110 Paragraph (a) states that the disconnect switch must have an ampere rating of at least 115% of the full load current rating of the motor.

Example 1: for a motor with a full-load current of 22A, the disconnect switch must be rated at least 25.3A (22 x 1.15).

If the disconnecting means under evaluation is rated in horsepower, the selection of the disconnect switch is even more straightforward; a disconnect switch must have a horsepower rating equal to, or greater than the horsepower rating of the motor at the applicable voltage.

Example 2: For a motor with a 10HP rating at 460V AC, the disconnect switch must be rated at least 10HP at 460V AC.

If the disconnect switch is rated in horsepower, and UL Listed, UL Component Recognized, or CSA Certified, it will meet the requirements for the 115% full-load current rating stipulated by the NEC.

Combination Load Applications

Section 430-110 Paragraph (c) addresses the rating of the disconnecting means for combination loads. This paragraph essentially requires that the loads that “may be simultaneously on a single disconnecting means” be combined to provide equivalent full-load and locked-rotor currents for what is then to be considered as a single motor for the purpose of selecting the appropriate disconnecting means. This means that it is necessary to identify the particular combination of connected loads which can be operating simultaneously and will result in the maximum full-load and locked-rotor current sums.

The individual full-load current values are to be selected from Tables 430-148, 430-149, or 430-150 and the locked-rotor values are to be from Table 430-151.

The equivalent single motor full-load current is the sum of the simultaneously operating motor full-load currents and the rating in amperes of the other loads operating at the same time. The equivalent locked-rotor current is the sum of the simultaneously started motors’ locked-rotor currents and the full-load currents of the remaining operating motor and non-motor loads.

The disconnecting means shall have a current rating equal to or greater than 115% of the equivalent single motor full-load current and have a horsepower rating equal to or greater than the horsepower rating determined from the equivalent locked-rotor summation.

Consider the following 460V application:

Load	HP	Full-Load Current A
Motor 1	5	7.6 (simultaneous)
Motor 2	10	14.0 (not included) ❶
Motor 3	15	21.0 (simultaneous)
Motor 4	20	27.0 (simultaneous)
Other		7.0 (simultaneous)
Total Equivalent		62.6 (simultaneous)

❶ Motor 2 is not included in the total since it cannot operate simultaneously with the other motor, therefore, the disconnect switch must be rated at least 72A (1.15 x 62.6).

Consider now the locked-rotor current analysis for the same application:

Load	HP	Locked Rotor Current A
Motor 1	5	(7.6 FLA) 45.6 (simultaneous)
Motor 2	10	84.0 (not included) ❶
Motor 3	15	126.0 (simultaneous) ❷
Motor 4	20	162.0 (simultaneous) ❷
Other		7.0 (simultaneous)
Total Equivalent		302.6 (simultaneous)

❶ Note again that Motor 2 cannot operate simultaneously with the other loads.
 ❷ The largest equivalent locked-rotor current occurs when motors 3 and 4 start together while the other loads marked “simultaneous” are already operating. Since Motor 1 is not starting with Motors 3 and 4, its full-load current will be added to the total instead of its locked-rotor current.

Table 430-151, which provides the correlation between locked-rotor currents and HP ratings, shows that a 40 HP rating is the equivalent for 302.6 locked-rotor amperes.

Therefore, the disconnect selected for this application must have a current rating of at least 72A and a HP rating of at least 40 HP. In this case, an L11 disconnect switch rated for 100A and 60 HP at 460V would be an appropriate choice. What can be seen from this analysis is that, depending upon the number of motors that can start simultaneously, the actual size of the required disconnect is sometimes determined by the equivalent full load current (72A) and other times by the equivalent horsepower determined from the locked-rotor analysis (40 HP).

Fused Disconnect Switches for UL Class Fuses and CSA HRCI-J

Electrical Ratings			L11-C30-1753		L11-J30-1753		L11-J60-1753	
UL Fuse Type / CSA Fuse Type			Class CC/HRCI-MISC ❶		Class J/HRCI-J		Class J/HRCI-J	
Maximum Fuse Cartridge Size	(A)		30		30		60	
Maximum Voltage	AC (V)		600		600		600	
	DC (V)		250		250		250	
Ampere Rating	(A)		30		30		60	
Maximum Short Circuit Prospective Fault Current	(kA)		200		200		200	
Fuse Operating Characteristics			Time Delay	Non-Time Delay	Time Delay	Non-Time Delay	Time Delay	Non-Time Delay
Maximum Hp, 3Ø AC	200V 60 Hz (Hp)		5	3	7.5	3	15	7.5
	240V 60 Hz (Hp)		5	3	7.5	3	15	7.5
	480V 60 Hz (Hp)		10	5	15	5	30	15
	600V 60 Hz (Hp)		10	7.5	20	7.5	50	15
Maximum Hp, 1Ø AC	120V, 60 Hz (Hp)		0.75	0.5	2	0.5	3	1.5
	240V, 60 Hz (Hp)		2	1.5	3	1.5	10	3
Maximum Hp, DC	125V, DC (Hp)		2	3	3	2	5	5
	250V, DC (Hp)		3	5	5	5	10	10

Mechanical Data			L11-C30-1753		L11-J30-1753		L11-J60-1753	
Degree of Protection (per IEC 60947-3)								
Switch Only			IP20		IP20		IP20	
Switch with Terminal Shield & Fuse Carriers			IP20		IP20		IP20	
Mechanical Endurance ❷	Operations		10,000		10,000		10,000	
Handle Mechanism Operating Torque	N•m		3.5		3.5		3.5	
	lb•in		35		35		35	
Terminal Capacity								
Power Terminals	mm ²		2.5...10		2.5...10		2.5...25	
	AWG		#14...#8		#14...#8		#14...#4	
Auxiliary Contact Terminals	mm ²		2.5...4		2.5...4		2.5...4	
	AWG		#14...#12		#14...#12		#14...#12	
Maximum Number of Auxiliary Contacts			6		6		6	
Approximate Weight	kg		0.92		0.92		1.32	
	lbs		2.03		2.03		2.9	
Minimum Enclosure Size	Height		248 (9-3/4)		248 (9-3/4)		248 (9-3/4)	
	Width		171 (6-3/4)		171 (6-3/4)		197 (7-3/4)	
	Depth		148 (5-13/16)		148 (5-13/16)		148 (5-13/16)	
Switch Dimensions Reference (See dimension drawings)			A1		A1		B1	

❶ CSA HRCI-MISC fuses must also be UL Listed as Class CC fuses.

❷ Based on Sprecher + Schuh tests in accordance with the requirements as defined in CSA C22.2 No. 4, IEC 60947-3, and UL 98.

Fused Disconnect Switches for UL Class Fuses and CSA HRCI-J

Electrical Ratings			L11-J100-1753	L11-J200-1753	L11-J400-1753	L11-J600-1753	L11-L800-1753
UL Fuse Type / CSA Fuse Type			Class J/HRCI-J				Class L
Maximum Fuse Cartridge Size	(A)		100	200	400	600	800
Maximum Voltage	AC (V)		600	600	600	600	600
	DC (V)		250 ②	250 ②	250 ②	250 ②	250 ②
Ampere Rating	(A)		100	200	400	600	800
Maximum Short Circuit Prospective Fault Current	(kA)		200	200	200	200	200
Fuse Operating Characteristics							
Maximum Hp, 3Ø AC	200V 60 Hz (Hp)		~	~	~	~	~
	240V 60 Hz (Hp)		30	60	125	200	200
	480V 60 Hz (Hp)		60	125	250	400	500
	600V 60 Hz (Hp)		75	150	350	500	500
Maximum Hp, 1Ø AC	120V, 60 Hz (Hp)		7.5	~	~	~	~
	240V, 60 Hz (Hp)		15	25	50	~	~
Maximum Hp, DC	125V, DC (Hp)		7.5	15	20	~	~
	250V, DC (Hp)		20	40	50	~	~

Mechanical Data			L11-J100-1753	L11-J200-1753	L11-J400-1753	L11-J600-1753	L11-L800-1753
Degree of Protection (per IEC 60947-3)							
Switch Only			IP20	IP20	IP20	IP20	IP20
Switch with Terminal Shield & Fuse Carriers			IP20	IP20	IP20	IP20	IP20
Mechanical Endurance ①	Operations		10,000	8,000	6,000	5,000	5,000
Handle Mechanism Operating Torque	N•m		10	15	20	70	70
	lb•in		88.5	132.8	177	620	620
Terminal Capacity							
Power Terminals	mm ²			300 MCM	600 MCM; 2 x 300 MCM	2 x 600 MCM	2 x 600 MCM
	AWG		#1	#6	#2 or 2 x #6	2 x #2	2 x #2
Auxiliary Contact Terminals	mm ²		2.5...4	2.5...4	2.5...4	2.5...4	2.5...4
	AWG		#14...#12	#14...#12	#14...#12	#14...#12	#14...#12
Maximum Number of Auxiliary Contacts			4	8	8	8	8
Approximate Weight	kg		2.4	3.6	4.85	20	20
	lbs		5.3	7.9	10.7	44	44
Minimum Enclosure Size							
Approximate dimensions in millimeters (inches)	Height		~	~	~	~	~
	Width		~	~	~	~	~
	Depth		~	~	~	~	~
Switch Dimensions Reference (See dimension drawings)			F5	F6	F7	F8	F9

① Based on Sprecher + Schuh tests in accordance with the requirements as defined in CSA C22.2 No. 4, IEC 60947-3.

② 3-Poles in series.

Non-Fused Disconnect Switches for CSA and UL Class Applications ❶

Electrical Ratings			L11-N30-1753	L11-N60-1753	L11-NU100-1753	L11-NU200-1753
Maximum Voltage	AC (V)		600	600	600	600
	DC (V)		250	250	250	250
Fuse Type			~	~	J	J
Ampere Rating		(A)	30 ❷	60 ❷	100	200
Maximum Short Circuit Prospective Fault Current		(kA)	200	200	200	200
Fuse Operating Characteristics ❸			Time Delay	Non-Time Delay	Time Delay	Non-Time Delay
Maximum Hp, 3Ø AC	200V 60 Hz	(Hp)	7.5	3	15	7.5
	240V 60 Hz	(Hp)	7.5	3	15	7.5
	480V 60 Hz	(Hp)	15	5	30	15
	600V 60 Hz	(Hp)	20	7.5	50	15
Maximum Hp, 1Ø AC	120V, 60 Hz	(Hp)	2	0.5	3	1.5
	240V, 60 Hz	(Hp)	3	1.5	10	3
Maximum Hp, DC	125V, DC	(Hp)	3	2	5	5
	250V, DC	(Hp)	5	5	10	10
Power Lost		(W)	2	6	~	~

Mechanical Data			L11-N30-1753	L11-N60-1753	L11-NU100-1753	L11-NU200-1753
Degree of Protection (per IEC 60947-3)						
Switch Only			IP20	IP20	IP20	IP20
Switch with Terminal Shield & Fuse Carriers			IP20	IP20	IP20	IP20
Mechanical Endurance ❸		Operations	10,000	10,000	10,000	10,000
Handle Mechanism Operating Torque		N•m lb•in	3.5 35	3.5 35	10 88.5	10 88.5
Terminal Capacity						
Power Terminals		mm² AWG	2.5...10 #14...#8	2.5...25 #14...#4	300 MCM #6	300 MCM #6
Auxiliary Contact Terminals		mm² AWG	2.5...10 #14...#8	2.5...25 #14...#4	~	~
Maximum Number of Auxiliary Contacts			6	6	2	2
Approximate Weight		kg lbs	0.81 1.78	1.14 2.52	1.67/2.1 3.7/4.3	1.67/2.1 3.7/4.3
Minimum Enclosure Size		Height	248 (9-3/4)	248 (9-3/4)		
Approximate dimensions in millimeters (inches)		Width	171 (6-3/4)	197 (7-3/4)	~	~
		Depth	111 (4-3/8)	111 (4-3/8)		
Switch Dimensions Reference (See dimension drawings)			A2	B2	F1	F1

❶ Non-fused disconnect switches must be used with separately installed fuses.

❷ When using CSA HRCI-J, HRCI-MISC (also UL Listed as Class CC) or HRCI-T fuses, and UL Class J, CC or T fuses.

❸ Based on Sprecher + Schuh tests in accordance with the requirements as defined in CSA C22.2 No. 4, IEC 60947-3, UL 1087 and UL 98.

Non-Fused Disconnect Switches for CSA and UL Class Applications ❶

Electrical Ratings			L11-NU400-1753	L11-NU600-1753	L11-NU800-1753	L11-NU1200-1753
Maximum Voltage	AC	(V)	600	600	600	600
	DC	(V)	250	250	250	250
Fuse Type			J	J	L	L
Ampere Rating			400	600	800	1200
Maximum Short Circuit Prospective Fault Current			200	200	100	100
Fuse Operating Characteristics ❷			~	~	~	~
Maximum Hp, 3Ø AC	200V 60 Hz	(Hp)	~	~	~	~
	240V 60 Hz	(Hp)	125	200	200	200
	480V 60 Hz	(Hp)	250	400	500	500
	600V 60 Hz	(Hp)	350	350	500	500
Maximum Hp, 1Ø AC	120V, 60 Hz	(Hp)	~	~	~	~
	240V, 60 Hz	(Hp)	~	~	~	~
Maximum Hp, DC	125V, DC	(Hp)	20	20	~	~
	250V, DC	(Hp)	50	50	~	~
Power Lost			~	~	~	~

Mechanical Data			L11-NU400-1753	L11-NU600-1753	L11-NU800-1753	L11-NU1200-1753
Degree of Protection (per IEC 60947-3)						
Switch Only			IP20	IP20	IP20	IP20
Switch with Terminal Shield & Fuse Carriers			IP20	IP20	IP20	IP20
Mechanical Endurance ❸ Operations			6,000	6,000	3,500	3,500
Handle Mechanism Operating Torque			N•m lb•in	14.5 128.3	37 327.5	50 442
Terminal Capacity						
Power Terminals			mm2 AWG	600 MCM #2	2 x 600 MCM 2 x #2	4 x 600 MCM 4 x #2
Auxiliary Contact Terminals			mm2 AWG	~	~	~
Maximum Number of Auxiliary Contacts			2	2	2	2
Approximate Weight			kg lbs	3/3.8 6.6/8.4	8.2/10.3 18.1/22.7	11.6/14.5 25.6/32
Minimum Enclosure Size			Height	~	~	~
Approximate dimensions in millimeters (inches)			Width	~	~	~
Switch Dimensions Reference (See dimension drawings)			Depth	~	~	~
Switch Dimensions Reference (See dimension drawings)			F2	F3	F4	F4

❶ Non-fused disconnect switches must be used with separately installed fuses.

❷ When using CSA HRCI-J, HRCI-MISC (also UL Listed as Class CC) or HRCI-T fuses, and UL Class J, CC or T fuses.

❸ Based on Sprecher + Schuh tests in accordance with the requirements as defined in CSA C22.2 No. 4, IEC 60947-3, UL 1087 and UL 98.

Fused Disconnect Switches for CSA HRCII-C Fuses

Electrical Ratings		L11-H30-1753	L11-H60-1753
CSA Fuse Type/UL Fuse Type		HRCII-C	HRCII-C
Maximum Fuse Cartridge Size	(A)	30	60
Maximum Voltage	AC (V)	600	600
Ampere Rating	(A)	30	60
Maximum Short Circuit Prospective Fault Current	(kA)	200	200
Fuse Operating Characteristics			
Maximum Hp, 3Ø AC	200V 60 Hz (Hp)	7.5	15
	240V 60 Hz (Hp)	7.5	15
	480V 60 Hz (Hp)	15	30
	600V 60 Hz (Hp)	20	50
Maximum Hp, 1Ø AC	120V, 60 Hz (Hp)	2	3
	240V, 60 Hz (Hp)	3	10
Mechanical Data		L11-H30-1753	L11-H60-1753
Degree of Protection (per IEC 60947-3)			
Switch Only		IP20	IP20
Switch with Terminal Shield & Fuse Carriers		IP20	IP20
Mechanical Endurance ①	Operations	10,000	10,000
Handle Mechanism Operating Torque	N•m	3.5	3.5
	lb•in	35	35
Terminal Capacity			
Power Terminals	mm ²	2.5...10	2.5...25
	AWG	#14...#8	#14...#4
Auxiliary Contact Terminals	mm ²	2.5...4	2.5...4
	AWG	#14...#12	#14...#12
Maximum Number of Auxiliary Contacts		6	6
Approximate Weight	kg	1.18	1.18
	lbs	2.60	2.60
Minimum Enclosure Size	Height	248 (9-3/4)	248 (9-3/4)
	Width	171 (6-3/4)	197 (7-3/4)
	Depth	148 (5-13/16)	148 (5-13/16)
Switch Dimensions Reference (See dimension drawings)		B1	B1

① Based on Sprecher + Schuh tests in accordance with the requirements as defined in CSA C22.2 No. 4, IEC 60947-3, UL 1087 and UL 98.

Environmental Data For All L11 Fused and Non-Fused Disconnect Switches

Environmental Ratings		L11- 30A...60A	L11- 100A...1200A ①
Ambient Temperature			
Open	[°C (F)]	-20...+55 (-4...+131)	-20...+70 (-4...+158)
Enclosed	[°C (F)]	-20...+40 (-4...+104)	-20...+70 (-4...+158)
Storage	[°C (F)]	-40...+65 (-40...+149)	-25...+70 (-13...+158)
Altitude (per IEC 60947-1)	[m]	2,000	2,000
Relative Humidity (per IEC 60947-1)		90% at +20°C (+68°F) 50% at +40°C (+104°F)	90% at +20°C (+68°F) 50% at +40°C (+104°F)
Auxiliary Contact Ratings:			
D7 Contact Ratings		See Section H	
L11-1STNONC and L11-2NDNONC AC Rating (100mA min. load)		10.1A at 250V AC 1/2 HP at 250V AC 1/4 HP at 125V AC	
DC Rating (100mA min. load)		0.5A at 125V DC	
DC-13 General use (no HP ratings)		0.25A at 250V DC	

Standards Compliance

IEC 60947-4-1/EN60947-3
BS EN60947-3
VDE 0660
CSA 22.2 No. 4
NEMA KS-1
UL 98

with L11-SDK2 Handle Kit

UL 98
CSA 22.2 No. 4

Certifications

UL Listed (File No. E 47426, Guide WHTY)
CSA Certified (File No. LR1234)
CE
ASTA Certified
LOVAG Certified

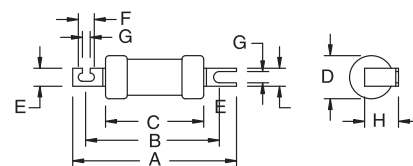
with L11-SDK2 Handle Kit

UL Listed (File No. E47426, Guide WHTY)
CSA Certified (File No. LR1234)

CSA HRCII Fuses (sold by others)

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

- CSA fuse type: HRCII-C
- Voltage rating: 600V AC
- Interrupting rating: 200 000 A
- Standard cartridge sizes: 30, & 60 A
- Typical ampere ratings: 1...60 A
- Construction: Blade type for bolted connection
- Can be installed on Bulletin 194R disconnect switch
- Cat. Nos: L11-H30-1753, L11-H60-1753
- Where used: Canada



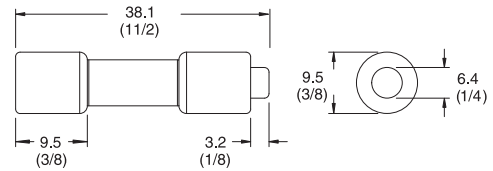
Current Range [A]	A	B	C	D	E	F	G	H	J
0...30	84.14 (3-5/16)	71.04 (2-51/64)	50.8 (2)	20.64 (13/16)	8.73 (11/32)	7.54 (19/64)	5.56 (7/32)	23.81 (15/16)	1.59 (1/16)
31...60	88.9 (3-1/2)	71.04 (2-51/64)	50.8 (2)	20.64 (13/16)	12.7 (1/2)	7.54 (19/64)	5.56 (7/32)	26.99 (1-1/16)	1.59 (1/16)

① Derate switch 1% for every 1°C over 40°C

CSA HRCI Class CC Fuses (sold by others)

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

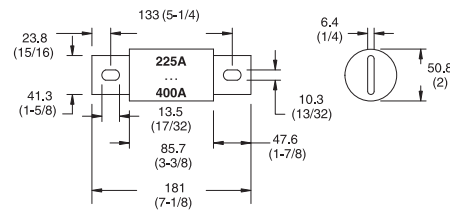
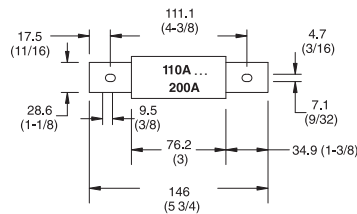
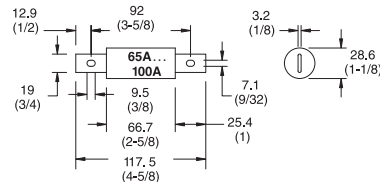
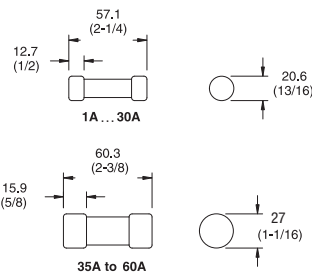
- UL fuse type: Class CC
- CSA fuse type: HRCI-MISC
- Voltage rating: 600V AC
- Interrupting rating: 200 000 A
- Standard cartridge sizes: 30 A
- Typical ampere ratings: 1...30 A
- Construction: Ferrule type
- Can be installed on L11-C30-1753 disconnect switch
- Where used: North America



CSA HRCI Class J Fuses (sold by others)

Dimensions in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

- CSA fuse type: HRCI-J
- UL fuse type: Class J
- Voltage rating: 600V AC
- Interrupting rating: 200 000 A
- Standard cartridge sizes: 30, 60, 100, 200, and 400 A
- Typical ampere ratings: 1...600 A; Blade type for bolted connection
- Can be installed on L11 disconnect switch
- Cat. Nos: L11-J30...J400-1753
- Where used: North America



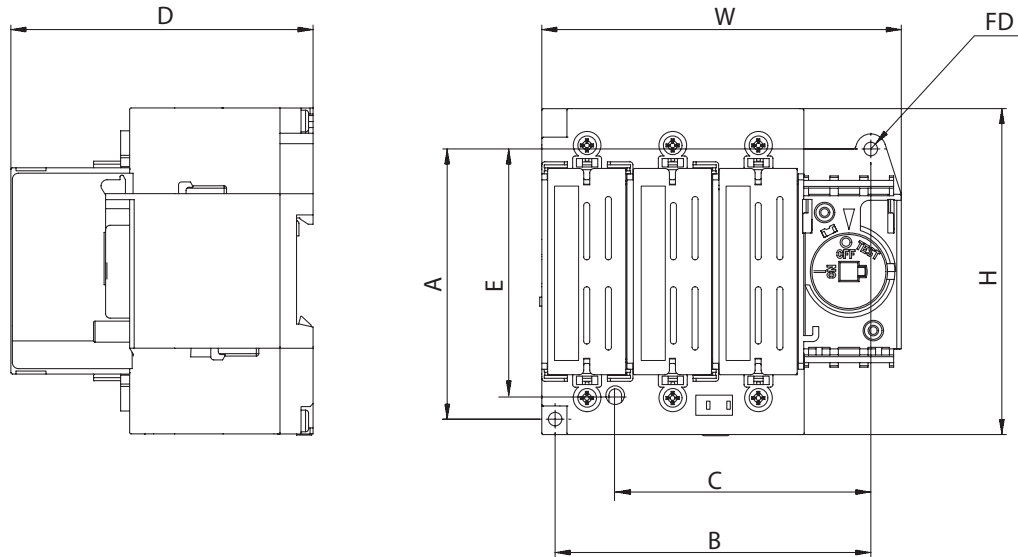
L11 Disconnect Switches

Wiring Diagrams

UL Listed, CSA Certified	Dimension Reference	Circuit
<p>L11-C30-1753 L11-J30-1753 L11-J60-1753 L11-H30-1753 L11-H60-1753</p>	<p>A1 A1 B1 B1 B1</p>	
<p>L11-N30-1753 L11-N60-1753</p>	<p>A2 B2</p>	
<p>L11-* -1753 + L11-* -NC/NJ/NH</p>	<p>3-Pole Switch + 4-Pole Module</p>	

L11 Fused and Non-Fused Disconnect Switches (30 & 60A)

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.

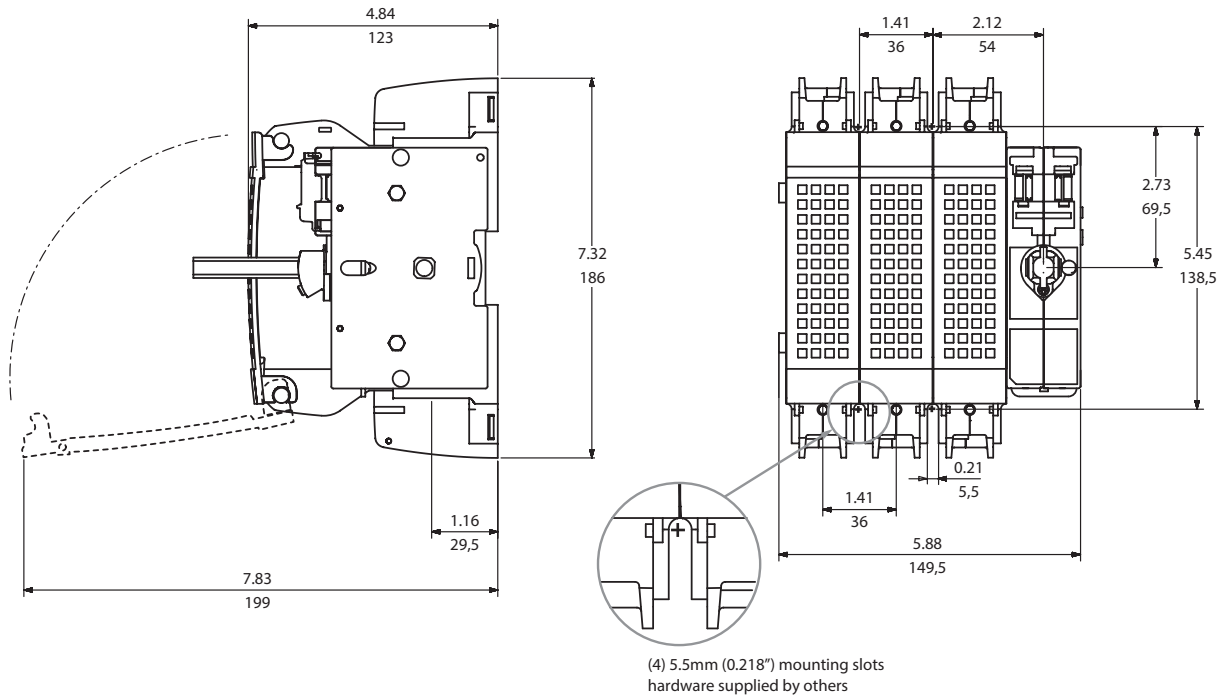


Dimension Reference	Approximate Dimensions in mm (in)							
	H	W	D	A	B	C ❶	E ❶	FD
A1	108 (4-1/4)	120 (4-3/4)	101 (4)	90 (3-9/16)	105 (4-1/8)	85 (3-11/32)	82 (3-15/64)	2-M4, 2-#8
A2	108 (4-1/4)	120 (4-3/4)	80 (3-1/8)	90 (3-9/16)	105 (4-1/8)	85 (3-11/32)	82 (3-15/64)	2-M4, 2-#8
B1	113 (4-29/64)	142 (5-19/32)	114 (4-31/64)	100 (3-15/16)	120 (4-23/32)	N/A	N/A	4-M4, 4-#8
B2	113 (4-29/64)	142 (5-19/32)	93 (3-43/64)	100 (3-15/16)	120 (4-23/32)	N/A	N/A	4-M4, 4-#8

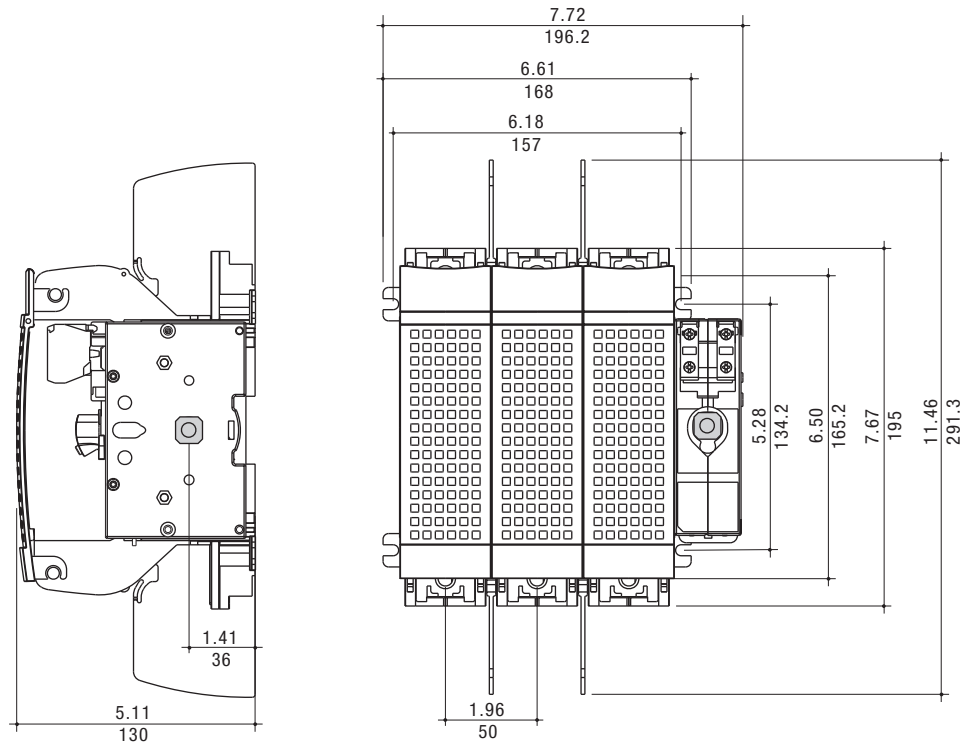
❶ Mounting holes are backward compatible with L10 Disconnect Switches

L11 Fused Disconnect Switches (100A)

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.

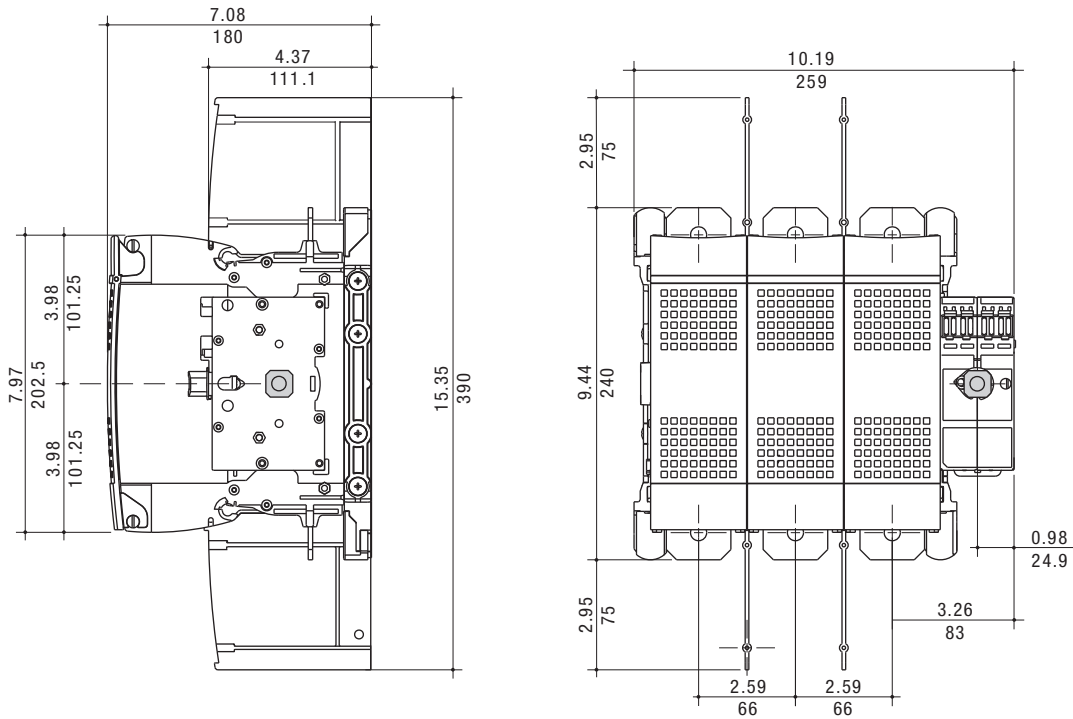


L11 Fused Disconnect Switches (200A)

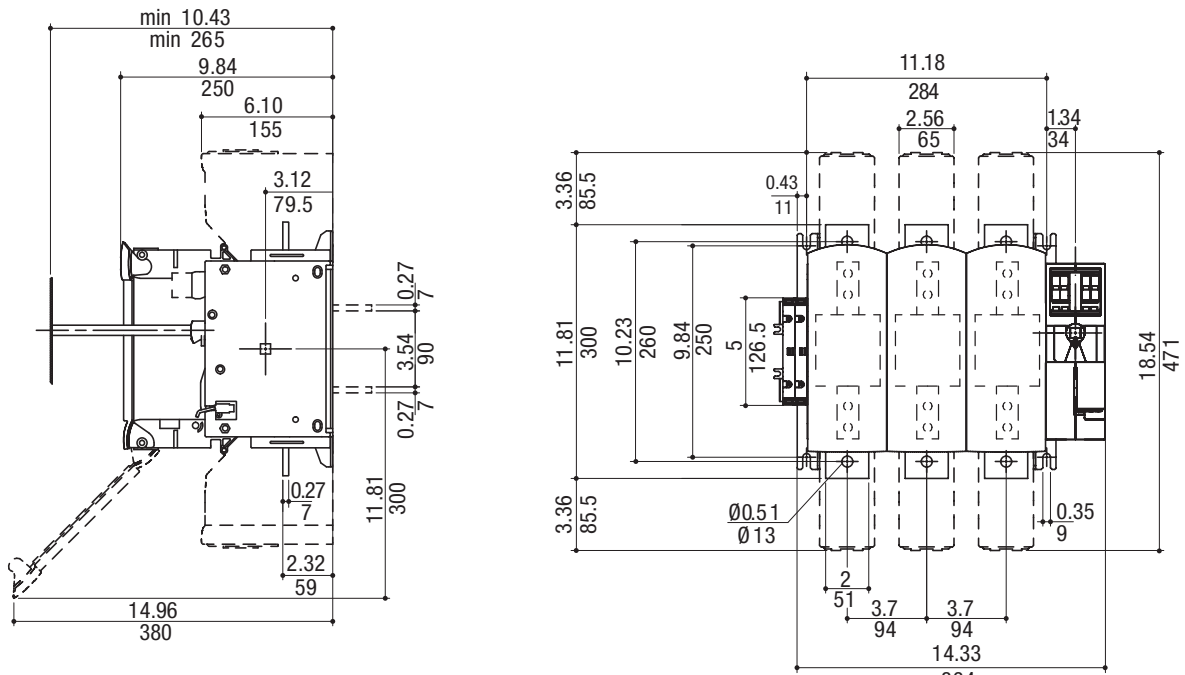


L11 Fused Disconnect Switches (400A)

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.



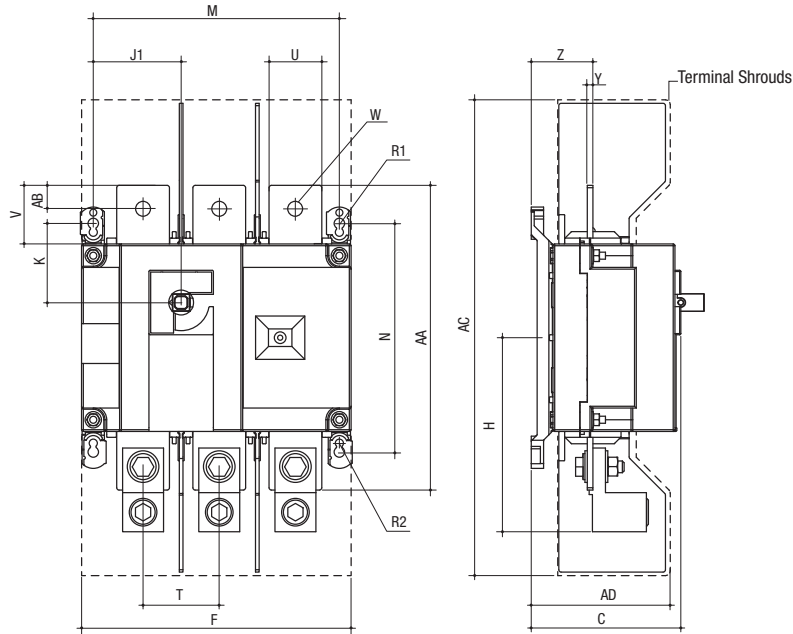
L11 Fused Disconnect Switches (600...800A)



L11 Disconnect Switches

L11 Non-Fused Disconnect Switches (100...400A)

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.



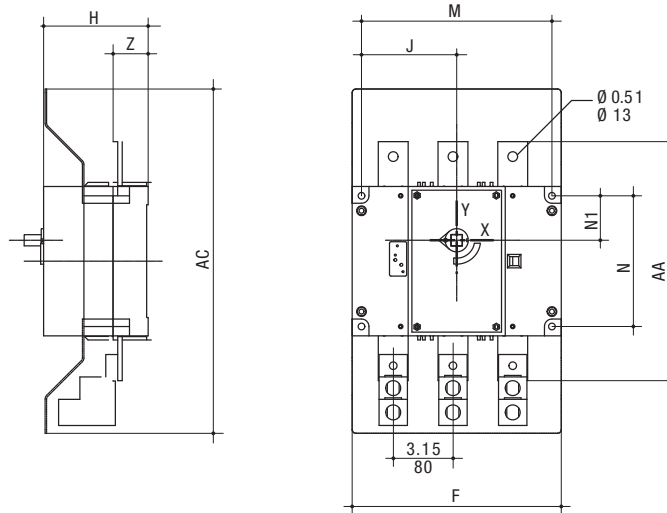
L11-N...	Dim. Ref.	Approximate Dimensions in mm (in)													
		Overall		Terminal Shrouds		Switch Body					Switch Mounting				
		C	AC	AD	F (3-pole)	F (4-pole)	H	J1 (3-pole)	J1 (4-pole)	K	M (3-pole)	M (4-pole)	N	R1	R2
100	F1	94.6 (3.72)	256 (10.1)	77.5 (3.05)	180 (7.09)	230 (9.06)	107 (4.22)	55 (2.17)	105 (4.13)	45.6 (1.8)	160 (6.3)	210 (8.7)	135 (5.31)	9 (0.35)	7 (0.27)
200		94.6 (3.72)	256 (10.1)	77.5 (3.05)	180 (7.09)	230 (9.06)	107 (4.22)	55 (2.17)	105 (4.13)	45.6 (1.8)	160 (6.3)	210 (8.7)	135 (5.31)	9 (0.35)	7 (0.27)
400	F2	128 (4.92)	406 (16)	115 (4.15)	230 (9.05)	290 (11.4)	166 (6.53)	75 (2.95)	135 (5.31)	67.5 (2.65)	210 (8.26)	270 (10.6)	195 (7.67)	9 (0.35)	7 (0.27)

L11-N...	Dim. Ref.	Approximate Dimensions in mm (in)							
		Connection							
		T	U	V	W	Y	Z	AA	AB
100	F1	50 (1.97)	25 (0.98)	30 (1.18)	11 (0.43)	3.5 (0.14)	34.4 (0.14)	160 (6.3)	15 (0.6)
200		50 (1.97)	25 (0.98)	30 (1.18)	11 (0.43)	3.5 (0.14)	34.4 (0.14)	160 (6.3)	15 (0.6)
400	F2	65 (2.56)	45 (1.77)	50 (1.97)	13 (0.51)	5 (0.2)	53 (2.08)	260 (10.2)	20 (0.8)

L11 Disconnect Switches

L11 Non-Fused Disconnect Switches (600A)

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.

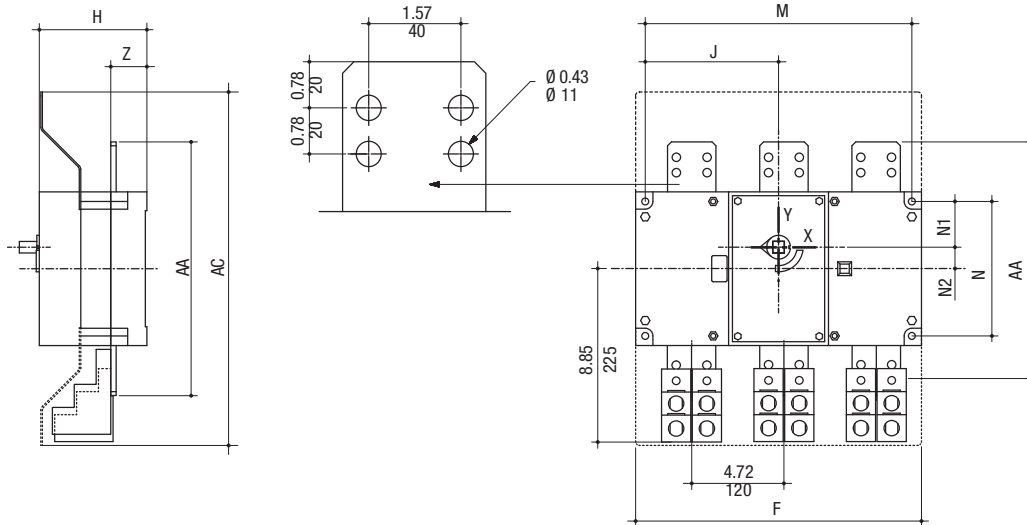


Approximate Dimensions in mm (in)

L11-N...	Dim. Ref.	Terminal Shrouds	Switch Body				Switch Mounting				Connection		
		AC	F (3-pole)	F (4-pole)	H	J (3-pole)	J (4-pole)	M (3-pole)	M (4-pole)	N	N1	AA	Z
600	F3	460 (18.12)	280 (11)	360 (14.17)	140 (5.5)	127.5 (5)	167.5 (6.59)	255 (10.03)	335 (13.19)	175 (6.88)	59.5 (2.34)	320 (12.6)	47 (1.85)

L11 Non-Fused Disconnect Switches (800...1200A)

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.

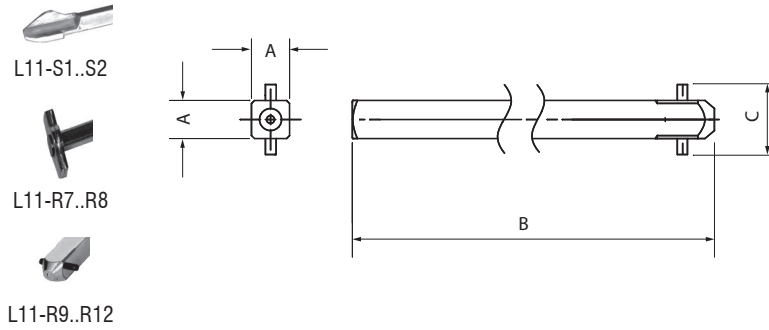


Approximate Dimensions in mm (in)

L11-N...	Dim. Ref.	Terminal Shrouds	Switch Body				Switch Mounting				Connection		
		AC	F (3-pole)	F (4-pole)	H	J (3-pole)	J (4-pole)	M (3-pole)	M (4-pole)	N	N1	AA	Z
800	F4	460 (18.12)	372 (14.64)	492 (19.37)	140 (5.5)	173.5 (6.83)	233.5 (9.19)	347 (13.66)	467 (18.38)	175 (6.88)	59.5 (2.34)	330 (13)	47 (1.85)
1200		460 (18.12)	372 (14.64)	492 (19.37)	140 (5.5)	173.5 (6.83)	233.5 (9.19)	347 (13.66)	467 (18.38)	175 (6.88)	59.5 (2.34)	330 (13)	47 (1.85)

L11 Disconnect Switches

L11 Metal Operating Shaft Dimensions

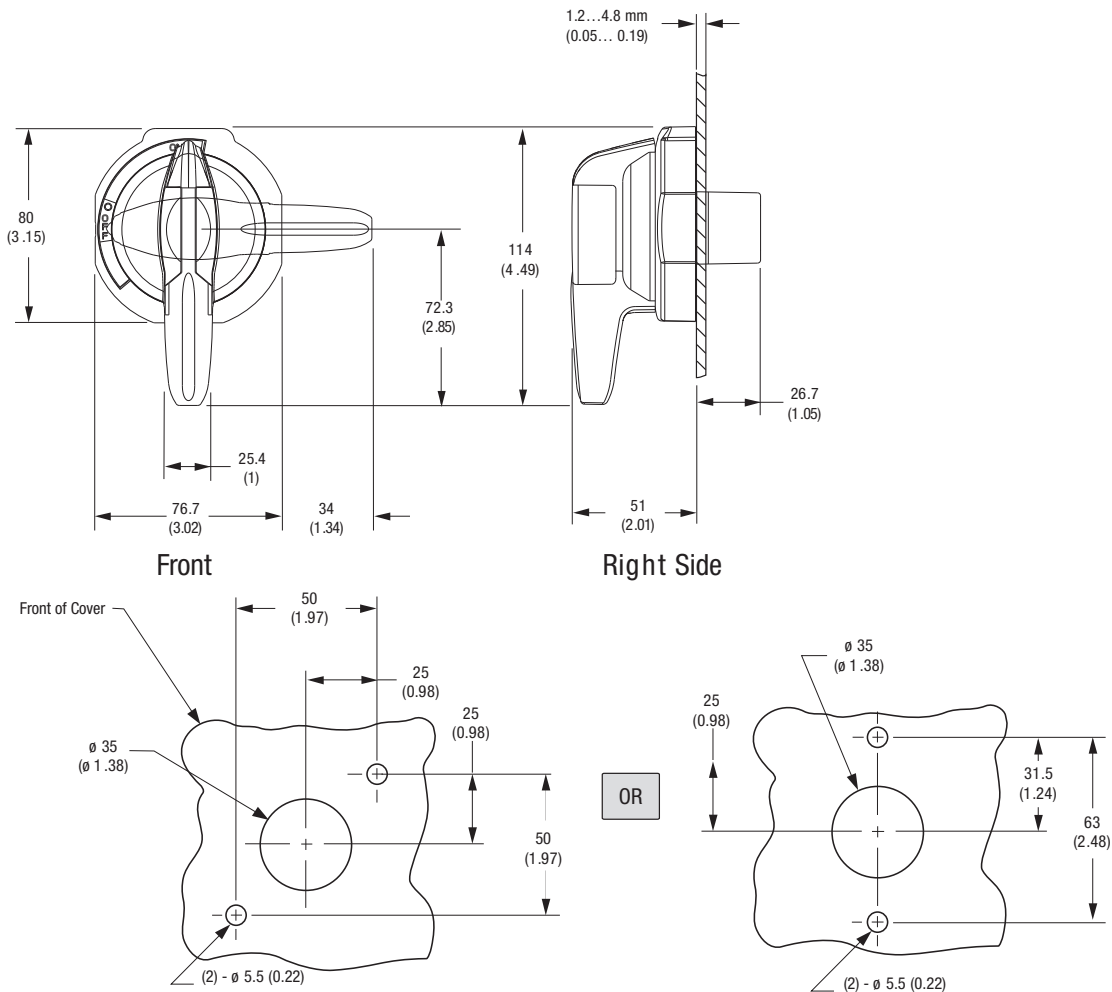


Catalog Number	A ² mm (in)	B mm (in)	C mm (in)
L11-S1	6.35 (0.238)	305 (12)	
L11-S2	6.35 (0.238)	533 (21)	
L11-R7	10 (0.39)	320 (12.6)	~
L11-R8	10 (0.39)	580 (22.8)	~
L11-R9	12 (0.47)	320 (12.6)	22 (0.87)
L11-R10	12 (0.47)	560 (22)	22 (0.87)
L11-R11	12 (0.47)	320 (12.6)	22 (0.87)
L11-R12	12 (0.47)	560 (22)	22 (0.87)

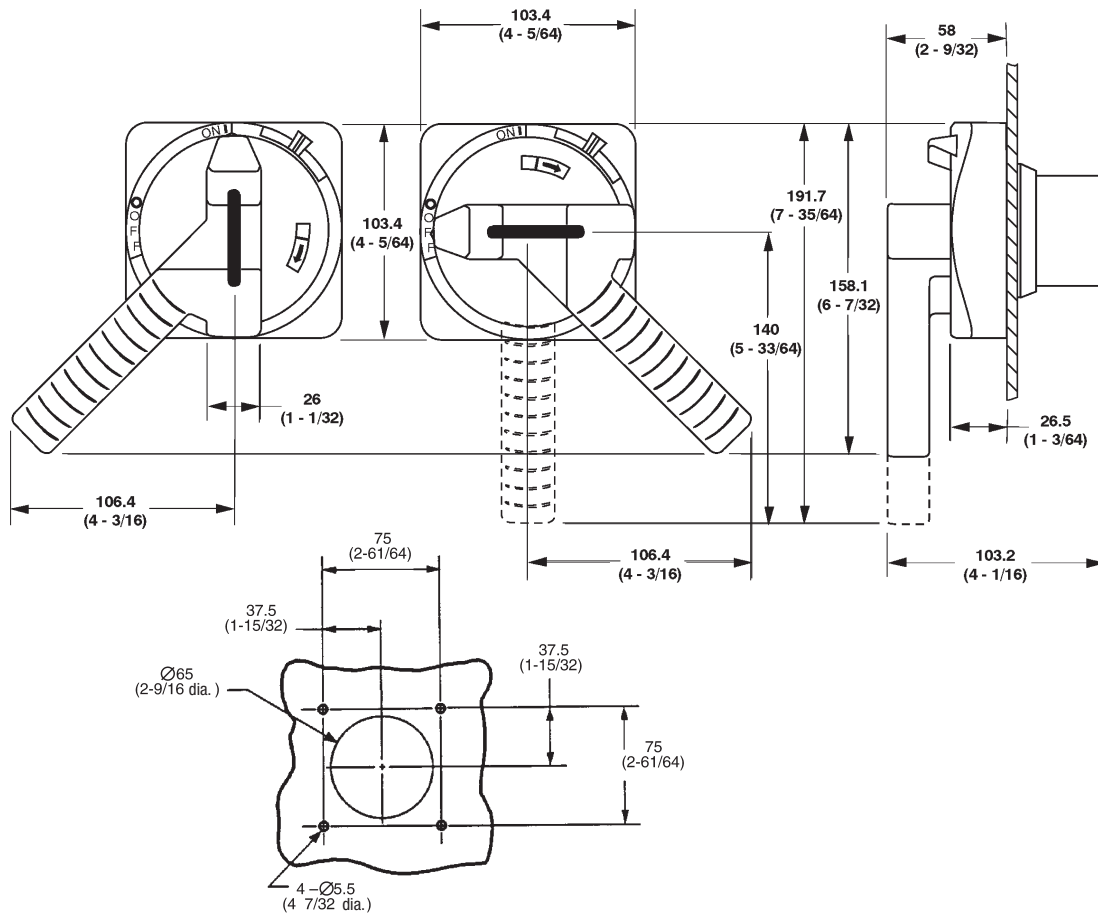
Typical View

L11-P*/L11-P*T Operating Handles

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.

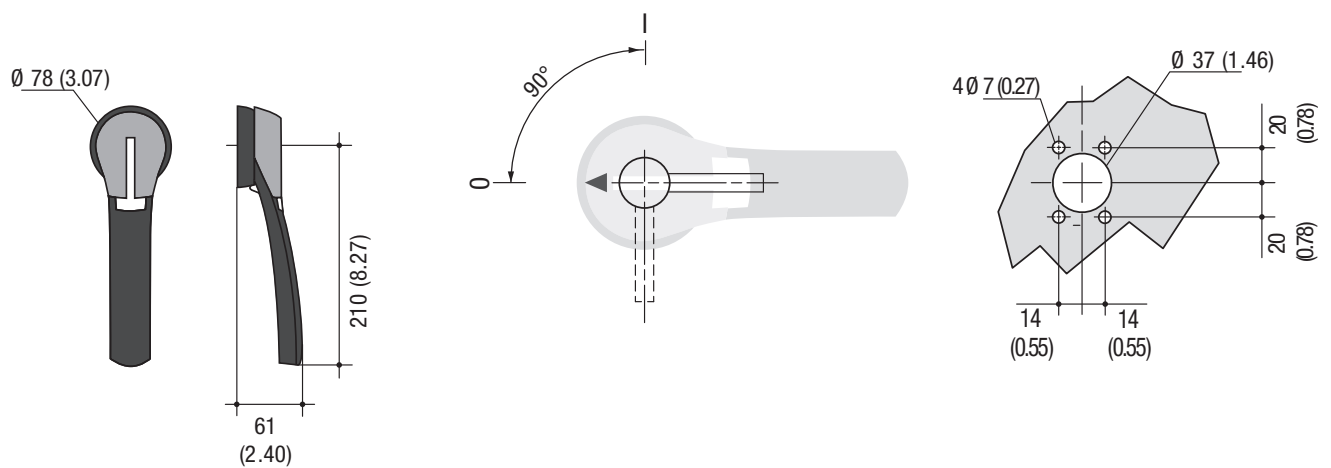


L10-HM4/HM4E Operating Handles



Operating Handles — Cat. No. L10-HM4, -HM4E

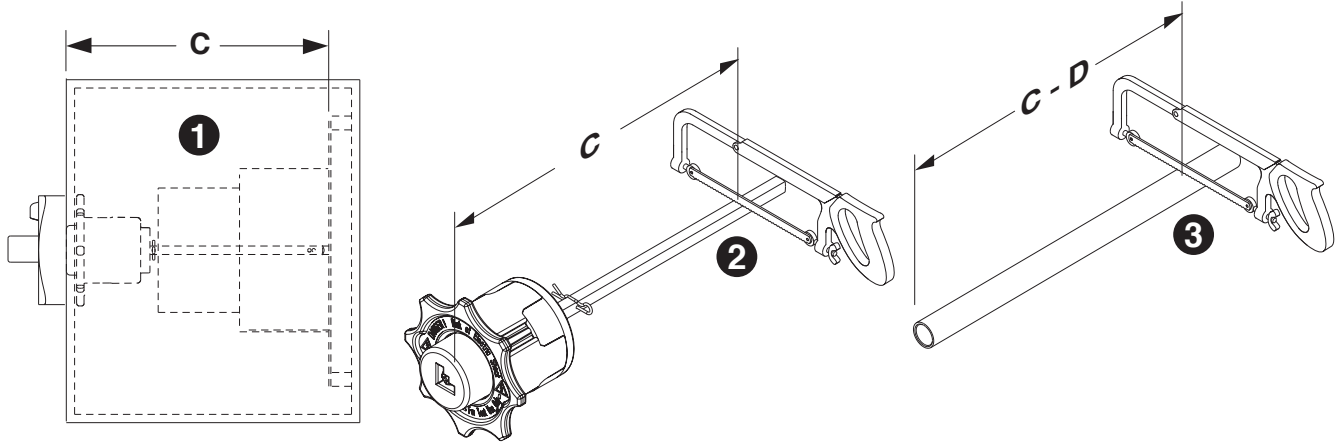
L11-HM4*-L/-N2-L Operating Handles



L11 Disconnect Switches

L11-N1 & L11-N2 Operating Handle (30 & 60A)

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.

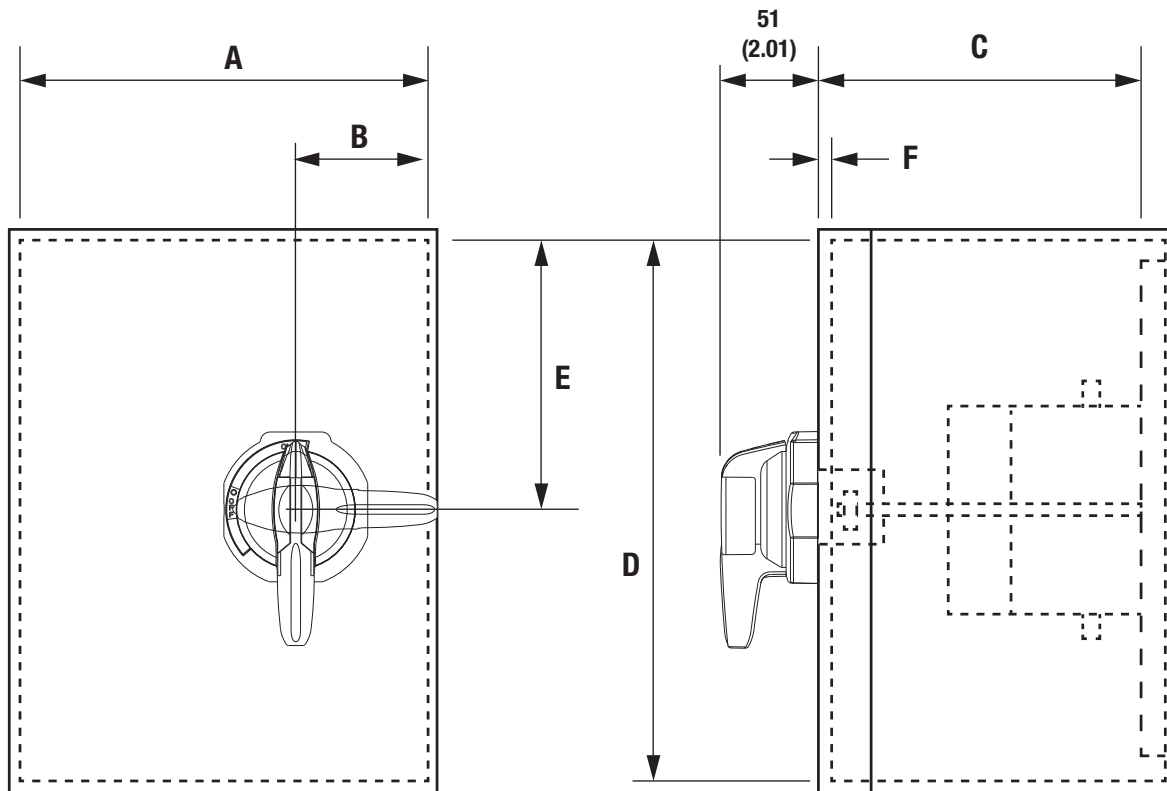


Next Generation L11		
Disconnect	C	D
L11-N30-__	≥ 165 mm 6.5 in	155 mm 6.0 in
L11-B20-__ L11-B32-__ L11-C30-__ L11-F25-__ L11-F32-__ L11-J30-__	≥ 190 mm 7.5 in	
L11-N60-__	≥ 180 mm 7.0 in	
L11-B63-__ L11-D32-__ L11-D63-__ L11-F63-__ L11-H30-__ L11-H60-__ L11-J60-__	≥ 205 mm 8.0 in	170 mm 6.75 in

Legacy L10		
Disconnect	C	D
L10-NN030-__	≥ 170 mm 6.75 in	140 mm 5.5 in
L10-NC030-__ L10-NJ030-__ L10-NA100-__ L10-NA200-__	≥ 210 mm 8.25 in	
L10-NN060-__	≥ 170 mm 6.75 in	
L10-NJ060-__ L10-NA300-__	≥ 210 mm 8.25 in	115 mm 4.5 in

L11 Enclosure and Operating Handle Dimensions

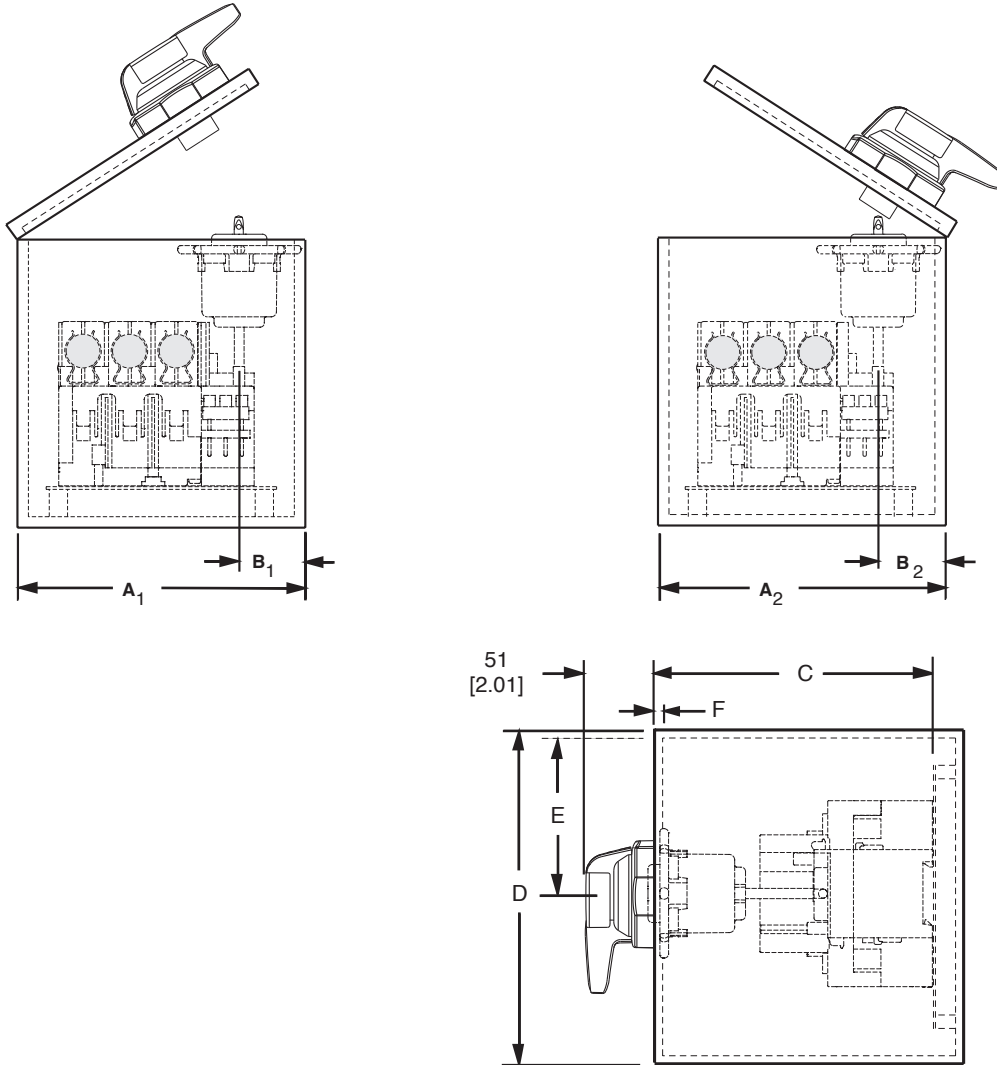
Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.



Catalog Number	Dimension Reference	A		C		D		E		F	
		Maximum	Minimum	Minimum	Maximum	Minimum	Minimum	Minimum	Maximum		
L11-C30-1753 L11-J30-1753	A1	171 (6-3/4)	45 (1-49/64)	147.6 (5-13/16)	454 (17-7/8)	248 (9-3/4)	89 (3-1/2)	1.4 (1/16)	4/78 (3/16)		
L11-N30-1753	A2	171 (6-3/4)	45 (1-49/64)	111 (4-3/8)	454 (17-7/8)	248 (9-3/4)	89 (3-1/2)	1.4 (1/16)	4/78 (3/16)		
L11-J60-1753 L11-H30-1753 L11-H60-1753	B1	197 (7-3/4)	45 (1-49/64)	147.6 (5-13/16)	454 (17-7/8)	248 (9-3/4)	105 (4-9/64)	1.4 (1/16)	4/78 (3/16)		
L11-N60-1753	B2	197 (7-3/4)	45 (1-49/64)	111 (4-3/8)	454 (17-7/8)	248 (9-3/4)	105 (4-9/64)	1.4 (1/16)	4/78 (3/16)		

L11 Enclosure Installation Dimensions

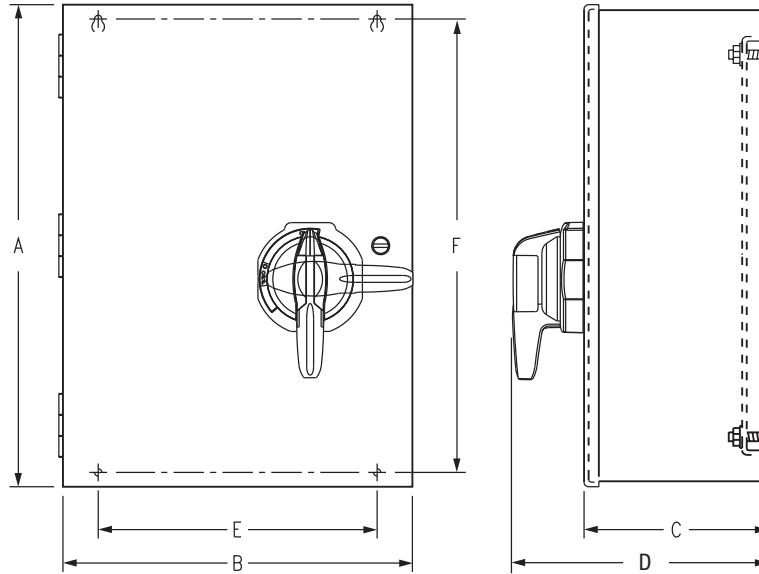
Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.



Catalog Number	Dimension Reference	A1	A2	B	B	C		D	E	F	
		Min.	Min.	Min.	Min.	Min.	Max.	Min.	Min.	Min.	Max.
L11-C30-1753 L11-J30-1753	A1	171 (6-3/4)	203 (7-63/64)	45 (1-49/64)	76 (3)	178 (7)	454 (17-7/8)	248 (9-3/4)	89 (3-1/2)	1.4 (1/16)	4.78 (3/16)
L11-N30-1753	A2	171 (6-3/4)	203 (7-63/64)	45 (1-49/64)	76 (3)	178 (7)	454 (17-7/8)	248 (9-3/4)	89 (3-1/2)	1.4 (1/16)	4.78 (3/16)
L11-J60-1753 L11-H30-1753 L11-H60-1753	B1	197 (7-3/4)	228 (8-63/64)	45 (1-49/64)	76 (3)	178 (7)	454 (17-7/8)	248 (9-3/4)	105 (4-9/64)	1.4 (1/16)	4.78 (3/16)
L11-N60-1753	B2	197 (7-3/4)	228 (8-63/64)	45 (1-49/64)	76 (3)	178 (7)	454 (17-7/8)	248 (9-3/4)	105 (4-9/64)	1.4 (1/16)	4.78 (3/16)

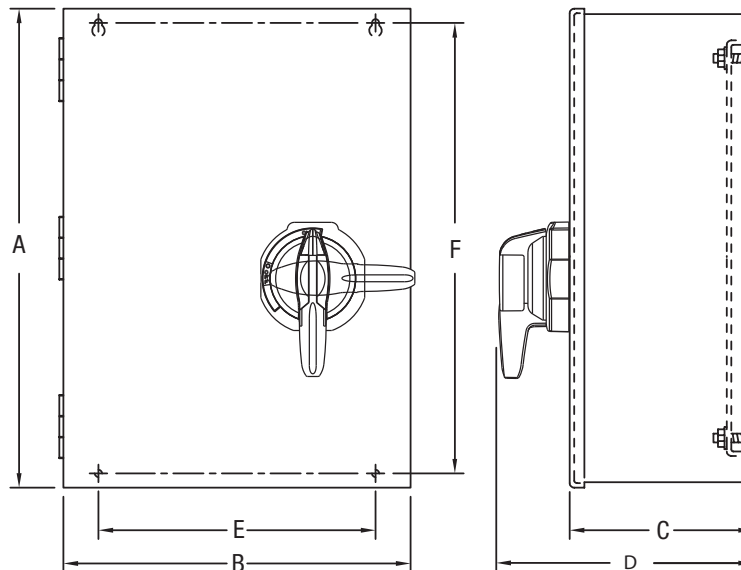
Type 3/4/12 - Watertight, Dusttight Sheet Metal Enclosure (30 & 60A)

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.



Amps	Type	Dim. Ref.	A	B	C	D	E	F
30	Fused & Non-fused	A1, A2	305 (12.00)	305 (12.00)	173 (6.80)	224 (8.81)	267 (10.5)	267 (10.5)
60	Fused & Non-fused	B1, B2	305 (12.00)	305 (12.00)	173 (6.80)	224 (8.81)	267 (10.5)	267 (10.5)

Type 4/4X Watertight, Corrosion-Resistant Stainless Steel Enclosure (30 & 60A)

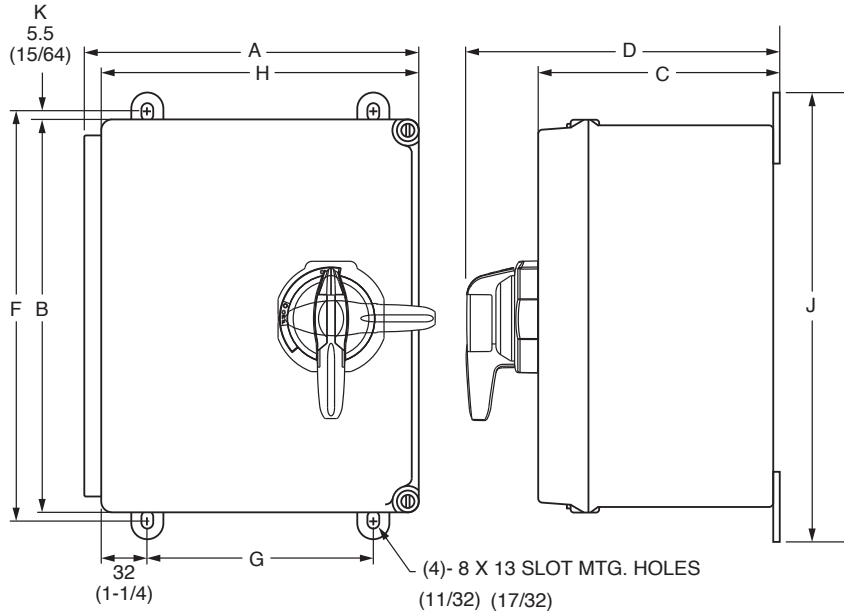


Amps	Type	Dim. Ref.	A	B	C	D	E	F
30	Fused & Non-fused	A1, A2	305 (12.00)	305 (12.00)	173 (6.80)	224 (8.81)	267 (10.5)	267 (10.5)
60	Fused & Non-fused	B1, B2	305 (12.00)	305 (12.00)	173 (6.80)	224 (8.81)	267 (10.5)	267 (10.5)

L11 Disconnect Switches

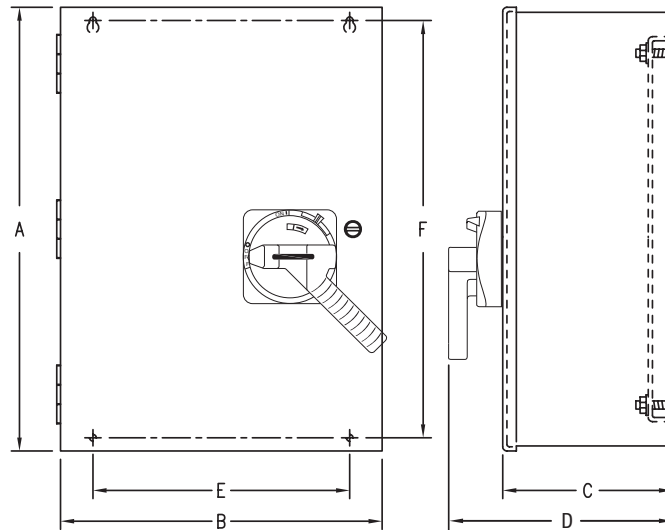
Type 4/4X - Corrosion Resistant Non-Metallic Enclosure (30 & 60A)

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.



Amps	Type	Dim. Ref.	A	B	C	D	F	G	H	J	K
30 & 60	Fused & Non-Fused	A1 & A2 B1 & B2	226 (8.92)	267 (10.52)	163 (6.42)	214 (8.43)	278 (10.95)	152 (8.0)	216 (8.50)	305 (12.0)	6 (0.23)

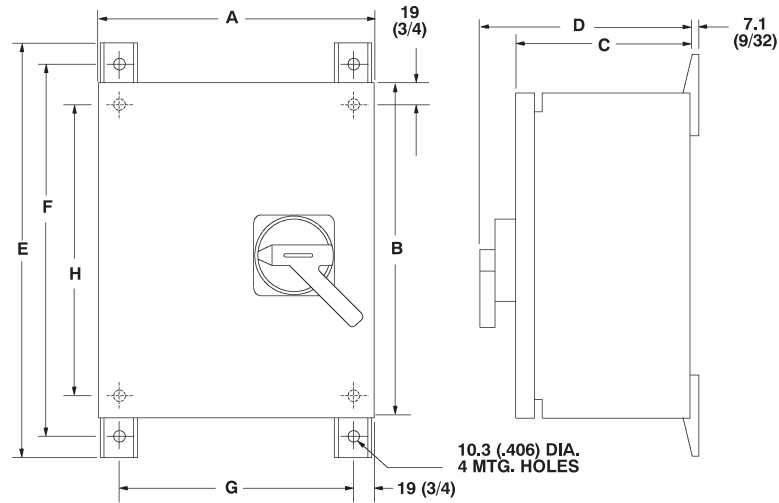
Type 4/12 Metallic and Type 4/4X Stainless Steel Enclosure (100A)



Amps	Type	Dim. Ref.	A	B	C	D	E	F
100	Fused & Non-fused	C1	406 (16.00)	406 (16.00)	224 (8.80)	282 (11.10)	368 (14.5)	368 (14.5)

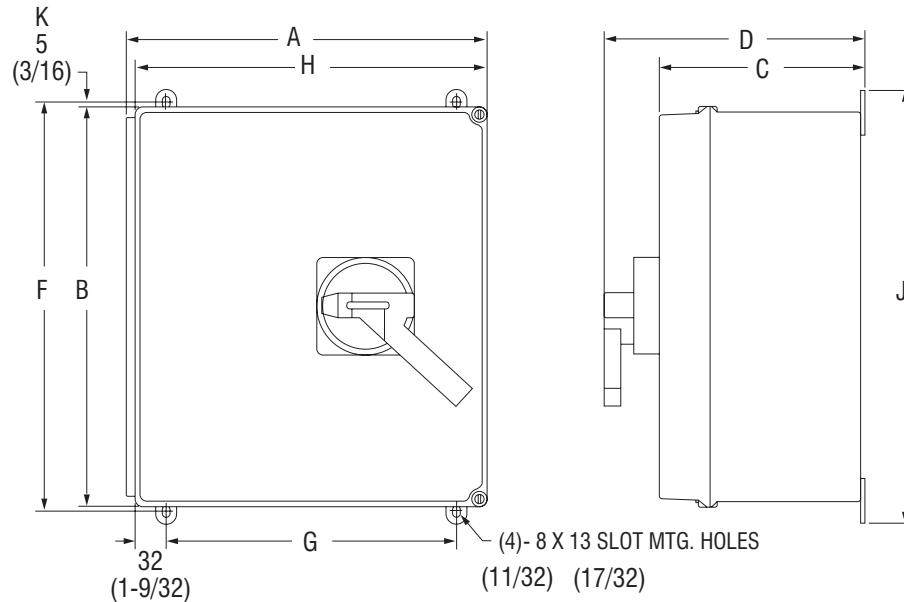
Type 4/12 Metallic and Type 4/4X Stainless Steel Enclosure (200 & 400A)

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.



Amps	Type	Dim. Ref.	A	B	C	D	E	F	G	H
200	Fused & Non-Fused	D1	406 (16)	610 (24)	224 (8-51/64)	282 (11-5/64)	688 (27-5/64)	650 (25-19/32)	368 (14-1/2)	572 (22-1/2)
400	Fused & Non-Fused	F1	610 (24)	762 (30)	326 (12-51/64)	384 (15-5/64)	840 (33-5/64)	802 (31-15/32)	572 (22-1/2)	724 (28-1/2)

Type 4/4X Corrosion Resistant Non-Metallic Enclosure (100A)

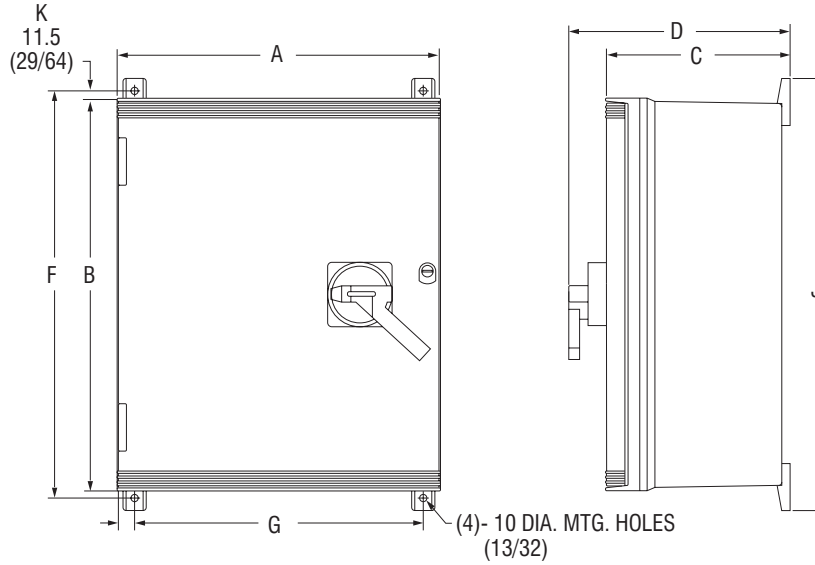


Amps	Type	Dim. Ref.	A	B	C	D	F	G	H	J	K
100	Fused & Non-Fused	C1	380 (14-31/32)	420 (16-1/4)	215 (8-31/64)	273 (10-49/64)	430 (16-61/64)	305 (12)	370 (14-9/16)	457 (18)	5 (13/64)

L11 Disconnect Switches

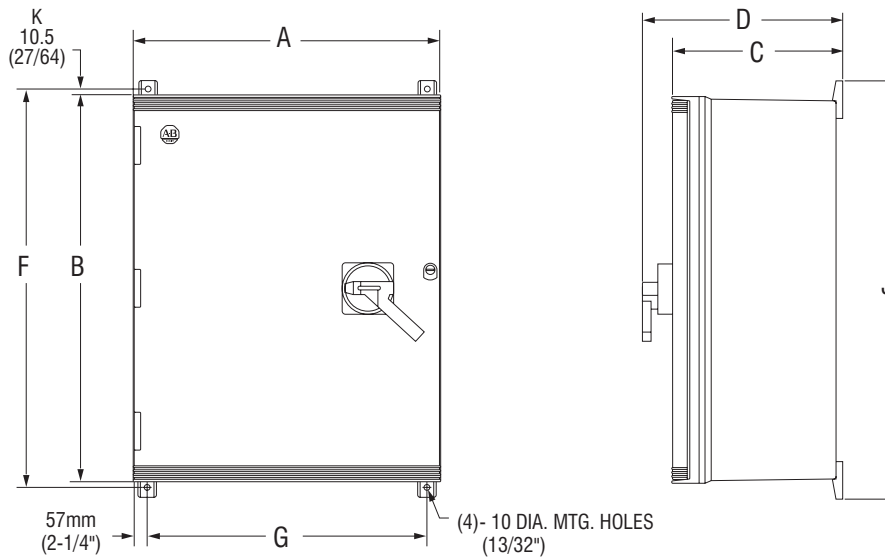
Type 4/4X Corrosion Resistant Non-Metallic Enclosure (200A)

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.



Amps	Type	Dim. Ref.	A	B	C	D	F	G	J	K
200	Fused & Non-Fused	D1	513 (20-13/64)	625 (24-5/8)	292 (11-31/64)	350 (13-25/32)	648 (25-1/2)	457 (18)	686 (27)	11.5 (29/64)

Type 4/4X Corrosion Resistant Non-Metallic Enclosure (400A)



Amps	Type	Dim. Ref.	A	B	C	D	F	G	J	K
400	Fused & Non-Fused	F1	612 (24 1/8)	775 (30 33/64)	343 (13 31/64)	401 (15 23/32)	796 (31 31/32)	555 (21 7/8)	834 (32 27/32)	10.5 (13/32)