



9421 Type L
Circuit Breaker Mechanism

Type L Circuit Breaker Mechanisms

Type L door-mounted, variable depth operating mechanisms feature heavy duty, all metal construction with trip indication. All mechanisms can be padlocked in the "OFF" position when the enclosure door is open. Further, the handle assemblies can be locked "OFF" with up to three padlocks, which also locks the enclosure when the door is closed. (The 3" handle accepts one padlock.) Complete kits are rated for NEMA Type 1, 3R, and 12 enclosures. They include a handle assembly, operating mechanism, and shaft assembly.

Table 8.56: Complete Kits

Complete Kit Does Not Include Circuit Breaker			Includes: Operating Mechanism Standard 6 in. Handle Standard Shaft Kit		Includes: Operating Mechanism Standard 6 in. Handle Long Shaft Kit		Includes: Operating Mechanism Short 3 in. Handle Long Shaft Kit	
Use With			Type	Mounting Depth [1]	Type	Mounting Depth [1]	Type	Mounting Depth [1]
Circuit Breaker or Interrupter Type	No. of Poles	Frame Size (A)	Type	Min. – Max.	Type	Min. – Max.	Type	Min. – Max.
NSF, PowerPact™ H and J	2-3	250	LJ1	5-1/2-10-3/4	LJ4	5-1/2-21-3/8	LJ3	5-1/2-21-3/8
PowerPact D and L	2-3	600	LD1	7-1/4-12-1/16	LD4	7-1/4-22-5/8		
PowerPact M and P [2]	3	1200	LW1 [4]	9.00-12.50	LW4 [5]	9.00-23.50		3 in. handles are not recommended for use with these circuit breakers.

Table 8.57: Component Parts

Use With			3 in. Handle Assemblies Type 1, 3R, 12			Standard Shaft (Support Bracket Not Required)		Long Shaft (Support Bracket Included)	
Circuit Breaker or Interrupter Type	No. of Poles	Frame Size (A)	Type	Type	Type	Mounting Depth [7]	Type	Mounting Depth [7]	Type
						Min. – Max.		Min. – Max.	
NSF, PowerPact H & J	2-3	250	LH3 [6]	LH6 [6]	LJ7	5-1/2-10-1/4	LS8	5-1/2-21-3/8	LS13
PowerPact D & L	2-3	600	[7]	LH6 [6]	LD7	7-1/4-12-1/16	LS8	7-1/4-22-5/8	LS13
PowerPact M & P [2]	3	1200	[7]	LHP8 [6]	LW7	7-3/16-11-5/8	LS8	7-3/16-22-1/4	LS10



3 in. Handle Assembly



Standard Handle Assembly

Table 8.58: NEMA Type 4 and 4X Handle Assemblies

Use With			Standard Handle Assemblies		Special 3 in. Version	
Circuit Breaker or Interrupter Type	No. of Poles	Frame Size (A)	NEMA Type 1, 3R, 4, 12 (Painted)	NEMA Type 1, 3R, 4, 4X, 12 (Chrome Plated)	NEMA Type 1, 3R, 4, 12 (Painted)	NEMA Type 1, 3R, 4, 4X, 12 (Chrome Plated)
			Type	Type	Type	Type
NSF, PowerPact H and J	2-3	250	LH46	LC46	LH43	LC43
PowerPact D and L	2-3	600	LH46	LC46		
PowerPact M and P	3	1200	LHP48	LCP48		

Table 8.59: Auxiliary and Alarm Switches for PowerPact™ Circuit Breakers [8]

Description	H- and J-Frame	D- and L-Frame	D- and L-Frame
1 Auxiliary Switch 1a 1b	S29450	S29450	S29450
2 Auxiliary Switch 2a 2b	2 x S29450	2 x S29450	2 x S29450
3 Auxiliary Switch 3a 3b	—	3 x S29450	3 x S29450

NOTE: The location of the accessory in the circuit breaker determines its function.

[1] Mounting depth measured in inches from circuit breaker mounting surface (control panel) to outside of enclosure door.

[2] These circuit breaker operating mechanisms must use the 9421LHP** or LCP** handles only.

[3] Type LW1 and LW4 include an 8 in. handle (9421LHP8) rather than a 6 in. handle.

[4] Type LW1 and LW4 include an 8 in. handle (9421LHP8) rather than a 6 in. handle.

[5] Type LW1 and LW4 include an 8 in. handle (9421LHP8) rather than a 6 in. handle.

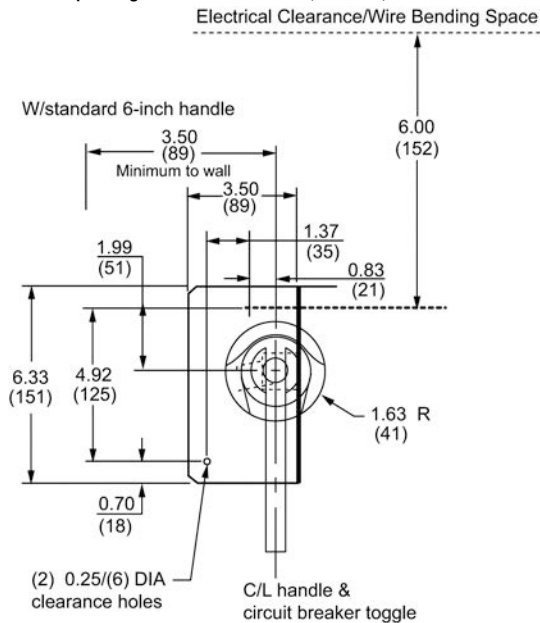
[6] For a red handle and yellow bezel, add suffix RY to catalog number, e.g., 9421LH6RY.

[7] 3 in. handles are not recommended for use with these circuit breakers.

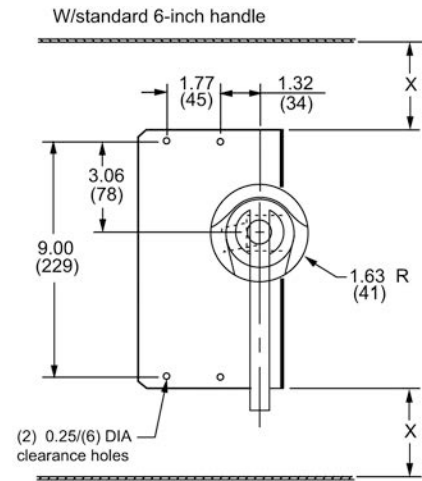
[8] Discount Schedule: DE2.

Dimensions for Type L Operating Mechanisms

Panel Drilling for PowerPact™ H and J Circuit Breaker Operating Mechanisms: 9421LJ1, 9421LJ4, and 9421LJ7

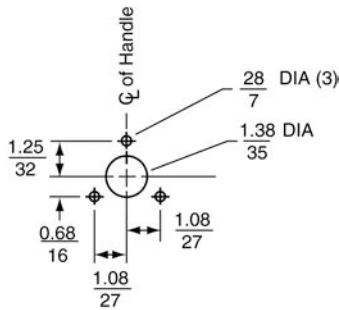


Panel Drilling for PowerPact™ D and L Circuit Breaker Operating Mechanisms: 9421LD1, 9421LD4, and 9421LD7



X: Minimum to wall or barrier to insure adequate wire bending space to lug surface when the maximum wire size is used. Refer to NEC 430-10.

Panel Drilling for PowerPact™ M and P Circuit Breaker Operating Mechanisms: 9421LW1, 9421LW4, and 9421LW7



Door Drilling Dimensions

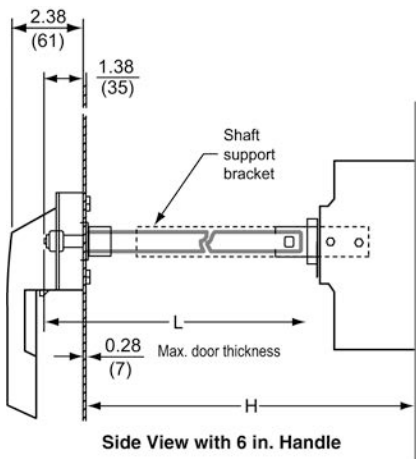
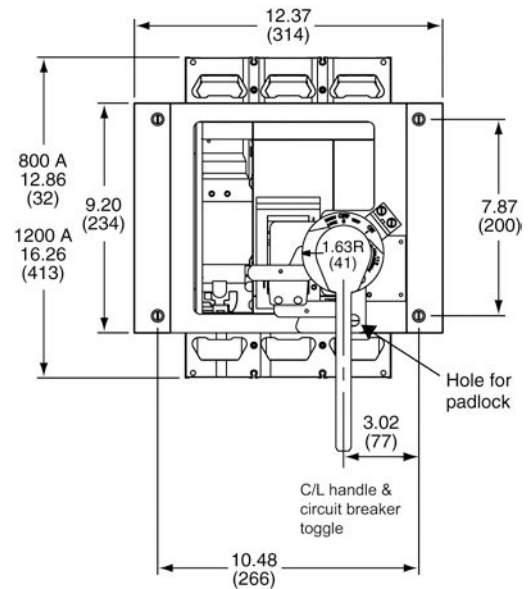


Table 8.60: Shaft Cutting Dimensions

Class	Type	Shaft Length Formula	H = Standard Shaft		H = Long Shaft	
			Min.	Max.	Min.	Max.
9421	LJ1, LJ4, LJ7	L = H - 3.0-0/76	5.5 138	10.75 273	5.5 138	21.63 543
9421	LD1, LD4, LD7	L = H - 4.2-5/108	7.25 184	12.06 306	7.25 184	22.63 575
9421	LW1, LW4, LW7	L = H - 4.8-9/124	7.19 183	11.63 295	7.19 183	22.25 565