



Non-fused Rotary Disconnect Switch Specifications

Bulletin 194U

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Summary of Changes

This publication contains the following new or updated information. This list includes substantive updates only and is not intended to reflect all changes.

Topic	Page
Updated fuse information	6
Corrected short-circuit current rating information labels	7

Catalog Number Explanation

Examples that are given in this section are not intended to be used for product selection. Not all combinations generate a valid cat. no. Use ProposalWorks software to configure the 194U Disconnect Switch. ProposalWorks software is available from rok.auto/systemtools.

$\frac{194U}{a} - \frac{A}{b} \frac{30}{c} - \frac{1753}{d}$

a	
Bulletin Number	
Code	Description
194U	Non-fused disconnect switch

b	
Mounting Type	
Code	Description
A	DIN Rail/Base mount
E	Front Mount

c		
Rated Current [A]		
Code	UL	IEC
30	30	40
60	60	63
100	100	125
160	125	160

d	
No. of Poles, OFF-ON 90° Configuration	
Code	Description
1753	3 Poles
1754	4 Poles (160 A devices only)

Product Selection

Disconnect Switch Bodies

	Description	Rated Current [A]		No. of Poles	Cat. No.
		UL	IEC		
	Base Mount Disconnect Switch	30	40	3	194U-A30-1753
		60	63		194U-A60-1753
		100	125		194U-A100-1753
		125	160	3	194U-A160-1753
				4	194U-A160-1754
	Front Mount Disconnect Switch	30	40	3	194U-E30-1753
		60	63		194U-E60-1753
		100	125		194U-E100-1753
		125	160	3	194U-E160-1753
				4	194U-E160-1754

Disconnect Switch Kits

	Description	Handle Color	Rated Current [A]		No. of Poles	Cat. No.
			UL	IEC		
	Front-mounted disconnect switch kit • Contains switch body, handle, and shaft	Black	125	160	3	194U-160DMK-3B
		Red/yellow			4	194U-160DMK-4B
					3	194U-160DMK-3Y
					4	194U-160DMK-4Y

Accessories

Switch Handles

	Description	For Use With	Color	Cat. No.
	Padlockable handle, standard • Type 3R, 3, 12, 4, 4X • IP66	Bul. 194U base-mounted switches, 30...160 A	Black	194R-PB
			Red/yellow	194R-PY
	Padlockable handle, standard • Type 3R, 3, 12, 4, 4X • IP66	Bul. 194U base-mounted switches, 30...100 A	Black	194E-SB
			Red/yellow	194E-SY
	Padlockable handle, standard • Type 3R, 3, 12, 4, 4X • IP66 • Requires Cat. No. 194U-DMA	Bul. 194U front-mounted switches, 160 A	Black	194U-FB
			Red/yellow	194U-FY
	NFPA 79 internal operating handle with 12 in. (30.48 cm) shaft • Requires 194U-LOTO adapter	Bul. 194U base-mounted switches, 30...160 A with 194R-PB, 194R-PY, 194E-SB, and 194E-SY handles only	—	194U-N1

Switch Handles with Legend Plates

	Description	Legend Marking	Switch Current Rating	For Use With	Color	Cat. No.
	Type N handle • 67 x 67 mm (2-41/64 x 2-41/64 in.) • Locking for up to three padlocks (padlocks not included) • Type 1/12	0 - I OFF-ON	30...100 A	Front- and base-mounted switches	Red/yellow	194L-HE6N-175
	Type G handle • 67 x 67 mm (2-41/64 x 2-41/64 in.) • Locking for up to three padlocks (padlocks not included) • Type 1/12	0 - I OFF-ON	30...100 A	Front- and base-mounted switches	Black/grey	194L-HE6G-175
	Type L handle • 67 x 67 mm (2-41/64 x 2-41/64 in.) • Locking for one padlock (padlock not included) • Type 1/12	0 - I	30...100 A	Front- and base-mounted switches	Red/yellow	194L-HE6L-175
		OFF-ON				194L-HE6L-175I
	Type E handle • 67 x 67 mm (2-41/64 x 2-41/64 in.) • Locking for one padlock (padlock not included) • Type 1/12	0 - I	30...100 A	Front- and base-mounted switches	Black/grey	194L-HE6E-175
		OFF-ON				194L-HE6E-175I
	Type I handle • 67 x 67 mm (2-41/64 x 2-41/64 in.) • Type 1/12	0 - I	30...100 A	Front- and base-mounted switches	Red/yellow	194L-HE6I-175
		OFF-ON				194L-HE6I-175I
	Type A handle • 67 x 67 mm (2-41/64 x 2-41/64 in.) • Type 1/12	0 - I	30...100 A	Front- and base-mounted switches	Black/grey	194L-HE6A-175
		OFF-ON				194L-HE6A-175I

Additional Terminals

	Description	Mounting Style	For Use With	Cat. No.
	Ground terminal	Base	30, 60 A switches	194U-A60-PE
			100 A switches	194U-A100-PE
		Front/Door	30, 60 A switches	194U-E60-PE
			100 A switches	194U-E100-PE
	4th pole terminal	Base	100 A switches ⁽¹⁾	194U-A100-FP
		Front/Door	100 A switches ⁽¹⁾	194U-E100-FP

(1) May be used with 30...60 A disconnect switch with the wire range of 100 A device.

Other Accessories

	Description		For Use With	Cat. No.
	Extension kit for G, N, I, A, L, E handles	9.25 in. (23.5 cm)	Base-mounted 30...100 A switches	194U-G3393
		13.9 in. (35.3 cm)		194U-G3394
	Shaft for G, N, I, A, L, E handles		Front-mounted 30...100 A switches	194U-G3688
	Shaft for 194R-P and 194E-S handles	12 in. (30.5 cm)	Base-mounted 30...160 A switches	194U-S1
		21 in. (53.3 cm)		194U-S2
	Front-mount handle adapter • for use with 194U-F padlockable handles		160 A switches	194U-DMA
	Auxiliary contact	N.C.	30...160 A switches	194U-NC
		N.O.		194U-NO
		N.O./N.C.	30...100 A switches	194U-NONC
	Terminal Shroud	1-pole (qty: 1)	30...100 A switches	194U-C1
		3-pole (qty: 1)	30...100 A switches	194U-C3
		4-pole (qty: 1)	160 A switches	194U-160-C3
			160 A switches	194U-160-C4
	Padlock accessory ⁽¹⁾		base-mounted 30...160 A switches	194U-LOT0
	Repair Kit • 4 screws for 194L-HE handle • 6 bolts for 194U-F handle front mount • metal ring for 194U-LOT0		base- and front-mounted 30...160 A switches	194U-RK

(1) Required for Cat. No. 194U-N1.

Specifications

Table 1 - UL Ratings

		194U-*30	194U-*60	194U-*100	194U-*160	
Standards Compliance		UL98, cULus	UL98, cULus	UL98, cULus	UL98, cULus	UR
Ampere rating	[A]	30	60	100	100	125
Max Voltage	[V AC]	600	600	600	600	600
Max Hp/FLA, 3-phase AC						
240V	[Hp/A]	10/28	20/54	30/80	40/104	40/104
480V	[Hp/A]	20/27	40/52	50/65	75/96	75/96
600V	[Hp/A]	30/32	30/32	30/32	100/99	100/99
Max Hp/FLA, 1-phase AC						
120V	[Hp/A]	2/24	3/34	5/56	—	—
240V	[Hp/A]	5/28	7.5/40	15/68	20/88	20/88
480V	[Hp/A]	—	—	—	30/66	30/66
Max Hp/FLA, 250V DC	[Hp/A]	—	—	—	20/60	20/60
Short Circuit rating						
Fuse size	[A]	60	60	150/100	200	200
J fuse	[kA]	200	200	50/200	100	100
T fuse	[kA]	200	200	50/200	100	100
Electrical endurance, operating cycles		6000	6000	6000	6000	6000
Mechanical endurance, operating cycles		10000	10000	10000	10000	10000
Wire range	[mm ²]	10...70	10...70	10...70	10...70	10...70
	[AWG]	14...4	14...4	8...1/0	8...1/0	8...1/0
Tightening torque	[lb•in]	55	55	55	53	53

Table 2 - IEC Ratings

IEC Specification		194U-*30	194U-*60	194U-*100	194U-*160
Standards Compliance		EAC, IEC	EAC, IEC	EAC, IEC, CCC	EAC, IEC, CCC
Rated insulation Voltage/Operational voltage AC20/DC20	[V]	750	750	750	1000
Rated impulse withstand voltage	[kV]	8	8	8	12
Rated operational current, AC-20/DC20					
Open/Enclosed	35 °C (95 °F)	[A]	—	—	160
	40 °C (104 °F)	[A]	—	125	160
Enclosed	35 °C (95 °F)	[A]	—	—	160
	40 °C (104 °F)	[A]	—	100	—
Cu Wire cross section	[mm ²]	—	—	50	70
Rated operational current, AC-21A					
415...690V	[A]	—	—	125	160
Rated operational current, AC-22A					
415...690V	[A]	40	63	125	160
Rated operational current, AC-23A					
415V	[A]	40	63	90	160
440V	[A]	40	63	65	—
500V	[A]	40	63	60	160
690V	[A]	40	40	40	160
Rated operational current, DC-21A					
1 pole in series	24...48V	[A]	—	125	—
2 poles in series	110V	[A]	—	125	—
4 poles in series	220V	[A]	—	125	—

Table 2 - IEC Ratings (Continued)

IEC Specification			194U-*30	194U-*60	194U-*100	194U-*160
Rated operational current, DC-22A						
1 pole in series	24...48V	[A]	—	—	125	—
2 poles in series	110V	[A]	—	—	125	—
4 poles in series	220V	[A]	—	—	80	—
Rated operational current, DC-23A						
1 pole in series	24...48V	[A]	—	—	125	—
2 poles in series	110V	[A]	—	—	125	—
4 poles in series	220V	[A]	—	—	63	—
Rated operational power, AC-23A						
220...240V	[kW]	—	—	—	22	45
400...415V	[kW]	15	18.5	45	75	—
440V	[kW]	—	—	45	75	—
500V	[kW]	—	—	45	90	—
690V	[kW]	15	15	45	132	—
Rated breaking capacity, AC-23A						
415V	[A]	—	—	720	1280	—
440V	[A]	—	—	624	1280	—
500V	[A]	184	360	560	1280	—
690V	[A]	96	160	400	1280	—
Rated breaking capacity, DC-23A						
24...48V	[A]	—	—	500	—	—
110V	[A]	—	—	500	—	—
220V	[A]	128	180	252	—	—
Rated conditional SCCR, I_q (r.m.s.) ⁽¹⁾						
I_q (r.m.s.)	50 kA	[kA]	16.5	16.5	16.5	—
Max fuse size gG/aM	up to 415V	[A]	125/125	125/125	125/125	—
I_q (r.m.s.)	100 kA	[kA]	—	—	—	30
Max fuse size gG/aM	500V	[A]	—	—	—	200/200
I_q (r.m.s.)	10 kA	[kA]	8.2	8.2	8.2	—
Max fuse size gG/aM	690V	[A]	125/100	125/100	125/100	—
I_q (r.m.s.)	50 kA	[kA]	10	10	10	24
Max fuse size gG/aM	690V	[A]	63/63	63/63	63/63	200/200
Rated short-time withstand current						
r.m.s.	690V, 1 s	[kA]	2.5	2.5	2.5	4
	690V, 0.25 s	[kA]	—	—	—	7
Peak	690V/500V	[kA]	3.6/3.6	3.6/3.6	3.6/3.6	12/—
Power lost per pole		[W]	0.7	1.6	6.3	6.5
Weight		[kg]	0.4	0.4	0.44	0.9 (3-pole) 1.1 (4-pole)
		[lb]	0.88	0.88	0.97	1.98 (3-pole) 2.42 (4-pole)
Operating temperature		[°C]	-5...+40	-5...+40	-5...+40	-5...+40
		[°F]	23...104	23...104	23...104	23...104
Storage temperature		[°C]	-25...+55	-25...+55	-25...+55	-25...+55
		[°F]	-13...131	-13...131	-13...131	-13...131

(1) Rated conditional short-circuit current I_q (r.m.s.) and corresponding maximum allowed let-through current I_c of fuse. The let-through current I_c refers to values listed by fuse manufacturers (single phase test according to IEC60269)

Approximate Dimensions

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

Figure 1 - 30, 60, and 100 A Base-mounted Switches, 3-pole Devices

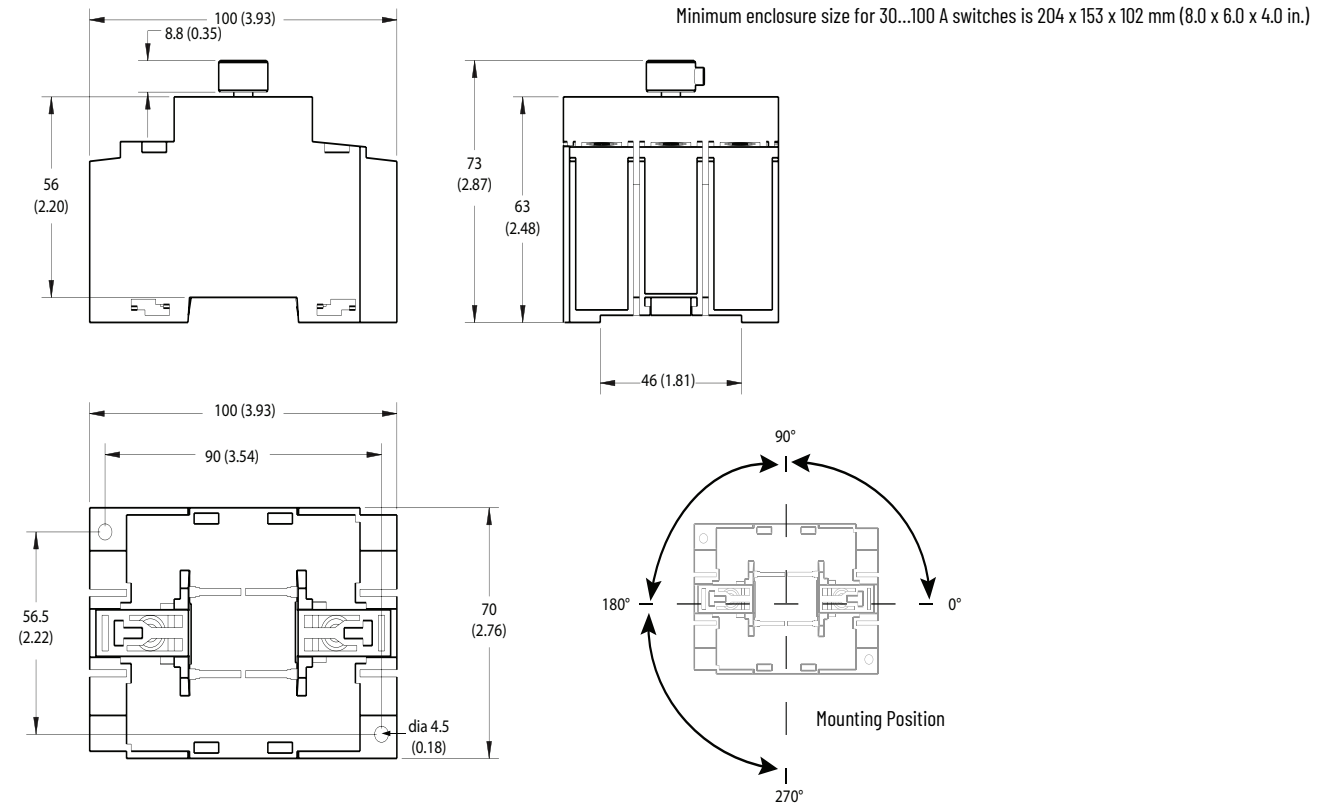


Figure 2 - 30, 60, and 100 A Door-mounted Switches, 3- and 4-pole Devices

Minimum enclosure size for 30...100 A switches is 204 x 153 x 102 mm (8.0 x 6.0 x 4.0 in.)

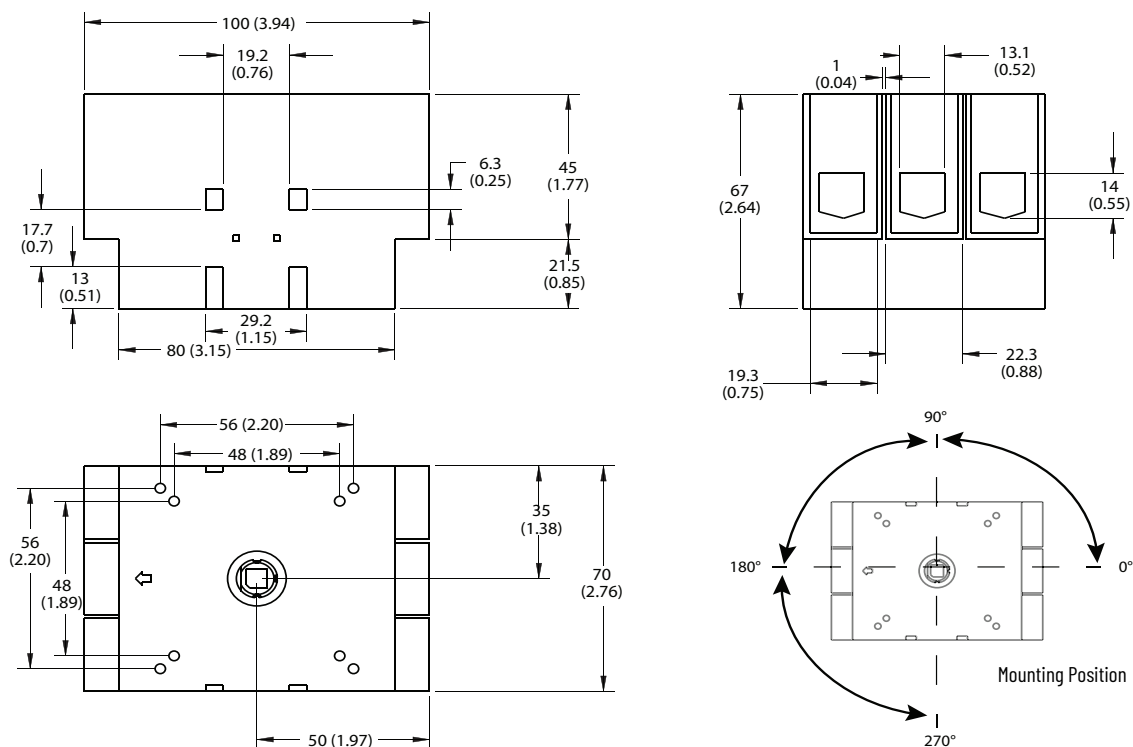


Figure 3 - 160 A Base-mounted Switches, 3-pole Devices

Minimum enclosure size is 400 x 600 x 230 mm (15.76 x 23.64 x 9.06 in.)

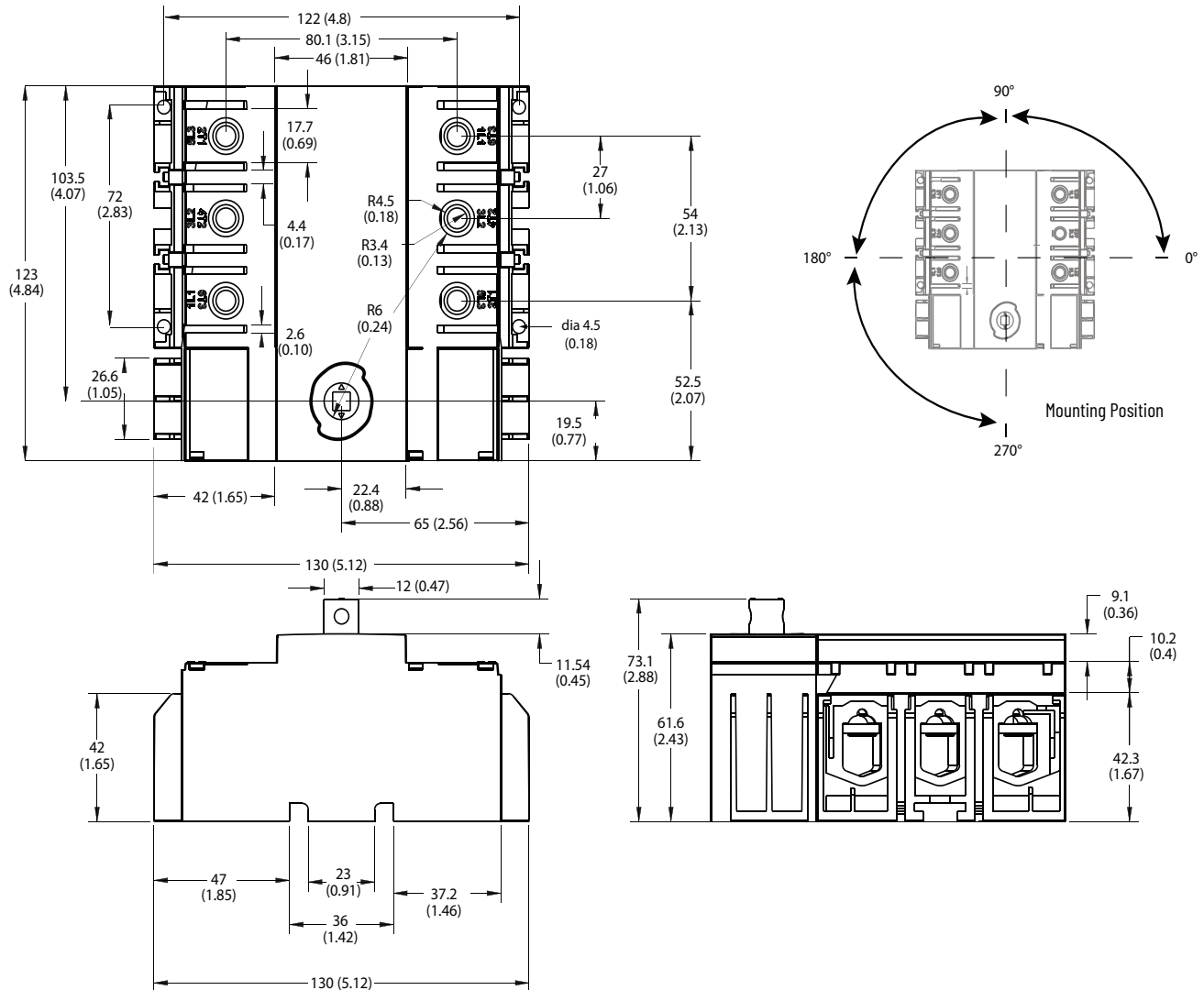


Figure 4 - 160 A Base-mounted Switches, 4-pole Devices

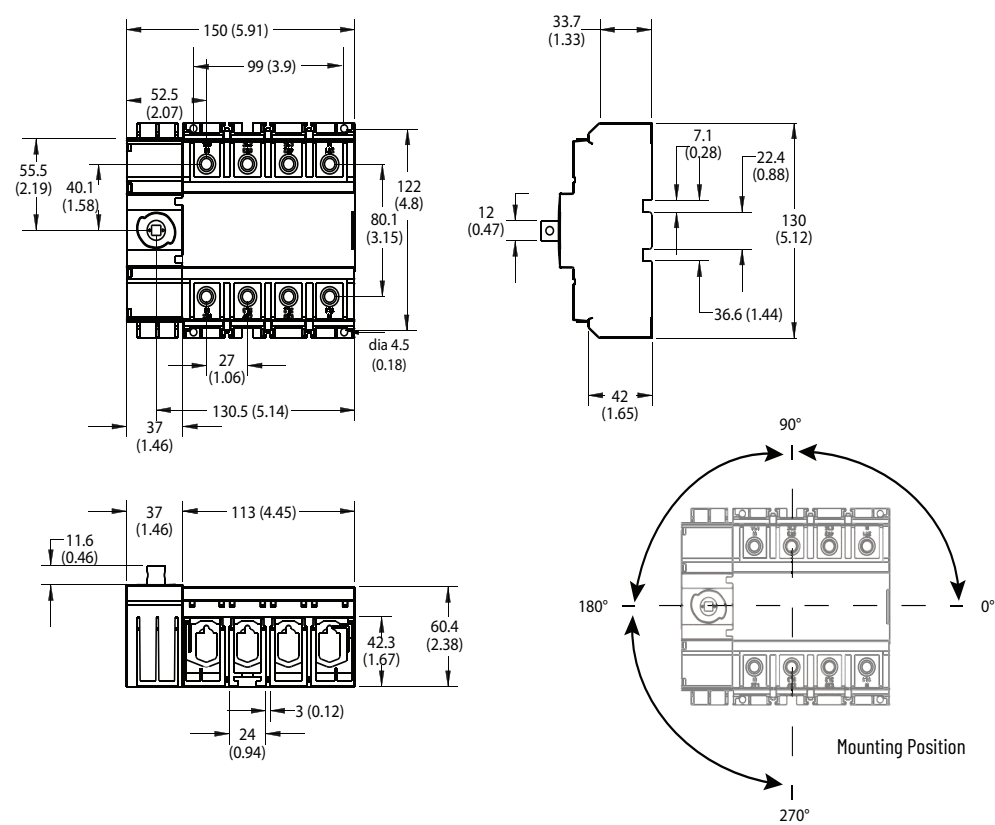


Figure 5 - 160 A Door-mounted Switches, 3-pole Devices

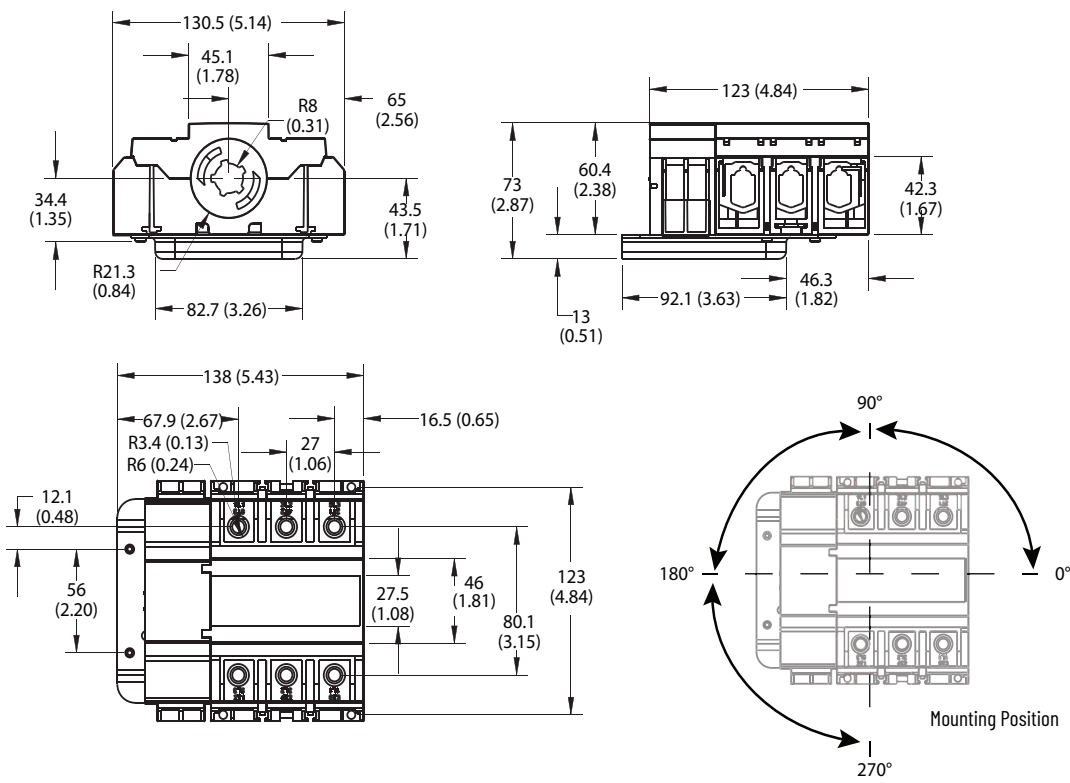
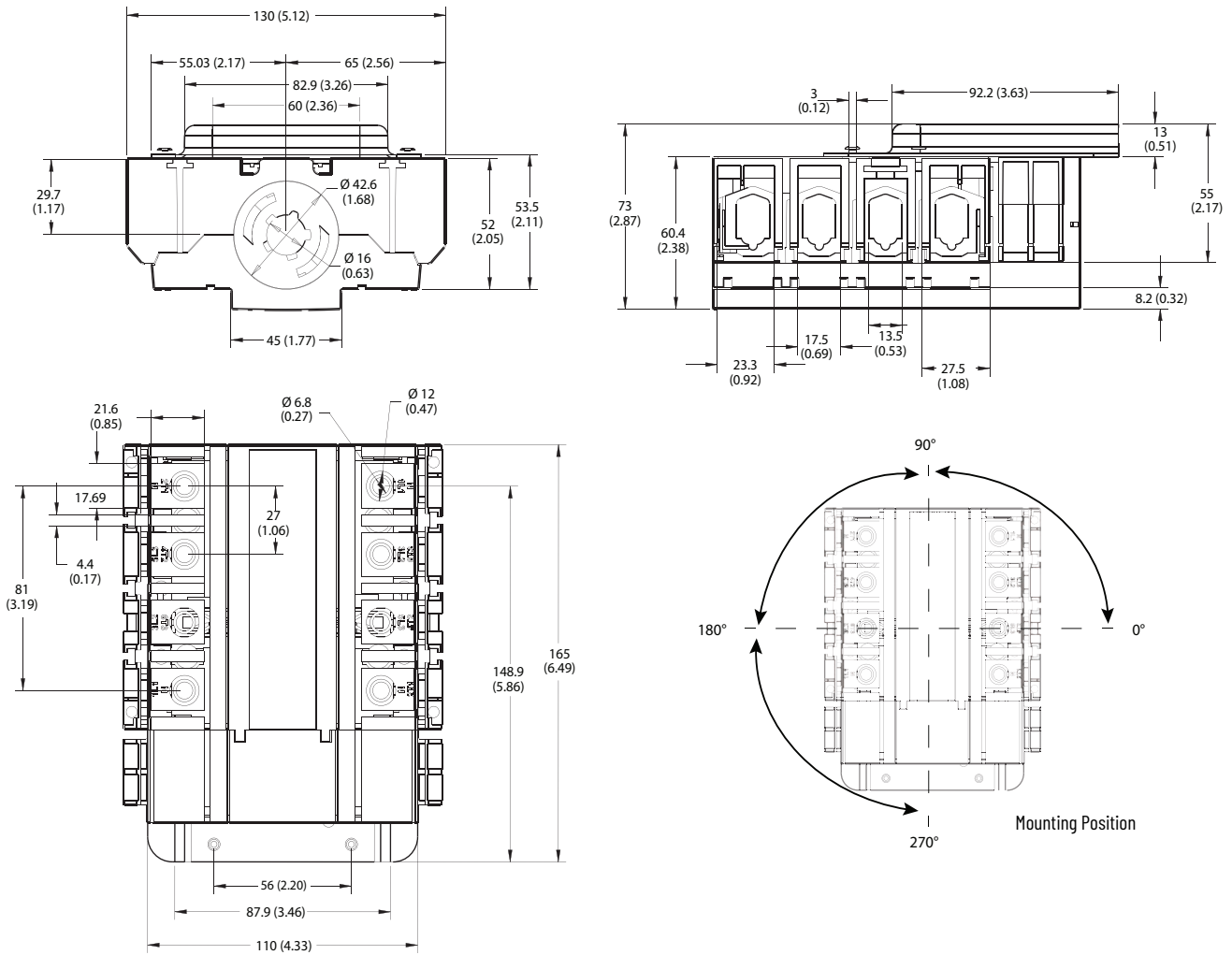


Figure 6 - 160 A Door-mounted Switches, 4-pole Devices


Notes:

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
UL Standards Listing for Industrial Control Products, publication CMPNTS-SR002	Assists original equipment manufacturers (OEMs) with construction of panels, to help ensure that they conform to the requirements of Underwriters Laboratories.
American Standards, Configurations, and Ratings: Introduction to Motor Circuit Design, publication IC-AT001	Provides an overview of American motor circuit design based on methods that are outlined in the NEC.
Industrial Components Preventive Maintenance, Enclosures, and Contact Ratings Specifications, publication IC-TD002	Provides a quick reference tool for Allen-Bradley industrial automation controls and assemblies.
Safety Guidelines for the Application, Installation, and Maintenance of Solid-state Control, publication SGI-1.1	Designed to harmonize with NEMA Standards Publication No. ICS 1.1-1987 and provides general guidelines for the application, installation, and maintenance of solid-state control in the form of individual devices or packaged assemblies incorporating solid-state components.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, rok.auto/certifications .	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at [rok.auto/literature](#).

Rockwell Automation Support

Use these resources to access support information.

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Local Technical Support Phone Numbers	Locate the telephone number for your country.	rok.auto/phonesupport
Literature Library	Find installation instructions, manuals, brochures, and technical data publications.	rok.auto/literature
Product Compatibility and Download Center (PCDC)	Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes.	rok.auto/pcdc

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