

Non-fused Rotary Disconnect Switch Specifications

Bulletin Number 194U

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Summary of Changes

This publication contains data updates and corrections.

Additional Resources

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

Resource	Description
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 <http://www.rockwellautomation.com/global/literature-library/overview.page>.

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Product Selection

The information in this section is intended to help you select a 194U Rotary Disconnect Switch.

30...160 A Disconnect Switches





The information in this section refers to 30...160 A disconnect switches.

Catalog Number Explanation


Examples given in this section are not intended to be used for product selection. Use ProposalWorks™ software to configure the 194U Disconnect Switch. ProposalWorks is available from <https://www.rockwellautomation.com/global/support/product-selection-configuration/overview.page>.

194U
-
A
30
-
1753
a
b
c
d





a		b		c			d	
Bulletin Number		Mounting Type		Rated Current [A]			No. of Poles, OFF-ON 90° Configuration	
Code	Description	Code	Description	Code	UL	IEC	Code	Description
194U	Non-fused disconnect switch	A	DIN Rail/Base mount	30	30	40	1753	3 Poles
		E	Front Mount	60	60	63	1754	4 Poles (160 A devices only)
				100	100	125		
				160	125	160		







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

125 A Disconnect Switch Kits



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

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








	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
			160 A switches	194U-160-C3
	4-pole (qty: 1)	160 A switches	194U-160-C4	
	Padlock accessory ⁽¹⁾		base-mounted 30...160 A switches	194U-LOTO
	Repair Kit • 4 screws for 194L-HE handle • 6 bolts for 194U-F handle front mount • metal ring for 194U-LOTO		base- and front-mounted 30...160 A switches	194U-RK

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

Specifications

UL Specification		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	NA	NA
240V	[Hp/A]	5/28	7.5/40	15/68	20/88	20/88
480V	[Hp/A]	NA	NA	NA	30/66	30/66
Max Hp/FLA, 250V DC	[Hp/A]	NA	NA	NA	20/60	20/60
Short Circuit rating						
J fuse	[kA]	200	200	200	100	100
T fuse	[kA]	200	200	200	100	100
Fuse size	[A]	100/60	100/60	100/100	200	200
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

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
	60 °C (140 °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	—
Rated operational current, DC-22A						
1 pole in series	24...48V	[A]	—	—	125	—

IEC Specification			194U-*30	194U-*60	194U-*100	194U-*160
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_p (r.m.s)						
I_p (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_p (r.m.s)	100 kA	[kA]	—	—	—	30
Max fuse size gG/aM	500V	[A]	—	—	—	200/200
I_p (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	—
Prospective SCCR	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
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

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

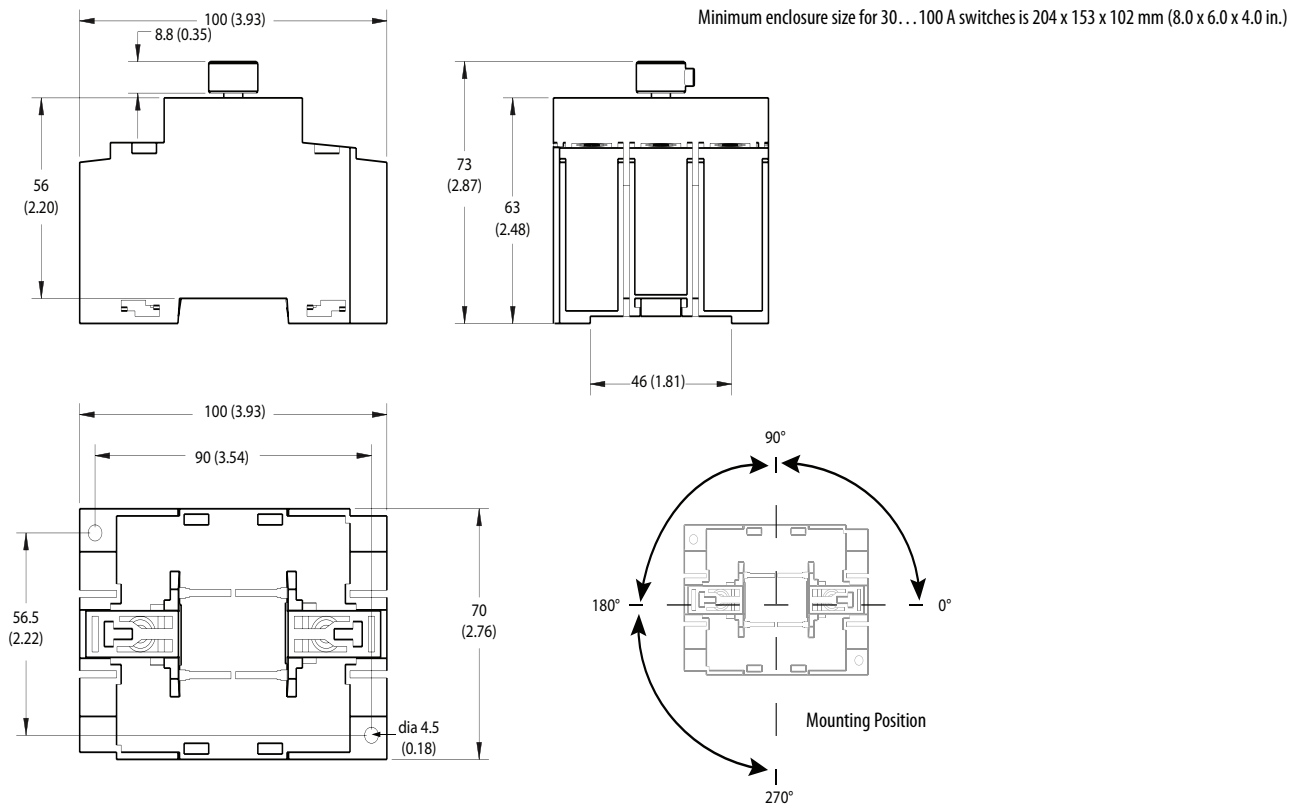


Figure 2 - 30, 60, and 100 A Door-mounted Switches, 3- and 4-pole Devices

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

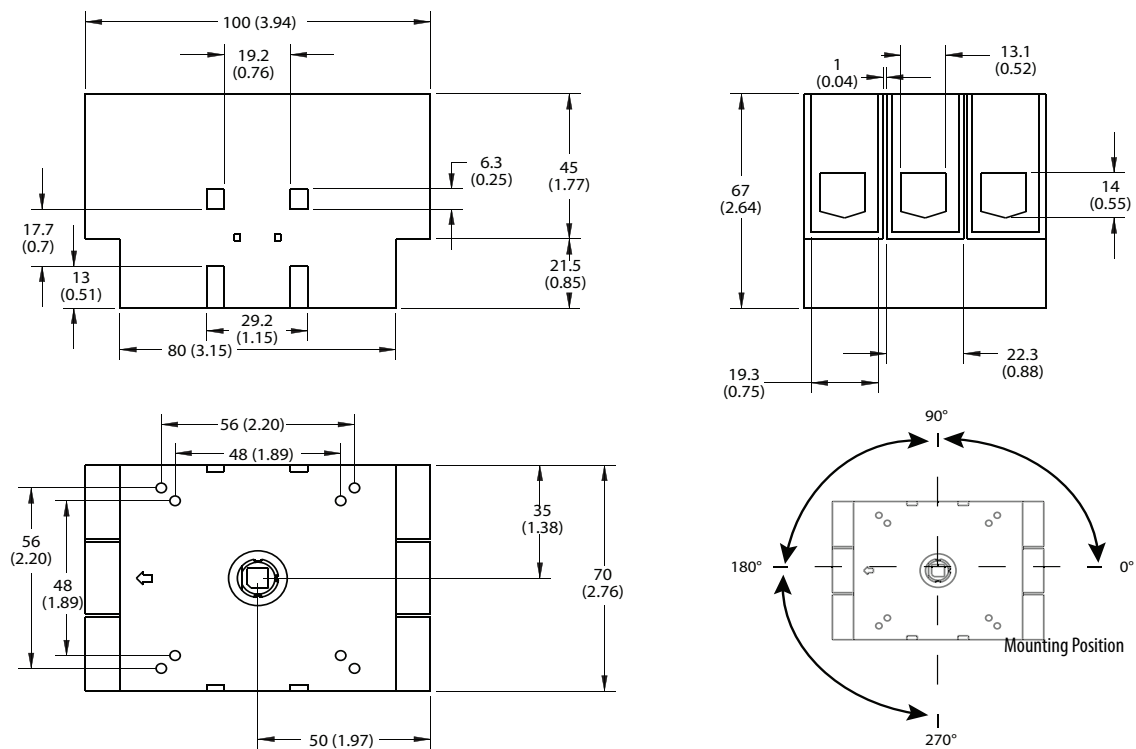


Figure 3 - 160 A Base-mounted Switches, 3-pole Devices

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

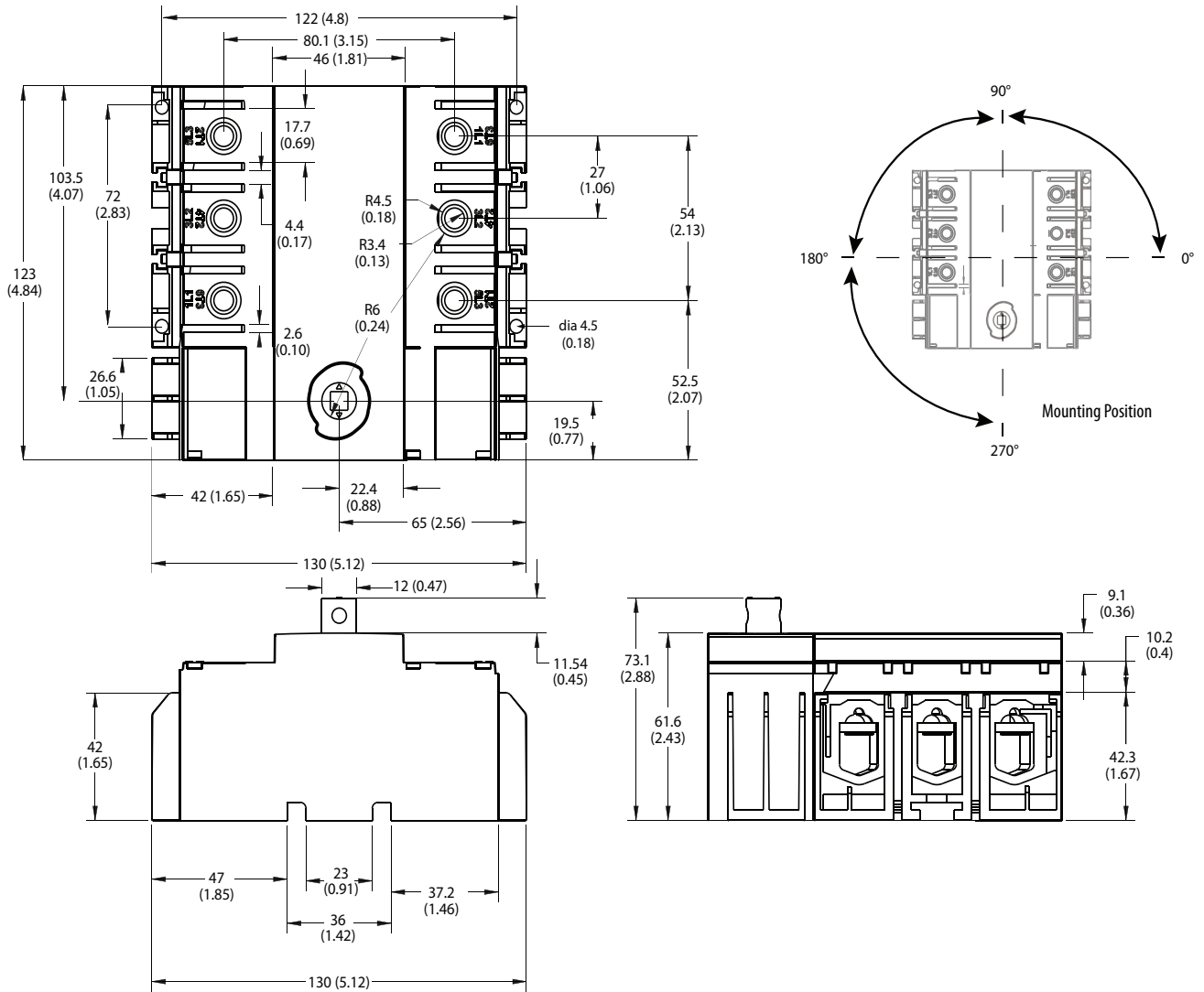


Figure 4 - 160 A Base-mounted Switches, 4-pole Devices

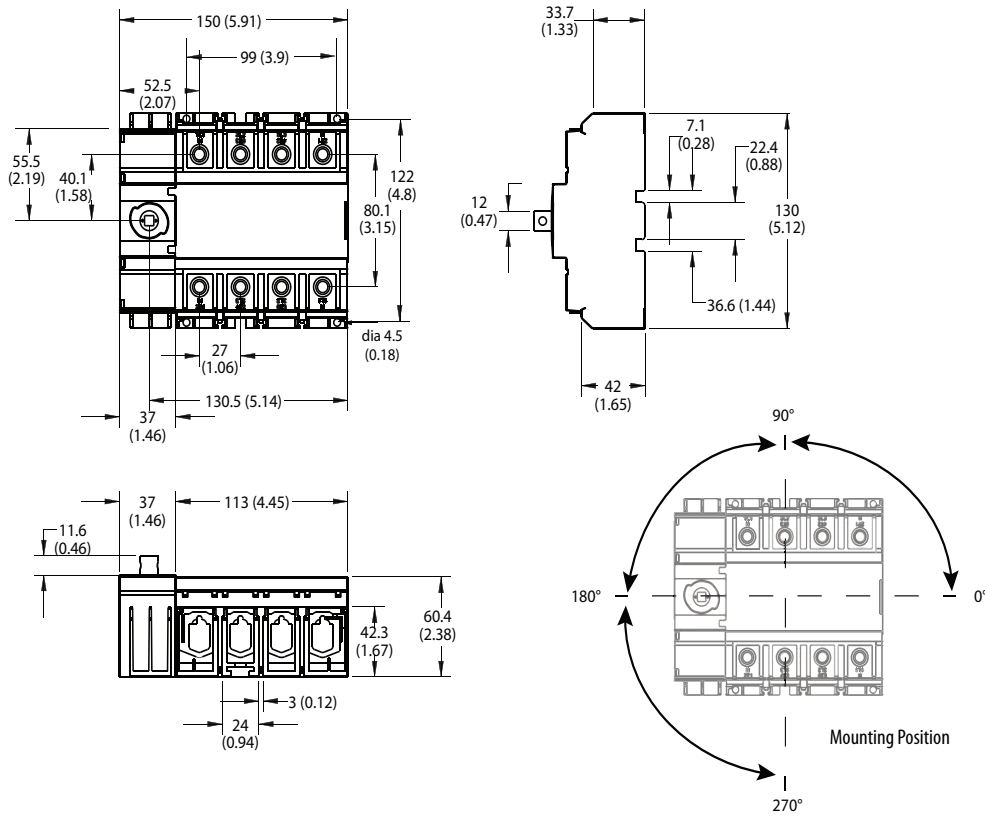


Figure 5 - 160 A Door-mounted Switches, 3-pole Devices

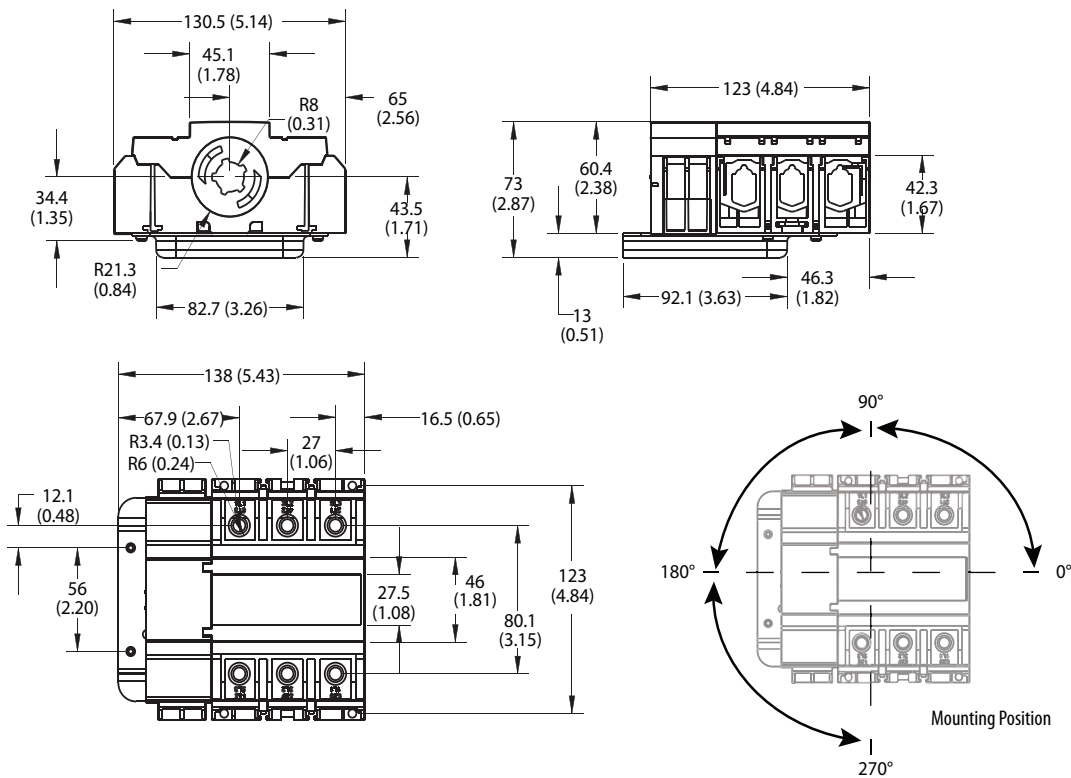
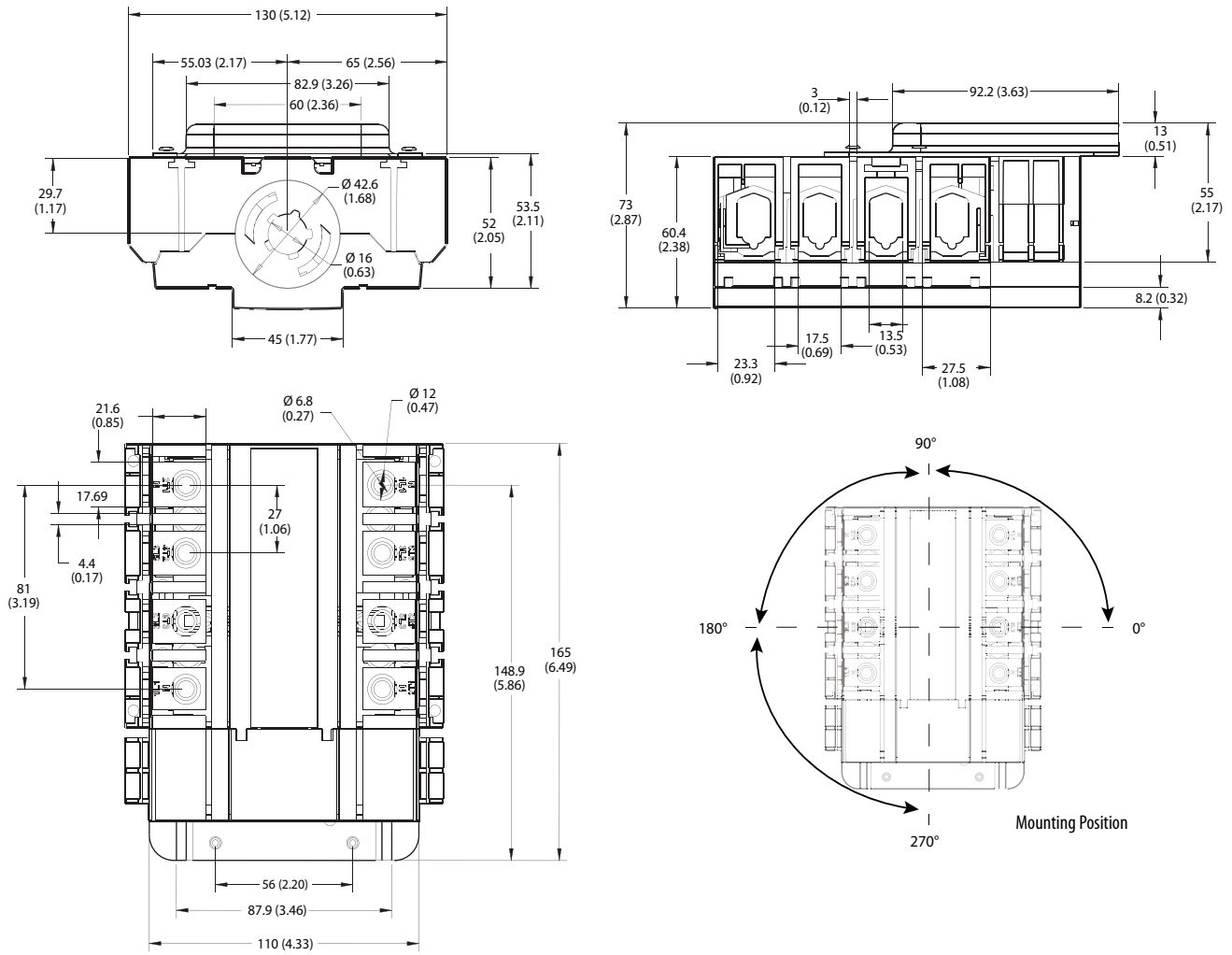


Figure 6 - 160 A Door-mounted Switches, 4-pole Devices



Notes:

Rockwell Automation Support

Use the following resources to access support information.

Technical Support Center	Knowledgebase Articles, How-to Videos, FAQs, Chat, User Forums, and Product Notification Updates.	www.rockwellautomation.com/knowledgebase
Local Technical Support Phone Numbers	Locate the phone number for your country.	www.rockwellautomation.com/global/support/get-support-now.page
Direct Dial Codes	Find the Direct Dial Code for your product. Use the code to route your call directly to a technical support engineer.	www.rockwellautomation.com/global/support/direct-dial.page
Literature Library	Installation Instructions, Manuals, Brochures, and Technical Data.	www.rockwellautomation.com/literature
Product Compatibility and Download Center (PCDC)	Get help determining how products interact, check features and capabilities, and find associated firmware.	www.rockwellautomation.com/global/support/pcdc.page

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