

Fusible Disconnect Switches FB Series

UL 98 Fusible Disconnect Switches

Mersen FB Series disconnect switches are extremely durable, manually operated, fusible disconnect switches. They employ double break contacts per pole that ensure complete isolation of the fuse when the switch is in the OFF position. With safety in mind, all fusible disconnect switches are supplied with fuse covers and line side shrouding as a standard feature. These switches provide the ultimate in short circuit protection when used with Mersen's Class CC, J or L fuses. These heavy-duty switches are designed with the most up-to-date disconnect fuse and switch technology available. Designed to meet the UL98 or UL489 standard, the fusible disconnect switch gives you the product that "makes and breaks" power circuits under load. They have been tested and approved for use in the most demanding applications, such as "Service Entrance." The optional TEST function (up to 400 A) enables testing of the control circuit auxiliaries without switching the main contacts. This function provides a simple alternative to a separately wired push button. A wide array of handles are available to meet OSHA padlocking requirements, NEMA configurations, defeater options and NFPA 79 requirements.

Highlights:

- Double break contact per pole up to 800 A
- Touch safe covers protect fuse terminals
- Service entrance rated
- Compact footprints
- Front and side operated switches with snap-on auxiliary contact feature
- 14AWG power taps on both line and load sides for control power transformers or surge protection
- External or direct operation handles
- Defeatable pistol handles automatically re-latch when panel door is closed - no tool necessary to reset latch
- Test positions available up to 400A
- Padlocking feature as standard on modular switchgear boxes
- Modular switch configurations, special executions on request (5-pole, mix ratings...)
- Padlockable handle
- Flange-mounted actuators

Applications:

- Service entrance or main panel disconnects up to 600 VAC, 800 A
- "Make and break" power circuit applications on load
- Fusible isolation switches
- NFPA 79 solutions

Recommended fuse usage:

- FBCC — use with ATDR*, ATMR, ATQR
- FBJ — use with AJT, AJJ, HSJ
- FBL — use with A4BQ, A4BY, A4BT

** Recommended for DC application*



Ratings:

Volts : 600VAC, 250VDC

Amps : 30, 60, 100, 200, 400, 600, and 800A

SCCR : Up to 200kA with Class CC, J, or L Fuses

Approvals:

- All Fusible Disconnect Switches meet UL & CSA requirements
- UL listed guide WHTY, File E191605 for UL 98 (ratings from 30 A to 800 A)
- UL listed guide WJAZ, File E258428 for UL489 (for 30 A CDT)
- CSA 22.2 # 4, class 4652-04, File 703166 (ratings from 30 A to 800 A)
- CSA 22.2 # 5, class 4652-06, File 703166 (for 30 A CDT)
- IEC 947-3 CE mark



Mersen

Fusible Disconnect Switches FB Series

Front and Side Operated Range from 30 to 60A



Select a switch

Ampere Rating	Catalog Numbers			
	30	30	30	60
2-Pole			FBJ302X	FBJ602X
3-Pole	FBCC30CDT	FBJ30CDT	FBJ303X	FBJ603X
4-Pole	FBCC30SNCDT	FBJ30SNCDT	FBJ304X	FBJ604X
Fuse class	CC	J	J	J

Selector handle for external front operation



Select a handle

NEMA Type	IEC	Test Function	Color	Catalog Numbers			
1, 3R, 12	IP54	No	Black	HSPB	HSPB	HSPBL	HSPBL
1, 3R, 12	IP54	No	Red / Yellow	HSPR	HSPR	HSPRL	HSPRL
1, 3R, 12, 4, 4X	IP65	No	Black	HSPB4	HSPB4	HSPB4L	HSPB4L
1, 3R, 12, 4, 4X	IP65	No	Red / Yellow	HSPR4	HSPR4	HSPR4L	HSPR4L
1, 3R, 12, 4, 4X	IP65	Yes	Black	HSPB4T	HSPB4T	HSPB4LT	HSPB4LT
1, 3R, 12, 4, 4X	IP65	Yes	Red / Yellow	HSPR4T	HSPR4T	HSPR4LT	HSPR4LT

Note: handle is defeatable, and is padlockable in the "OFF" position.



Select a shaft

Shaft Length (in/mm)	Catalog Numbers			
7.9 / 200	SS200-5	SS200-5	SS200-10	SS200-10
12.6 / 320	SS320-5	SS320-5	SS320-10	SS320-10
15.7 / 400	SS400-5	SS400-5	SS400-10	SS400-10
19.7 / 500	-	-	SS500-10	SS500-10

NFPA 79 Front Operation Kit



Select a kit

NFPA 79 Front Operation Kit	Catalog Numbers			
	HADB6	HADB6	NFPA791	NFPA791

Note: allows to operate & padlock the switch when door of enclosure is open. For full information on NFPA79 requirements and on our solution, please consult P42 of this Advisor Catalog.

Options for external front and side operation



	Catalog Numbers			
	integral	integral	integral	integral
Terminal Lugs Kit (for 2, 3 and 4 pole switches)	integral	integral	integral	integral
Terminal Shrouds (for 2, 3 and 4 pole switches)	integral	integral	integral	integral
Shorting Links Kit (3 links per Kit)	CCNL30	JNL30	JNL30	SL60
Direct Front Operation Handle	HADB1	HADB2		
Auxiliary contact				
Auxiliary contact block holder	ACHCD	ACHCD	-	-
1 N / O, 10A, 600VAC snap-on contact block, A600-Q600 ⁽¹⁾	AC3	AC3	AC3	AC3
1 N / C, 10A, 600VAC snap-on contact block, A600-Q600 ⁽¹⁾	AC4	AC4	AC4	AC4
1 NO + NC side mount contact block, A600-N600 ⁽²⁾	-	AC5	AC5	AC5
2 NO + NC side mount contact blocks, A600-N600 ⁽²⁾	-	AC6	AC6	AC6

(1) Compact Design Fusible Disconnect Switch accommodates up to 4 auxiliary contacts for FBCC30CDT and FBCC30SNCDT and up to 2 auxiliary contacts for FBJ30CDT and FBJ30SNCDT on the switch.

(2) Two auxiliary contact blocks maximum can be side mounted.

Note : For class T fuse adaptors, please consult us.

For the most current product performance data visit us-ferrazshawmut.mersen.com and use catalog search.

Fusible Disconnect Switches FB Series

Front and side operated range from 100 to 800A



Select a switch

Ampere Rating	Catalog Numbers				
	100	200	400	600	800
2-Pole	FBJ1002X	FBJ2002X	-	-	-
3-Pole	FBJ1003X	FBJ2003X	FBJ400U	FBJ600U	FBL800U
4-Pole	FBJ1004X	FBJ2004X	FBJ4004U	FBJ6004U	FBL8004U
Fuse class	J	J	J	J	L

S type pistol handle for external front and side operation



Select a handle

NEMA Type	IEC	Test Function	Color	Catalog Numbers				
1, 3R, 12	IP54	No	Black	HSPBL	HSPBL	HSPBL	HSPBEL	HSPBEL
1, 3R, 12	IP54	No	Red / Yellow	HSPRL	HSPRL	HSPRL	HSPREL	HSPREL
1, 3R, 12, 4, 4X	IP65	No	Black	HSPB4L	HSPB4L	HSPB4L	HSPB4EL	HSPB4EL
1, 3R, 12, 4, 4X	IP65	No	Red / Yellow	HSPR4L	HSPR4L	HSPR4L	HSPR4EL	HSPR4EL
1, 3R, 12, 4, 4X	IP65	Yes	Black	HSPB4LT	HSPB4LT	HSPB4LT	HSTB4†	HSTB4†
1, 3R, 12, 4, 4X	IP65	Yes	Red / Yellow	HSPR4LT	HSPR4LT	HSPR4LT	HSTR4†	HSTR4†

Note: Handle is defeatable, and is padlockable in the "OFF" position.

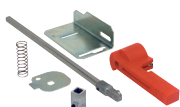
† T-bar type handle. No test function.



Select a shaft

Shaft Length (inches / mm)	Catalog Numbers				
7.9 / 200	SS200-10	SS200-10	SS200-10	SS200-12	SS200-12
12.6 / 320	SS320-10	SS320-10	SS320-10	SS320-12	SS320-12
15.7 / 400	SS400-10	SS400-10	SS400-10	SS400-12	SS400-12
19.7 / 500	SS500-10	SS500-10	SS500-10	SS500-12	SS500-12

NFPA 79 Front Operation Kit



Select a kit

NFPA 79 Front Operation Kit	Catalog Numbers				
	NFPA791	NFPA791	NFPA791	NFPA792	NFPA792

Note: allows to operate & padlock the switch when door of enclosure is open. For full information on NFPA79 requirements and on our solution, please consult P42 of this Advisor Catalog.

Options for external front and side operation



Pistol Handle for Direct Front Operation	Catalog Numbers				
	-	-	-	HADBSU	HADBSU
Terminal Lugs Kit					
4 lugs per kit - for 2 pole switches	Intergral	TL200X4	-	-	-
6 lugs per kit - for 3 pole switches	Intergral	TL200X6	TL400	TL600	TL600
8 lugs per kit - for 4 pole switches	Intergral	TL200X8	TL4004	TL6004	TL6004
Terminal shrouds kit(1)					
2-pole (for line or load side)	Intergral	TS2002FBX	-	-	-
3-pole (for line or load side)	Intergral	TS2003FBX	TS400FB(2)	TS800U	TS800U
4-pole (for line or load side)	Intergral	TS2004FBX	TS4004FB(2)	TS8004U	TS8004U
Shorting links kit (3 links per kit)	SL100	SL200	SL400	SL800	SL800
Auxiliary contacts					
1 N/O, 10A, 600 VAC snap-on-contact block, A600-Q600	AC3	AC3	AC3	AC3	AC3
1 N/C, 10A, 600 VAC snap-on-contact block, A600-Q600	AC4	AC4	AC4	AC4	AC4
1 NO+NC side mount contact block, A600-N600(3)	AC5	AC5	AC5	AC5	AC5
2 NO+NC side mount contact blocks, A600-N600(3)	AC6	AC6	AC6	AC6	AC6

(1) Line side shrouding supplied as standard with switch.

(2) As a replacement part for line or load side (two terminal screens supplied as standard with switch).

(3) Two auxiliary contact blocks maximum can be side mounted.

Note: for class T fuse adaptors, please consult Mersen.

Mersen

Fusible Disconnect Switches FB Series

Flange Operated Range from 30 to 400A



Select a switch

Ampere Rating	Catalog Numbers				
	30	60	100	200	400
2-Pole	FBJ302X	FBJ602X	FBJ1002X	FBJ2002X	-
3-Pole	FBJ303X	FBJ603X	FBJ1003X	FBJ2003X	FBJ400U
4-Pole	FBJ304X	FBJ604X	FBJ1004X	FBJ2004X	FBJ4004U
Fuse class	J	J	J	J	J

Cable flange operated handle (square D type - class 9422)



Select a handle

NEMA Type	IEC	Catalog Numbers				
1, 3R, 12, 4, 4X	IP54	HAF-OP1 ⁽¹⁾	HAF-OP1 ⁽¹⁾	HAF-OP1 ⁽¹⁾	HAF-OP1 ⁽¹⁾	HAF-OP1 ⁽¹⁾
4, 4X	IP65	HAF-OP2 ⁽²⁾	HAF-OP2 ⁽²⁾	HAF-OP2 ⁽²⁾	HAF-OP2 ⁽²⁾	HAF-OP2 ⁽²⁾

Note: Handle is defeatable, and padlockable in the "OFF" position.



Mechanism

Mechanism	HAF-MECHX	HAF-MECHX	HAF-MECHX	HAF-MECHX	HAF-MECHX
-----------	-----------	-----------	-----------	-----------	-----------



Select a cable

Cable Length (inches / mm)					
36 / 914.4	HAFC36	HAFC36	HAFC36	HAFC36	HAFC36
60 / 1,524	HAFC60	HAFC60	HAFC60	HAFC60	HAFC60
120 / 3,048	HAFC120	HAFC120	HAFC120	HAFC120	HAFC120

Note: Cable flange operation is for enclosure depth from 5.75"/145mm to 36"/990mm, depending on the cable length.

Rod flange operated handle (square D type - class 9422)



Select a handle

NEMA Type	IEC	Catalog Numbers				
1, 3, 3R, 4, 12	IP54	HAF-OP1 ⁽¹⁾	HAF-OP1 ⁽¹⁾	HAF-OP1 ⁽¹⁾	HAF-OP1 ⁽¹⁾	HAF-OP1 ⁽¹⁾
4, 4X	IP65	HAF-OP2 ⁽²⁾	HAF-OP2 ⁽²⁾	HAF-OP2 ⁽²⁾	HAF-OP2 ⁽²⁾	HAF-OP2 ⁽²⁾

Note: handle is defeatable, and padlockable in the "OFF" position.



Select a rod

Rod Length (inches / mm)					
23.6 / 500	HAFRX	HAFRX	HAFRX	HAFRX	HAFRX

Note: Rod kit is for enclosure depth from 8 / 203 to 24.12 / 613 For smaller depth, please consult us.

Options for flange & direct operation handle from 30 to 400 A



Terminal lugs kit	Catalog Numbers				
6 lugs per kit - for 2 pole fuse switches	Intergral	Intergral	Intergral	TL200X4	TL400
6 lugs per kit - for 3 pole fuse switches	Intergral	Intergral	Intergral	TL200X6	TL400
8 lugs per kit - for 4 pole fuse switches	Intergral	Intergral	Intergral	TL200X8	TL4004
Terminal shrouds kit ⁽⁴⁾					
2-pole (for line or load side)	Intergral	Intergral	Intergral	TS2002FBX	-
3-pole (for line or load side)	Intergral	Intergral	Intergral	TS2003FBX	TS400FB ⁽⁵⁾
4-pole terminal shrouds kit ⁽⁴⁾ (for line or load side)	Intergral	Intergral	Intergral	TS2004FBX	TS4004FB ⁽⁵⁾
Shorting links kit (3 links per kit - for 3 pole fuse switches)	NLJ30	SL60	SL100	SL200	SL400
Auxiliary contacts ⁽³⁾					
1 NO+NC side mount contact block, A600 - N600	AC5	AC5	AC5	AC5	AC5
2 NO+NC side mount contact blocks, A600 - N600	AC6	AC6	AC6	AC6	AC6

(1) All external metal parts are sheet steel. (2) All external metal parts are either stainless steel or a chrome-plated non-ferrous die casting.

(3) Two auxiliary contact blocks maximum can be side mounted. (4) Line side Shrouding supplied as standard with switch.

(5) As a replacement part (two terminal screens supplied as standard with switch). Note: for class T fuse adaptors, please consult us.

Fusible Disconnect Switches FB Series

Technical Characteristics for Front and Side Operation

Catalog Numbers - UL, cUL and CSA

Catalog Numbers	FBCC30CDT / FBCC30SNCDT	FBJ30CDT / FBJ30SNCDT	FBJ302X / FBJ303X / FBJ304X
Ampere Rating (A)	30	30	30
Fuse type	CC	J	J
Operating voltage (V)	600	600	600
Max Horsepower Rating / Max Motor FLA Current Three-Phase			
208 V	5 / 17.5	5 / 17.5	5 / 17.5
240 V	7.5 / 22	7.5 / 22	7.5 / 22
480 V	15 / 21	15 / 21	15 / 21
600 V	20 / 22	20 / 22	20 / 22
DC 125 V - 2-pole in series	3 / 25	3 / 25	3 / 25
DC 250 V - 3-pole in series	5 / 20	5 / 20	5 / 20
Max Horsepower Rating / Max Motor FLA Current Single-Phase			
240 V AC	-	-	3 / 17
480 V AC	-	-	7.5 / 21
Short Circuit Rating			
Short circuit rating with fuses (SCCR) (kA)	100	100	200
Branch circuit fuse type	CC	J	J
Max fuse rating (A)	30	30	30
Dimension 3-pole			
H (in)	4.56	4.56	5.35
W (in)	3.78	4.13	5.88
D (in)	3.28	3.89	4.84
Shaft size square			
in	0.2 x 0.2	0.2 x 0.2	0.4 x 0.4
mm	5 x 5	5 x 5	10 x 10
3-pole switch operating torque (front operation) (lb in)	21	21	88
Terminal lugs kit (# of lugs per kit)	Integral	Integral	Integral
Wire range AWG (# of wire holes per lug)	#10-#14 (1)	#10-#14 (1)	#6-#10 (1)
Wire tightening torque	27	27	58

Fusible Disconnect Switches FB Series

Technical Characteristics for Front and Side Operation

Catalog Numbers - UL, cUL and CSA

Catalog Numbers	FBJ602X FBJ603X FBJ604X	FBJ1002X FBJ1003X FBJ1004X	FBJ2002X FBJ2003X FBJ2004X	FBJ400U FBJ4004U	FBJ600U FBJ6004U	FBL800U FBL8004U
Ampere Rating (A)	60	100	200	400	600	800
Fuse type	J	J	J	J	J	L
Operating voltage (V)	600	600	600	600	600	600
Max Horsepower Rating / Max Motor FLA Current Three-Phase						
208 V	15 / 48.5	25 / 78.5	50 / 150	100 / 286	-	-
240 V	15 / 42	30 / 80	60 / 154	125 / 312	200 / 480	200 / 480
480 V	30 / 40	60 / 77	125 / 156	250 / 302	400 / 477	500 / 590
600 V	50 / 52	75 / 77	150 / 144	350 / 336	500 / 472	500 / 472
DC 125 V - 2-pole in series	3 / 25	7.5 / 58	-	20 / 148	-	-
DC 250 V - 3-pole in series	10 / 38	20 / 38	-	50 / 173	-	-
Max Horsepower Rating / Max Motor FLA Current Single-Phase						
240 V AC	10 / 50	10 / 50	-	-	-	-
480 V AC	10 / 26	10 / 26	-	-	-	-
Short Circuit Rating						
Short circuit rating with fuses (SCCR) (kA)	100	200	200	200	200	200
Branch circuit fuse type	J	J	J	J	J	L
Max fuse rating (A)	60	100	200	400	600	800
Dimension 3 pole (front operated switches)						
H (in)	5.35	7.32	7.72	14.31	11.86	11.86
W (in)	5.88	5.88	7.68	11.93	14.31	14.31
D (in)	4.84	4.84	5.12	5.56	11.42	11.42
Shaft size square (front operated switches)						
in	0.4 x 0.4	0.4 x 0.4	0.4 x 0.4	0.4 x 0.4	4.7 x 4.7	4.7 x 4.7
mm	10 x 10	10 x 10	10 x 10	10 x 10	12 x 12	12 x 12
3-pole switch operating torque (front operation) (lb-in)	88	88	106	132	350	350
Terminal lugs kit (# lugs per kit)	Integral	Integral	Optional (6)	Optional (6)	Optional (6)	Optional (6)
Wire range AWG (# of wire holes per lug)	#6-#10 (1)	#1-#12 (1)	300kcmil - #6 (1)	600kcmil-#2 (1)	600kcmil-#2 (2)	600kcmil-#2 (2)
Wire tightening torque (lb-in)	120	200	275 max	375	375	375

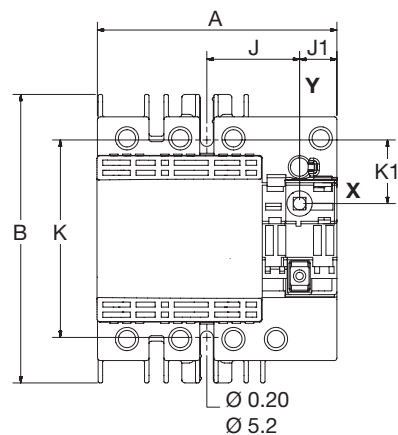
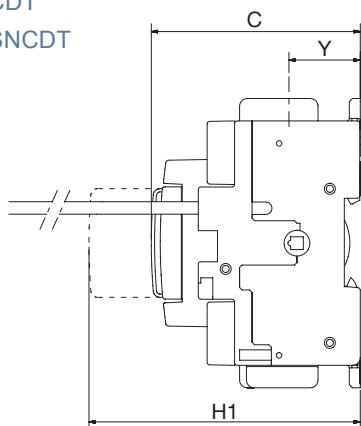
Fusible Disconnect Switches FB Series

Dimensions (in/mm) for Front and Side Operation

Fusible Disconnect Switch CD 30 A CC

FBCC30CDT

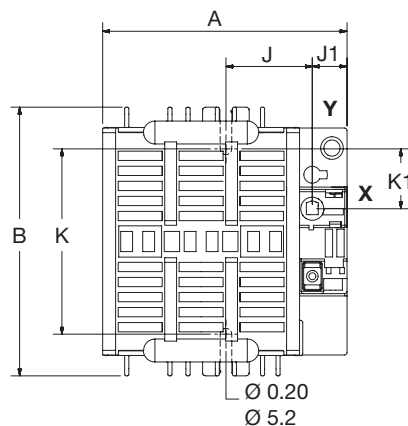
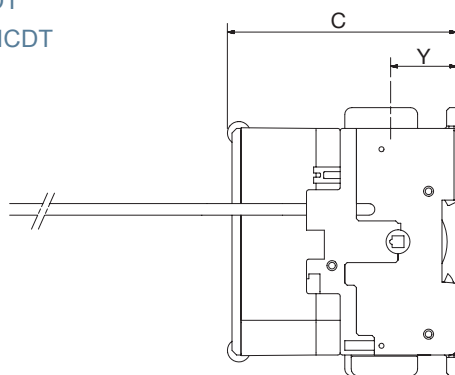
FBCC30SNCDT



Fusible Disconnect Switch CD 30 A J

FBJ30CDT

FBJ30SNCDT



Ampere Rating	Number of Poles	A		B		C		H1		H3		J		J1		K		K1		Y	
		In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm
30 A CC CD type	3 P	3.78	96	4.56	116	3.28	83.5	5.19	132	-	-	1.47	37.5	0.59	15	3.3	84	1	25.5	1.12	28.5
30 A J CD type	3 P	4.13	105	4.56	116	3.89	99	-	-	-	-	1.47	37.5	0.59	15	3.30	84	1	25.5	1.12	28.5

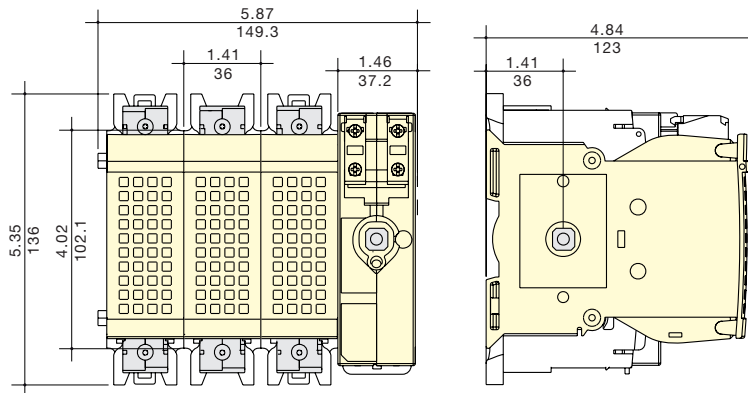
Fusible Disconnect Switches FB Series

Dimensions (in/mm)

Fusible Disconnect Switch 30A and 60A

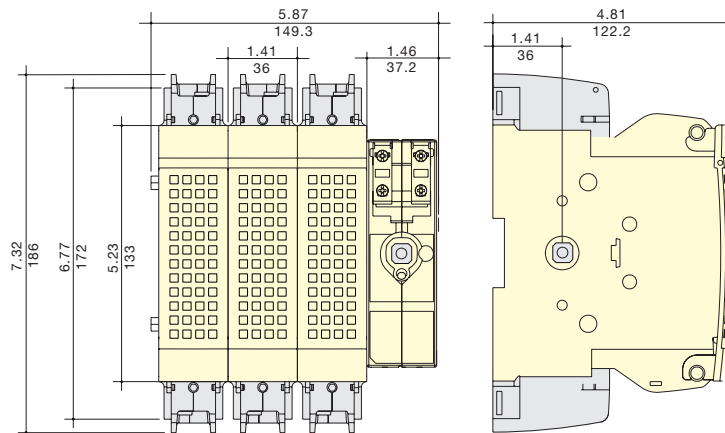
FBJ303X*

FBJ603X*



Fusible Disconnect Switch 100A

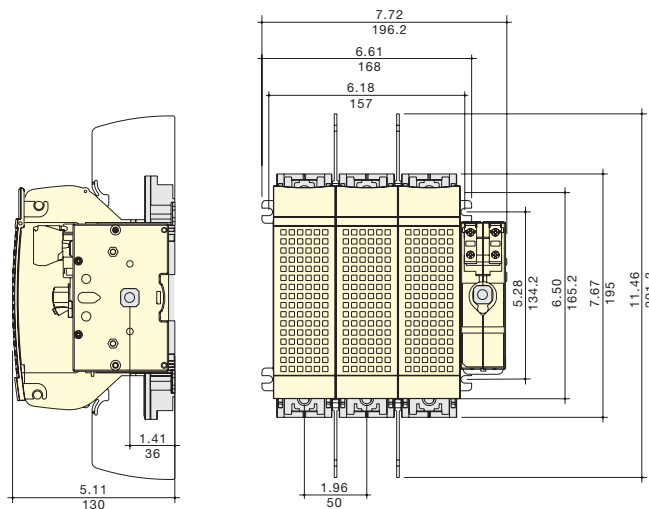
FBJ103X*



*Note: For 4-pole or 2-Pole versions, add or subtract 1.41" / 36mm.

Fusible Disconnect Switch 200A

FBJ203X**



**Note: For 4-pole or 2-Pole versions, add or subtract 1.96" / 50mm.

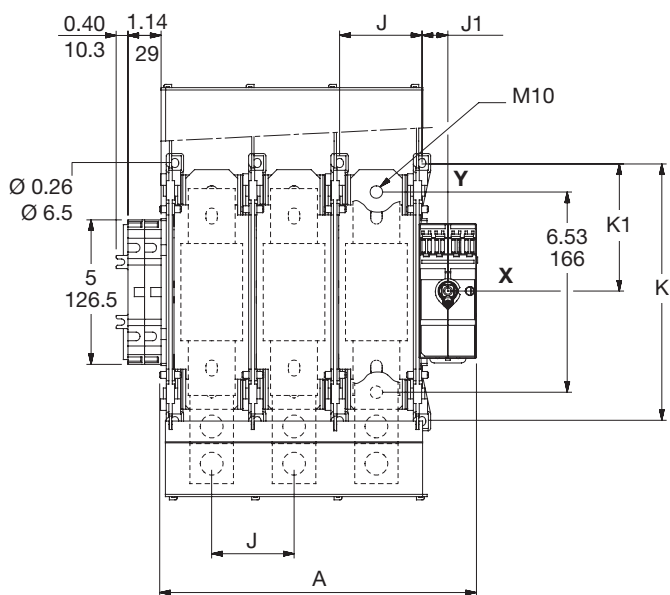
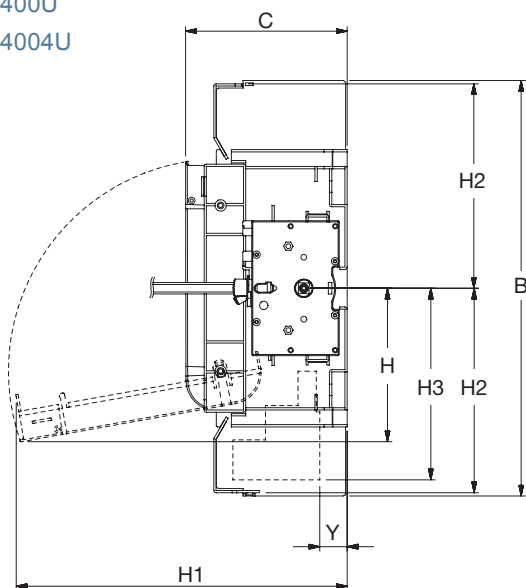
Fusible Disconnect Switches FB Series

Dimensions (in/mm) for Front and Side Operation

Fusible Disconnect Switch 400A

FBJ400U

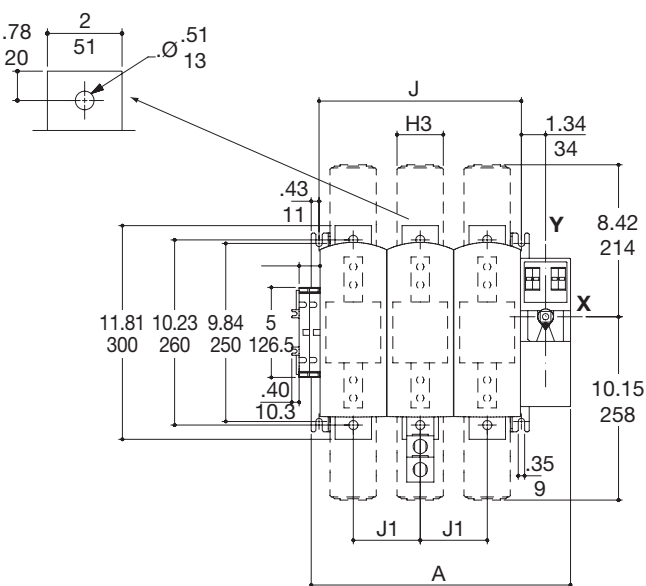
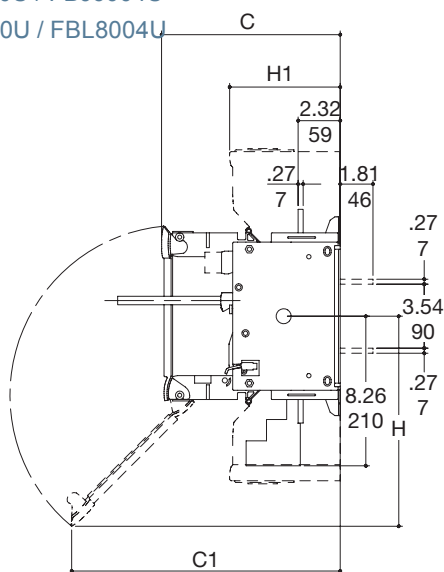
FBJ4004U



Fusible Disconnect Switch 600A - 800A

FBJ600U / FBJ6004U

FBL800U / FBL8004U



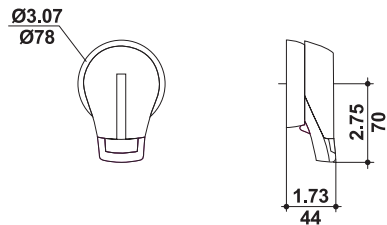
Ampere Rating	No of Poles	A		B		C		C1		H		H1		H2		H3		J		J1		K		K1		Y	
		In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm
400 A	3 P	10.8	276	14.31	363.5	5.56	141.5	-	-	5.28	134.5	11.41	290	7.04	179	6.59	167.5	2.84	72	0.88	22.5	8.83	224	4.41	112	1.06	27
	4 P	13.7	348	14.31	363.5	5.56	141.5	-	-	5.28	134.5	11.41	290	7.04	179	6.59	167.5	2.84	72	0.88	22.5	8.83	224	4.41	112	1.06	27
600 A, 800 A	3 P	14.33	364	-	-	9.84	250	14.72	374	11.69	297	6.10	155	-	-	2.56	65	11.18	284	3.70	94	-	-	-	-	-	-
	4 P	18.03	458	-	-	9.84	250	14.72	374	11.69	297	6.10	155	-	-	2.56	65	14.88	378	3.70	94	-	-	-	-	-	-

Fusible Disconnect Switches FB Series

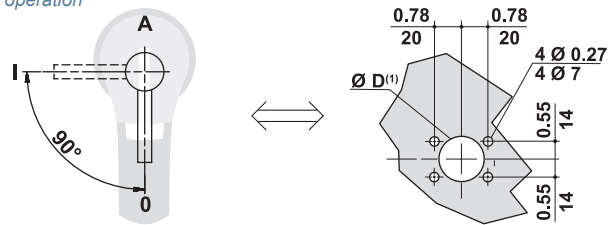
Dimensions (in/mm) for External Front Operation Handles

S type pistol handle

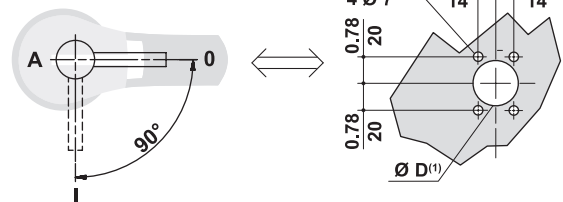
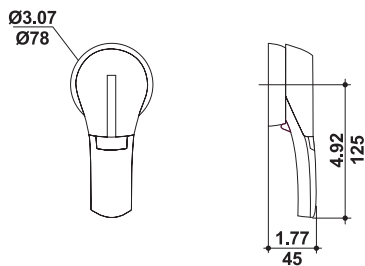
HSPB
HSPR
HSPB4
HSPR4



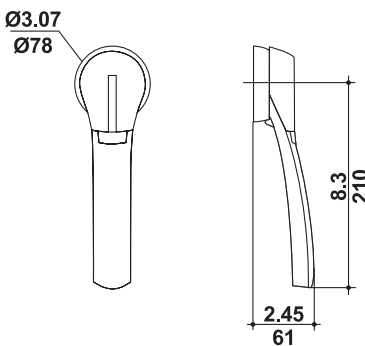
Front operation



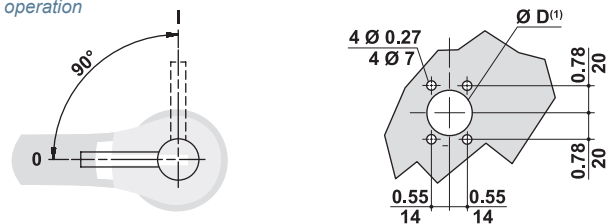
HSPBL
HSPRL
HSPB4L
HSPR4L



HSPBEL
HSPREL
HSPB4EL
HSPR4EL



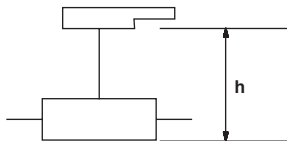
Side operation



Fusible Disconnect Switches FB Series

Dimensions (in/mm) from Backplate to Door Distance with Shaft Extension

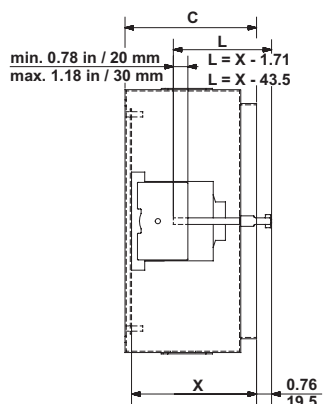
Minimum distance (in / mm)



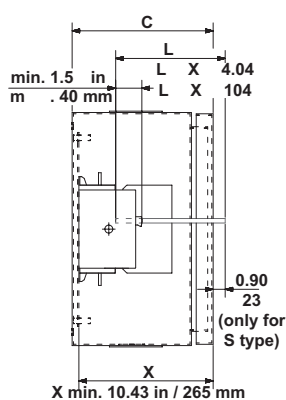
H & C Minimum Dimension	All HSP Handles	
	In	mm
Fusible Disconnect Switch CD 30 A CC	5.31	135
Fusible Disconnect Switch CD 30 A J	5.98	152
Fusible Disconnect Switch 30 A J - 60 A J	6	153
Fusible Disconnect Switch 100 A J	6	153
Fusible Disconnect Switch 200 A J	8	203.5
Fusible Disconnect Switch 400 A J	12	305
Fusible Disconnect Switch 600 A J - 800 A L	12	305

S type pistol handle

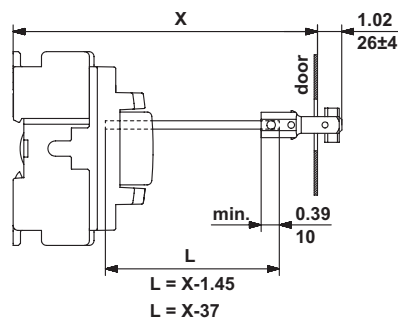
FBJ400U
FBJ4004U



FBJ600U FBJ6004U
FBL800U FBL8004U



FBCC30CDT FBCC30SNCDT
FBJ30CDT FBJ30SNCDT

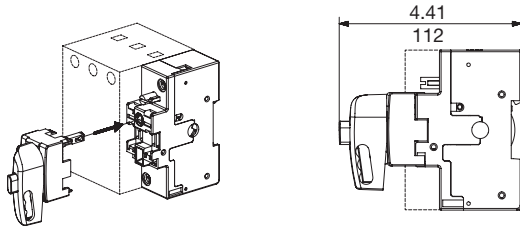


Fusible Disconnect Switches FB Series

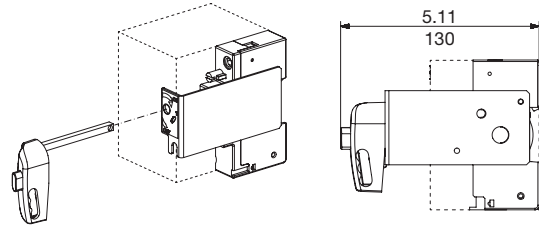
Dimensions (in / mm) for Direct Front Operation Handles

Direct pistol handle

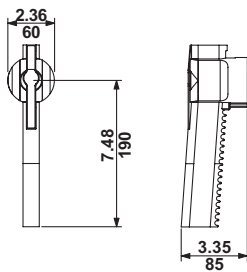
HADB1



HADB2



HADB5U

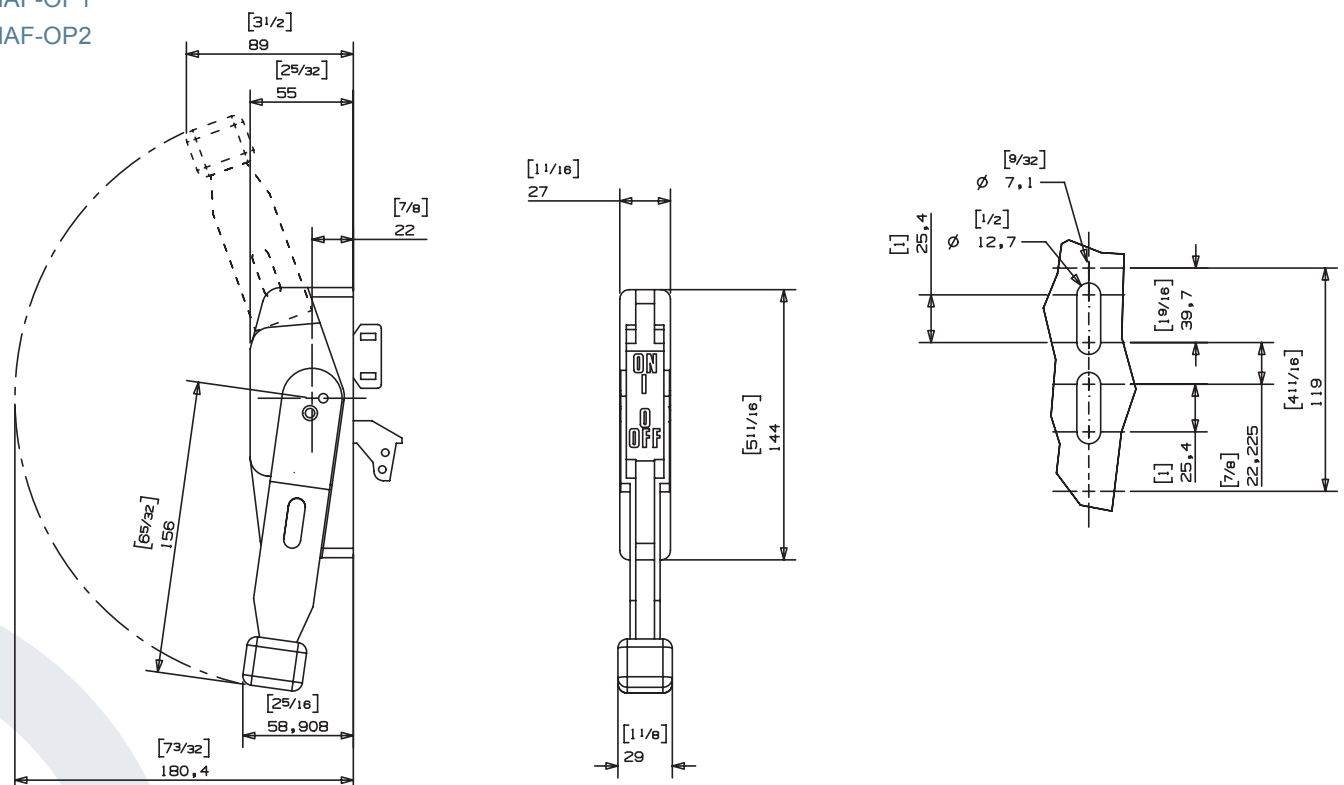


Dimensions (in / mm) for Flange Operation Handles

Square D type flange handle - class 9422 (A1 & A2)

HAF-OP1

HAF-OP2

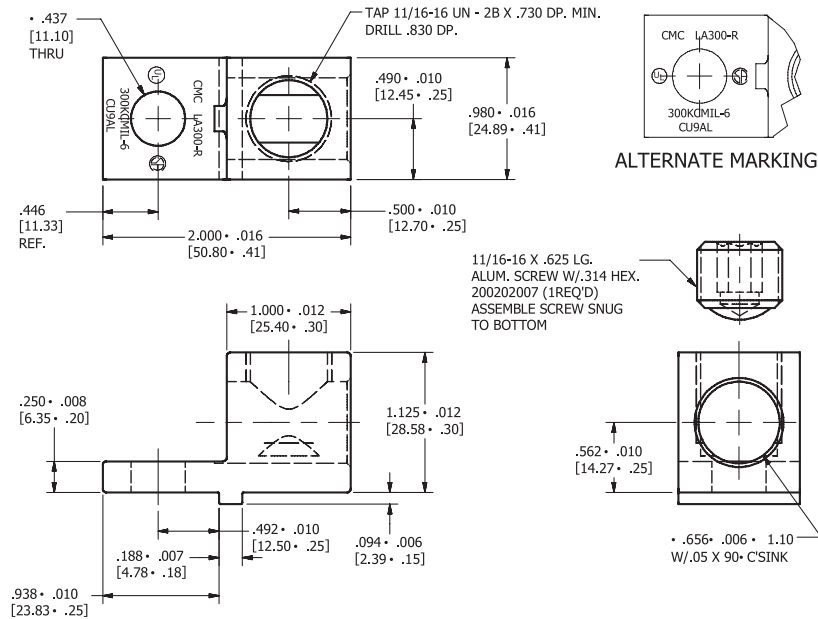


Fusible Disconnect Switches FB Series

Dimensions (in / mm) for Terminal Lugs

TL200X

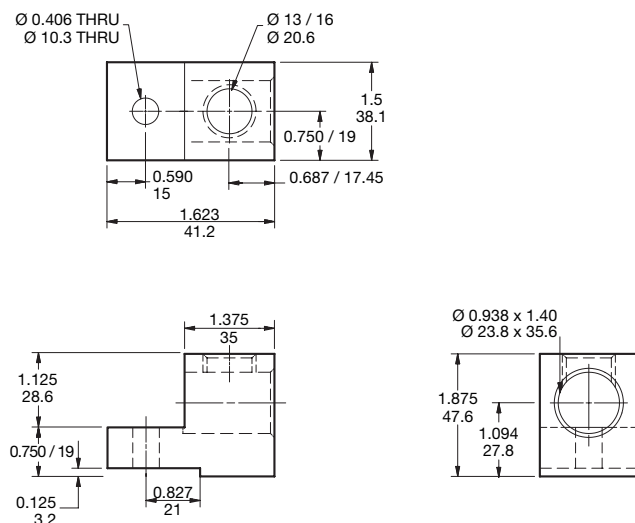
For use with FBJ 200xX



1 wire 300kcmil - #6

TL400

For use with FBJ400

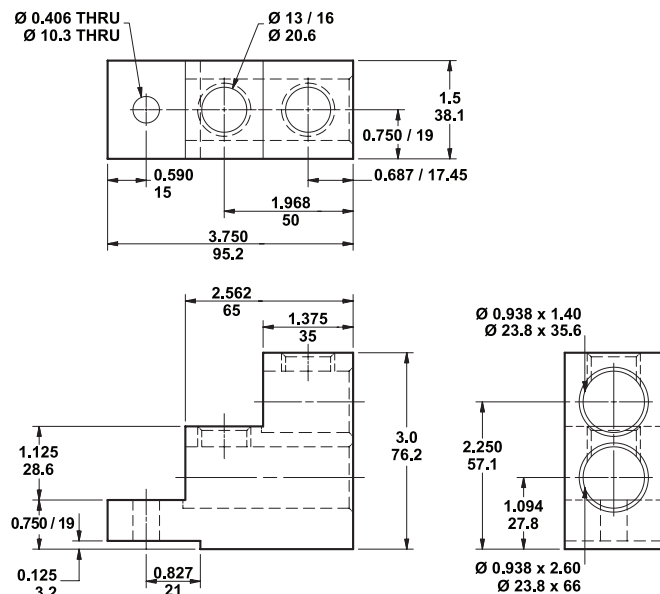


1 wire 600 MCM-2

Note: for FBJ400, please use HM bolts 10 x 30 mm class 6.8.

TL600

For use with FBJ600U and FBL800U



2 wire 600 MCM-2