

Enclosed Disconnect Switches

Mersen enclosed disconnect switches are designed to meet customer's requirements for compact and durable individual disconnecting means. Both fusible and non-fusible versions are available in a variety of enclosure types resulting in one of the largest available ranges in the industry. The enclosed disconnect switch range offers safety, ease of installation, space savings and operational convenience to end-users.

Mersen features NEMA style, Type 4X non-metallic and stainless steel enclosures that are extremely durable and provide the ultimate protection for harsh environments and conditions. These rugged enclosure types are often used in areas where "wash down" applications are required.

Highlights:

- Suitable for use as motor disconnect
- Meets OSHA lockout/tagout requirements
- NEMA rated enclosures
- Knockouts provided
- Easy screw mounting
- Selector or pistol handles in black or red/yellow
- Clear ON/OFF indication

Applications:

- Load break switching
- Separate disconnect means within sight of all motor loads to comply with NEC® Article 430
- Circuit isolation
- Service entrance ratings available
- Food processing
- Conveyor systems
- Harsh industrial environments



Ratings:

Fusible

Volts : 600VAC
Amps : 30 to 800A

Non-Fusible

Volts : 600VAC
Amps : 16 to 1200A

Volts : 600VDC
Amps : 100 to 400A

Approvals:

- UL 508A
- UL 508
- UL 98
- CSA
- IEC versions available



Enclosed Disconnect Switches

Part Numbering Guideline (example)

ED	FS	30	3	R	S	0	-
Enclosure Type	Switch Type	Amp Rating	Number of Poles	Color of handle: R = Red/yellow B = Black	Type of handle: S = Selector P = Pistol	Auxiliary contacts: See chart below	Other options

Pre-break, Pre-mounted Auxiliary Contacts

Switch Style		Catalog Suffix				
		0	1	2	3	4
Non-fusible, 400A and less	FSLBS, FSSC, SX, SXDC	None	-	-	1 NO + NC	1 NO + NO
Non-fusible, over 400A	SC	None	1 NO	1 NC	1 NO + NC	1 NO + NO
Fusible	FBCC, FBJC, FBJxxxX, FBJxxxU	None	1 NO	1 NC	1 NO + NC	1 NO + NO

Other Options

Please consult factory for availability and suffix for any other options including:

- Neutral blocks (N)
- Terminal Shrouds are integral or standard with many of our switches. If terminal shrouds are necessary, add a "T" to the end of the part number.
- Special Request
 - Pilot Lights
 - Pushbuttons
 - 2 or 3 position selector switches

All enclosed switches are provided with a standard integral ground lug

Box type	Switch type	Ground lug wire size
NEMA/UL	16 – 60A	(2) #4 – #14
NEMA/UL	80 – 125A	(2) 1/0 – #14
NEMA/UL	200 – 400A	(2) 600kcmil – #2
NEMA/UL	600A & above	Consult Factory

Note: EDFs 40A, 60A & 80A use grounding stud

Enclosure Application Information

Enclosure Type		Intended Use and Description
NEMA	1	Indoor use primarily to provide a degree of protection against contact with the enclosed equipment and against a limited amount of falling dirt.
NEMA	3R	Intended for outdoor use primarily to provide a degree of protection against rain, sleet, and damage from external ice formation.
NEMA	12	Intended for indoor use primarily to provide a degree of protection against circulating dust, falling dirt, and dripping non-corrosive liquids.
NEMA	4	Intended for indoor or outdoor use primarily to provide a degree of protection against windblown dust and rain, splashing water, hose-directed water, and damage from external ice formation.
NEMA	4X	Intended for indoor or outdoor use primarily to provide a degree of protection against corrosion, wind blown dust and rain, splashing water, hose-directed water, and damage from ice formation.
IEC	IP65	Total protection against dust and protected against water jets from any hosed direction.

Enclosed Disconnect Switches EBFS

EBFS403RS0-H Stainless Steel Enclosed Non-Fused Disconnect Switch for NEMA 4X Corrosive Environments

The food-service and chemical industries subject their equipment to extreme conditions, from high-pressure steam and water wash-downs to hydrogen-sulfide and other corrosive atmospheres. To meet the demands of these applications, Mersen has added a hinged-cover product to our line of SS enclosed disconnect switches, which are stocked items, ready for same-day delivery.

Commonly used for 30A applications, but rated 40A!

EBFS403RS0-H Highlights:

304 Stainless Steel

- 16-gauge thickness, corrosion-resistant and extremely tough!
- 6" H x 6" W x 7" D

Continuous hinged cover with secure latch

- Eliminates the need for cover screws
- Provides even pressure on seal, consistently
- Prevents misplacement of cover
- Even if latch is left open, the handle interlock will prevent door from opening when switch is in the 'ON' position.

Wide, Welded mounting flanges

- No through-holes in the back for screws and grommets
- Weld-seam keeps dirt from accumulating

DIN rail welded directly to back of enclosure

- Without the need for a back-panel, one inch of depth is saved
- Switch can be easily removed for wiring by releasing the yellow tab

Foam-in-place polyurethane gasket

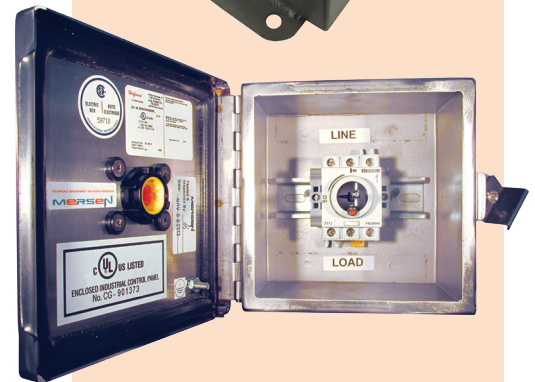
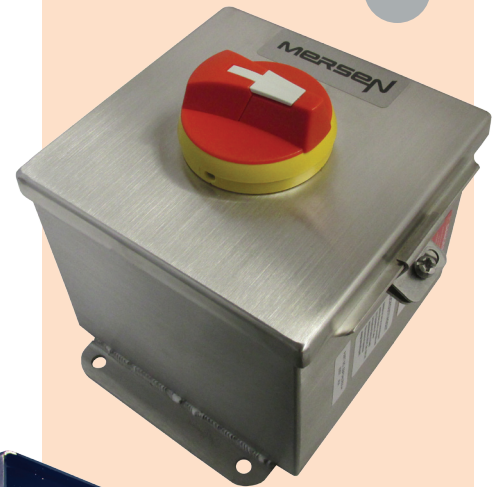
- Continuous seal, won't come loose

Ground studs welded to door and enclosure

- Nuts included, to accommodate grounding where required

Handle is lockable and defeatable

- Bright yellow and red polycarbonate for high visibility
- Can accommodate up to three padlocks for Lock-out/Tag-out



Ratings:

Volts : 600VAC
Amps : 40A
SCCR : 65kA with 30A J fuses

Approvals:

- UL 508 Enclosed Industrial Control Panel, suitable as motor disconnect
- CSA 22.2 #14

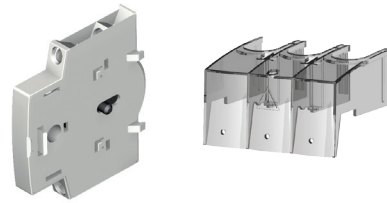


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Enclosed Disconnect Switches EBFS

Accessories

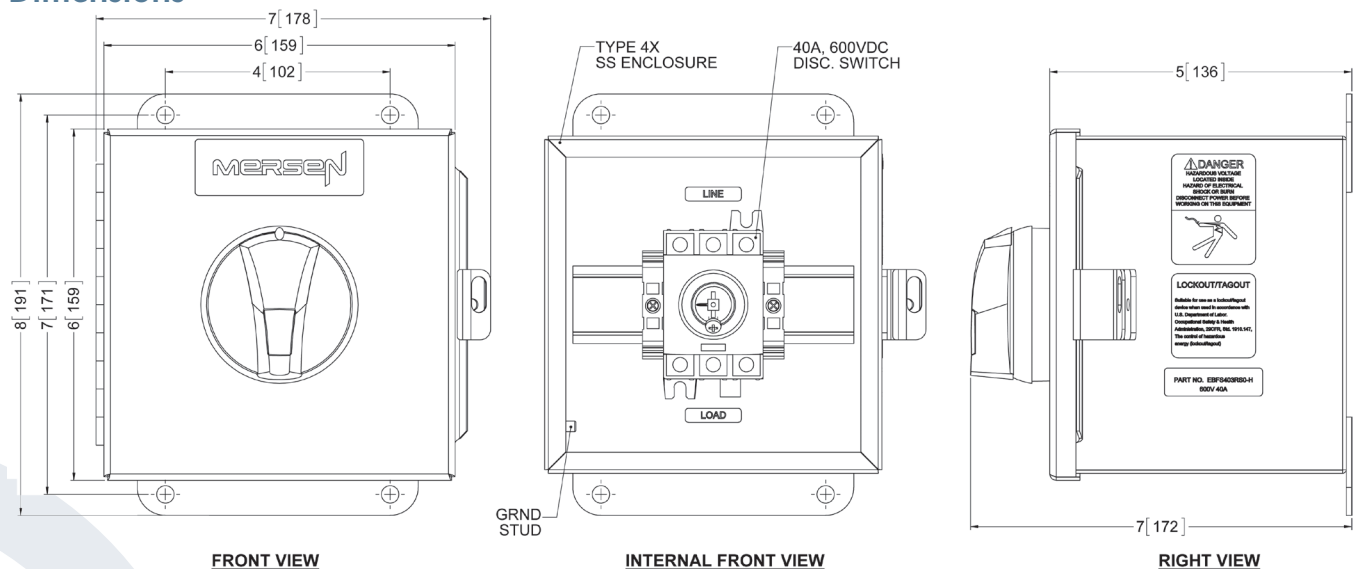
Catalog Number	Description
FSACNONC	Single unit containing NO/NC Aux contacts
FSACNONO	Single unit containing NO/NO Aux contacts
FSTS40	Set of two 3-pole shrouds



Technical Characteristics

Short Circuit Current Rating at 600VAC	10kA	65kA
Maximum fuse rating and type	60A J	30A J
Maximum Horsepower rating / Max. motor FLA 3Ø		
208 VAC	7.5 / 22A	
220 - 240 VAC	7.5 / 22A	
440 - 480 VAC	20 / 27A	
600 VAC	25 / 27A	
Connections		
Solid (AWG)	#14 - #10	
	2 x #12	
Stranded (AWG)	#14 - #4	
	2 x (#12 - #14)	
Torque	26.5 lb-in/ 3Nm	
Auxiliary Contacts Part #'s (Listed for field installation)		
Electrical Characteristics	A300	
3rd-party confirmations on the FSLBS40 Switch		
UL 508, Suitable as Motor Disconnect	E196672	
CSA 22.2 #14	cULus	
IEC CE certified	60947-3	

Dimensions



Mersen offers a full range of enclosed disconnect switches, in NEMA type 1, 3R, 12, 4 and 4X in fused and non-fused versions from 16A to 1200A.

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

Enclosed Disconnect Switches

NEMA ENCLOSURE 3 Pole, 600V 30-1200A, Non-fused		1	3R	12	4	4X Stainless	4X Non-Metallic	
	Ampere Rating (A)	Catalog Numbers						
UL 508	30	Special compact polycarbonate enclosures						EJFS303RS0
	60	Special compact polycarbonate enclosures						EJFS603RS0
	16		EAFS163RS0	EFFS163RS0	ECFS163RS0	EHFS163RS0	EBFS163RS0	EDFS163RS0
	25		EAFS253RS0	EFFS253RS0	ECFS253RS0	EHFS253RS0	EBFS253RS0	EDFS253RS0
	30		EAFS303RS0	EFFS303RS0	ECFS303RS0	EHFS303RS0	EBFS303RS0	EDFS303RS0
	40		EAFS403RS0	EFFS403RS0	ECFS403RS0	EHFS403RS0	EBFS403RS0	EDFS403RS0
	60		EAFS603RP0	EFFS603RP0	ECFS603RP0	EHFS603RP0	EBFS603RP0	EDFS603RP0
	80		EAFS803RP0	EFFS803RP0	ECFS803RP0	EHFS803RP0	EBFS803RP0	EGFS803RP0
UL 98	30		E AFC303RP0	EFFC303RP0	ECFC303RP0	EHFC303RP0	EBFC303RP0	EGFC303RP0
	60		E AFC603RP0	EFFC603RP0	ECFC603RP0	EHFC603RP0	EBFC603RP0	EGFC603RP0
	100 50 HP		E AFC1003RP0	EFFC1003RP0	ECFC1003RP0	EHFC1003RP0	EBFC1003RP0	EGFC1003RP0
	100 75 HP		E AFCX1003RP0	EAFCX1003RP0	EAFCX1003RP0	EAFCX1003RP0	EAFCX1003RP0	EAFCX1003RP0
	200		E AFC2003RP0	EFFC2003RP0	ECFC2003RP0	EHFC2003RP0	EBFC2003RP0	EGFC2003RP0
	400		E AFC4003RP0	EFFC4003RP0	ECFC4003RP0	EHFC4003RP0	EBFC4003RP0	EGFC4003RP0
	600		E ASC6003RP0	EFSC6003RP0	ECSC6003RP0	EHSC6003RP0	EBSC6003RP0	EGSC6003RP0
	800		E ASC8003RP0	EFSC8003RP0	ECSC8003RP0	EHSC8003RP0	EBSC8003RP0	EGSC8003RP0
	1000		E ASC10003RP0	EFSC10003RP0	ECSC10003RP0	EHSC10003RP0	EBSC10003RP0	EGSC10003RP0
	1200		E ASC12003RP0	EFSC12003RP0	ECSC12003RP0	EHSC12003RP0	EBSC12003RP0	EGSC12003RP0

NEMA ENCLOSURE 3 Pole, 600V 30-800A, Fused			1	3R	12	4	4X Stainless	4X Non-Metallic
	Ampere Rating (A)	Fuse Type	Catalog Numbers					
UL 98	30, compact	CC	EAFBCC303RP0	EFFBCC303RP0	ECFBCC303RP0	EHFBCC303RP0	EBFBCC303RP0	EGFBCC303RP0
	30, compact	J	EAFBJC303RP0	EFFBJC303RP0	ECFBJC303RP0	EHFBJC303RP0	EBFBJC303RP0	EGFBJC303RP0
	30	J	EAFBX303RP0	EFFBX303RP0	ECFBX303RP0	EHFBX303RP0	EBFBX303RP0	EGFBX303RP0
	60	J	EAFBX603RP0	EFFBX603RP0	ECFBX603RP0	EHFBX603RP0	EBFBX603RP0	EGFBX603RP0
	100	J	EAFBX1003RP0	EFFBX1003RP0	ECFBX1003RP0	EHFBX1003RP0	EBFBX1003RP0	EGFBX1003RP0
	200	J	EAFBX2003RP0	EFFBX2003RP0	ECFBX2003RP0	EHFBX2003RP0	EBFBX2003RP0	EGFBX2003RP0
	400	J	EAFBJ4003RP0	EFFBJ4003RP0	ECFBJ4003RP0	EHFBJ4003RP0	EBFBJ4003RP0	EGFBJ4003RP0
	600	J	EAFBJ6003RP0	EFFBJ6003RP0	ECFBJ6003RP0	EHFBJ6003RP0	EBFBJ6003RP0	EGFBJ6003RP0
	800	L	EAFBL8003RP0	EFFBL8003RP0	ECFBL8003RP0	EHFBL8003RP0	EBFBL8003RP0	EGFBL8003RP0

Notes: Each of the above enclosed switches are listed having a red/yellow handle. Simply replace the "RS" or "RP" with a "BS" or "BP" to receive with a black handle. The non-metallic enclosures are comprised of "ED" polycarbonate and "EG" polyester fiberglass.

Enclosed Disconnect Switches

Switch Rating	Enclosure Type	H height (in)	W width (in)	D depth (in)	MH mounting height (in)	MW mounting width (in)	Shipping Weight (lbs)	Figure No.
16-40A (FSLBS) UL508	1	8	8	6	5	7	10	2
	3R	8	8	6	9	3	11	1
	12	8	6	6	8.75	4	7	1
	4	5.91	5.91	4.72	5.2	3.35	7	2
	4X Stainless	5.91	5.91	4.72	5.2	3.35	7	2
	4X Non-Metallic	7	5	5	6.18	4.21	2	2
60A (FSLBS) UL508	1	8	8	6	5	7	10	2
	3R	8	8	6	9	3	10	1
	12	8	6	6	8.75	4	7	1
	4	7.87	5.91	4.72	7.17	3.35	7	2
	4X Stainless	7.87	5.91	4.72	7.17	3.35	7	2
	4X Non-Metallic	7	5	5	6.18	4.21	4	2
80A (FSLBS) UL508	1	10	8	6	7	7	10.6	2
	3R	10	8	6	11	3	11.1	1
	12	10	8	6	10.75	6	12.3	1
	4	9.84	7.87	5.91	9.13	5.31	9.8	2
	4X Stainless	9.84	7.87	5.91	9.13	5.31	9.8	2
	4X Non-Metallic	11.3	9.31	5.43	10.75	6	6	1
100A (FSSC) UL98	1	10	8	6	7	7	10.6	2
	3R	10	8	6	11	3	11.1	1
	12	10	8	6	10.75	6	12.3	1
	4	10	8	6	10.75	6	11.8	1
	4X Stainless	9.84	7.87	5.91	9.13	5.31	9.8	2
	4X Non-Metallic	11.31	9.31	5.43	10.75	6.02	7.6	1

Dimensions (in / mm)

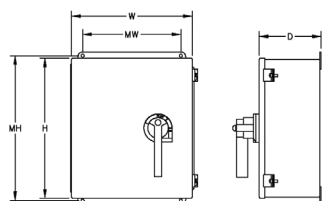


Figure 1

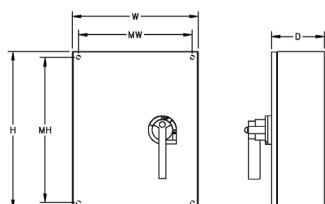
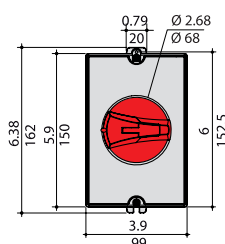
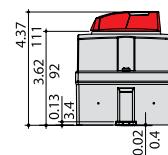


Figure 2



EJFS303RS0



EJFS603RS0

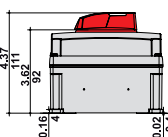


Figure 3

Figure 4

Enclosed Disconnect Switches

Switch Rating	Enclosure Type	H height (in)	W width (in)	D depth (in)	MH mounting height (in)	MW mounting width (in)	Shipping Weight (lbs)	Figure No.
30A (FSSC) UL98	1	8	8	6	5	5	9.3	2
	3R	8	8	6	9	3	10.2	1
	12	7.87	5.91	4.72	5.2	3.35	7.6	1
	4	7.87	5.91	4.72	5.2	3.35	7.6	1
	4X Stainless	9.844	7.87	5.91	9.13	5.31	10.1	2
	4X Non-Metallic	9.3	7.31	4.96	8.74	4.01	6.2	1
60A (FSSC) UL98	1	12	12	6	9	11	16	2
	3R	12	10	6	13	3	17.6	1
	12	12	12	6	12.75	10	21.6	1
	4	12	12	6	12.75	10	21.9	1
	4X Stainless	11.81	9.84	5.91	11.1	7.28	17.4	2
	4X Non-Metallic	13.3	11.29	7.1	12.75	8.01	12.9	1
100A (SX) UL98	1	12	12	6	9	11	16	2
	3R	12	10	6	13	3	17.6	1
	12	12	12	6	12.75	10	21.6	1
	4	12	12	6	12.75	10	21.9	1
	4X Stainless	12	10	6	12.75	8	18.6	1
	4X Non-Metallic	13.3	11.29	7.1	12.75	8.01	12.9	1
200A (SX) UL98	1	30	20	8.62	27.5	15	68.6	2
	3R	30	14	8	31	13	88.6	1
	12	30	20	8	28.5	18.5	70.1	2
	4	30	20	8	28.5	18.5	70.1	2
	4X Stainless	30	20	10	28.5	18.5	71	1
	4X Non-Metallic	32.87	25	11.81	34.72	22.91	59.3	1

Note: Dimensions are subject to change! Please consult factory for verification.



Enclosed Disconnect Switches

Switch Rating	Enclosure Type	H height (in)	W width (in)	D depth (in)	MH mounting height (in)	MW mounting width (in)	Shipping Weight (lbs)	Figure No.
30A (FBCC Compact) UL489	1	8	8	6	5	7	9.4	2
	3R	8	8	6	9	3	10.3	1
	12	9.84	7.87	5.91	9.13	5.31	10.8	1
	4	9.84	7.87	5.91	9.13	5.31	10.8	1
	4X Stainless	9.84	7.87	5.91	9.13	5.31	11.3	2
	4X Non-Metallic	11.31	9.31	6.93	10.75	6.02	9.7	1
30A (FBJ Compact) UL489	1	12	12	8	9	11	18.3	2
	3R	12	12	10	13	3	23.2	1
	12	12	10	8	12.75	8	14.4	1
	4	13.78	11.81	7.87	13.07	9.25	22.4	2
	4X Stainless	13.78	11.81	7.87	13.07	9.25	24.3	2
	4X Non-Metallic	11.31	9.31	6.93	10.75	6.02	9.7	1
30A (FBX) UL98	1	12	12	8	9	11	18.3	2
	3R	12	12	10	13	5	23.2	1
	12	12	10	8	12.75	8	21.9	1
	4	13.78	11.81	7.87	13.07	9.25	22.4	2
	4X Stainless	13.78	11.81	7.87	13.07	9.25	24.3	2
	4X Non-Metallic	15.32	13.3	8.19	14.75	10	17.1	1
60A (FBX) UL98	1	12	12	8	9	11	18.2	2
	3R	12	12	10	13	5	23.1	1
	12	12	10	8	12.75	8	14.6	1
	4	13.78	11.81	7.87	13.07	9.25	24.2	2
	4X Stainless	13.78	11.81	7.87	13.07	9.25	24.2	2
	4X Non-Metallic	15.32	13.3	8.19	14.75	10	17.5	1
100A (FBX) UL98	1	20	16	8.62	17.88	11	35.2	2
	3R	18	18	10	19	13	41.3	1
	12	20	16	8	21.24	10	35.2	1
	4	20	16	8	18.5	14.5	39	2
	4X Stainless	20	16	8	18.5	14.5	38.1	2
	4X Non-Metallic	19.31	17.31	9.58	18.74	12	25.6	1
200A (FBX) UL98	1	24	20	8.62	21.96	12.76	56.6	2
	3R	24	24	10	25	13	61.2	1
	12	24	20	8	25.24	14	51	1
	4	24	20	8	22.5	18.5	49.5	2
	4X Stainless	24	20	8	22.5	18.5	50.5	2
	4X Non-Metallic	28.94	21	10.63	30.79	18.97	46.3	1

Note: Dimensions are subject to change! Please consult factory for verification.