



GLOBAL LINE OF PREMIUM COMPACT LOW VOLTAGE SWITCHGEAR

UL LOW VOLTAGE DISCONNECT SWITCHES









THE SAFEST WAY TO SWITCH POWER ON AND OFF IN YOUR INDUSTRIAL CONTROL PANELS

You need a range of disconnect switches for your industrial control requirements ranging from "Service Entrance Rated" to motor isolation. You need DIN-rail and direct mountable disconnect switches that conform to UL 508 and UL 98. You need a range of handles, shafts and accessories to select from.

Mersen Electrical Power has now the broadest range of switches in the industry, with a full line of accessories to accommodate virtually any application. This range is global and encompasses both UL and IEC standard products for AC and DC applications. On the UL side, our fusible line of switches now extends to 1200A Class L.

Compact size enables the smallest footprint amongst the competition. Our 40A UL508 switches are only 35mm wide! Comfortable pistol-style handles allow greater leverage and gripping force. Robust design incorporates rugged, pivot-able mounting feet.



Non-Fusible Switches 16A to 1200A, 600VAC

 Performance: Higher power ratings than competition, suitable for many applications



- Size: Typically has the smallest footprint
- Flexibility in installation: Fast and reliable installation every time
- Environmental impact: All products conform to RoHS and REACH

Fusible Switches 30A to 1200A, 600VAC



- **Safety:** Safe to install and safe to the user
- Performance: Suitable for
 all locations in low voltage networks
- **Size:** Typically has the smallest footprint
- Flexibility in installation: Complete range of accessories which support installation flexibility
- Environmental impact: All products conform to RoHS and REACH

PV-Rated Switches 100A to 400A, Up to 1500 VDC

- **Safety:** Touchsafe design with visible contacts
- **Performance:** Higher power ratings than competition, suitable for many applications



- Size: Typically has the smallest footprint
- Flexibility in installation: Fast and reliable installation every time
- Environmental impact: All products conform to RoHS and REACH



The M-series Load Break Switch is the most compact industrial-grade switch on the market. Capable of making or breaking loads up to 600V (UL), it is suitable as a motor disconnect. Extremely compact and robust, these switches have a variety of mounting options including DIN-rail, base, or door-mounting. A wide assortment of handles, shafts and accessories is available to accommodate any installation requirement.

FEATURES/BENEFITS

- Compact
- Robust
- DIN-rail, base, or door-mounting
- Choice of handles and shafts
- Padlockable
- Side-mount auxiliary contacts and additional poles
- Double-break, silver-plated contacts

APPLICATIONS

- Line of sight disconnect
- Electrical isolation
- Branch-circuit switch
 - Motor disconnect

CATALOG NUMBER DESIGNATION						
M Switch	80 Ampacity	3 Number of Poles	Special Configurations			
M = Mersen AC Switch	16-80		DM: Door Mounting			

DISCONNECT SWITCHES

UL 508 NON-FUSIBLE

RATINGS (UL):

- **Volts:** 600VAC
- Amps: 20, 30, 40, 63, and 80A. Suitable as motor disconnect up to 40hp.

- UL 508 listed E196672
- IEC 60947-3



JL 508 Disconnect Switches—Front Op	erated					
				G		T
M163	M163DM	M633			M633DM	
Switch Body	Ampere Rating	20	30	40	63	80
	Base Part #	M163	M253	M403	M633	M803
	Door-Mounted Version	M163DM	M253DM	M403DM	M633DM	M803DM
Handles and Shafts	Direct Front Operation Locking Handle					
		HD40	HD40	HD40	HD125	HD125
HD40 🌑	External Front Operation					
	Selector Style NEMA Type 1, 3R, 12	HSBX, HSRX				
	Shaft—SAxxx (xxx = length in mm)		SA85, SA105,	SA120, SA130), SA180, SA25	0
	Door mounted version (no shaft required)		HSBPDM, HSRP	DM	HSBWD	4, HSRWDM
HB65	Pistol Style NEMA Type 1, 3R, 12		HB45, HR4	5, HB65, HR65	, HB80, HR80	
	NEMA Type 4, 4X HE			, HB65X, HR65	5X, HB8O, HB8	OX
	NEMA 4X Stainless Steel			HM65X		
	Shaft— SAxxx (xxx = length in mm) SPA130, SPA290, SPA360, SPA					0
SA105 SPA130	B=Black, R=Black					
Accessories	Fourth Poles					
-10 July	Limited to one additional pole per switch	4P40	4P40	4P40	4P80	4P80
	Door mounted switch 4th poles are left-side mounted	4P40DM	4P40DM	4P40DM	4P80DM	4P80DM
	Neutral Poles					
	Limited to one additional pole per switch	NP40	NP40	NP40	NP80	NP80
	Door mounted switch neutral poles	NP40DM	NP40DM	NP40DM	NP80DM	NP80DM
4P40 4P80	Terminal Shrouds					
0.41010	3-pole	TS40-3	TS40-3	TS40-3	TS63-3	TS63-3
OA1G10 OA2G11	4-pole (Add this to the 3-pole shroud)	TS40-1	TS40-1	TS40-1	TS63-1	TS63-1
	Auxiliary Contacts*					
	NC Right side mounting	0A1G01	0A1G01	0A1G01	0A1G01	0A1G01
OA1G01	NO left side mounting	0A1G10	0A1G10	0A1G10	0A1G10	0A1G10
UAIGUI	NO+NC (Mounting on either side)	0A2G11	0A2G11	0A2G11	0A2G11	0A2G11
	*Rated 2A max continous @690VAC					

Minimum switching capacity for the auxiliary contacts 0A1G01, 0A1G10, 0A2G11 is 10mA at a voltage of 24V DC

UL 508 NON-FUSIBLE DISCONNECT SWITCHES (M163 - M803)

Part Number					M163		M253		M403		M633		M803	
General Purpose Amp Rating	pf= 0.70.8	-40° to 40 °C	A	A		20 30			40		60		80	
Maximum Operating Voltage			V		600		600		600		600		600	
		240 V	HP/A		5/15.	2	7.5/22	2.0	10/28	3.0	15/42	2.0	20/54	4.0
	pf= 0.40.5 Three phase	480 V	HP/A		10/14.0		15/21	.0	20/27	20	30/40.0		40/52.0	
Max. horsepower rating / motor FLA current		600 V	HP/A		11-Oct		20/22.0		25/27	2.0	30/32.0		40/41.0	
	Cinala abasa	120 V	HP/A	HP/A 1/16.0		1.5/20.0		2/24.	2/24.0		2/24.0		2/24.0	
	Single phase	240 V	HP/A		2/13.2		3/18.	7	5/30.	8	7.5/40	0.0	10/57	?.5
	Maximum fuse size		A		30	60 ^{2]}	30	60 ^{2]}	30	60²)	100	150	100	150
	Fuse type	CC	kA		10		10		10					
	Fuse type	J	kA		10	10	10	10	10	10	100		100	
Short circuit rating with fuse	Fuse type	Т	kA		10	10	10	10	10	10	100		100	
Short circuit rating with fuse	Fuse type	RK1	kA		10		10		10		10	5	10	5
	Fuse type	RK5	kA		5	5	5	5	5	5		5		5
	Fuse type	L	kA											
	Fuse type	Н	kA											
Endurances														
Min. electrical endurance, pf. 0.750.	8		oper. cyc	les	6 0 0 0)	6 0 0 0)	6 0 0 0)	6 0 0 0)	6 0 0 0)
Mechanical endurance			operatio	ns	20 00	0	20 00	0	20 00	0	20 00	0	20 00)0
Terminal lug kits					Integr	al	Integr	al	Integ	ral	Integr	al	Integ	ral
Wire range			AWG		18-8		18-8		18-8		14-4		14-4	
Torque		Wire tightening	lb. in		7		7		7		18		18	
		Lug mounting												

UL 98 NON-FUSIBLE DISCONNECT SWITCHES



Mersen's non-fusible disconnect switches are listed to UL 98 and bear the CE mark as conformance to IEC 60947-3. They are "service entrance" devices that are capable of fully rated load-break and load-make. All switches over 100A have windows to provide visual indication of the contact status. Engineered to have the smallest footprint, these switches also employ a modular design that enables the handle to be placed amongst the poles or at the ends.

A wide range of ergonomic handles are available, as are all manner of accessories, to accommodate multiple applications.

CONFIGURATIONS

Gearbox in

the middle

Side operated N

Gearbox on the side

可用

irie:

FEATURES/BENEFITS

- Service entrance rated
- Front or side operation
- Most compact size
- Internally mounted auxiliary contacts
- Flange mounting accessories
- 15-year warranty

CATALOG	NUMBER D	ESIGNATIC	N			
M Switch	200 Ampacity	U Type	3 Number of Poles/Left of handle	O Number of Poles/Right of handle	Revision	Special Configuration
M = Mersen AC Switch	16-1200	U = non- fused UL 98	1-3	Blank = < 200A non-fused, 0, 2, 3	Blank = 0	F = Flange- mount Actuation DM = Door mounted

DISCONNECT SWITCHES

UL 98 NON-FUSIBLE

RATINGS (UL):

- Volts: 600VAC
- Amps: 30A, 60A, 100A, 200A, 400A, 600A, 800A, 1200A
- Short-Circuit Current Rating
 (SCCR): Up to 200kA with
 fuses. Suitable as motor
 disconnect

- All UL switches meet the requirements of UL and CSA
- UL listed guide WHTY, File E191605 for UL 98 (ratings from 30 A to 1200 A)
- IEC 60947-3





	DISCONNECT	SWITCHES
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	ES					
M100U3	M200U30 with HD250 Direct Handle		M20	10030		
SWITCH BODY	AMPERE RATING	30	60	100	200	
	Base Part #	M30U3	M60U3	M100U3	M200U	
	3-pole configurations				12, 30	
	For Flange-mount Actuation	M30U3F	M60U3F	M100U3F		
	For Door-mounting	M30U3DM	M60U3DM	M100U3DM		
HANDLES AND SHAFTS	DIRECT FRONT OPERATION LOCKING HANDLE					
		HD125	HD125	HD125	HD250	
1-1-	EXTERNAL FRONT OPERATION					
	Selector Style		HSBX, HSRX		N/A	
	Shaft—SAxxx (xxx = length in mm)	SA85, SA105	, SA120, SA130,	SA180, SA250	N/A	
	Door mounted version (no shaft required)	Н	SBWDM, HSRW	'DM	N/A	
НD250	Pistol Style NEMA Type 1, 3R, 12	HB45, HR45	, HB65, HR65,	HB80, HR80		
HSBX	NEMA Type 4, 4X	HB45X, HR45X, HB65X, HR65X, HB80X, HR80X				
	NEMA 4X Stainless Steel	HM65X				
	Shaft— SAxxx (xxx = length in mm)	SPA130, SPA	210, SPA290, S	SPA360, SPA43	0	
HB65	B=Black, R=Black					
ACCESSORIES	FOURTH POLES					
		4P60	4P60	4P125	4P250	
	NEUTRAL POLES					
		NP60	NP60	NP125		
	TERMINAL SHROUDS					
	3-pole	TS125-3	TS125-3	TS125-3	TS250-13	
4P125 4P250	4-pole	TS125-1	TS125-1	TS125-1	TS250-14	
	Shrouds with "-3" suffix are single shrouds that cover all three terminals. S	hrouds with "-13"	or "-14" are sing	, gle pole shrouds	with 3 or 4 per	
A REAL PROPERTY AND A REAL	AUXILIARY CONTACTS*					
	AUXILIART CONTACTS					
	Normally Closed	0A1G01	0A1G01	0A1G01	0A3G01	
		0A1G01 0A1G10	0A1G01 0A1G10	0A1G01 0A1G10	0A3G01 0A1G10	
	Normally Closed					
TS250-13	Normally Closed Normally Open	0A1G10	0A1G10	0A1G10		
	Normally Closed Normally Open NO+NC	0A1G10 0A2G11	0A1G10 0A2G11	0A1G10 0A2G11	OA1G10	
TS250-13 0A1610 0A2611	Normally Closed Normally Open NO+NC Module for 8 aux. contacts	0A1G10 0A2G11	0A1G10 0A2G11	0A1G10 0A2G11	OA1G10	
	Normally Closed Normally Open N0+NC Module for 8 aux. contacts *Rated 2A max continous @690VAC	0A1G10 0A2G11	0A1G10 0A2G11	0A1G10 0A2G11	OA1G10	
0A1G10 0A2G11	Normally Closed Normally Open N0+NC Module for 8 aux. contacts *Rated 2A max continous @690VAC FLANGE OPERATION	OA1G10 OA2G11 N/A	OA1G10 OA2G11 N/A	OA1G10 OA2G11 N/A	0A1G10 0EA28	
	Normally Closed Normally Open N0+NC Module for 8 aux. contacts *Rated 2A max continous @690VAC FLANGE OPERATION Flange bracket assembly	OA1G10 OA2G11 N/A Incl with M30U3F**	OA1G10 OA2G11 N/A	OA1G10 OA2G11 N/A	0A1G10 0EA28	
0A1G10 0A2G11	Normally Closed Normally Open N0+NC Module for 8 aux. contacts *Rated 2A max continous @690VAC FLANGE OPERATION Flange bracket assembly Rod Flange handle NEMA 12	OA1G10 OA2G11 N/A Incl with M30U3F** FHR12	OA1G10 OA2G11 N/A Incl with MG0U3F** FHR12	OA1G10 OA2G11 N/A Incl with M100U3F** FHR12	OA1G10 OEA28 FOM4 NA	
OA1G10 OA2G11 OA1G01 OA1G01	Normally Closed Normally Open NO+NC Module for 8 aux. contacts *Rated 2A max continous @690VAC FLANGE OPERATION Flange bracket assembly Rod Flange handle NEMA 12 Rod Flange handle NEMA 4X	OA1G10 OA2G11 N/A Incl with M30U3F** FHR12 FHR4X	OA1G10 OA2G11 N/A Incl with MG0U3F** FHR12 FHR4X	OA1G10 OA2G11 N/A Incl with M100U3F** FHR12 FHR4X	0A1G10 0EA28 F0M4 NA NA	
0A1G10 0A2G11	Normally Closed Normally Open NO+NC Module for 8 aux. contacts *Rated 2A max continous @690VAC FLANGE OPERATION Flange bracket assembly Rod Flange handle NEMA 12 Rod Flange handle NEMA 4X Rod, 16 inch	OA1G10 OA2G11 N/A Incl with M30U3F** FHR12 FHR4X RODNF16	OA1G10 OA2G11 N/A Incl with M60U3F** FHR12 FHR4X RODNF16	OA1G10 OA2G11 N/A Incl with M100U3F** FHR12 FHR4X RODNF16	FOM4 NA NA NA	
OA1G10 OA2G11 OA1G01 OA1G01	Normally Closed Normally Open N0+NC Module for 8 aux. contacts *Rated 2A max continous @690VAC FLANGE OPERATION Flange bracket assembly Rod Flange handle NEMA 12 Rod Flange handle NEMA 4X Rod, 16 inch Rod, 24 inch	OA1G10 OA2G11 N/A Incl with M30U3F** FHR12 FHR4X RODNF16 RODNF24	OA1610 OA2611 N/A Incl with M60U3F** FHR12 FHR12 FHR4X RODNF16 RODNF24	OA1G10 OA2G11 N/A Incl with M100U3F** FHR12 FHR4X RODNF16 RODNF24	FOM4 NA NA NA NA	
0A1G10 0A2G11 0A1G01 0A1G01	Normally Closed Normally Open N0+NC Module for 8 aux. contacts *Rated 2A max continous @690VAC FLANGE OPERATION Flange bracket assembly Rod Flange handle NEMA 12 Rod, 16 inch Rod, 24 inch Cable Flange Handle, NEMA 12	OA1G10OA2G11N/AIncl with M30U3F**FHR12FHR4XRODNF16RODNF24NA	OA1610 OA2611 N/A Incl with M60U3F** FHR12 FHR12 FHR4X RODNF16 RODNF24 NA	OA1G10 OA2G11 N/A Incl with M100U3F** FHR12 FHR4X RODNF16 RODNF24 NA	FOM4 NA NA NA NA FHC12	

111	ICTER	EDON	RATED

M400U30	M600U30		M200U30				
Switch body	Ampere Rating	400	600	800	1200		
	Base Part #	M400U	M600U	M800U	M1200U		
	3-pole configurations	30, 12	30, 12	30, 12	30		
Handles and Shafts	Direct Front Operation Locking Handle						
		HD400	HD800	HD800	HD1000		
SFB135	External Front Operation						
	Pistol Style NEMA Type 1, 3R, 12		HB125. HE	3145, HB274			
	NEMA Type 4, 4X			145X, HB274X			
	NEMA 4X Stainless Steel		НМ 125Х, НМ 175Х				
	Shaft— SAxxx [xxx = length in mm]	SFB1	85, SFB280, SFI		SFB535		
HD800	Alignment Ring (optional, for pistol-style handle)	0.01		RX10	0.0000		
	B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex	x HR125					
Accessories	I Fourth Poles						
Accessories	Fourth Poles	4P400	4P800	4P800	4P1250		
Accessories		4P400	4P800	4P800	4P1250		
Accessories	Terminal Lugs						
Accessories		LUG400 #2 -	4P800 LUG8002x #2600MCM	4P800 LUG8002x #2600MCM	LUG1200 4 x #2		
Accessories	Terminal Lugs 6 per package	LUG400	LUG800 2 x	LUG800 2 x	LUG1200		
Accessories	Terminal Lugs 6 per package Terminal Shrouds	LUG400 #2 - 600MCM	LUG800 2 x #2 600MCM	LUG800 2 x #2 600MCM	LUG1200 4 x #2		
E E	Terminal Lugs 6 per package	LUG400 #2 -	LUG800 2 x	LUG800 2 x	LUG1200 4 x #2 600MCM		
E C	Terminal Lugs 6 per package Terminal Shrouds	LUG400 #2 - 600MCM	LUG800 2 x #2 600MCM	LUG800 2 x #2 600MCM	LUG1200 4 x #2 600MCM TS1600-13		
E Contraction	Terminal Lugs 6 per package Terminal Shrouds 3-pole	LUG400 #2 - 600MCM TS400-13 TS400-14	LUG800 2 x #2 600MCM TS600-3	LUG800 2 x #2 600MCM TS800-3	LUG1200 4 x #2 600MCM TS1600-13 TS1600-14		
E Contraction	Terminal Lugs 6 per package Terminal Shrouds 3-pole 4-pole	LUG400 #2 - 600MCM TS400-13 TS400-14	LUG800 2 x #2 600MCM TS600-3	LUG800 2 x #2 600MCM TS800-3	LUG1200 4 x #2 600MCM TS1600-13 TS1600-14		
	Terminal Lugs 6 per package Terminal Shrouds 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three	LUG400 #2 - 600MCM TS400-13 TS400-14	LUG800 2 x #2 600MCM TS600-3	LUG800 2 x #2 600MCM TS800-3	LUG1200 4 x #2 600MCM TS1600-13 TS1600-14		
E E	Terminal Lugs 6 per package Terminal Shrouds 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three Auxiliary Contacts*	LUG400 #2 - 600MCM TS400-13 TS400-14 e terminals. Shrouds with "-13	LUG800 2 x #2 600MCM TS600-3 " or "-14" are sing	LUG800 2 x #2 600MCM TS800-3 gle pole shrouds	LUG1200 4×#2 600MCM TS1600-13 TS1600-14 with 3 or 4 pe		
	Terminal Lugs 6 per package Terminal Shrouds 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three Auxiliary Contacts* Normally Open	LUG400 #2 - 600MCM TS400-13 TS400-14 e terminals. Shrouds with "-13 0A1610	LUG800 2 x #2 600MCM TS600-3 " or "-14" are sing 0A1G10	LUG800 2 × #2 600MCM TS800-3 gle pole shrouds 0A1G10	LUG1200 4×#2 600MCM TS1600-13 TS1600-14 with 3 or 4 pe 0A1G10		
	Terminal Lugs 6 per package Terminal Shrouds 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three Auxiliary Contacts* Normally Open Normally Closed	LUG400 #2 - 600MCM TS400-13 TS400-14 e terminals. Shrouds with "-13 0A1G10 0A3G01	LUG800 2 x #2 600MCM TS600-3 " or "-14" are sing 0A1G10 0A3G01	LUG800 2 x #2 GOOMCM TS800-3 Je pole shrouds OA1G10 OA3G01	LUG1200 4×#2 600MCM TS1600-13 TS1600-14 with 3 or 4 pe 0A1G10 0A3G01		
	Terminal Lugs 6 per package Terminal Shrouds 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three Auxiliary Contacts* Normally Open Normally Closed Module for 8 aux, contacts	LUG400 #2 - 600MCM TS400-13 TS400-14 e terminals. Shrouds with "-13 0A1G10 0A3G01	LUG800 2 x #2 600MCM TS600-3 " or "-14" are sing 0A1G10 0A3G01	LUG800 2 x #2 GOOMCM TS800-3 Je pole shrouds OA1G10 OA3G01	LUG1200 4×#2 600MCM TS1600-13 TS1600-14 with 3 or 4 pe 0A1G10 0A3G01		

UL 98 NON-FUSIBLE DISCONNECT SWITCHES

Part Number				мзоиз	M60U3	M100U3	M200Uxx	
	-(07 00	-5° to 40 °C	A	30	60	100	200	
General Purpose Amp Rating	pf= 0.70.8	-5" t0 40 "C	A V					
Maximum Operating Voltage		240.1/		600	600	600	600 75/192.0	
Max. horsepower rating / motor FLA	pf= 0.40.5 Three	240 V	HP/A	10/28.0	20/54.0	30/80.0		
current	phase	480 V	HP/A	20/27.0	40/52.0	50/65.0	150/180.0	
		600 V	HP/A	30/32.0	40/41.0	50/52.0	200/192.0	
	Single phase	120 V	HP/A	2/24.0	3/34.0	5/56.0		
	Maximum funa aiza	240 V	HP/A	5/28.0	7.5/40.0	15/68.0	200	400
Short circuit rating with fuse	Maximum fuse size	22	A	60	150	150	200	400
	Fuse type		kA kA	50	50	50	200	65
	Fuse type	T	kA kA	50	50	50	200	05
	Fuse type Fuse type	RK1	kA kA	50	50	50		
	Fuse type	RK5	kA					
		L	kA					
	Fuse type	Н	kA kA					
	Fuse type		KA					
Maximum General Use, DC Ratings		1.050.V00					200	
Current rating		at 250 VDC	A				200	
		at 600 VDC	A				100	
DC horsepower rating for 4-pole switch		at 600 VDC	HP				50	
DC horsepower rating for 2-pole switch	In open air	at 125 VDC	HP				20	
	In enclosure ²	at 250 VDC	HP				-	
DC short circuit rating for 4-pole switch	with circuit breaker		kA				10	
DC short circuit rating for 2-pole switch	with circuit breaker at 2		kA				14	
	with circuit breaker at 6		kA				10	
	with class J fuse at 250	VDL	kA				100	
	with fuse size		A				200	
endurances			1					
Min. electrical endurance, pf. 0.750.	8		oper. cycles	6 000	6 000	6 000	6 000	
Mechanical endurance			operations	20 000	20 000	20 000	20 000	
Terminal lug kits				Integral	Integral	Integral	LUG-200	
Wire range			AWG	14-4	14-4	8-1/0	4-300MCM	
Torque		Wire tightening	lb. in	55	55	55	275	
		Lug mounting					72	
TECHNICAL DATA ACCORDING TO IEC 6	0947-3		1					
Rated insulation voltage and rated operatio	nal voltage AC20/DC20	Pollution degree 3	V	750	750	750	1 000	
Dielectric strength		50 Hz 1min.	kV	6	6	6	10	
Rated impulse withstand voltage			kV	8	8	8	12	
Rated operational current, AC-22A		up to 415 V	A	40	63	100	250	
		440500 V	Α	40	63	100	250	
		690 V	A	40	63	100	250	
				1.10	63	80	250	
Rated operational current, AC-23A		up to 415 V	А	40				
Rated operational current, AC-23A		440 V	А	40	63	65	250	
Rated operational current, AC-23A		440 V 500 V	A A	40 40	63 63	60	250	
Rated operational current, AC-23A		440 V	А	40	63 63 63	60 40		
Rated conditional short-circuit		440 V 500 V 690 V 50 kA	A A A kA	40 40 40 16.5	63 63 63 16.5	60 40 16.5	250	
Rated conditional short-circuit current I _v (r.m.s.) and corresponding	 	440 V 500 V 690 V	A A A	40 40 40 16.5 125/125	63 63 63 16.5 125/125	60 40 16.5 125/125	250	
Rated conditional short-circuit current Ip (r.m.s.) and corresponding max. allowed cut-off current ip. The cut-off	Max. fuse size gG/aM	440 V 500 V 690 V 50 kA	A A A kA	40 40 40 16.5	63 63 63 16.5	60 40 16.5	250	
Rated conditional short-circuit current l _p (r.m.s.) and corresponding max. allowed cut-off current î _p . The cut-off current î _p refers to values listed by fuse	Max. fuse size gG/aM	440 V 500 V 690 V 50 kA 415 V 10 kA 690 V	A A KA A KA A A	40 40 40 16.5 125/125	63 63 63 16.5 125/125	60 40 16.5 125/125 8.2 125/100	250 250	
Rated conditional short-circuit current I _p (r.m.s.) and corresponding max. allowed cut-off current ī _p . The cut-off current ī _p refers to values listed by fuse	Max. fuse size gG/aM	440 V 500 V 690 V 50 kA 415 V 10 kA	A A A kA A kA	40 40 40 16.5 125/125 8.2	63 63 63 16.5 125/125 8.2	60 40 16.5 125/125 8.2	250 250 	
Rated conditional short-circuit current I, (r.m.s.) and corresponding max. allowed cut-off current î,. The cut-off current î, refers to values listed by fuse manufacturers	Max. fuse size gG/aM I _p (r.m.s.) Max. fuse size gG/aM	440 V 500 V 690 V 50 kA 415 V 10 kA 690 V	A A KA A KA A A	40 40 40 16.5 125/125 8.2 125/100	63 63 63 16.5 125/125 8.2 125/100	60 40 16.5 125/125 8.2 125/100	250 250	
Rated conditional short-circuit current I, (r.m.s.) and corresponding max. allowed cut-off current î,. The cut-off current î, refers to values listed by fuse manufacturers	Max. fuse size gG/aM I_ (r.m.s.) Max. fuse size gG/aM I_ (r.m.s.)	440 V 500 V 690 V 50 kA 415 V 10 kA 690 V 50 kA	A A KA A KA A KA KA	40 40 16.5 125/125 8.2 125/100 10	63 63 63 16.5 125/125 8.2 125/100 10	60 40 16.5 125/125 8.2 125/100 10	250 250 	
Rated conditional short-circuit current I, (r.m.s.) and corresponding max. allowed cut-off current î, The cut-off current î refers to values listed by fuse manufacturers	Max. fuse size gG/aM I_ (r.m.s.) Max. fuse size gG/aM I_ (r.m.s.) Max. fuse size gG/aM	440 V 500 V 690 V 50 kA 415 V 10 kA 690 V 50 kA 690 V	A A A KA A KA A KA A	40 40 16.5 125/125 8.2 125/100 10	63 63 63 16.5 125/125 8.2 125/100 10	60 40 16.5 125/125 8.2 125/100 10	250 250 35 35 355/315	
Rated conditional short-circuit current I _p (r.m.s.) and corresponding max. allowed cut-off current ī _c . The cut-off current ī _c refers to values listed by fuse manufacturers (single phase test acc. to IEC60269)	Max. fuse size gG/aM I _p (r.m.s.) Max. fuse size gG/aM I _p (r.m.s.) Max. fuse size gG/aM at prospective SC-current	440 V 500 V 690 V 50 kA 415 V 10 kA 690 V 50 kA 690 V 80 kA	A A KA	40 40 16.5 125/125 8.2 125/100 10	63 63 63 16.5 125/125 8.2 125/100 10	60 40 16.5 125/125 8.2 125/100 10	250 250 35 35 355/315 40.5	
Rated conditional short-circuit current I _p (r.m.s.) and corresponding max. allowed cut-off current ī _c . The cut-off current ī _c refers to values listed by fuse manufacturers (single phase test acc. to IEC60269) Rated short-time withstand current	Max. fuse size gG/aM I _p (r.m.s.) Max. fuse size gG/aM I _p (r.m.s.) Max. fuse size gG/aM at prospective SC-current Max. fuse size gG/aM	440 V 500 V 690 V 50 kA 415 V 10 kA 690 V 50 kA 690 V 80 kA 690 V	A A A KA A	40 40 16.5 125/125 8.2 125/100 10 63/63	63 63 63 16.5 125/125 8.2 125/100 10 63/63	60 40 16.5 125/125 8.2 125/100 10 63/63	250 250 35 355/315 40.5 355/315	
Rated conditional short-circuit current I _p (r.m.s.) and corresponding max. allowed cut-off current I _c . The cut-off current I _c refers to values listed by fuse manufacturers (single phase test acc. to IEC60269) Rated short-time withstand current Rated short circuit making capacity	Max. fuse size gG/aM I (r.m.s.) Max. fuse size gG/aM I (r.m.s.) Max. fuse size gG/aM at prospective SC-current Max. fuse size gG/aM r.m.svalue I ew	440 V 500 V 690 V 50 kA 415 V 10 kA 690 V 50 kA 690 V 80 kA 690 V 690 V, 1 s 690 V/500 V	A A A kA	40 40 40 16.5 125/125 8.2 125/100 10 63/63 2.5	63 63 63 16.5 125/125 8.2 125/100 10 63/63 2.5	60 40 16.5 125/125 8.2 125/100 10 63/63 2.5	250 250 35 355/315 40.5 355/315 8	
Rated conditional short-circuit current I _p (r.m.s.) and corresponding max. allowed cut-off current I _c . The cut-off current I _c refers to values listed by fuse manufacturers (single phase test acc. to IEC60269) Rated short-time withstand current Rated short circuit making capacity Power loss / pole	Max. fuse size gG/aM I (r.m.s.) Max. fuse size gG/aM I (r.m.s.) Max. fuse size gG/aM at prospective SC-current Max. fuse size gG/aM r.m.svalue I (m) Peak value I (m)	440 V 500 V 690 V 50 kA 415 V 10 kA 690 V 50 kA 690 V 80 kA 690 V 690 V, 1 s 690 V/500 V ent	A A A KA A	40 40 40 16.5 125/125 8.2 125/100 10 63/63 2.5 3.6	63 63 63 16.5 125/125 8.2 125/100 10 63/63 2.5 3.6	60 40 16.5 125/125 8.2 125/100 10 63/63 2.5 3.6	250 250 35 355/315 40.5 355/315 8 30	
Rated conditional short-circuit	Max. fuse size gG/aM I (r.m.s.) Max. fuse size gG/aM I (r.m.s.) Max. fuse size gG/aM at prospective SC-current Max. fuse size gG/aM r.m.svalue I (m) Peak value I (m) At rated operational curr	440 V 500 V 690 V 50 kA 415 V 10 kA 690 V 50 kA 690 V 80 kA 690 V 690 V, 1 s 690 V/500 V ent	A A A KA A W	40 40 40 16.5 125/125 8.2 125/100 10 63/63 2.5 3.6 0.7	63 63 63 16.5 125/125 8.2 125/100 10 63/63 2.5 3.6 1.6	60 40 16.5 125/125 8.2 125/100 10 63/63 2.5 3.6 4.0	250 250 35 355/315 40.5 355/315 8 30 6.5	

UL 98 NON-FUSIBLE DISCONNECT SWITCHES

TECHNICAL DATA ACCORDING TO UL/cULus Part Number				M400U	M600U	м8000	M1200U
General Purpose Amp Rating	pf= 0.70.8	-5° to 40 °C	Α	400	600	800	1200
laximum Operating Voltage			V	600	600	600	600
	pf= 0.40.5 Three	240 V	HP/A	125/312.0	200/480.0	200/602	200/602
	phase	480 V	HP/A	250/302.0	450/515.0	500/590	500/590
lax. horsepower rating / motor FLA current	·	600 V	HP/A	350/338.0	500/472.0	500/472	500/472
	Single phase	120 V	HP/A				
		240 V	HP/A				
	Maximum fuse size		A	600	600 800	800	1200
	Fuse type	<u>CC</u>	kA				
	Fuse type	J	kA	100	100		
hort circuit rating with fuse	Fuse type	T	kA		100		
5	Fuse type	RK1	kA		100	100	400
	Fuse type	RK5	kA		100	100	100
	Fuse type	L	kA				
	Fuse type	Н	kA				
laximum General Use, DC Ratings							,
urrent rating		at 250 VDC	Α	400	600		
		at 600 VDC	Α	200	200		
OC horsepower rating for 4-pole switch		at 600 VDC	HP	50	-		
IC horsepower rating for 2-pole switch	In open air	at 125 VDC	HP	40	-		
	In enclosure ^{2]}	at 250 VDC	HP	50	50		
IC short circuit rating for 4-pole switch	with circuit breaker		kA	10	10		
	with circuit breaker at 2	50 VDC	kA	14	18		
DC short circuit rating for 2-pole switch	with circuit breaker at 6	IOO VDC	kA	10	10		
a short circuit rating for 2-pole switch	with class J fuse at 250	VDC	kA	100	100		
	with fuse size		A	400	500		
Endurances							
Min. electrical endurance, pf. 0.750.8			oper. cycles	1000	1 000	500	500
Mechanical endurance			operations	16 000	10 000	6000	6000
erminal lug kits				LUG400	LUG800	LUG800	LUG1200
Vire range			AWG	2 - 600MCM	2 x 2 - 600MCM	2 x 2 - 600MCM	4 x 2 - 600M
orque		Wire tightening	lb. in	375	55	500	500
		Lug mounting		240	480	480	450-670
ECHNICAL DATA ACCORDING TO IEC 60947-3							
Rated insulation voltage and rated operational voltage		Pollution degree 3	V	1 000	1 000	1 000	1 000
lielectric strength		50 Hz 1min.	kV	10	10	10	10
lated impulse withstand voltage		30112 111111.	kV	12	12	12	10
		up to 415 V	A	400	800	1600	1600
Rated operational current, AC-22A		440500 V	A	400	800	1600	1600
ated operational current, AC-22A		690 V	A	400	800	1600	1600
		up to 415 V	A	400	800	1250	1250
		440 V	A	400	800	1250	1250
lated operational current, AC-23A		500 V	A	400	800	1250	1250
		690 V	A	400	800	1250	1250
	(r.m.s.)	50 kA	kA	400	800	1230	12.50
Rated conditional short-circuit	Max. fuse size gG/aM						
urrent I _p (r.m.s.) and corresponding max. allowed ut-off current î . The cut-off current î refers to	I (r.m.s.)	415 V 50 kA	A kA				
values listed by fuse manufacturers	P	690 V	A				
5	Max. fuse size gG/aM			EDE	71 E		
	l _p (r.m.s.)	50 kA	kA	50.5	71.5		
	Max. fuse size gG/aM	690 V	A	500/500	800/1000		
single phase test acc. to IEC60269)	at prospective SC-current	80 kA	kA	59	83.5		
single phase test acc. to IEC60269)	N. C. 1. O.L.1.	690 V	A	500/500	800/1000	50	50
	Max. fuse size gG/aM	00014		15	20	50	50
ated short-time withstand current	r.m.svalue l	690 V, 1 s	kA	05		110	
ated short-time withstand current ated short circuit making capacity	r.m.svalue I _{ew} Peak value I _{em}	690 V/500 V	А	65	80	110	110
single phase test acc. to IEC60269) Rated short-time withstand current Rated short circuit making capacity Power loss / pole	r.m.svalue I _{ew} Peak value I _{em} At rated operational cur	690 V/500 V rent	A W	10	40	110 29	48
lated short-time withstand current lated short circuit making capacity 'ower loss / pole lechanical endurance	r.m.svalue I _{ew} Peak value I _{em}	690 V/500 V rent ion cycles	A W Oper.	10 26 000	40 10 000	29	48
ated short-time withstand current ated short circuit making capacity ower loss / pole	r.m.svalue I _{ew} Peak value I _{em} At rated operational cur	690 V/500 V rent	A W	10	40		

UL 98 FUSIBLE DISCONNECT SWITCHES



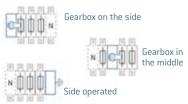
Mersen's fusible disconnect switches are listed to UL 98 and bear the CE mark as conformance to IEC 60947-3. They are "service entrance" devices capable of fully rated load-break and load-make. While long-term safety, reliability, and functionality are always paramount in the design of our products, these switches are also engineered to have the smallest footprint. The modular design allows placement of the handle anywhere amongst the poles. The fuse doors cannot open when the switch is in the "ON" position, and all switches are double-break, which isolates both fuse clips from voltage during fuse replacement. The switches' "Test" position allows actuation of the auxiliary contacts without main power. Power taps enable energizing a CPT or surge device without the need for a separate terminal block. A wide range of ergonomic handles are available, as are all manner of accessories.

FEATURES/BENEFITS

- Multiple Configurations
- Power taps
- Adjustable shaft depth
- Fuse monitoring
- Interlocked fuse doors

CATALOG NUMBER DESIGNATION

CONFIGURATIONS



M Switch	60 Ampacity	Ј Туре	3 Number of Poles/Left of handle	0 Number of Poles/Right of handle	Revision	S Special Configuration
M = Mersen AC Switch	30-1200	CC = CC fused J = J fused L = L fused	1, 2, 3, 4, etc. (N = Neutral)	Blank = < 200A non- fused, 0, 2	Blank = 0	S = side- operated N = Non-fused switched Neutral F = Rod-Flange Actuated

DISCONNECT SWITCHES

UL 98 FUSIBLE

RATINGS UL:

- Volts: 600VAC
- Amps: 30, 60, 100, 200, 400, 600, 800, and 1200A
- Short-Circuit Current Rating
 (SCCR): Up to 200kA with
 Class CC, J, or L Fuses

- All UL Fusible Disconnect
 Switch switches meet UL & CSA
 requirements
- UL listed guide WHTY, File E191605 for UL 98 (ratings from 30A to 1200A)
- IEC 60947-3



UL LISTED FRONT	AND SIDE OPERATED

Radia Contraction of the set of t		M60J30 G0A, J fused, with 3 poles on left side of handle	2004 16	M200J30 w used, 3 poles or	vith HDF200	ert handle
- 0			30	60	100	
witch Body	Ampere Rati	ng				200
	Base Part #		M30	M60	M100	M200
	Fuse Type		CC, J	J	J	J
	3- and 4-pole	configurations	12, 22, 30F, 30S	12, 22, 22N, 30, 30F, 30S, 40, 40N	12, 22, 22N, 30, 30F, 30S, 40, 40N	30, 40
	S = Side oper	ated F = Rod-Flange actuated (Direct Side Operated Har	dles are incluc			
andles and Shafts	Direct Front		are more	o opti	· · · · ·	
	Directifiont		HDF30	HDF200	HDF200	HDF200
	External Free	nt Operation - Pistol style	1101 30	TIDI 200	TIDI 200	TIDI LOO
			110.45			
HB65	NEMA Type 1		HB45		HB65, HB80	,
HB05	NEMA Type 4		HB45X		HB65X, HB80X	
	NEMA 4X Sta			HM	65X	
HDF200	B=Black, Sub	stitute 'R' for 'B' if a red handle is desired. Ex. HR45				
HR45 HB1 200	Shafts					
HR45 HB1200	Shaft— SPAx	xx (xxx = length in mm)	SPA13	0, SPA210, SPA	290, SPA360, S	SPA430
HR45			SPA13	0, SPA210, SPA		
HR45	Shaft— SPAx	S	SPA13	0, SPA210, SPA	LUG100	LUG200
HR45	Shaft— SPAx Terminal Lug 6 per packag	s e				LUG200
HR45	Shaft— SPAx Terminal Lug 6 per packag Terminal Shr	s e ouds	Integral	Integral	LUG100 (#14 - 2/0)	LUG200 (#6 -300MCM
HR45	Shaft— SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin	s e puds gle shrouds per package)			LUG100 (#14 - 2/0) TSF160-13	LUG200 (#6-300MCM TSF200-13
essories	Shaft— SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin	s e puds gle shrouds per package) gle shrouds per package)	Integral Integral	Integral Integral	LUG100 (#14-2/0) TSF160-13 TSF160-14	LUG200 (#6-300MCM TSF200-13 TSF200-14
FIR45	Shaft— SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with	s e puds gle shrouds per package) gle shrouds per package) -3" suffix are single shrouds that cover all three terminals. Sh	Integral Integral	Integral Integral	LUG100 (#14-2/0) TSF160-13 TSF160-14	LUG200 (#6-300MCM TSF200-13 TSF200-14
essories	Shaft—SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with Auxiliary Cor	s e puds gle shrouds per package) gle shrouds per package) -3" suffix are single shrouds that cover all three terminals. Sh	Integral Integral rouds with "-13"	Integral Integral or "-14" are sing	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 1	LUG200 (#6-300MCM TSF200-13 TSF200-14 with 3 or 4 pe
essories	Shaft—SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with Auxiliary Cor NO	s e puds gle shrouds per package) gle shrouds per package) -3" suffix are single shrouds that cover all three terminals. Sh	Integral Integral	Integral Integral or "-14" are sing 0A1G10	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 0A1G10	LUG200 (#6-300MCM TSF200-13 TSF200-14 with 3 or 4 pe 0A1G10
essories	Shaft—SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with ' Auxiliary Cor NO NC	s e buds gle shrouds per package) gle shrouds per package) :-3" suffix are single shrouds that cover all three terminals. Sh itacts*	Integral Integral Integral Integral Integral	Integral Integral or "-14" are sing 0A1G10 0A3G01	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 0A1G10 0A3G01	LUG200 (#6-300MCM TSF200-13 TSF200-14 with 3 or 4 pe 0A1G10 0A3G01
essories OA3G01 OA1G10	Shaft—SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with Auxiliary Cor NO NC NO, between	s e ouds gle shrouds per package) gle shrouds per package) -3" suffix are single shrouds that cover all three terminals. Sh ttacts*	Integral Integral Integral uarrowski 0.100 uarrowski 0.1610, w/0524 0.04610, w/0524 0.0481C	Integral Integral or "14" are sing 0A1G10 0A3G01 N/A	LUG 100 (#14 - 2/0) TSF 160-13 TSF 160-14 le pole shrouds 0A1G10 0A3G01 N/A	LUG200 (#6-300MCM TSF200-13 TSF200-14 with 3 or 4 pe 0A1G10 0A3G01 N/A
SSOTIES	Shaft—SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with Auxiliary Cor NO NC NO, between Mounting pla	s s s s s s s s s s s s s s s s s s s	Integral Integral Integral 0.1610, w/0524 0.041610, w/0524 0.04610, w/0524 0.0481C 0524	Integral Integral or "14" are sing 0A1G10 0A3G01 N/A Not needed	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 0A1G10 0A3G01 N/A Not needed	LUG200 (#6-300MCM TSF200-13 TSF200-14 with 3 or 4 pe 0A1610 0A3601 N/A Not needed
SSOTIES	Shaft—SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with Auxiliary Cor NO NC NO, between Mounting pla Module for 8	s s s s s s s s s s s s s s s s s s s	Integral Integral Integral uarrowski 0.100 uarrowski 0.1610, w/0524 0.04610, w/0524 0.0481C	Integral Integral or "14" are sing 0A1G10 0A3G01 N/A	LUG 100 (#14 - 2/0) TSF 160-13 TSF 160-14 le pole shrouds 0A1G10 0A3G01 N/A	LUG200 (#6-300MCM TSF200-13 TSF200-14 with 3 or 4 pe 0A1G10 0A3G01 N/A
essories OA3G01 OA1G10	Shaft—SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with Auxiliary Cor NO NC NO, between Mounting pla Module for 8 *Rated 2A ma	s s s s s s s s s s s s s s s s s s s	Integral Integral Integral 0.1610, w/0524 0.041610, w/0524 0.04610, w/0524 0.0481C 0524	Integral Integral or "14" are sing 0A1G10 0A3G01 N/A Not needed	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 0A1G10 0A3G01 N/A Not needed	LUG200 (#6-300MCM TSF200-13 TSF200-14 with 3 or 4 pe 0A1610 0A3601 N/A Not neede
essories OA3G01 OA1G10	Shaft—SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with Auxiliary Cor NO NC NO, between Mounting pla Module for 8 *Rated 2A ma Flange Operation	s s s s s s s s s s s s s s s s s s s	Integral Integral OA1610, w0524 OA4B1C OSZ4 OEA28	Integral Integral or "-14" are sing OA1G10 OA3G01 N/A Not needed OEA28	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 1 0A1G10 0A3G01 N/A Not needed 0EA28	LUG200 (#6-300MCM TSF200-13 TSF200-14 with 3 or 4 per 0A1610 0A3601 N/A Not needed 0EA28
essories OA3G01 OA1G10	Shaft—SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with Auxiliary Cor NO NC NO, between Mounting pla Module for 8 *Rated 2A ma Flange Opera Cable Flange	s s s s s s s s s s s s s s s s s s s	Integral Integral Integral OA1610, w/0524 OA1610, w/0524 OA4B1C OS24 OEA28	Integral Integral or "-14" are singl 0A1G10 0A3G01 N/A Not needed 0EA28	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 1 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12	LUG200 (#6-300MCM TSF200-13 TSF200-14 with 3 or 4 per 0A1610 0A3601 N/A Not needed 0EA28 FHC12
HR45	Shaft—SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with Auxiliary Cor NO NC NO, between Mounting pla Module for 8 *Rated 2A ma Flange Opera Cable Flange	s s s s s s s s s s s s s s s s s s s	Integral Integral OA1610, w0524 OA4B1C OSZ4 OEA28	Integral Integral or "-14" are sing 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC4X	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 1 0A1G10 0A3G01 N/A Not needed 0EA28	LUG200 (#6-300MCM TSF200-13 TSF200-14 with 3 or 4 per 0A1610 0A3601 N/A Not needee 0EA28
cessories OA3G01 OA1G10	Shaft—SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with Auxiliary Cor NO NC NO, between Mounting pla Module for 8 *Rated 2A ma Flange Opera Cable Flange	s e budds gle shrouds per package) gle shrouds per package) -3" suffix are single shrouds that cover all three terminals. Sh ttacts* poles te 0A1610/0A3601 aux. contacts ax continous @690VAC ttion for Cable Actuation Handle, NEMA 12 Handle, NEMA 4X	Integral Integral Integral OA1610, w/0524 OA1610, w/0524 OA4B1C OS24 OEA28	Integral Integral or "-14" are singl 0A1G10 0A3G01 N/A Not needed 0EA28	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 1 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12	LUG200 (#6-300MCM TSF200-13 TSF200-14 with 3 or 4 pe 0A1610 0A3601 N/A Not needed 0EA28 FHC12
cessories OA3G01 OA1G10	Shaft— SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with Auxiliary Cor NO NC NO, between Mounting pla Module for 8 *Rated 2A ma Flange Opera Cable Flange	s s s s s s s s s s s s s s s s s s s	Integral Integral Integral 0.1	Integral Integral or "-14" are sing OA1610 OA3601 N/A Not needed OEA28 FHC12 FHC12 FHC4X FOM3 for M60J12, FOM3 for	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds to 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC4X	LUG200 (#6-300MCM TSF200-13 TSF200-14 with 3 or 4 per 0A1610 0A3601 N/A Not needee 0EA28 FHC12 FHC12 FHC4X
CA3G01 CA1G10	Shaft—SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with Auxiliary Cor NO NC NO, between Module for 8 *Rated 2A mar Flange Opera Cable Flange Cable Flange Cable For FHC	s s s s s s s s s s s s s s s s s s s	Integral Int	Integral Integral or "-14" are sing OA1610 OA3601 N/A Not needed OEA28 FHC12 FHC12 FHC4X FOM3 for M60J12, FOM3 for M60J30	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 1 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC4X F0M4	LUG200 (#6-300MCM TSF200-13 TSF200-14 with 3 or 4 per 0A1610 0A3601 N/A Not needee 0EA28 FHC12 FHC12 FHC4X FOM4
CA3G01 CA1G10	Shaft—SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with* Auxiliary Cor NO NC NO, between Module for 8 *Rated 2A mag Flange Opera Cable Flange Cable Flange Cable Flange Cable for FHC *Other cable	s e e buds gle shrouds per package) gle shrouds per package) *-3" suffix are single shrouds that cover all three terminals. Sh ttacts* poles te 0A1610/0A3601 aux. contacts ax continous @690VAC ttion for Cable Actuation Handle, NEMA 12 Handle, NEMA 4X mbly handles	Integral Int	Integral Integral or "-14" are sing OA1610 OA3601 N/A Not needed OEA28 FHC12 FHC12 FHC4X FOM3 for M60J12, FOM3 for M60J30	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 1 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC4X F0M4	LUG200 (#6-300MCM TSF200-13 TSF200-14 with 3 or 4 per 0A1610 0A3601 N/A Not needee 0EA28 FHC12 FHC12 FHC4X FOM4
cessories	Shaft—SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with* Auxiliary Cor NO NC NO, between Module for 8 *Rated 2A mag Flange Opera Cable Flange Cable Flange Cable Flange Cable for FHC *Other cable	s s s s s s s s s s s s s s s s s s s	Integral Int	Integral Integral or "-14" are sing OA1610 OA3601 N/A Not needed OEA28 FHC12 FHC12 FHC4X FOM3 for M60J12, FOM3 for M60J30	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 1 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC4X F0M4	LUG200 (#6-300MCM TSF200-13 TSF200-14 with 3 or 4 pe 0A1610 0A3601 N/A Not needed 0EA28 FHC12 FHC12 FHC4X FOM4
cessories Cessories CA3G01 CA1G10 DEA28 CEA28	Shaft— SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with Auxiliary Cor NO NC NO, between Mounting pla Module for 8 *Rated 2A ma Flange Opera Cable Flange Bracket Assee Cable for FHC *Other cable Flange Opera Flange Opera	s s s s s s s s s s s s s s s s s s s	Integral Int	Integral Integral or "-14" are sing OA1G10 OA3G01 N/A Not needed OEA28 FHC12 FHC4X FOM3 for M60J12, FOM4 for M60J30 CABLE36*	LUG100 (#14 - 2/0) TSF 160-13 TSF 160-14 te pole shrouds v 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC2X FOM4 CABLE36*	LUG200 (#6-300MCM) TSF200-13 TSF200-14 with 3 or 4 pe 0A1610 0A3601 N/A Not needed 0EA28 FHC12 FHC12 FHC4X FOM4 CABLE36* NA
AR45 AR45 AR45 AR45 AR45 AR45 AR45 AR45 AR45 AR45 AR45 AR45 AR45 AR45 AR45 AR45 AR45 AR45 AR60	 Shaft— SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with Auxiliary Cor NO NC NO, between Module for 8 *Rated 2A ma Flange Opera Cable Flange Bracket Assee Cable for FHC *Other cable Flange Opera Flange Opera Flange Opera Cable for FHC *Other cable Flange Dpera 	s s s s s s s s s s s s s s s s s s s	Integral	Integral Integral or "-14" are sing OA1G10 OA3G01 N/A Not needed OEA28 FHC12 FHC4X FOM3 for M60J12, FOM4 for M60J30 CABLE36* Incl with M60J30F FHR12	LUG100 (#14 - 2/0) TSF 160-13 TSF 160-14 e pole shrouds v 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC2X FOM4 CABLE36* Incl with M100J30F FHR12	LUG200 (#6-300MCM) TSF200-13 TSF200-14 with 3 or 4 pe 00A1610 0A3601 N/A Not needec 0EA28 FHC12 FHC12 FHC4X FOM4 CABLE36* NA
AR45	 Shaft— SPAx Terminal Lug 6 per packag Terminal Shr 3-pole (3 sin 4-pole (4 sin Shrouds with Auxiliary Cor NO NC NO, between Module for 8 *Rated 2A ma Flange Opera Cable Flange Bracket Assee Cable for FHC *Other cable Flange Opera Flange Dpera Flange Opera Cable for FHC *Other cable Flange Dpera Flange Dpera 	s s s s s s s s s s s s s s s s s s s	Integral Int	Integral Integral or "-14" are sing OA1G10 OA3G01 N/A Not needed OEA28 FHC12 FHC4X FOM3 for M60J12, FOM4 for M60J30 CABLE36*	LUG100 (#14 - 2/0) TSF 160-13 TSF 160-14 te pole shrouds v 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC2X FOM4 CABLE36*	LUG200 (#6-300MCM) TSF200-13 TSF200-14 with 3 or 4 per 0A1610 0A3601 N/A Not needec 0EA28 FHC12 FHC12 FHC4X FOM4 CABLE36*

UL LISTED FRONT AND SIDE OPERATED						
				00130		
400A, J fused, 3-pole with Switch Body	3 poles on left side of handle	800A, L fu	1sed, with 3 pc 400	oles on left side	e of handle 800	1200
Switch Body	Ampere Rating Base Part #		400 M400	M600	M800	M1200
	Fuse Type		M400	J	L	L
	3- and 4-pole configurations		12, 30, 40	12, 30, 40	12, 30, 40	30,40
Handles and Shafts	Direct Front Operation		12,00,10	12,00,10	12,00,10	00,10
			HDF400	HDF800T	HDF800T	HD1250T
	External Front Operation					
	NEMA Type 1, 3R, 12			HB125, HB	145, HB274	
нв125	NEMA Type 4, 4X				145X, HB274X	
	NEMA 4X Stainless Steel			HM125X	, HM175X	
	B=Black. Substitute 'R' for 'B' if a red hand	le is desired. Ex. HR125				
SFB135 HDF400	Shafts					
	Shaft— SFBxxx (xxx = length in mm)		SFB18	5, SFB280, SFE	325, SFB395,	SFB535
Accessories	Terminal Lugs					
OA1G01 OA1G10	6 per package		LUG400 #2 - 600MCM	LUG800 2 x #2 600MCM	LUG800 2 x #2 600MCM	LUG1200 4 x #2 600MCM
	Terminal Shrouds					
OEA28	3-pole		TSF400-3	TSF600-3	TSF600-3	TSF1200-3
°	Suffix "-3" indicates a single piece 3-pole shro	oud; Suffix "-13" indicates three i	ndividual singl	e pole shrouds p	er package.	1
4	When a switch is to be installed with lugs and					nmended.
	Auxiliary Contacts*					
	Normally Open		0A1G10	0A1G10	0A1G10	0A1G10
	Normally Closed		0A3G01	0A3G01	0A3G01	0A3G01
TSF400-13	Module for 8 aux. contacts		0EA28	0EA28	0EA28	0EA28
	*Rated 2A max continous @690VAC					

UL 98 FUSIBLE DISCONNECT SWITCHES

General Purpose Amp Rating	pf= 0.70.8	-5° to 40 °C	A	30	60	100	200
Maximum Operating Voltage			VAC	600	600	600	600
			VDC	250	250	250	250
Max. horsepower rating / motor FLA current	pf= 0.40.5 Three	240 V	HP/A	7.5/22.0	15/42.0	30/80.0	60/154.0
	phase	480 V	HP/A	15/21.0	30/40.0	60/77.0	125/156.0
		600 V	HP/A	20/22.0	50/52.0	75/77.0	150/144.0
	Single phase	120 V	HP/A	2/24.0	00,02.0	10,1110	100/111
	onigio prideo	240 V	HP/A	3/17.0			
Short circuit rating with fuse, 3- and 4- pole types			kA	200	200	200	200
	UL/CSA fuse size		A	30	60	100	200
	UL/CSA fuse type			J/CC	J	J	J
Endurances				0,00	0	Ŭ	0
Min. electrical endurance, pf. 0.750.8			oper. cycles	6000	6000	6000	6000
Mechanical endurance			operations	20 000	20 000	20 000	16 000
Terminal lug kits			operations	Integral	Integral	LUG100	LUG200
Wire range			AWG	#18-8	#14-4	#14-2/0	#4-300MCI
Torque		Wire tightening	lb. in	17	30/355	120	275
loidae		Lug mounting	lb. in	N/A	N/A	50	72
TECHNICAL DATA ACCORDING TO IEC 60947-3		Lug mounting	10.111	N/A	IN/A	50	1 L
Rated insulation voltage	Pollution degree 3		V	1 000	1 000	1 000	1 000
Dielectric strength	Tonution degree 5	50 Hz 1min.	kV	10	1000	10	10
		30112 111111.	kV	10	10	10	10
Rated impulse withstand voltage	In onen ein				C2/7E	100/12	200/17
Rated thermal current in ambient 40 °C /	In open air		A/W A/W	32/3.5	63/7.5 63/7.5	160/12	200/17
max. fuse power dissipation ¹⁾	In enclosure-		A/ W	32/3.5	63/7.5	135/12	200/15
with minimum cable cross section		Cu	mm ²	6	16	70	95
Rated operational current, AC-23A		up to 500 V	A	32	63	160	200
		690 V	А	32	63	160	200
Rated operational current, AC-23 ^{3]}	The kW-ratings are	230 V	kW	7.5	18.5	45	60
	accurate for three-phase 1500	400 V	kW	15	30	75	110
	R.P.M. standard	415 V	kW	15	30	75	110
	asynchronous motors.	500 V	kW	18.5	37	90	132
		690 V	kW	22	55	132	200
Rated breaking capacity in category AC-23		up to 500 V	Α	256	504	1280	1600
		690 V	A	256	504	1280	1600
Rated short-time withstand current, 1 s	r.m.svalue	690 V, 1 s	kA	1	2.5	5	8
Power loss / pole	With rated current, with		W	2	4	9	8
Weight without accessories	3-pole switch fuses		kg	0.7	1.3	1.5	2.6
	4-pole switch fuses		kg	0.9	1.6	1.8	
Built-in terminal size		Cu	mm ²	0.7510	2.525		
Terminal bolt size (included)	Metric thread diameter >		mm			M6x20	M8x25
Fuse-links bolts tightening torque			Nm			4	4

*) = Utilization category B

1) Ambient temperature 60°C: derating 20%

2) Mounting on "ceiling": derating 10%. Mounting on wall, horizontal fuses: derating 8%.

3) Some fuses limit these figures further. Starting current characteristics must be considered separately.

4) Approval pending

5) 30 lb.in with cable size #14-10, 35 lb.in with cable size #8-4

UL 98 FUSIBLE DISCONNECT SWITCHES

General Purpose Amp Rating	pf= 0.70.8	-5° to 40 °C	A	400	600	800	1200
Maximum Operating Voltage			VAC	600	600	600	600
1 0 0			VDC	250	250	250	250
Max. horsepower rating / motor FLA current	pf= 0.40.5 Three	240 V	HP/A	125.0/312.0	200/480.0	250/602.0	250/602.0
1 5	phase	480 V	HP/A	250.0/302.0	400/477.0	500/590.0	500/590.0
		600 V	HP/A	350.0/336.0	500/472.0	500/472.0	500/472.0
	Single phase	120 V	HP/A				
		240 V	HP/A				
Short circuit rating with fuse, 3- and 4- pole types			kA	200	200	200	200
	UL/CSA fuse size		Α	400	600	800	1200
	UL/CSA fuse type			J	J	L	L
Endurances		1					
Min. electrical endurance, pf. 0.750.8			oper. cycles	1 000	1 000	500	500
Mechanical endurance			operations	12 000	4 000	3 000	2 000
Terminal lug kits				LUG400	LUG800	LUG800	LUG1200
Wire range			AWG	#2- 600MCM	(2)#2- 600MCM	(2)#2- 600MCM	(4)#2- 600MCM
Torque		Wire tightening	lb.in	375	500	500	500
		Lug mounting	lb.in	240	480	480	480
TECHNICAL DATA ACCORDING TO IEC 60947-3							
Rated insulation voltage	Pollution degree 3		V	1000	1 000	1 000	1 000
Dielectric strength		50 Hz 1min.	kV	10	10	10	10
Rated impulse withstand voltage			kV	12	12	12	12
Rated thermal current in ambient 40 °C /	In open air		A/W	400/45	630/60	800/65	1250/110
max. fuse power dissipation ¹⁾	In enclosure ²		A/W	400/30	570/50	720/55	1000/85
with minimum cable cross section		Cu	mm²	240	2x185	2x240	2x400
Rated operational current, AC-23A		up to 500 V	A	400	630	800	1000 *]
		690 V	A	400	630	800	1000 *]
Rated operational current, AC-23 ^{3]}	The kW-ratings are	230 V	kW	132	200	250	315 ^{*]}
	accurate for three-phase 1500	400 V	kW	220	355	450	560 *)
	R.P.M. standard	415 V	kW	230	355	450	560 *)
	asynchronous motors.	500 V	kW	280	450	560	710 *)
		690 V	kW	400	630	710	1000 *)
Rated breaking capacity in category AC-23		up to 500 V	A	3200	6400	6400	8000
		690 V	A	3200	6400	6400	8000
Rated short-time withstand current, 1 s	r.m.svalue		kA	14	20	20	
Power loss / pole	With rated current, with	out fuse	W	30	46	75	75
Weight without accessories	3-pole switch fuses		kg	5.7	11.5	11.5	29
	4-pole switch fuses		kg				
Built-in terminal size		Cu	mm ²				
Terminal bolt size (included)	Metric thread diameter >	Iength	mm	M10x30	M12x40	M12x40	M12x50
Fuse-links bolts tightening torque			Nm	20	40	40	40

*) = Utilization category B

1) Ambient temperature 60°C: derating 20%

2) Mounting on "ceiling": derating 10%. Mounting on wall, horizontal fuses: derating 8%.

3) Some fuses limit these figures further. Starting current characteristics must be considered separately.

4) Approval pending

5) 30 lb.in with cable size #14-10, 35 lb.in with cable size #8-4

PV-RATED DISCONNECT SWITCHES



Mersen offers a range of DC disconnect switches especially designed for PV applications, in one- and two-circuit configurations for both 1000V and 1500V DC applications. The technology inside the switch and the visible contacts allow a quick, safe, and reliable DC breaking at all current levels up to 1500VDC. The product is ready and simple to install independent of the polarity, with limited power losses, and a smaller footprint than competition.

FEATURES/BENEFITS

- IEC version and UL version
- Visible contacts
- Compact footprint
- Direct installation for floating polarity configuration
- Jumper bar available for grounded configuration

APPL	ICAT	IONS

- Medium and large power photovoltaic installations up to 1500VDC
- "Make and break" on load and provide safety isolation at string combiner box level

CATALOG NUMBER DESIGNATION										
MD Switch	100 Ampacity	Е Туре	1 Number of Poles/Left of handle	1 Number of Poles/Right of handle	Revision					
MD = Mersen DC Switch	100-500A	E = IEC U = UL-listed V = 1500V	1, 2, 3	1, 2, 3	Blank = 0					

DISCONNECT SWITCHES

UL 98B AND IEC-RATED DC SWITCHES

RATINGS:

- Volts: 1000 and 1500VDC
- **Amps:** IEC: 100 to 500A, UL98: 100 to 400A
- Short-Circuit Current Rating
 (SCCR): 5 to 10kA for higher
 ratings

- UL98B File #E466972 WHVA
- IEC 60947-3 CE





UL 98B Listed DC Switches	MD100U22	MD400	DU11		MD400U22			
				+				
Switch Body	Ampere Rating	100	200	250	320	400		
	1000VDC 2-pole Configuration	MD100U11	MD200U11	MD250U11	MD320U11	MD400U11		
	1000VDC 2x2-pole Configuration	MD180U22	MD180U22*	MD2E0UV42	MD320U22	MD400U22		
	1500VDC 3-pole Configuration B=Black, Substitute 'R' for 'B' if a red handle is desired. I			MD250UV12	MD320UV12	MD400UV12		
Handles and Shafts	B=Black. Substitute R for B if a red handle is desired. I Direct Front Operation	ех. пк 45 ⁻ 18						
		HDD250	HDD250	HDD250	HDD400	HDD400		
	1500VDC	HDD400	HDD200	HDD200				
	External Pistol style							
	NEMA Type 1, 3R, 12	HB65, HB80		HB125, HB145				
HDD400	NEMA Type 4, 4X		, HB80X	HB125X, HB145X				
	B=Black. Substitute 'R' for 'B' if a red handle is desired. I							
	Shafts							
НВ125	Shaft— SPAxxx (xxx = length in mm), SFBxxx (xxx = length in mm)	SPA130, SPA210, SPA290, SPA360, SPA430		SFB185, SFB280, SFB325, SFB SFB535		5, SFB395,		
Accessories	Auxiliary Contacts*							
OA1G01	NO Right side mounting	0A1G10	0A1G10	0A1G10	0A1G10	0A1G10		
OA1G10	NC left side mounting	0A3G01	0A3G01	0A3G01	0A3G01	0A3G01		
JC250	Module for SF aux. contacts	0EA28	0EA28	0EA28	0EA28	0EA28		
	*Rated 2A max continous @690VAC							
	Terminal Shroud for Short Circuit Link							
	For MDxxxU11, UV12	JC250	JC250	JC500	JC500	JC500		
OEA28 JC500	For MDxxxU22	JC500-2	JC500-2	JC500-2	JC500-2	JC500-2		
	Terminal Shroud for Lugs							
	Kit of 4 Terminal Shrouds							
JC500-2	1 Terminal Shroud	TDS250S	TDS250S	TDS250S	TDS400	TDS400		

UL 98B Listed DC Switches						
MD100U11	MD100U22 MD250UV12	MD400	UU11		MD400U22	
				+		
Switch Body	Ampere Rating	100	200	250	320	400
	1000VDC 2-pole Configuration	MD100U11	MD200U11	MD250U11	MD320U11	MD400U11
	1000VDC 2x2-pole Configuration	MD180U22	MD180U22*		MD320U22	MD400U22
	1500VDC 3-pole Configuration			MD250UV12	MD320UV12	MD400UV12
	B=Black. Substitute 'R' for 'B' if a red handle is desired. E	x. HR45 *18	DA Rating			
Handles and Shafts	Direct Front Operation					
-	1000VDC	HDD250	HDD250	HDD250	HDD400	HDD400
	1500VDC	HDD400	HDD400	HDD400		
	External Pistol style					
	NEMA Type 1, 3R, 12	HB65	, HB80		HB125, HB145	5
HDD400	NEMA Туре 4, 4Х	HB65X	, HB80X	ŀ	HB125X, HB145	X
	B=Black. Substitute 'R' for 'B' if a red handle is desired. E	x. HR65				
	Shafts					
НВ125	Shaft— SPAxxx (xxx = length in mm), SFBxxx (xxx = length in mm)		210, SPA290, , SPA430	SFB185, S	FB280, SFB32 SFB535	5, SFB395,
Accessories	Auxiliary Contacts*					
OA1G01	NO Right side mounting	0A1G10	0A1G10	0A1G10	0A1G10	0A1G10
OA1G10	NC left side mounting	0A3G01	0A3G01	0A3G01	0A3G01	0A3G01
JC250	Module for SF aux. contacts	0EA28	0EA28	0EA28	0EA28	OEA28
	*Rated 2A max continous @690VAC					
	Terminal Shroud for Short Circuit Link					
	For MDxxxU11, UV12	JC250	JC250	JC500	JC500	JC500
0EA28	For MDxxxU22	JC500-2	JC500-2	JC500-2	JC500-2	JC500-2
JC500	Terminal Shroud for Lugs					
	Kit of 4 Terminal Shrouds					
	1 Terminal Shroud	TDS250S	TDS250S	TDS250S	TDS400	TDS400
JC500-2						

TECHNICAL DATA FOR 1000VDC-RATED SWITCHES

Technical data in accordance to UL 98B for switch-disconnectors

(Suitable for use in photovoltaic systems in accordance with article 690 of the NEC)

Switch Size			MD100U	MD200U	MD250U	MD315U	MD400U	MD250UV12	MD320UV12	MD400UV12
Voltage Rating		VDC	1000	1000	1000	1000	1000	1500	1500	1500
Current Rating		А	100	200 1)	250	320	400	250	320	400
Rated Ambient Temp.		°C	-20+50	-20+50	-20+50	-20+50	-20+50	-20+50	-20+50	-20+50
Short Circuit Rating		kA,1000V	5	5	10	10	10	10	10	10
	Class of Fuse		Circuit breaker							
Mechanical Endurance (Divide	by 2 for operation	on cycles) Oper.	4000	4000	2000	2000	2000			
Terminal Lugs			LUG200	LUG200	LUG400	LUG400	LUG400	LUG400	LUG400	LUG400
Wire Range		МСМ	#4-300	#4-300	#2-600	#2-600	#2-600	#2-600	#2-600	#2-600
Technical data according to IEC		Same as type	MD160E	MD250E	MD315E	MD400E	MD500E	MD315EV12	MD400EV12	MD500EV12

1) For 4 pole switches (double circuit use), the current rating at 1000 VDC is 180 A.

TECHNICAL DATA ACCORDING TO IEC 60947 FOR SWITCH-DISCONNECTORS MD315E MD400E MD500E MD100E **MD160E** MD200E MD250E Switch Size V 1500 1500 1500 1500 1500 1500 1500 Pollution degree 2 Rated Insulation voltage U, Pollution degree 3 V 1500 1500 1500 1500 1500 1500 1500 50 Hz 1 min k٧ Rated impulse withstand k٧ 12 12 12 12 12 12 12 In open air, normal conditions 1) 200 400 А 100 160 250 315 630 Rated thermal current I_{th} 200 400 In enclosure 40°C А 100 160 250 315 550 ...with minimum cable or In enclosure 60°C А 100 160 200 250 315 400 440 bar cross section 185 240 Cu mm² 35 70 95 120 240 315/2 400/2 500/2 1000 V 100/2 160/2 200/2 250/2 Rated operational current / poles in series DC-21B 100/2x2160/2x2200/2x2250/2x2315/2x2 400/2x2500/2x2Rated short-time withstand current, 1000 V, 1 s, R.M.S. -value Icw kΑ 5 5 5 5 10 10 10 Rated short circuit making capacity, 1000 V, Peak value I, kΑ 5 5 5 5 10 10 10 Power loss / pole At rated current W 2 4 6 9,5 6 9,7 15,1 Cable size Cu mm² M8x25 M8x25 M8x25 M8x25 M10x30 M10x30 M12x40 Terminal bolt size Metric thread diameter x length mm Terminal tightening torque 30-44 30-44 50-75 Counter torque required Nm 15-22 15-22 15-22 15-22 1) Normal conditions defined in IEC 60947-1-6.1

Switch Size			Α	MD315EV12	MD400EV12	MD500EV12
	Pollution de	gree 2	V	1500	1500	1500
Rated Insulation voltage U	Pollution de	gree 3	V	1500	1500	1500
		-	kV	12	12	12
Rated thermal current I	In open air, no	rmal conditions 1]	A	315	400	630
th	In enclosure	e 40°C	A	315	400	550
with minimum cable or bar cross	In enclosure	e 60°C	A	315	400	440
section	Cu		mm²	185	240	240
	1000	1 circuit	V	315/2	400/2	500/2
Rated operational current /	1000	2 circuits	V	315/2	400/2	500/2
poles in series	1000	3 circuits	V	315/2	400/2	500/2
	1500	1 circuit	V	315/3	400/3	500/3
DC-21B	1500	1 circuit	V	315/4	400/4	500/4
	1500	2 circuits	V	315/3	400/3	500/3
Rated short-time withstand current, 1500 V, 1 s	R.M.Svalu	e I	kA	10	10	10
Rated short circuit making capacity, 1500 V	Peak value		kA	10	10	10
Power loss / pole	At rated cur	rent	W	6	9.7	15.1
Terminal bolt size	Metric thread	dia. x length	mm	M 10x30	M 10x30	M 12x40
Terminal tightening torque	Counter tor	que required	Nm	30-44	30-44	50-75
1) Normal conditions defined in IEC 60947	7-1-6.1					





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