



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



UL 508 DISCONNECT SWITC	HES-FRONT OPERATED						
						T. C.	
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 LOCKIN	NG HANDLE					
HD40		HD40	HD40	HD40	HD125	HD125	
HD40	EXTERNAL FRONT OPERATION						
	Selector Style NEMA Type 1, 3R, 12			HSBX, HSR)	K		
	Shaft—SAxxx (xxx = length in mm)		SA85, SA105	, SA120, SA13	0, SA180, SA25	50	
	Door mounted version (no shaft required)		HSBPDM, HSRPDM HSBWDM, HSRWDM				
HB65	Pistol Style NEMA Type 1, 3R, 12		HB45, HR45, HB65, HR65, HB80, HR80				
	NEMA Type 4, 4X HB45X, HR45X, HB65X, HR65X, HB80, HB80X						
	NEMA 4X Stainless Steel			HM65X			
	Shaft— SAxxx (xxx = length in mm)		SPA130, SPA	210, SPA290, S	SPA360, SPA43	80	
SA105 SPA130	B=Black, R=Black						
ACCESSORIES	FOURTH POLES						
E	Limited to one additional pole per switch	4P40	4P40	4P40	4P80	4P80	
	NEUTRAL POLES						
	Limited to one additional pole per switch	NP40	NP40	NP40	NP80	NP80	
	TERMINAL SHROUDS						
4P40 4P80	3-pole	TS40-3	TS40-3	TS40-3	TS63-3	TS63-3	
0A1G10 0A2G11	4-pole (Add this to the 3-pole shroud)	TS40-1	TS40-1	TS40-1	TS63-1	TS63-1	
	AUXILIARY CONTACTS*						
9 · · · ·	NC Right side mounting	0A1G01	0A1G01	0A1G01	0A1G01	0A1G01	
	NO left side mounting	0A1G10	0A1G10	0A1G10	0A1G10	0A1G10	
OA1G01	NO+NC (Mounting on either side)	0A2G11	0A2G11	0A2G11	0A2G11	0A2G11	
- Ba	*Rated 2A max continous @690VAC						

PART NUMBER				M163		M253		M403		M633		M803	3
GENERAL PURPOSE AMP RATING	PF= 0.70.8	-40° TO 40 °C	А	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	480 V	HP/A	10/14		15/21.0		20/27		30/40		40/5	
Max. horsepower rating / motor FLA	phase	600 V	HP/A	11-Oc		20/22.0		25/27		30/32		40/41.0	
current		120 V	HP/A	1/16.		1.5/2		2/24.		2/24.		2/24.	
	Single phase	240 V	HP/A	2/13.		3/18.	7	5/30.		7.5/4		10/57	
	Maximum fuse size		A	30	60 ^{2]}	30	60 ^{2]}	30	60 ²	100	150	100	15
	Fuse type	СС	kA	10		10		10					
	Fuse type	J	kA	10	10	10	10	10	10	100		100	
	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		1	1		1		1		1	
	Fuse type	Н	kA										
ENDURANCES													
Min. electrical endurance, pf. 0.750.8	}		oper. cycle	s 6 000)	6 0 0 0		6 0 0 0)	6 0 0 0)	6 000)
Mechanical endurance			operations	20 00	0	20 00	0	20 00	0	20 00	0	20 00)0
Terminal lug kits				Integ	ral	Integr	al	Integ	ral	Integ	ral	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											
TECHNICAL DATA ACCORD	ING TO IEC 60947												
Rated insulation voltage and rated operation		Pollution degree 3	V	750		750		750		750		750	
Dielectric strength		50 Hz 1min.	kV	6		6		6		6		6	
Rated impulse withstand voltage		30 112 11111.	kV	8		8		8		8		8	
		up to 415 V	A	16		25		40		63		80	
Rated operational current, AC-22A		440500 V	A	16		25		40		63		80	
		690 V	A	16		25		40		63		80	
		up to 415 V	A	16		20		23		45		75	
		440 V	A	16		20		23		45		65	
Rated operational current, AC-23A		500 V	A	16		20		23		45		58	
		690 V	A	10		11		12		20		20	
Rated conditional short-circuit	۱ (r.m.s.)	50 kA	kA	6.5		6.5		6.5		13		13	
current lp (r.m.s.) and corresponding	Max. fuse size gG/aM	415 V	A	40/3	>	40/32)	40/32	>	100/8	30	100/8	30
max. allowed cut-off current îc. The	l (r.m.s.)	10 kA	kA	10, 51		. 5, 51	-	. 5, 51	-	100/0		100/1	
cut-off current îc refers to values listed by fuse manufacturers	Max. fuse size gG/aM	690 V	A										
noted by ruse mandiacturers	l (r.m.s.)	50 kA	kA	4		4		4		11		11	
	Max. fuse size gG/aM	690 V	A	25/16	5	25/16	;	25/16	5	80/63	3	80/63	3
(single phase test acc. to IEC60269)	at prospective SC-current	80 kA	kA						-				
	Max. fuse size gG/aM	690 V	A										
Rated short-time withstand current	r.m.svalue l	690 V, 1 s	kA	0.5		0.5		0.5		1		1.5	
Rated short circuit making capacity	Peak value I cm	690 V/500 V	A	0.705		0.705		0.705		1.4		2.1	
Power loss / pole	At rated operational curr		W	0.3	-	0.6		1.6		2.8		4.5	
Mechanical endurance	Divide by two for operati		Oper.	20 00	10	20 00	0	20 00	າດ	20 00	າດ	20 00	າດ
Weight without accessories		3-pole	kg	0.11		0.11	-	0.11		0.27		0.27	
Height Mithout accessolies		- poic	1 16	0.11		0.11		0.11		0.61		0.21	

1) UL Listed switches are also CSA Approved. $\ \ 2$] Fuse size 70A for RK5.

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 on the side

Gearbox in

the middle

Side operated

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





UL 98 DISCONNECT SWI	CHES

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	
ANDLES AND SHAFTS	DIRECT FRONT OPERATION LOCKING HANDLE				
		HD125	HD125	HD125	HD250
	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)		SBWDM, HSRW		N/A
HD250	Pistol Style NEMA Type 1, 3R, 12		, HB65, HR65,		
HSBX	NEMA Tupe 4, 4X			, 65X, HB80X, H	R80X
	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				
ACCESSORIES	FOURTH POLES	4P60	4P60	4P125	4P250
		4P60	4P60	4P125	4P250
	FOURTH POLES	4P60 NP60	4P60 NP60	4P125	4P250
					4P250
	NEUTRAL POLES				4P250
	NEUTRAL POLES TERMINAL SHROUDS	NP60	NPGO	NP125	
AP125 AP250	NEUTRAL POLES TERMINAL SHROUDS 3-pole	NP60 TS125-3 TS125-1	NP60 TS125-3 TS125-1	NP125 TS125-3 TS125-1	TS250-13 TS250-14
	NEUTRAL POLES TERMINAL SHROUDS 3-pole 4-pole	NP60 TS125-3 TS125-1	NP60 TS125-3 TS125-1	NP125 TS125-3 TS125-1	TS250-13 TS250-14
	NEUTRAL POLES TERMINAL SHROUDS 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three terminals. Sh	NP60 TS125-3 TS125-1	NP60 TS125-3 TS125-1	NP125 TS125-3 TS125-1	TS250-13 TS250-14
	NEUTRAL POLES TERMINAL SHROUDS 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three terminals. Sh AUXILIARY CONTACTS*	NP60 TS125-3 TS125-1 TS125-1	NP60 TS125-3 TS125-1 or "-14" are sing	NP125 TS125-3 TS125-1 gle pole shrouds	TS250-13 TS250-14 with 3 or 4 pe
	NEUTRAL POLES TERMINAL SHROUDS 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three terminals. Sh AUXILIARY CONTACTS* Normally Closed	NP60 TS125-3 TS125-1 TOLUS with "-13"	NP60 TS125-3 TS125-1 or "-14" are sing OA1G01	NP125 TS125-3 TS125-1 Je pole shrouds OA1G01	TS250-13 TS250-14 with 3 or 4 pe 0A3G01
	NEUTRAL POLES TERMINAL SHROUDS 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three terminals. Sh AUXILIARY CONTACTS* Normally Closed Normally Open	NP60 TS125-3 TS125-1 rrouds with "-13" 0A1G01 0A1610	NP60 TS125-3 TS125-1 or "-14" are sing OA1G01 OA1G10	NP125 TS125-3 TS125-1 gle pole shrouds OA1G01 OA1G10	TS250-13 TS250-14 with 3 or 4 pe 0A3G01
4P125 4P250 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000	NEUTRAL POLES TERMINAL SHROUDS 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three terminals. Sh AUXILIARY CONTACTS* Normally Closed Normally Open N0+NC	NP60 TS125-3 TS125-1 TS125-1 OA1601 OA1610 OA2611	NP60 TS125-3 TS125-1 or "-14" are sing OA1G01 OA1G10 OA2G11	NP125 TS125-3 TS125-1 gle pole shrouds OA1G01 OA1G10 OA2G11	TS250-13 TS250-14 with 3 or 4 pe 0A3G01 0A1G10
	NEUTRAL POLES TERMINAL SHROUDS 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three terminals. Sh AUXILIARY CONTACTS* Normally Closed Normally Open N0+NC Module for 8 aux, contacts	NP60 TS125-3 TS125-1 TS125-1 OA1601 OA1610 OA2611	NP60 TS125-3 TS125-1 or "-14" are sing OA1G01 OA1G10 OA2G11	NP125 TS125-3 TS125-1 gle pole shrouds OA1G01 OA1G10 OA2G11	TS250-13 TS250-14 with 3 or 4 pe 0A3G01 0A1G10
4P125 4P250 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000	NEUTRAL POLES TERMINAL SHROUDS 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three terminals. Sh AUXILIARY CONTACTS* Normally Closed Normally Open N0+NC Module for 8 aux. contacts *Rated 2A max continous @690VAC	NP60 TS125-3 TS125-1 TS125-1 OA1601 OA1610 OA2611	NP60 TS125-3 TS125-1 or "-14" are sing OA1G01 OA1G10 OA2G11	NP125 TS125-3 TS125-1 gle pole shrouds OA1G01 OA1G10 OA2G11	TS250-13 TS250-14 with 3 or 4 pe 0A3G01 0A1G10
AP125 AP250 AP250 AP250 AP	NEUTRAL POLES TERMINAL SHROUDS 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three terminals. Shrouds with "-3" suffix are single shrouds that cover all three terminals. Shrouds with "-3" suffix are single shrouds that cover all three terminals. Shrouds with "-3" suffix are single shrouds that cover all three terminals. Shrouds with "-3" suffix are single shrouds that cover all three terminals. Shrouds with "-3" suffix are single shrouds that cover all three terminals. Shrouds with "-3" suffix are single shrouds that cover all three terminals. Shrouds that cover all	NP60 TS125-3 TS125-1 TS125-1 OA1601 OA1601 OA1610 OA2611 N/A	NP60 TS125-3 TS125-1 or "-14" are sing OA1G01 OA1G10 OA2G11 N/A	NP125 TS125-3 TS125-1 Ite pole shrouds OA1G01 OA1G10 OA2G11 N/A	TS250-13 TS250-14 with 3 or 4 pe 0A3G01 0A1G10 0EA28
4P125 4P250 1 1	NEUTRAL POLES TERMINAL SHROUDS 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three terminals. She AUXILIARY CONTACTS* Normally Closed Normally Open N0+NC Module for 8 aux. contacts *Rated 2A max continous @690VAC FLANGE OPERATION Flange bracket assembly	NP60 TS125-3 TS125-1 routes with "-13" OA1601 OA1610 OA2611 N/A	NP60 TS125-3 TS125-1 or "-14" are sing 0A1G01 0A1G10 0A2G11 N/A	NP125 TS125-3 TS125-1 gle pole shrouds OA1G01 OA1G10 OA2G11 N/A	TS250-13 TS250-14 with 3 or 4 pe 0A3601 0A1610 0EA28 F0M4
AP125 AP250 AP250 AP250 AP	NEUTRAL POLES TERMINAL SHROUDS 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three terminals. Sh AUXILIARY CONTACTS* Normally Open N0+NC Module for 8 aux. contacts *Rated 2A max continous @690VAC FLANGE OPERATION Flange bracket assembly Rod Flange handle NEMA 12	NP60 TS125-3 TS125-1 TS125-1 OA1601 0A1601 0A2611 N/A Incl with M30U3F** FHR12	NP60 TS125-3 TS125-1 or "-14" are sing 0A1601 0A1610 0A2611 N/A Incl with M60U3F** FHR12	NP125 TS125-3 TS125-1 gle pole shrouds OA1G01 OA1G10 OA2G11 N/A	TS250-13 TS250-14 with 3 or 4 pe 0A3G01 0A1G10 0EA28 F0M4 NA
AP125 4P250 AP	NEUTRAL POLES TERMINAL SHROUDS 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three terminals. Sh AUXILIARY CONTACTS* 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	NP60 TS125-3 TS125-1 TS125-1 OA1601 OA1601 OA1610 OA2611 N/A Incl with M30U3F** FHR12 FHR4X	NP60 TS125-3 TS125-1 or "-14" are sing 0A1G01 0A1G10 0A2G11 N/A Incl with M60U3F*** FHR12 FHR12 FHR4X	NP125 TS125-3 TS125-1 TS125-1 UP pole shrouds OA1G01 OA1G10 OA2G11 N/A Incl with M10003F** FHR12 FHR12	TS250-13 TS250-14 with 3 or 4 pe 0A3G01 0A1G10 0EA28 FOM4 NA NA
AP125 AP250 AP250 AP250 AP	NEUTRAL POLES TERMINAL SHROUDS 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three terminals. Sh AUXILIARY CONTACTS* 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	NP60 TS125-3 TS125-1 TS125-1 OA1601 OA1601 OA1610 OA2611 N/A Incl with M30U3F** FHR12 FHR4X RODNF16	NP60 TS125-3 TS125-1 or "-14" are sing 0A1601 0A1610 0A2611 N/A Incl with M60U3F** FHR12 FHR4X R0DNF16	NP125 TS125-3 TS125-1 TS125-1 Je pole shrouds OA1G01 OA1G10 OA2G11 N/A Incl with M100U3F** FHR12 FHR4X RODNF16	TS250-13 TS250-14 with 3 or 4 per 0A3G01 0A1G10 0EA28 FOM4 NA NA NA
AP125 4P250 AP	NEUTRAL POLES TERMINAL SHROUDS 3-pole 4-pole Shrouds with "-3" suffix are single shrouds that cover all three terminals. Sh AUXILIARY CONTACTS* 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	NP60 TS125-3 TS125-1 TS125-1 OA1601 OA1610 OA2611 N/A Incl with M30U3F** FHR12 FHR4X R0DNF16 R0DNF24	NP60 TS125-3 TS125-1 or "-14" are sing 0A1601 0A1610 0A2611 N/A Incl with M60U3F** FHR12 FHR4X R0DNF16 R0DNF24	NP125 TS125-3 TS125-1 TS125-1 OA1G01 OA1G01 OA1G10 OA2G11 N/A Incl with M100U3F** FHR12 FHR4X RODNF16 RODNF24	TS250-13 TS250-14 with 3 or 4 per 0A3601 0A1610 0 0EA28 FOM4 NA NA NA NA NA NA NA

UL LISTED FRONT AND SID	OPERATED									
400U30				11 11 11 111						
SWITCH BODY	AMPERE RATING	1000030	400	600	800	1200				
SWITCH BODY	Base Part #		400 M400U	M600U	M800U	M1200U				
			30, 12	30, 12	30, 12	30				
HANDLES AND SHAFTS	3-pole configurations DIRECT FRONT OPERATIO		50, 12	50, 12	50, 12	30				
HANDLES AND SHAFTS	DIRECT FRONT OPERATIO	N LOCKING HANDLE	HD400	HD800	HD800	HD1000				
SFB135		TION	HD400	HDOUU	ПОООО	HDI000				
	EXTERNAL FRONT OPERA	HON			145 110234					
	Pistol Style NEMA Type 1, 3R, 12									
	NEMA Type 4, 4X		HB125X, HB145X, HB274X							
	NEMA 4X Stainless Steel HM125X, HM175X Shaft SAvar (var - longth in mm)									
HD800	Shaft— SAxxx (xxx = length in mm)	Shaft— SAxxx (xxx = length in mm) SFB185, SFB280, SFB325, SFB395, SFB535 B=Black, Substitute 'R' for 'B' if a red handle is desired. Ex. HR125								
ACCESSORIES	FOURTH POLES		4P400	4P800	4P800	4P1250				
20	TERMINAL LUGS		4P400	47800	42800	4P1250				
	6 per package		LUG400 #2 - 600MCM	LUG800 2 x #2 600MCM	LUG800 2 x #2 600MCM	LUG 1200 4 x #2 600MCM				
	TERMINAL SHROUDS									
4P400	3-pole		TS400-13	TS600-3	TS800-3	TS1600-13				
	4-pole		TS400-14			TS1600-14				
	Shrouds with "-3" suffix are single shrou	ds that cover all three terminals. Shr	ouds with "-13"	or "-14" are sing	le pole shrouds	with 3 or 4 per				
	AUXILIARY CONTACTS*			-						
	Normally Open		0A1G10	0A1G10	0A1G10	0A1G10				
TS250-13	Normally Closed		0A3G01	0A3G01	0A3G01	0A3G01				
OA1G10	Module for 8 aux. contacts		0EA28	0EA28	0EA28	0EA28				
	*Rated 2A max continous @690VAC		1	1	1					
DA3G01 DEA28										

UL 98 NON-FUSIBLE DISCONNECT SWITCHES

PART NUMBER				M30U3	M60U3	M100U3	M200UXX	
GENERAL PURPOSE AMP RATING	PF= 0.70.8	-40° TO 40 °C	A	30	60	100	200	
Maximum Operating Voltage	11 - 0.10.0		V	600	600	600	600	
	pf= 0.40.5 Three	240 V	HP/A	10/28.0	20/54.0	30/80.0	75/192.0	
Max. horsepower rating / motor FLA	phase	480 V	HP/A	20/27.0	40/52.0	50/65.0	150/180.0	
current	pilase	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	200/132.0	
	Single phase	240 V	HP/A	5/28.0	7.5/40.0	15/68.0		
Short circuit rating with fuse	Maximum fuse size	2101	A	60	150	150	200	400
Short circuit rating with ruse	Fuse type	СС	kA		100	130	200	100
	Fuse type	J	kA	50	50	50	200	65
	Fuse type	T	kA	50	50	50		
	Fuse type	RK1	kA					
	Fuse type	RK5	kA					
	Fuse type	L	kA					
	Fuse type	H	kA					
Maximum General Use, DC ratings	r doo tgpo		101					
		at 250 VDC	A				200	
Current rating		at 600 VDC	A				100	
DC horsepower rating for 4-pole switch		at 600 VDC	HP				50	
	In open air	at 125 VDC	HP				20	
DC horsepower rating for 2-pole switch	In open air	at 250 VDC	HP				20	
DC short circuit rating for 4-pole switch	with circuit breaker		KA				- 10	
	with circuit breaker at 2	50 VDC	kA kA				10	
DC short circuit rating for 2-pole	with circuit breaker at 6		kA kA				14	
switch	with class J fuse at 250		kA kA				100	
	with fuse size	VDC	A				200	
ENDURANCES	with fuse SIZE		A				200	
	0		an an an at	C 000	C 000	0.000	0.000	
Min. electrical endurance, pf. 0.750.	0		oper. cycles	6 000	6 000	6 000	6 000	
Mechanical endurance			operations	20 000	20 000	20 000	20 000	
Terminal lug kits			A14/C	Integral	Integral	Integral	LUG-200	
Wire range		Mine di alche an in a	AWG	14-4	14-4	8-1/0	4-300MCM	
Torque		Wire tightening	lb. in	55	55	55	275 72	
		Lug mounting					12	
TECHNICAL DATA ACCORE				350	750	750	4.000	
Rated insulation voltage and rated operatio	nal voltage AL2U/UL2U	Pollution degree 3	V	750	750	750	1 000	
Dielectric strength		50 Hz 1min.	kV	6	6	6	10	
Rated impulse withstand voltage		4451/	kV	8	8	8	12	
Rated operational current, AC-22A		up to 415 V	A	40	63	100	250	
		440500 V	A	40	63	100	250	
		690 V	A	40	63	100	250	
Rated operational current, AC-23A		up to 415 V	A	40	63	80	250	
		440 V	A	40	63	65	250	
		500 V	A	40	63	60	250	
		690 V 50 kA	A	40	63	40	250	
Rated conditional short circuit			kA	16.5	16.5 125/125	16.5		
Rated conditional short-circuit current lp (r.m.s.) and corresponding	l_p (r.m.s.)				1 125/125	125/125		
current lp (r.m.s.) and corresponding	Max. fuse size gG/aM	415 V	A	125/125		0.0		
current lp (r.m.s.) and corresponding max. allowed cut-off current î, The cut-off current î, refers to values listed by fuse	Max. fuse size gG/aM	415 V 10 kA	kA	8.2	8.2	8.2		
current lp (r.m.s.) and corresponding max. allowed cut-off current î, The cut-off current î, refers to values listed by fuse	Max. fuse size gG/aM I, [r.m.s.] Max. fuse size gG/aM	415 V 10 kA 690 V	kA A	8.2 125/100	8.2 125/100	125/100	25	
current Ip (r.m.s.) and corresponding max. allowed cut-off current î _c . The cut-off current î _c refers to values listed by fuse	Max. fuse size gG/aM I_ (r.m.s.) Max. fuse size gG/aM I_ (r.m.s.)	415 V 10 kA 690 V 50 kA	kA A kA	8.2 125/100 10	8.2 125/100 10	125/100 10	35	
current lp (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	Max. fuse size gG/aM I_ (r.m.s.) Max. fuse size gG/aM I_ (r.m.s.) Max. fuse size gG/aM	415 V 10 kA 690 V 50 kA 690 V	KA A KA A	8.2 125/100	8.2 125/100	125/100	355/315	
current lp (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	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	415 V 10 kA 690 V 50 kA 690 V 80 kA	kA A kA A kA	8.2 125/100 10	8.2 125/100 10	125/100 10	355/315 40.5	
current Ip (r.m.s.) and corresponding max. allowed cut-off current î, The cut-off current î, 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 Max. fuse size gG/aM	415 V 10 kA 690 V 50 kA 690 V 80 kA 690 V	kA A kA A kA A	8.2 125/100 10 63/63	8.2 125/100 10 63/63	125/100 10 63/63	355/315 40.5 355/315	
current lp (r.m.s.) and corresponding max. allowed cut-off current î, The cut-off current î, 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 r.m.svalue I _{cw}	415 V 10 kA 690 V 50 kA 690 V 80 kA 690 V 690 V, 1 s	KA A KA A KA A KA	8.2 125/100 10 63/63 2.5	8.2 125/100 10 63/63 2.5	125/100 10 63/63 2.5	355/315 40.5 355/315 8	
current Ip (r.m.s.) and corresponding max. allowed cut-off current î _c . The cut-off current î _c refers to values listed by fuse <u>manufacturers</u> (single phase test acc. to IEC60269) Rated short-time withstand current Rated short circuit making capacity	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 r.m.svalue I _{cw} Peak value I _{cm}	415 V 10 kA 690 V 50 kA 690 V 80 kA 690 V 690 V 690 V, 1 s 690 V/500 V	KA A KA A KA A KA A	8.2 125/100 10 63/63 2.5 3.6	8.2 125/100 10 63/63 2.5 3.6	125/100 10 63/63 2.5 3.6	355/315 40.5 355/315 8 30	
current Ip (r.m.s.) and corresponding max. allowed cut-off current î _c . The cut-off current î _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 _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 r.m.svalue I _{cw} Peak value I _{cm} At rated operational cur	415 V 10 kA 690 V 50 kA 690 V 80 kA 690 V 690 V, 1 s 690 V/500 V rent	kA A kA A kA A kA A W	8.2 125/100 10 63/63 2.5 3.6 0.7	8.2 125/100 10 63/63 2.5 3.6 1.6	125/100 10 63/63 2.5 3.6 4.0	355/315 40.5 355/315 8 30 6.5	
current Ip (r.m.s.) and corresponding max. allowed cut-off current î _c . The cut-off current î _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 Mechanical endurance	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 r.m.svalue I _{cw} Peak value I _{cm}	415 V 10 kA 690 V 50 kA 690 V 80 kA 690 V 690 V, 1 s 690 V/500 V rent ion cycles	kA A kA A kA A kA A W Oper.	8.2 125/100 10 63/63 2.5 3.6 0.7 20 000	8.2 125/100 10 63/63 2.5 3.6 1.6 20 000	125/100 10 63/63 2.5 3.6 4.0 20 000	355/315 40.5 355/315 8 30 6.5 20 000	
current Ip (r.m.s.) and corresponding max. allowed cut-off current î _c . The cut-off current î _c refers to values listed by fuse <u>manufacturers</u> (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 _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 r.m.svalue I _{cw} Peak value I _{cm} At rated operational cur	415 V 10 kA 690 V 50 kA 690 V 80 kA 690 V 690 V, 1 s 690 V/500 V rent	kA A kA A kA A kA A W	8.2 125/100 10 63/63 2.5 3.6 0.7	8.2 125/100 10 63/63 2.5 3.6 1.6	125/100 10 63/63 2.5 3.6 4.0	355/315 40.5 355/315 8 30 6.5	

UL 98 NON-FUSIBLE DISCONNECT SWITCHES

FECHNICAL DATA ACCORDING TO UL PART NUMBER				M400U	M600U	M800U	M1200U
GENERAL PURPOSE AMP RATING	PF= 0.70.8	-40° TO 40 °C	A	400	600	800	1200
Aximum Operating Voltage	11-0.10.0	-+0 10 +0 C	V	600	600	600	600
		240 V	HP/A	125/312.0	200/480.0	200/602	200/602
	pf= 0.40.5 Three	480 V	HP/A	250/302.0	450/515.0	500/590	500/590
lax. horsepower rating / motor FLA current	phase	600 V	HP/A	350/338.0	500/472.0	500/472	500/472
an horsepower rating/ motor reacting		120 V	HP/A	330/330.0	300/ 41 2.0	300/ H L	500/411
	Single phase	240 V	HP/A				
	Maximum fuse size	2101	A	600	600 800	800	1200
	Fuse type	СС	kA	000		000	iloo
	Fuse type	J	kA	100	100		
	Fuse type	T	kA	100	100		
hort circuit rating with fuse	Fuse type	RK1	kA		100		
	Fuse type	RK5	kA		100	100	100
	Fuse type	L	kA		100	100	100
	Fuse type	Н	kA				
laximum General Use, DC ratings	- ruse type	11					
axinum beneral use, De latings		-+ 250 VDC		400	600	1	
urrent rating		at 250 VDC	A	400	600		
Chargenouse setting for A sale suitable		at 600 VDC	A	200	200		
C horsepower rating for 4-pole switch		at 600 VDC	HP	50	-		
C horsepower rating for 2-pole switch	In open air In enclosure ^{2]}	at 125 VDC at 250 VDC	HP HP	40 50	- 50		
Cabaut aire it ration for A nale quitab				10	10		
C short circuit rating for 4-pole switch	with circuit breaker		kA kA	10			
	with circuit breaker at 2		kA La		18		
IC short circuit rating for 2-pole switch	with circuit breaker at 6		kA La	10	10		
	with class J fuse at 250	VDL	kA	100	100		
	with fuse size		A	400	500		
ENDURANCES				4.000	1.000	500	500
Ain. electrical endurance, pf. 0.750.8			oper. cycles	1 0 0 0	1 000	500	500
lechanical endurance			operations	16 000	10 000	6000	6000
erminal lug kits				LUG400	LUG800	LUG800	LUG120
Vire range			AWG	2 - 600MCM	2 x 2 - 600MCM	2 x 2 - 600MCM	4 x 2 - 600
orque		Wire tightening	lb. in	375	55	500	500
		Lug mounting		240	480	480	450-670
ECHNICAL DATA ACCORDING TO IE							
ated insulation voltage and rated operational voltag	e AC20/DC20	Pollution degree 3	V	1 0 0 0	1 0 0 0	1 000	1 000
lielectric strength		50 Hz 1min.	kV	10	10	10	10
lated impulse withstand voltage			kV	12	12	12	12
		up to 415 V	A	400	800	1600	1600
Rated operational current, AC-22A		440500 V	Α	400	800	1600	1600
		690 V	Α	400	800	1600	1600
		up to 415 V	Α	400	800	1250	1250
lated ensurational automate AC 22A		440 V	Α	400	800	1250	1250
Rated operational current, AC-23A		500 V	Α	400	800	1250	1250
		690 V	A	400	800	1250	1250
Rated conditional short-circuit	l (r.m.s.)	50 kA	kA				
	Max. fuse size gG/aM	415 V	A				
urrent lp (r.m.s.) and corresponding max. allowed		50 kA	kA				
	l (r.m.s.)		A				
ut-off current \hat{l}_c . The cut-off current \hat{l}_c refers to	I_ (r.m.s.) Max. fuse size gG/aM		A	1	1		-
ut-off current \hat{l}_c . The cut-off current \hat{l}_c refers to	Max. fuse size gG/aM	690 V		50.5	71.5		
ut-off current î, The cut-off current î, refers to alues listed by fuse manufacturers	Max. fuse size gG/aM	690 V 50 kA	kA	50.5 500/500	71.5 800/1 000		
ut-off current î, The cut-off current î, refers to alues listed by fuse manufacturers	Max. fuse size gG/aM I(r.m.s.) Max. fuse size gG/aM	690 V 50 kA 690 V	kA A	500/500	800/1000		
ut-off current î, The cut-off current î, refers to alues listed by fuse manufacturers	Max. fuse size gG/aM I_ (r.m.s.) Max. fuse size gG/aM at prospective SC-current	690 V 50 kA 690 V 80 kA	kA A kA	500/500 59	800/1000 83.5		
ut-off current î _c . The cut-off current î _c refers to alues listed by fuse manufacturers single phase test acc. to IEC60269)	Max. fuse size gG/aM I_(r.m.s.) Max. fuse size gG/aM at prospective SC-current Max. fuse size gG/aM	690 V 50 kA 690 V 80 kA 690 V	kA A kA A	500/500 59 500/500	800/1 000 83.5 800/1 000	50	50
ut-off current î, The cut-off current î, refers to alues listed by fuse manufacturers single phase test acc. to IEC60269) ated short-time withstand current	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_cw	690 V 50 kA 690 V 80 kA 690 V 690 V 690 V, 1 s	kA A kA A kA	500/500 59 500/500 15	800/1 000 83.5 800/1 000 20	50	50
current Ip (r.m.s.) and corresponding max. allowed cut-off current î _c . The cut-off current î _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 _p (r.m.s.) Max. fuse size gG/aM at prospective SC-current Max. fuse size gG/aM r.m.svalue I _{cw} Peak value I _{cm}	690 V 50 kA 690 V 80 kA 690 V 690 V, 1 s 690 V/500 V	kA A kA A kA A	500/500 59 500/500 15 65	800/1000 83.5 800/1000 20 80	110	110
ut-off current î, The cut-off current î, refers to alues listed by fuse manufacturers single phase test acc. to IEC60269) lated short-time withstand current lated short circuit making capacity lower loss / pole	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_rw Peak value I_rw At rated operational current	690 V 50 kA 690 V 80 kA 690 V 690 V, 1 s 690 V/500 V rent	kA A KA A KA A W	500/500 59 500/500 15 65 10	800/1 000 83.5 800/1 000 20 80 40		
ut-off current î, The cut-off current î, refers to alues listed by fuse manufacturers single phase test acc. to IEC60269) lated short-time withstand current	Max. fuse size gG/aM I _p (r.m.s.) Max. fuse size gG/aM at prospective SC-current Max. fuse size gG/aM r.m.svalue I _{cw} Peak value I _{cm}	690 V 50 kA 690 V 80 kA 690 V 690 V, 1 s 690 V/500 V rent	kA A kA A kA A	500/500 59 500/500 15 65	800/1000 83.5 800/1000 20 80	110	110

UL 98 FUSIBLE DISCONNECT SWITCHES



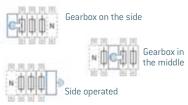
Mersen's fusible disconnect switches are listed to UL 98 and bear the CE mark as conformance to IEC 60947-3. They are "service entrance" devices capable of fully rated load-break and load-make. While long-term safety, reliability, and functionality are always paramount in the design of our products, 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	operated N = Non-fused switched Neutra 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 FRO	ONT AND SIDE	OPERATED)				
of handle	M30CC12 A, 3-pole with pole on right s	side	M60J30 60A, J fused, with 3 poles on left side of handle		M200J30 v ised, 3 poles or		
SWITCH BODY		AMPERE	RATING	30	60	100	200
		Base Part #		M30	M60	M100	M200
		Fuse Type 3- and 4-pole	configurations	CC, J 12, 22, 30F, 30S	J 12, 22, 22N, 30, 30F, 30S, 40, 40N	J 12, 22, 22N, 30, 30F, 30S, 40, 40N	J 30, 40
		S = Side oper	ated F = Rod-Flange actuated (Direct Side Operated Har	dles are includ	led with 'S' opti	onl	
HANDLES AND	SHAFTS	1	RONT OPERATION			011)	
	5 SHAI 15	DIRECTI	KONT OF ERAHOR	HDF30	HDF200	HDF200	HDF200
		EVTEDNA	AL FRONT OPERATION - PISTOL STYLE	1101 30	TIDI 200	TIDI 200	TIDI 200
				LID4E			
		NEMA Type 1		HB45		HB65, HB80	/
	_ <u>_</u> _	NEMA Type 4		HB45X		HB65X, HB80X	
HB65		NEMA 4X Sta			HM	65X	
TID05			stitute 'R' for 'B' if a red handle is desired. Ex. HR45				
		SHAFTS					
		Shaft— SPAx	xx (xxx = length in mm)	SPA13	0, SPA210, SPA	290, SPA360, S	SPA430
ACCESSORIES		Shaft— SPAx TERMINA		SPA13	0, SPA210, SPA	290, SPA360, S	SPA430
ACCESSORIES			LLUGS	SPA13 Integral	0, SPA210, SPA	LUG100	LUG200
ACCESSORIES		TERMINA 6 per packag	e				
ACCESSORIES		TERMINA 6 per packag TERMINA	L LUGS e L SHROUDS	Integral	Integral	LUG100 (#14 - 2/0)	LUG200 (#6 -300MCM)
ACCESSORIES		TERMINA 6 per packag TERMINA 3-pole (3 sin	L LUGS e L SHROUDS gle shrouds per package)			LUG100 (#14 - 2/0) TSF160-13	LUG200 (#6-300MCM) TSF200-13
ACCESSORIES		TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin	L LUGS e L SHROUDS gle shrouds per package) gle shrouds per package)	Integral Integral T	Integral Integral	LUG100 [#14 - 2/0] TSF160-13 TSF160-14	LUG200 (#6-300MCM) TSF200-13 TSF200-14
ACCESSORIES	0A3G01	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with	L LUGS e L SHROUDS gle shrouds per package) gle shrouds per package) '-3" suffix are single shrouds that cover all three terminals. Sh	Integral Integral T	Integral Integral	LUG100 [#14 - 2/0] TSF160-13 TSF160-14	LUG200 (#6-300MCM) TSF200-13 TSF200-14
ACCESSORIES		TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with 5 AUXILIAR	L LUGS e L SHROUDS gle shrouds per package) gle shrouds per package)	Integral Integral T rouds with "-13"	Integral Integral or "-14" are sing	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 Ie pole shrouds	LUG200 (#6-300MCM) TSF200-13 TSF200-14 with 3 or 4 per
ACCESSORIES	0A3G01	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with ' AUXILIAF NO	L LUGS e L SHROUDS gle shrouds per package) gle shrouds per package) '-3" suffix are single shrouds that cover all three terminals. Sh	Integral Integral T Turouds with "-13"	Integral Integral or "-14" are sing OA1G10	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 Ie pole shrouds 0A1G10	LUG200 (#6-300MCM) TSF200-13 TSF200-14 with 3 or 4 per 0A1G10
ACCESSORIES	0A3G01	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAF NO NC	L LUGS e L SHROUDS gle shrouds per package] gle shrouds per package] '-3" suffix are single shrouds that cover all three terminals. Sh RY CONTACTS*	Integral Integral T T UA1610, w/05Z4 0A3601, w/05Z4	Integral Integral or "-14" are sing OA1G10 OA3G01	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 0A1G10 0A3G01	LUG200 (#6-300MCM) TSF200-13 TSF200-14 with 3 or 4 per 0A1G10 0A3G01
ACCESSORIES	0A3G01	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAF NO NC NO, between	L LUGS e L SHROUDS gle shrouds per package) gle shrouds per package) '-3" suffix are single shrouds that cover all three terminals. Sh RY CONTACTS*	Integral Integral T rouds with "-13" 0A1610, w/0524 0A3601, w/0524 0A4B1C	Integral Integral or "-14" are sing OA1G10 OA3G01 N/A	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 0A1G10 0A3G01 N/A	LUG200 (#6-300MCM) TSF200-13 TSF200-14 with 3 or 4 per 0A1G10 0A3G01 N/A
ACCESSORIES	0A3G01 0A1G10	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAF NO NC NO, between Mounting pla	L LUGS e L SHROUDS gle shrouds per package] gle shrouds per package] '-3" suffix are single shrouds that cover all three terminals. Sh RY CONTACTS* poles te 0A1610/0A3601	Integral T T OA1610, w/0524 OA3601, w/0524 OA4B1C OSZ4	Integral Integral or "-14" are sing OA1G10 OA3G01 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 per 0A1G10 0A3G01 N/A Not needed
ACCESSORIES	0A3G01	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAF NO NC NO, between Mounting pla Module for 8	L LUGS e L SHROUDS gle shrouds per package] gle shrouds per package] '-3" suffix are single shrouds that cover all three terminals. Sh RY CONTACTS* poles te 0A1610/0A3601 aux. contacts	Integral Integral T rouds with "-13" 0A1610, w/0524 0A3601, w/0524 0A4B1C	Integral Integral or "-14" are sing OA1G10 OA3G01 N/A	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 0A1G10 0A3G01 N/A	LUG200 (#6-300MCM) TSF200-13 TSF200-14 with 3 or 4 per 0A1G10 0A3G01 N/A
ACCESSORIES	0A3G01 0A1G10	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAF NO NC NO, between Mounting pla Module for 8	L LUGS e L SHROUDS gle shrouds per package] gle shrouds per package] '-3" suffix are single shrouds that cover all three terminals. Sh RY CONTACTS* poles te 0A1610/0A3601	Integral T T OA1610, w/0524 OA3601, w/0524 OA4B1C OSZ4	Integral Integral or "-14" are sing OA1G10 OA3G01 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 per 0A1G10 0A3G01 N/A Not needed
ACCESSORIES	0A3G01 0A1G10	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAF NO NC NO, between Mounting pla Module for 8 *Rated 2A ma	L LUGS e L SHROUDS gle shrouds per package] gle shrouds per package] '-3" suffix are single shrouds that cover all three terminals. Sh RY CONTACTS* poles te 0A1610/0A3601 aux. contacts	Integral T T OA1610, w/0524 OA3601, w/0524 OA4B1C OSZ4	Integral Integral or "-14" are sing OA1G10 OA3G01 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 per 0A1G10 0A3G01 N/A Not needed
ACCESSORIES	0A3G01 0A1G10	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAR NO NC NO, between Mounting pla Module for 8 *Rated 2A ma FLANGE	L LUGS e L SHROUDS gle shrouds per package] gle shrouds per package] '-3" suffix are single shrouds that cover all three terminals. Sh exy CONTACTS* poles te 0A1610/0A3601 aux. contacts ax continous @690VAC	Integral T T OA1610, w/0524 OA3601, w/0524 OA4B1C OSZ4	Integral Integral or "-14" are sing OA1G10 OA3G01 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 per 0A1G10 0A3G01 N/A Not needed
ACCESSORIES	0A3G01 0A1G10	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAR NO NC NO, between Mounting pla Module for 8 *Rated 2A ma FLANGE Cable Flange	L LUGS e L SHROUDS gle shrouds per package] gle shrouds per package] '-3" suffix are single shrouds that cover all three terminals. Sh exy CONTACTS* poles te 0A1610/0A3601 aux. contacts ax continous @690VAC OPERATION FOR CABLE ACTUATION	Integral T OA1610, w/0524 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 OA1G10 OA3G01 N/A Not needed OEA28	LUG200 (#6-300MCM) TSF200-13 TSF200-14 with 3 or 4 per 0A1610 0A3601 N/A Not needed 0EA28
ACCESSORIES	0A3G01 0A1G10	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAF NO NC NO, between Mounting pla Module for 8 *Rated 2A ma FLANGE Cable Flange Cable Flange Bracket Asse	L LUGS e L SHROUDS gle shrouds per package] gle shrouds per package] '-3" suffix are single shrouds that cover all three terminals. Sh RY CONTACTS* poles te 0A1610/0A3601 aux. contacts ax continous @690VAC OPERATION FOR CABLE ACTUATION Handle, NEMA 12 Handle, NEMA 4X mbly	Integral Integral T OA1G10, w/0524 0A1G10, w/0524 0A4B1C 0SZ4 0EA28	Integral Integral or "-14" are sing OA1G10 OA3G01 N/A Not needed OEA28	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 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
	0A3G01 0A1G10	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAF NO NC NO, between Mounting pla Module for 8 *Rated 2A ma FLANGE Cable Flange Bracket Assee Cable for FHC	L LUGS e L SHROUDS gle shrouds per package] gle shrouds per package] '-3" suffix are single shrouds that cover all three terminals. Sh Y CONTACTS* poles te 0A1610/0A3601 aux. contacts ax continous @690VAC OPERATION FOR CABLE ACTUATION Handle, NEMA 12 Handle, NEMA 4X mbly : handles	Integral T T OA1610,w/0524 0A3601,w/0524 0A4B1C 0SZ4 0EA28 FHC12 FHC12 FHC12 FHC4X FOM2 CABLE36*	Integral Integral or "-14" are sing OA1610 OA3601 N/A Not needed OEA28 FHC12 FHC4X FOM3 for M60J12, FOM3 for	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds OA1G10 OA3G01 N/A Not needed OEA28 FHC12 FHC12 FHC4X	LUG200 (#6-300MCM) TSF200-13 TSF200-14 with 3 or 4 per 0A1610 0A3601 N/A Not needed 0EA28 FHC12 FHC12 FHC4X
	0A3G01 0A1G10	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAF NO NC NO, between Mounting pla Module for 8 *Rated 2A ma FLANGE Cable Flange Bracket Assee Cable for FHC	L LUGS e L SHROUDS gle shrouds per package] gle shrouds per package] '-3" suffix are single shrouds that cover all three terminals. Sh RY CONTACTS* poles te 0A1610/0A3601 aux. contacts ax continous @690VAC OPERATION FOR CABLE ACTUATION Handle, NEMA 12 Handle, NEMA 4X mbly	Integral T T OA1610,w/0524 0A3601,w/0524 0A4B1C 0SZ4 0EA28 FHC12 FHC12 FHC12 FHC4X FOM2 CABLE36*	Integral Integral or "-14" are sing OA1610 OA3601 N/A Not needed OEA28 FHC12 FHC4X FOM3 for M60J12, FOM3 for M60J12, FOM4 for M60J30	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC4X FOM4	LUG200 (#6-300MCM) TSF200-13 TSF200-14 with 3 or 4 per 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC4X F0M4
	0A3G01 0A1G10	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAR NO NC NO, between Mounting pla Module for 8 *Rated 2A ma FLANGE Cable Flange Cable Flange Bracket Assec Cable for FHC *Other cable	L LUGS e L SHROUDS gle shrouds per package] gle shrouds per package] '-3" suffix are single shrouds that cover all three terminals. Sh Y CONTACTS* poles te 0A1610/0A3601 aux. contacts ax continous @690VAC OPERATION FOR CABLE ACTUATION Handle, NEMA 12 Handle, NEMA 4X mbly : handles lengths available: 48", 60", 72", 84", 96", 108". For example	Integral T T OA1610,w/0524 0A3601,w/0524 0A4B1C 0SZ4 0EA28 FHC12 FHC12 FHC12 FHC4X FOM2 CABLE36*	Integral Integral or "-14" are sing OA1610 OA3601 N/A Not needed OEA28 FHC12 FHC4X FOM3 for M60J12, FOM3 for M60J12, FOM4 for M60J30	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC4X FOM4	LUG200 (#6-300MCM) TSF200-13 TSF200-14 with 3 or 4 per 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12 FHC4X F0M4
	0A3G01 0A1G10	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAR NO NC NO, between Mounting pla Module for 8 *Rated 2A ma FLANGE Cable Flange Cable Flange Bracket Assec Cable for FHC *Other cable	L LUGS e L SHROUDS gle shrouds per package] gle shrouds per package] '-3" suffix are single shrouds that cover all three terminals. Sh Y CONTACTS* poles te 0A1610/0A3601 aux. contacts ax continous @690VAC OPERATION FOR CABLE ACTUATION Handle, NEMA 12 Handle, NEMA 12 Handle, NEMA 4X mbly '	Integral T T OA1610,w/0524 0A3601,w/0524 0A4B1C 0SZ4 0EA28 FHC12 FHC12 FHC12 FHC4X FOM2 CABLE36*	Integral Integral or "-14" are sing OA1610 OA3601 N/A Not needed OEA28 FHC12 FHC4X FOM3 for M60J12, FOM3 for M60J12, FOM4 for M60J30	LUG100 (#14 - 2/0) TSF160-13 TSF160-14 le pole shrouds 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC4X FOM4	LUG200 (#6-300MCM) TSF200-13 TSF200-14 with 3 or 4 per 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC4X F0M4
	0A3G01 0A1G10 0EA28	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAF NO NO NC NO, between Mounting pla Module for 8 *Rated 2A ma FLANGE Cable Flange Cable Flange Bracket Assee Cable for FHC *Other cable FLANGE Flange brack	L LUGS e L SHROUDS gle shrouds per package] gle shrouds per package] "3" suffix are single shrouds that cover all three terminals. Sh Y CONTACTS* poles te 0A1610/0A3601 aux. contacts ax continous @690VAC OPERATION FOR CABLE ACTUATION Handle, NEMA 12 Handle, NEMA 4X mbly handles lengths available: 48", 60", 72", 84", 96", 108". For examp OPERATION FOR ROD ACTUATION* et assembly	Integral Integral T OA1610,w/0524 OA3601,w/0524 OA4B1C OS24 OA4B1C OS24 OA4B1C OS24 FHC12 FHC12 FHC12 FHC4X FOM2 CABLE36* CABLE36* Incl with M30x30F	Integral Integral or "-14" are sing OA1610 OA3601 N/A Not needed OEA28 FHC12 FHC4X FOM3 for M60J12, FOM4 for M60J30 CABLE36*	LUG100 (#14 - 2/0) TSF 160-13 TSF 160-14 le pole shrouds 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC4X FOM4 CABLE36*	LUG200 (#6-300MCM) TSF200-13 TSF200-14 with 3 or 4 per 0A1610 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC4X FOM4 CABLE36*
F0M4, FHC12,	0A3G01 0A1G10	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAF NO NC NO, between Mounting pla Module for 8 *Rated 2A ma FLANGE Cable Flange Cable Flange Bracket Assee Cable for FHC *Other cable Flange brack Rod Flange h	L LUGS e L SHROUDS gle shrouds per package] gle shrouds per package] '3" suffix are single shrouds that cover all three terminals. Sh Y CONTACTS* poles te 0A1610/0A3601 aux. contacts ax continous @690VAC OPERATION FOR CABLE ACTUATION Handle, NEMA 12 Handle, NEMA 4X mbly : handles lengths available: 48", 60", 72", 84", 96", 108". For examp OPERATION FOR ROD ACTUATION* et assembly andle NEMA 12	Integral Integral T OA1610,w/0524 OA3601,w/0524 OA4B1C O524 OEA28 FHC12 FHC4X FOM2 CABLE36* Incl with M30x30F FHR12	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 le pole shrouds 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 per 0A1610 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC12 FHC4X FOM4 CABLE36* NA
F0M4, FHC12,	OA3GO1 OA1G10 OEA28 OEA28	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAF NO NO, between Mounting pla Module for 8 *Rated 2A ma FLANGE Cable Flange Cable Flange Bracket Assee Cable For FHC *Other cable FLANGE = Flange brack Rod Flange h Rod Flange h	L LUGS e L SHROUDS gle shrouds per package] gle shrouds per package] gle shrouds per package] '-3" suffix are single shrouds that cover all three terminals. Sh Y CONTACTS* poles te 0A1G10/0A3G01 aux. contacts ax continous @690VAC OPERATION FOR CABLE ACTUATION Handle, NEMA 12 Handle, NEMA 4X mbly handles lengths available: 48", 60", 72", 84", 96", 108". For examp OPERATION FOR ROD ACTUATION* et assembly andle NEMA 12 andle NEMA 12 andle NEMA 4X	Integral Integral T OA1610,w/0524 OA3601,w/0524 OA3601,w/0524 OA4B1C OSZ4 OA4B1C OSZ4 OA4B1C OSZ4 OA4B1C OSZ4 OA4B1C SZ4 OA4B1C SZ4 OA4B1C OSZ4 OA4B1C SZ4 OA4B1C SZ4 OA4B1C OSZ4 OA4B1C SZ4 SZ4 SZ4 SZ SZ SZ SZ SZ SZ SZ SZ SZ SZ SZ SZ SZ	Integral Integral or "-14" are sing OA1610 OA3601 N/A Not needed OEA28 FHC12 FHC4X FOM3 for M60J12, FOM4 for M60J30 CABLE36* Incl with M60J30F FHR12 FHR4X	LUG100 (#14 - 2/0) TSF 160-13 TSF 160-14 le pole shrouds 0A1G10 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC4X FOM4 CABLE36* Incl with M100J30F FHR12 FHR4X	LUG200 (#6-300MCM) TSF200-13 TSF200-14 with 3 or 4 per 0A1610 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC12 FHC12 FHC4X FOM4 CABLE36* NA NA NA
F0M4, FHC12,	OA3GO1 OA1G10 OEA28 OEA28	TERMINA 6 per packag TERMINA 3-pole (3 sin 4-pole (4 sin Shrouds with AUXILIAF NO NO NC NO, between Mounting pla Module for 8 *Rated 2A ma FLANGE Cable Flange Cable Flange Bracket Assee Cable For FHC *Other cable FLANGE Flange brack Rod Flange h Rod, 16, 21, 2	L LUGS e L SHROUDS gle shrouds per package] gle shrouds per package] '3" suffix are single shrouds that cover all three terminals. Sh Y CONTACTS* poles te 0A1610/0A3601 aux. contacts ax continous @690VAC OPERATION FOR CABLE ACTUATION Handle, NEMA 12 Handle, NEMA 4X mbly : handles lengths available: 48", 60", 72", 84", 96", 108". For examp OPERATION FOR ROD ACTUATION* et assembly andle NEMA 12	Integral Integral T OA1610,w/0524 OA3601,w/0524 OA4B1C O524 OEA28 FHC12 FHC4X FOM2 CABLE36* Incl with M30x30F FHR12	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 le pole shrouds 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 per 0A1610 0A3G01 N/A Not needed 0EA28 FHC12 FHC12 FHC12 FHC4X FOM4 CABLE36* NA

UL LISTED FRONT	AND SIDE	OPERATED					
	M4C	00130		M80	0L30		
400A, J fu	sed, 3-pole with	3 poles on left side of handle	800A, L fu	ised, with 3 pc	oles on left side	e of handle	
SWITCH BODY		AMPERE RATING		400	600	800	1200
		Base Part #		M400U	M600U	M800U	M1200U
		Fuse Type		J	J	L	L
		3- and 4-pole configurations		12, 30, 40	12, 30, 40	12, 30, 40	30, 40
HANDLES AND SH	IAFTS	DIRECT FRONT OPERATION					I
НВ125		EXTERNAL FRONT OPERATION NEMA Type 1, 3R, 12 NEMA Type 4, 4X NEMA 4X Stainless Steel B=Black, Substitute 'R' for 'B' if a red hand			HB125X, HB	145, HB274 145X, HB274X , HM175X	
SFB135	HDF400	SHAFTS					
the second se		Shaft— SFBxxx (xxx = length in mm)		SEB18	5, SFB280, SFE	325 SEB395	SEB535
ACCESSORIES		TERMINAL LUGS		5. 510.	., 00, 01 L	,	
r t	0A1G01 0A1G10	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		TSF400-13	TSF600-3	TSF600-3	TSF1250-13
		Suffix "-3" indicates a single 3-pole shroud; S	Suffix "-13" indicates 3 single pole	shrouds per pa	ackage		
÷		AUXILIARY CONTACTS*					
		Normally Open		0A1G10	0A1G10	0A1G10	0A1G10
		Normally Closed		0A3G01	0A3G01	0A3G01	0A3G01
TSF400-1		Module for 8 aux. contacts		0EA28	OEA28	0EA28	0EA28

UL 98 FUSIBLE DISCONNECT SWITCHES

ENERAL PURPOSE AMP RATING	PF= 0.70.8	-40° TO 40 °C	А	30	60	100	200
Aximum Operating Voltage			VAC	600	600	600	600
			VDC	250	250	250	250
flax. 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
an. norsepower rating/ motor reactinent	phase	480 V	HP/A	15/21.0	30/40.0	60/77.0	125/156.
		600 V	HP/A	20/22.0	50/52.0	75/77.0	150/144
	Single phase	120 V	HP/A	2/24.0	30/ 32.0	13/11.0	130/144
	Single phase	240 V	HP/A	3/17.0			
hort circuit rating with fuse, 3- and 4- pole types		240 V	kA	200	200	200	200
more circuit rating with ruse, 5- and 4- pole types	UL/CSA fuse size		A	30	60	100	200
			A				
	UL/CSA fuse type			J/CC	J	J	J
NDURANCES				6000	6000	6000	6000
lin. electrical endurance, pf. 0.750.8			oper. cycles	6000	6000	6000	6000
Mechanical endurance			operations	20 000	20 000	20 000	16 000
erminal lug kits				Integral	Integral	LUG100	LUG200
Vire range			AWG	#18-8	#14-4	#14-2/0	#4-300M0
orque		Wire tightening	lb. in	17	30/355)	120	275
		Lug mounting	lb. in	N/A	N/A	50	72
ECHNICAL DATA ACCORDING TO IE	C 60947-3						
ated insulation voltage	Pollution degree 3		V	1 000	1 000	1 000	1 000
Dielectric strength	50 Hz 1min.		kV	10	10	10	10
Rated impulse withstand voltage			kV	12			12
Rated thermal current in ambient 40 °C /	In open air		A/W	32/3.5	63/7.5	160/12	200/17
nax. fuse power dissipation ¹⁾	In enclosure ²⁾		A/W	32/3.5	63/7.5	160/10, 135/12	200/15
.with minimum cable cross section	Cu		mm²	6	16	70	95
ated operational current, AC-23A		up to 500 V	A	32	63	160	200
		690 V	A	32	63	160	200
lated operational current, AC-23 ³⁾	The kW-ratings are	230 V	kW	7.5	18.5	45	60
	accurate for	400 V	kW	15	30	75	110
	three-phase 1500 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	A	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	out fuse	W	2	4	9	8
Veight without accessories	3-pole switch fuses		kg	0.7	1.3	1.5	2.6
5	4-pole switch fuses		kg	0.9	1.6	1.8	
uilt-in terminal size		Cu	mm ²	0.7510	2.525		
erminal bolt size (included)	Metric thread diameter >		mm			M6x20	M8x25
Euse-links bolts tightening torque		0	Nm			4	4
) = Utilization category B 1) Ambient temperature		lounting on "ceiling"		Mounting on	vall, horizonta		
,	urrent characteristics mus						6

UL 98 FUSIBLE DISCONNECT SWITCHES

ENERAL PURPOSE AMP RATING	PF= 0.70.8	-40° TO 40 °C	А	400	600	800	1200
laximum Operating Voltage			VAC	600	600	600	600
			VDC	250	250	250	250
lax. 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.
ort circuit rating with fuse, 3- and 4- pole type DURANCES n. electrical endurance, pf. 0.750.8 echanical endurance rminal lug kits re range rque ECHNICAL DATA ACCORDING TO ted insulation voltage electric strength ted impulse withstand voltage ted thermal current in ambient 40 °C / ax. fuse power dissipation ^{1]} vith minimum cable cross section ted operational current, AC-23A	phase	480 V	HP/A	250.0/302.0	400/477.0	500/590.0	500/590.
		600 V	HP/A	350.0/336.0	500/472.0	500/472.0	500/472.
	Single phase	120 V	HP/A				
			HP/A				
hort circuit rating with fuse, 3- and 4- pole types			kA	200	200	200	200
	UL/CSA fuse size		А	400	600	800	1200
	UL/CSA fuse type			J	J	L	L
NDURANCES				I			
lin. 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
erminal lug kits				LUG400	LUG800	LUG800	LUG1200
/ire range			AWG	#2- 600MCM	(2)#2- 600MCM	(2)#2- 600MCM	(4)#2- 600MCM
orque		Wire tightening	lb.in	375	500	500	500
		Lug mounting	lb.in	240	480	480	480
ECHNICAL DATA ACCORDING TO I	EC 60947-3						
ated insulation voltage	Pollution degree 3		V	1 000	1 000	1 000	1 0 0 0
ielectric strength		50 Hz 1min.	kV	10	10	10	10
ated impulse withstand voltage			kV	12	12	12	12
ated thermal current in ambient 40 °C /	In open air		A/W	400/45	630/60	800/65	1250/110
nax. 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
ated operational current, AC-23A		up to 500 V	А	400	630	800	1000 *]
		690 V	А	400	630	800	1000 *]
ated operational current, AC-23 ³⁾	The kW-ratings are	230 V	kW	132	200	250	315 ^{*]}
	accurate for	400 V	kW	220	355	450	560 ^{*]}
	three-phase 1500 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 *]
ated breaking capacity in category AC-23		up to 500 V	Α	3200	6400	6400	8000
		690 V	А	3200	6400	6400	8000
ated short-time withstand current, 1 s	r.m.svalue		kA	14	20	20	
ower loss / pole	With rated current, with	out fuse	W	30	46	75	75
leight without accessories	3-pole switch fuses		kg	5.7	11.5	11.5	29
	4-pole switch fuses		kg				
uilt-in terminal size		Cu	mm²				
erminal bolt size (included)	Metric thread diameter :	k length	mm	M10x30	M12x40	M12x40	M12x50
use-links bolts tightening torque			Nm	20	40	40	40
) = Utilization category B 1) Ambient temperatur	re 60°C· derating 20% 21 M	founting on "ceiling"	": derating 10%.	Mounting on v	vall, horizontal	fuses: derating	g 8%.

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

APPLICATIONS

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

CATALOG N	UMBER DESI	GNATION			
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





Image: Microsoft Constraints Image: Microsoft Constraints <th< th=""><th></th></th<>									
SWITCH BODY AMPERE RATING 100 200 250 320 1000VDC 2-pole Configuration MD100U11 MD200U11 MD250U11 MD320U12 1000VDC 2x2-pole Configuration MD180U22 MD180U22 MD320U22 1500VDC 3-pole Configuration MD180U22 MD250UV12 MD320UV12 B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR45 *180A Rating MD250UV12 HANDLES AND SHAFTS DIRECT FRONT OPERATION HD250 HDD250 HDD400 1000VDC HDD250 HDD400 HD0400 HD0400 HD400 1500VDC HDD400 HDD400 HD0400 HD1400 HD1400 1500VDC HDD400 HD0400 HD1400 HD1400 HD1400 1500VDC HD0400 HD250 HB125, HB14 NEMA Type 4, 4X HB65, HB80 HB125, HB14 NEMA Type 4, 4X HB65, KB80X HB125, KHB14 SHAFTS Shaft— SPAxxx (xxx = length in mm), SPA130, SPA210, SPA290, SFB320, SFB3									
1000VDC 2-pole Configuration MD 100U11 MD 200U11 MD 250U11 MD 320U11 1000VDC 2x2-pole Configuration MD 180U22 MD 180U22* MD 320U22 1500VDC 3-pole Configuration I MD 250UV12 MD 320UV12 B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR45 *180A Rating HANDLES AND SHAFTS DIRECT FRONT OPERATION HDD 250 HDD 250 HDD 250 HDD 250 HDD 250 HDD 400 1500VDC HDD 250 HDD 250 HDD 400 HDD 400 HDD 400 1500VDC HDD 400 HDD 400 HDD 400 HB125, HB14 NEMA Type 1, 3R, 12 HB65X, HB80X HB125, HB14 NEMA Type 4, 4X HB65X, HB80X HB125X, HB14 B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR65 SHAFTS Shaft— SPAxxx (xxx = length in mm), FBXxx (xxx = length in mm) SPA130, SPA210, SPA290, SPA360, SPA30 SFB185, SFB280, SFB32	400								
Index Index <th< th=""><th></th></th<>									
Internation MD250UV12 MD320UV12 1500VDC 3-pole Configuration Image: MD250UV12 MD320UV12 B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR45 *180A Rating DIRECT FRONT OPERATION HDD250 HDD250 HDD250 HDD400 1500VDC HDD250 HDD250 HDD400 HD0400 HD0400 1500VDC HDD400 HDD400 HD0400 HD0400 HD0400 1500VDC HDD400 HD0400 HD0400 HD1400 HD150 1500VDC HDD400 HD0400 HD1400 HD1400 HD1400 1500VDC HDD400 HD1400 HD1400 HD1400 HD1400 HD1400 1500VDC HD1400	MD400U:								
HANDLES AND SHAFTS DIRECT FRONT OPERATION 1000VDC HDD250 HDD250 HDD250 1000VDC HDD400 HDD400 HDD400 1500VDC HDD400 HDD400 HDD400 MEMA Type 1, 3R, 12 HB65, HB80 HB125, HB14 NEMA Type 4, 4X HB65X, HB80X HB125X, HB14 B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR65 SHAFTS Shaft— SPAxxx (xxx = length in mm), SPA130, SPA210, SPA290, SFB185, SFB280, SFB327, SFB535 SFB185, SFB280, SFB327, SFB535	MD400U2								
HANDLES AND SHAFTS DIRECT FRONT OPERATION 1000VDC HDD250 HDD250 HDD250 HDD400 1500VDC HDD400 HDD400 HDD400 HDD400 MEMA Type 1, 3R, 12 HB65, HB80 HB125, HB14 NEMA Type 4, 4X HB65X, HB80X HB125X, HB14 B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR65 SHAFTS Shaft— SPAxxx (xxx = length in mm), SPA130, SPA210, SPA290, SFB185, SFB280, SFB328 SFB185, SFB280, SFB328	MD400UV1								
1000VDC HDD250 HD1250									
1500VDC HDD400 HDD400 HDD400 HDD400 EXTERNAL PISTOL STYLE EXTERNAL PISTOL STYLE HB65, HB80 HB125, HB14 NEMA Type 4, 4X HB65X, HB80X HB125X, HB14 B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR65 SHAFTS Shaft— SPAxxx (xxx = length in mm), SFA130, SPA210, SPA290, SFB185, SFB280, SFB327, SFB535 SFB185, SFB280, SFB327, SFB535									
EXTERNAL PISTOL STYLE NEMA Type 1, 3R, 12 HB65, HB80 HB125, HB14 NEMA Type 4, 4X HB65X, HB80X HB125X, HB14 B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR65 SHAFTS Shaft— SPAxxx (xxx = length in mm), SFBxxx (xxx = length in mm) SPA130, SPA210, SPA290, SPA360, SPA430 SFB185, SFB280, SFB32 SFB535	HDD400								
NEMA Type 1, 3R, 12 HB65, HB80 HB125, HB14 NEMA Type 1, 3R, 12 HB65, HB80 HB125, HB14 NEMA Type 4, 4X HB65X, HB80X HB125X, HB14 B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR65 SHAFTS Shaft— SPAxxx (xxx = length in mm), SFBxxx (xxx = length in mm) SPA130, SPA210, SPA290, SPA360, SPA430 SFB185, SFB280, SFB326, SFB535									
HDD400 NEMA Type 4, 4X HB65X, HB80X HB125X, HB144 B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR65 SHAFTS Shaft— SPAxxx (xxx = length in mm), SFBxxx (xxx = length in mm) SPA130, SPA210, SPA290, SPA360, SPA430 SFB185, SFB280, SFB32 SFB535									
B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR65 SHAFTS Shaft— SPAxxx (xxx = length in mm), SFBxxx (xxx = length in mm), SFBxxx (xxx = length in mm)									
SHAFTS Shaft— SPAxxx (xxx = length in mm), SFBxxx (xxx = length in mm) SPA130, SPA210, SPA290, SPA360, SPA430 SFB185, SFB280, SFB32 SFB535	х								
HB125Shaft— SPAxxx (xxx = length in mm), SFBxxx (xxx = length in mm)SPA130, SPA210, SPA290, SPA360, SPA430SFB185, SFB280, SFB32 SFB535									
HB125 SFBxxx (xxx = length in mm) SPA360, SPA430 SFB535									
ACCESSORIES AUXILIARY CONTACTS*	5, SFB395,								
OA1G01 OA1G10 OA1G10 OA1G10 OA1G10 OA1G10 OA1G10 OA1G10	0A1G10								
0A1G10 NC left side mounting 0A3G01 0A3G01 0A3G01 0A3G01 0A3G01	0A3G01								
JC250 Module for SF aux. contacts OEA28 OEA28 OEA28 OEA28	0EA28								
*Rated 2A max continous @690VAC	*Rated 2A max continous @690VAC								
TERMINAL SHROUD FOR SHORT CIRCUIT LINK									
TERMINAL SHROUD FOR SHORT CIRCUIT LINK For MDxxxU11, UV12 JC250 JC500 JC500	JC500								
OEA28 For MDxxxU22 JC500-2 JC500-2 JC500-2 JC500-2									
TERMINAL SHROUD FOR LUGS	JC500-2								
Kit of 4 Terminal Shrouds									
1 Terminal Shroud TDS250S TDS250S TDS250S TDS400									

EC-RATED DC	SWITCHES										
		• K == K									
MD100E11 MD10		D0E22	MD40	0EV12	MD40)0E22	MD40	0EV12	MD31	5EV33	
			+								
SWITCH BODY		AMPERE R	ATING	100	160	200	250	315	400	500	
		1000VDC 2-pole 0	Configuration	MD100E11	MD160E11	MD200E11	MD250E11	MD315E11	MD400E11	MD500E1	
		1000VDC 2x2-pol	le Config.	MD100E22	MD160E22	MD200E22	MD250E22	MD315E22	MD400E22	MD500E	
		1500VDC 3-pole 0	Configuration					MD315EV12	MD400EV12	MD500EV	
		1500VDC 2x3-pol	le Config.					MD315EV33	MD400EV33	MD500EV3	
HANDLES AND	SHAFTS	DIRECT FR		ERATION							
- 9				HDD250	HDD250	HDD250	HDD250	HDD400	HDD400	HDD400	
-		EXTERNAL	PISTOL	STYLE							
HDD250		NEMA Type 1, 3R, 12		HB65, HB80				HB125, HB145			
		NEMA Type 4, 4		HB65X, HB80X			HB125X, HB125X				
		B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR65									
		SHAFTS									
НВ125		Shaft— SPAxxx length in mm)		SPA130, SPA210, SPA290, SPA360, SPA430 SFB185, SFB280 SFB535					280, SFB325,	SFB395,	
ACCESSORIES		AUXILIARY		CTS*							
n 🗊	0A1G01	NO Right side m	nounting	0A1G10	0A1G10	0A1G10	0A1G10	0A1G10	0A1G10	0A1G10	
	0A1G10	NC left side mo	unting	0A3G01	0A3G01	0A3G01	0A3G01	0A3G01	0A3G01	0A3G01	
	1	Module for SF aux	x. contacts	OEA28	0EA28	OEA28	0EA28	0EA28	OEA28	0EA28	
OEA28		*Rated 2A max continous @690VAC									
		SHORT CIR		IK							
	and the second	For MDxxxE22	and EV33					JUMP500-2	JUMP500-2	JUMP500-	
JUMP250	JC250	For MDxxxE11, E2	22, EV12**	JUMP250	JUMP250	JUMP250	JUMP250	JUMP500	JUMP500	JUMP500	
JUMF250	JL250	**Shipped with	n one link per	circuit							
() Statemannen	11111111	TERMINAL	SHROUD	FOR SHO							
		For JUMP500-2	2					JC500-2	JC500-2	JC500-2	
JUMP500	JC500	For JUMP250,	JUMP500	JC250	JC250	JC250	JC250	JC500	JC500	JC500	
~mm		TERMINAL	SHROUD	S FO <u>R LU</u>	GS						
Hull Maria		Kit of 4 Termina		TS250-14	TS250-14	TS250-14	TS250-14				
		1 Terminal Shro						TDS400	TDS400	TDS400	
· uu 24 J		I TELINIAL SING	ouu					103400	103400	103400	

TECHNICAL DATA I (Suitable for use in							C)			
SWITCH SIZE			MD100U	MD200U	MD250U	MD315U	MD400U	MD250UV12	MD320UV12	MD400UV12
Voltage Rating	VDC		1000	1000	1000	1000	1000	1500	1500	1500
Current Rating	A		100	200 1)	250	320	400	250	320	400
Rated Ambient Temp.	2°		-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	Circuit breake						
Mechanical Endurance (Divide	by 2 for operation	n 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	ACCORDIN	G TO IEC (60947 FOF	R SWITCH-	DISCONNE	CTORS				
SWITCH SIZE		A	MD100E	MD160E	MD200E	MD250E	MD315E	MD400E	MD500E	
Rated Insulation voltage	Pollution degree 2 Pollution degree 3		V	1500	1500	1500	1500	1500	1500	1500
U,			V	1500	1500	1500	1500	1500	1500	1500
Rated impulse withstand 50 Hz 1 min		kV								
Rated impulse withstand			kV	12	12	12	12	12	12	12
Rated thermal current I	In open air, normal conditions 1)		Α	100	160	200	250	315	400	630
u	In enclosure 40°C		Α	100	160	200	250	315	400	550
with minimum cable or	In enclosure 60°C		A	100	160	200	250	315	400	440
bar cross section	Cu		mm ²	35	70	95	120	185	240	240
Rated operational	1000		V	100/2	160/2	200/2	250/2	315/2	400/2	500/2
current / poles in series										
DC-21B				100/2x2	160/2x2	200/2x2	250/2x2	315/2x2	400/2x2	500/2x2
Rated short-time withstand current, 1000 V, 1 s, R.M.Svalue I ^{cw}		kA	5	5	5	5	10	10	10	
Rated short circuit making capacity, 1000 V, Peak value I		kA	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		mm ²						1	
Terminal bolt size	Metric thread dia	meter x length	mm	M8x25	M8x25	M8x25	M8x25	M10x30	M10x30	M12x40
	Metric thread diameter x length Counter torque required		1							

SWITCH SIZE			Α	MD315EV12	MD400EV12	MD500EV12
Detect inculation voltage 11	Pollution degr	ee 2	V	1500	1500	1500
Rated Insulation voltage U	Pollution degr	ee 3	V	1500	1500	1500
			kV	12	12	12
Rated thermal current I	In open air, norm	al conditions 1]	A	315	400	630
u	In enclosure 4	10°C	A	315	400	550
with minimum cable or bar cross	In enclosure 6	50°C	A	315	400	440
section	Cu		mm ²	185	240	240
Rated operational current /	1000	1 circuit	V	315/2	400/2	500/2
	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, 1000 V, 1 s	R.M.Svalue I		kA	10	10	10
Rated short circuit making capacity, 1000 V	Peak value I		kA	10	10	10
Power loss / pole	At rated current		W	6	9.7	15.1
Terminal bolt size	Metric thread di	a. x length	mm	M 10x30	M 10x30	M 12x40
Terminal tightening torque	Counter torqu	e required	Nm	30-44	30-44	50-75





MERSEN IS A GLOBAL EXPERT IN ELECTRICAL POWER AND ADVANCED MATERIALS

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