# **UL 98 Non-Fusible**

**Disconnect Switches** 

#### **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 and accessories is available to accommodate multiple applications.

### CONFIGURATIONS:

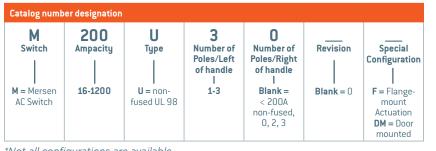


Gearbox on the side





Side operated



#### \*Not all configurations are available.

© 2018 Mersen. All rights reserved. Mersen reserves the right to change, update, or correct, without notice, any information contained in this datasheet.

### 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.

# FEATURES/

## BENEFITS:

- Service entrance rated
- Front or side operation
- Most compact size
- Internally mounted auxiliary contacts
- Flange mounting accessories
- Flexible mounting
- Adjustable shaft depth

#### APPROVALS:

- 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



\*Not all configurations are available



UL 98 DISCONNECT SWITCHES

M100U3	M200U30 with HD250 Direct Handle		M20	0000						
Switch Body	Ampere Rating	30	60	100	200					
Switch body										
	Base Part #	M30U3	M60U3	M100U3	M200U					
	3-pole configurations	M30U3F	меоног	M100U2E	12, 30					
	For Flange-mount Actuation		M60U3F	M100U3F						
	For Door-mounting	M30U3DM	M60U3DM	M100U3DM						
Handles and Shafts	Direct Front Operation Locking Handle				1					
		HD125	HD125	HD125	HD250					
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)	H	SBWDM, HSRW	DM	N/A					
HD250	Pistol Style NEMA Type 1, 3R, 12	HB45, HR45	HB45, HR45, HB65, HR65, HB80, HR80							
HSBX	NEMA Type 4, 4X	HB45X, HR4	HB45X, HR45X, HB65X, HR65X, HB80X, HR80X							
	NEMA 4X Stainless Steel HM65X									
	Shaft— SAxxx (xxx = length in mm)	Shaft— SAxxx (xxx = length in mm)     SPA130, SPA210, SPA290, SPA360, SPA430								
HB65	Alignment Ring See next page									
nb03	B=Black, R=Red									
Accessories	Fourth Poles									
	Base-mounted switch Fourth Poles	4P60	4P60	4P125	4P250					
200	Door-mounted switch Fourth Poles	4P60DM	4P60DM	4P125DM						
Tol In	Neutral Poles									
	Base-mounted switch Neutral Poles	NP60	NP60	NP125						
	Door-mounted switch Neutral Poles	NP125DM	NP125DM	NP125DM						
	Terminal Shrouds									
4P125 4P250	3-pole	TS125-3	TS125-3	TS125-3	TS250-13					
	4-pole	TS125-1	TS125-1	TS125-1	TS250-14					
	Shrouds with "-3" suffix are single shrouds that cover all three termin	nals. Shrouds with "-13"	or "-14" are sing	le pole shrouds	with 3 or 4 per					
	Auxiliary Contacts*									
	Normally Closed	0A1G01	0A1G01	0A1G01	0A3G01					
	Normally Open	0A1G10	0A1G10	0A1G10	0A1G10					
TS250-13	NO+NC	0A2G11	0A2G11	0A2G11						
OA1G10 OA2G11	Module for 8 aux. contacts	N/A	N/A	N/A	0EA28					
CAIGIO CAZGII	*Rated 2A max continous @690VAC									
Đ - 10	Flange Operation									
	Flange bracket assembly	Incl with M30U3F**	Incl with M60U3F**	Incl with M100U3F**	FOM4					
OAIG01	Rod Flange handle NEMA 12	FHR12	FHR12	FHR12	NA					
NO-	Rod Flange handle NEMA 4X	FHR4X	FHR4X	FHR4X	NA					
and the second sec	Rod, 16 inch	RODNF16	RODNF16	RODNF16	NA					
OEA28	Rod, 24 inch	RODNF24	RODNF24	RODNF24	NA					
a	Cable Flange Handle, NEMA 12	NA	NA	NA	FHC12					
	Cable Flange Handle, NEMA 4X	NA	NA	NA	FHC4X					

Other cable lengths available: 48", 60", 72", 84", 96", 108". For example, CABLE108. \*\*These switches have not been tested to conform to UL standards

#### UL LISTED FRONT AND SIDE OPERATED

NEMA 4X Stainless Steel HM125X, HM175X	<b>М400U30</b>	M600U30	M200U30
3-pole configurations         30, 12	itch body	Ampere Rating	400 600 800 1200
Handles and Shafts         Direct Front Operation Locking Handle           SFB135         HD400         HD800         HD800           Fistol Style NEMA Type 1, 3R, 12         HB125, HB145, HB274           NEMA Type 4, 4X         HB125X, HB145X, HB274           NEMA Type 4, 4X         HB125X, HB145X, HB274           NEMA Type 4, 4X         HB125X, HB145X, HB274           NEMA X Stainless Steel         HM125X, HM175X           Shaft- SAxxx (xxx = length in mm)         SFB185, SFB280, SFB325, SFB393           Alignment Ring (optional, for jbitol-style handle)         ALRJF10           B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR125         Fourth Poles           Accessories         Fourth Poles         4P400         4P800         4P800           Terminal Lugs         E per package         LU6400 #2. 000KCM         LU6800 2x #2 600MCM         #2 600MCM         #2 600MCM           Terminal Shrouds		Base Part #	M400U M600U M800U M1200
FB135 $FB135$ $FB135$ $FITS SFB135$ $FITS$		3-pole configurations	30, 12 30, 12 30, 12 30
SFB135External Front OperationPistol Style NEMA Type 1, 3R, 12HB125, HB145, HB274NEMA Type 4, 4XHB125, HB145X, HB274NEMA 4X Stainless SteelHH125X, HM175XShaft— SAxx (xx = length in mm)SFB185, SFB280, SFB325, SFB395AIgnment Ring (optional, for pistol-style handle)ALRJF10B=Back. Substitute "R' for "B' if a red handle is desired. Ex. HR125Fourth PolesImminal LugsG per packageUIG400 #2. GOMCMTerminal Shrouds3-poleTS400-13TS600-3TS800-34-poleShrouds with "-3" suffix are single shrouds that cover all three terminals. Shrouds with "-13" or "-14" are single pole shroudAuxiliary Contacts*Normally OpenOA1610OA1610OA1610OA1610OA1610OA1610OA1610OA1610OA1610OA1610OA1610OA1610OA1610OA1610OA1610OA1610OA1610OA1610 <t< td=""><td>ndles and Shafts</td><td>Direct Front Operation Locking Handle</td><td></td></t<>	ndles and Shafts	Direct Front Operation Locking Handle	
External Front UperationPistol StyleNEMA Type 1, 3R, 12HB125, HB145, HB224NEMA Type 4, 4XHB125X, HB145X, HB274NEMA Type 4, 4XHB125X, HB145X, HB274NEMA Type 4, 4XHB125X, HB145X, HB274NEMA 4X Stainless SteelHM125X, HM175XShaft SAxxx (xxx = length in mm)SFB185, SFB280, SFB325, SFB392Alignment Ring (optional, for pistol-style handle)ALRJF10B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex, HR125 <b>Fourth PolesFourth PolesTerminal Lugs</b> 6 per packageLUG400 $H2^-$ 600MCM <b>Terminal Shrouds</b> 3-poleT5400-134-poleT5400-14Shrouds with "-3" suffix are single shrouds that cover all three terminals. Shrouds with "-14" or "14" are single pole shroud Axviliary Contacts*Normally OpenNormally OpenOA1610 OA3601Normally OpenOA3601 OA3601Module for 8 aux. contactsOEA28OEA28DEA28OEA28DEA28	6		HD400 HD800 HD800 HD100
NEMA Type 4, 4XHB125X, HB145X, HB274NEMA Type 4, 4XHB125X, HB145X, HB274NEMA 4X Stainless SteelHM125X, HM175XShaft — SAxxx (xxx = length in mm)SFB185, SFB280, SFB325, SFB393Alignment Ring (optional, for pistol-style handle)ALRJF10B=Black, Substitute 'R' for 'B' if a red handle is desired. Ex, HR125ALRJF10CccessoriesFourth PolesTerminal Lugs6 per packageLUG800 2 x #2 · 600MCMTerminal Shrouds3-poleT5400-134-poleT5400-14Shrouds with "3" suffix are single shrouds that cover all three terminals. Shrouds with "13" or "14" are single pole shroudAuxiliary Contacts*Normally ClosedNormally Closed0A3601Module for 8 aux. contacts0EA280EA280EA28	SFB135	External Front Operation	
NEMA Type 4, 4XHB125X, HB145X, HB274NEMA Type 4, 4XHB125X, HB145X, HB274NEMA 4X Stainless SteelHM125X, HM175XShaft— SAxxx (xxx = length in mm)SFB185, SFB280, SFB325, SFB393Alignment Ring (optional, for pistol-style handle) $ALRJF10$ B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex, HR125 $ALRJF10$ B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex, HR125 $ALRJF10$ Fourth Poles $IErminal Lugs$ $IUG800 2 x$ #2 600MCMTerminal Shrouds $IUG800 2 x$ #2 600MCM $IUG800 2 x$ #2 600MCMTerminal Shrouds $IS400.13$ T5400.14TS600.3SpoleTs400.13TS600.3TS800.34-poleTs400.14Ts400.14Ts400.14Shrouds with ".3" suffix are single shrouds that cover all three terminals. Shrouds with ".3" or ".14" are single pole shroudAuxiliary Contacts*Normally OpenOA1610Normally OpenOA3601OA3601OA3601Module for 8 aux. contactsOEA28OEA28OEA28		Pistol Style NEMA Type 1, 3R, 12	HB125, HB145, HB274
HD800Shaft— SAxxx (xxx = length in mm)SFB185, SFB280, SFB325, SFB395Alignment Ring (optional, for pistol-style handle)ALRJF10B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR125Fourth PolesTerminal LugsG per packageLUG400 $\frac{H2.00}{600 \text{ KM}}$ LUG800 2 x $\frac{H2.600 \text{ KM}}{600 \text{ KM}}$ LUG800 2 x $\frac{H2.6000 \text{ KM}}{6000 \text{ KM}}$ LUG800 2 x $\frac{H2.6000 \text{ KM}}{2.6000 \text{ KM}}$ LUG800 2 x $H2$	-		HB125X, HB145X, HB274X
Alignment Ring (optional, for pistol-style handle)         ALRJF10           B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR125         E           cessories         Fourth Poles         4P400         4P800         4P800           Image: AP400         Image: Alignment Ring (optional, for pistol-style handle)         Image: Alignment Ring (optional, for		NEMA 4X Stainless Steel	HM125X, HM175X
Alignment Ring (optional, for pistol-style handle)         ALRJF10           B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR125         Bestack. Substitute 'R' for 'B' if a red handle is desired. Ex. HR125           Cessories         Fourth Poles         4P400         4P800         4P800           Image: Image	40800	Shaft— SAxxx (xxx = length in mm)	SFB185, SFB280, SFB325, SFB395, SFB535
Cessories         Fourth Poles           Image: AP400         <	HD800	Alignment Ring (optional, for pistol-style handle)	ALRJF10
<i>AP400</i> 4P800         4P800 <i>AP400 Terninal Lugs LUG400 LUG800 2.x LUG800 2.x</i>		B=Black. Substitute 'R' for 'B' if a red handle is desired	. Ex. HR125
Terminal Lugs $4P400$ $G$ per package $UUG400$ $H^2 \cdot$ $G00MCMUUG800 2 \timesH^2 600MCMUUG800 2 \timesH^2 600MCM4P400Terminal ShroudsTS400-13TS600-3TS800-33-poleTS400-14TS400-14Image: Shrouds with "-3" suffix are single shrouds that cover all three terminals. Shrouds with "-13" or "-14" are single pole shroudsAuxilliary Contacts^*Normally OpenOA1610OA1610OA1610Normally ClosedOA3601OA3601OA3601OA3601Module for 8 aux. contactsOEA28OEA28OEA28OEA28$	cessories	Fourth Poles	
$ \begin{array}{c} 6 \text{ per package} \\ 4P400 \end{array} \\ \hline \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ &$	.2 mt		4P400 4P800 4P800 4P125
4P400       #2 · 600MCM       #2 600MCM       #2 600MCM         500mCm       Terminal Shrouds       3-pole       TS400-13       TS600-3       TS800-3         4-pole       TS400-14         5         5hrouds with "-3" suffix are single shrouds that cover all three terminals. Shrouds with "-13" or "-14" are single pole shroud       Auxiliary Contacts*         Normally Open       0A1610       0A1610       0A1610         Normally Closed       0A3601       0A3601       0A3601         Module for 8 aux. contacts       0EA28       0EA28       0EA28	No. 2	Terminal Lugs	
4P400       3-pole       TS400-13       TS600-3       TS800-3         4-pole       TS400-14       Image: Constant of the second s		6 per package	#2 - #2 600MCM #2 600MCM 4 x #2
3-pole         TS400-13         TS600-3         TS800-3           4-pole         TS400-14         Image: Constant of the second of t	10400	Terminal Shrouds	
TS250-13       Shrouds with "-3" suffix are single shrouds that cover all three terminals. Shrouds with "-13" or "-14" are single pole shroud         Auxiliary Contacts*       Normally Open       0A1610       0A1610       0A1610         Normally Closed       0A3601       0A3601       0A3601       0A3601         Module for 8 aux. contacts       0EA28       0EA28       0EA28	4P400	3-pole	TS400-13 TS600-3 TS800-3 TS160
Auxiliary Contacts*         Normally Open       0A1610       0A1610       0A1610         Normally Closed       0A3601       0A3601       0A3601         Module for 8 aux. contacts       0EA28       0EA28       0EA28		4-pole	TS400-14 TS160
Normally Open         OA1610         OA1610         OA1610           Normally Closed         OA3601         OA3601         OA3601           Module for 8 aux. contacts         OEA28         OEA28         OEA28		Shrouds with "-3" suffix are single shrouds that cover all th	rree terminals. Shrouds with "-13" or "-14" are single pole shrouds with 3 or
TS250-13         Normally Closed         OA3G01         OA3G01         OA3G01           Module for 8 aux. contacts         OEA28         OEA28         OEA28		Auxiliary Contacts*	
TS250-13         Normally Closed         0A3601         0A3601         0A3601           Module for 8 aux. contacts         0EA28         0EA28         0EA28		Normally Open	0A1G10 0A1G10 0A1G10 0A1G1
	TS250-13		0A3G01 0A3G01 0A3G01 0A3G0
*Rated 2A max continous @690VAC		Module for 8 aux. contacts	0EA28 0EA28 0EA28 0EA28
A1G10 0A3G01 0EA28		0	

# UL 98 NON-FUSIBLE Disconnect Switches

Part Number				мзоиз	меоиз	M100U3	M200Uxx	
	( 07 00	400 4 40 00						
General Purpose Amp Rating	pf= 0.70.8	-40° to 40 °C	A	30	60	100	200	
Maximum Operating Voltage		240.1/	V	600 10/28.0	600	600	600	
Max. horsepower rating / motor FLA	pf= 0.40.5 Three	240 V	HP/A		20/54.0	30/80.0	75/192.0	
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		
	Maria Garagina	240 V	HP/A	5/28.0	7.5/40.0	15/68.0	200	400
Short circuit rating with fuse	Maximum fuse size		A	60	150	150	200	400
	Fuse type Fuse type	J CC	kA kA	50	50	50	200	65
		Т	kA kA	50	50	50	200	05
	Fuse type	RK1	kA kA	50	50	50		
	Fuse type		kA					
	Fuse type	RK5	kA kA					
	Fuse type	L						
	Fuse type	H	kA					
Maximum General Use, DC Ratings								
Current rating		at 250 VDC	A				200	
	<u> </u>	at 600 VDC	A				100	
DC horsepower rating for 4-pole switch	<u> </u>	at 600 VDC	HP				50	
DC horsepower rating for 2-pole switch	In open air	at 125 VDC	HP				20	
	In enclosure <sup>2</sup>	at 250 VDC	HP				-	
DC short circuit rating for 4-pole switch	with circuit breaker		kA				10	
DC short circuit rating for 2-pole	with circuit breaker at 2		kA				14	
switch	with circuit breaker at 6		kA				10	
	with class J fuse at 250	VDC	kA				100	
	with fuse size		A				200	
endurances				1				
Min. electrical endurance, pf. 0.750.	8		oper. cycles	6 000	6 000	6 0 0 0	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							
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	Α	40	63	100	250	
		440500 V	А	40	63	100	250	
		690 V	А	40	63	100	250	
Rated operational current, AC-23A		up to 415 V	А	40	63	80	250	
		440 V	А	40	63	65	250	
		500 V	А	40	63	60	250	
		690 V	A	40	63	40	250	
Rated conditional short-circuit	l (r.m.s.)	50 kA	kA	16.5	16.5	16.5		
current $I_p$ (r.m.s.) and corresponding	Max. fuse size gG/aM	415 V	A	125/125	125/125	125/125		
max. allowed cut-off current î. The cut-off current î refers to values listed by fuse	l_(r.m.s.)	10 kA	kA	8.2	8.2	8.2		
manufacturers	Max. fuse size gG/aM	690 V	A	125/100	125/100	125/100		
	I (r.m.s.)	50 kA	kA	10	10	10	35	
(single phase test acc. to IEC60269)	Max. fuse size gG/aM	690 V	A	63/63	63/63	63/63	355/315	
	at prospective SC-current	80 kA	kA				40.5	
(single phase test acc. to IEC60269)		690 V	A				355/315	1
(single phase test acc. to IEC60269)	Max, tuse size ol <sub>1</sub> /aM		kA	2.5	2.5	2.5	8	
	Max. fuse size gG/aM	690 V 1 s			3.6	3.6	30	
Rated short-time withstand current	r.m.svalue I <sub>ew</sub>	690 V, 1 s		3.6				
Rated short-time withstand current Rated short circuit making capacity	r.m.svalue I ew Peak value I em	690 V/500 V	A	3.6 0.7				
Rated short-time withstand current Rated short circuit making capacity Power loss / pole	r.m.svalue I <sub>ew</sub> Peak value I <sub>em</sub> At rated operational curr	690 V/500 V ent	A W	0.7	1.6	4.0	6.5	
Rated short-time withstand current Rated short circuit making capacity Power loss / pole Mechanical endurance	r.m.svalue I ew Peak value I em	690 V/500 V ent on cycles	A W Oper.	0.7 20 000	1.6 20 000	4.0 20 000	6.5 20 000	
(single phase test acc. to IEC60269) Rated short-time withstand current Rated short circuit making capacity Power loss / pole Mechanical endurance Weight without accessories	r.m.svalue I <sub>ew</sub> Peak value I <sub>em</sub> At rated operational curr	690 V/500 V ent	A W	0.7	1.6	4.0	6.5	

#### LOW VOLTAGE DISCONNECT SWITCHES

Part Number				M400U	M600U	M800U	M1200U
General Purpose Amp Rating	pf= 0.70.8	-40° to 40 °C	A	400	600	800	1200
Maximum Operating Voltage	pi- 0.r0.0	-40 (040 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
Max. horsepower rating / motor FLA current	phase	600 V	HP/A	350/338.0	500/472.0	500/472	500/472
Max. Horsepower rating/ motor reactment		120 V	HP/A	330/330.0	300/4r2.0	500/4r2	500/4r2
	Single phase	240 V	HP/A				
	Maximum fuse size	240 V	A	600	600 800	800	1200
	Fuse type	СС	kA	000	000 000	800	1200
	Fuse type	J	kA	100	100		
	Fuse type	Т	kA	100	100		
Short circuit rating with fuse	Fuse type	RK1	kA		100		
	0.	RK5	kA		100	100	100
	Fuse type	L	kA		100	100	100
	Fuse type	-					
	Fuse type	H	kA				
laximum General Use, DC Ratings		1 0 5 0 V D 0		100			
Current rating		at 250 VDC	A	400	600		
5		at 600 VDC	A	200	200		
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	40			
	In enclosure <sup>2</sup>	at 250 VDC	HP	50	50		
DC short circuit rating for 4-pole switch	with circuit breaker		kA	10	10		
	with circuit breaker at 2		kA	14	18		
DC short circuit rating for 2-pole switch	with circuit breaker at 6		kA	10	10		
	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	1 000	1 000	500	500
Mechanical endurance			operations	16 000	10 0 00	6000	6000
Terminal lug kits				LUG400	LUG800	LUG800	LUG1200
Wire range			AWG	2 - 600MCM	2 x 2 - 600MCM	2 x 2 - 600MCM	4 x 2 - 600MC
Torque		Wire tightening	lb. in	375	55	500	500
		Lug mounting		240	480	480	450-670
TECHNICAL DATA ACCORDING TO IEC 60947-3							
				4.000			1 000
Rated insulation voltage and rated operational voltage	e AC20/DC20	Pollution degree 3	V	1 1 000	1 000	1 000	
	e AC20/DC20	Pollution degree 3 50 Hz 1min.		1 000	1 000	1 000	
Dielectric strength	e AC20/DC20	Pollution degree 3 50 Hz 1min.	kV	10	10	10	10
Rated insulation voltage and rated operational voltag Dielectric strength Rated impulse withstand voltage	e AC20/DC20	50 Hz 1min.	kV kV	10 12	10 12	10 12	10 12
Dielectric strength Rated impulse withstand voltage	e AC20/DC20	50 Hz 1min. up to 415 V	kV kV A	10 12 400	10 12 800	10 12 1600	10 12 1600
Dielectric strength Rated impulse withstand voltage	e AC20/DC20	50 Hz 1min. up to 415 V 440500 V	kV kV A A	10 12 400 400	10 12 800 800	10 12 1600 1600	10 12 1600 1600
Dielectric strength Rated impulse withstand voltage	e AC20/DC20	50 Hz 1min. up to 415 V 440500 V 690 V	kV kV A A A	10 12 400 400 400	10 12 800 800 800	10 12 1600 1600 1600	10 12 1600 1600 1600
Dielectric strength	e AC20/DC20	50 Hz 1min. up to 415 V 440500 V 690 V up to 415 V	kV kV A A A A A	10       12       400       400       400       400	10 12 800 800 800 800	10 12 1600 1600 1600 1250	10 12 1600 1600 1600 1250
Dielectric strength Rated impulse withstand voltage	e AC20/DC20	50 Hz 1min. up to 415 V 440500 V 690 V up to 415 V 440 V	kV kV A A A A A A	10       12       400       400       400       400       400	10 12 800 800 800 800 800 800	10 12 1600 1600 1600 1250 1250	10 12 1600 1600 1600 1250 1250
Dielectric strength Rated impulse withstand voltage Rated operational current, AC-22A	e AC20/DC20	50 Hz 1min. up to 415 V 440500 V 690 V up to 415 V 440 V 500 V	kV kV A A A A A A A A	10       12       400       400       400       400       400       400	10 12 800 800 800 800 800 800 800	10 12 1600 1600 1250 1250 1250 1250	10 12 1600 1600 1250 1250 1250
Dielectric strength Rated impulse withstand voltage Rated operational current, AC-22A Rated operational current, AC-23A		50 Hz 1min. up to 415 V 440500 V 690 V up to 415 V 440 V 500 V 690 V	kV           kV           A	10       12       400       400       400       400       400	10 12 800 800 800 800 800 800	10 12 1600 1600 1600 1250 1250	10 12 1600 1600 1600 1250 1250
Dielectric strength Rated impulse withstand voltage Rated operational current, AC-22A Rated operational current, AC-23A		50 Hz 1min. up to 415 V 440500 V 690 V up to 415 V 440 V 500 V 690 V 500 V 500 K	kV           kV           A	10       12       400       400       400       400       400       400	10 12 800 800 800 800 800 800 800	10 12 1600 1600 1250 1250 1250 1250	10 12 1600 1600 1250 1250 1250
Dielectric strength Rated impulse withstand voltage Rated operational current, AC-22A Rated operational current, AC-23A Rated conditional short-circuit current I_ (r.m.s.) and corresponding max. allowed		50 Hz 1min. up to 415 V 440500 V 690 V up to 415 V 440 V 500 V 690 V 500 V 50 kA 415 V	kV           kV           A	10       12       400       400       400       400       400       400	10 12 800 800 800 800 800 800 800	10 12 1600 1600 1250 1250 1250 1250	10 12 1600 1600 1250 1250 1250
Dielectric strength Rated impulse withstand voltage Rated operational current, AC-22A Rated operational current, AC-23A Rated conditional short-circuit current I <sub>2</sub> (r.m.s.) and corresponding max. allowed cut-off current 1. The cut-off current 1 refers to		50 Hz 1min. up to 415 V 440500 V 690 V up to 415 V 440 V 500 V 690 V 500 K 415 V 50 kA	kV           kV           A	10       12       400       400       400       400       400       400	10 12 800 800 800 800 800 800 800	10 12 1600 1600 1250 1250 1250 1250	10 12 1600 1600 1250 1250 1250
Dielectric strength Rated impulse withstand voltage Rated operational current, AC-22A Rated operational current, AC-23A Rated conditional short-circuit current I <sub>2</sub> (r.m.s.) and corresponding max. allowed cut-off current 1 <sub>2</sub> . The cut-off current 1 <sub>2</sub> refers to	Lp (r.m.s.) Max. fuse size gG/aM Lp (r.m.s.) Max. fuse size gG/aM	50 Hz 1min. up to 415 V 440500 V 690 V up to 415 V 440 V 500 V 690 V 50 kA 415 V 50 kA 690 V	kV           kV           kV           A	10         12         400         400         400         400         400         400         400         400         400         400         400         400	10 12 800 800 800 800 800 800 800	10 12 1600 1600 1250 1250 1250 1250	10 12 1600 1600 1250 1250 1250
Dielectric strength Rated impulse withstand voltage Rated operational current, AC-22A Rated operational current, AC-23A Rated conditional short-circuit current I <sub>2</sub> (r.m.s.) and corresponding max. allowed cut-off current 1 <sub>2</sub> . The cut-off current 1 <sub>2</sub> refers to	L. (r.m.s.) Max. fuse size gG/aM L. (r.m.s.) Max. fuse size gG/aM L. (r.m.s.)	50 Hz 1min. up to 415 V 440500 V 690 V up to 415 V 440 V 500 V 690 V 50 kA 415 V 50 kA 690 V 50 kA	kV           kV           kV           A	10 12 400 400 400 400 400 400 400 50.5	10 12 800 800 800 800 800 800 800 71.5	10 12 1600 1600 1250 1250 1250 1250	10 12 1600 1600 1250 1250 1250
Dielectric strength Rated impulse withstand voltage Rated operational current, AC-22A Rated operational current, AC-23A Rated conditional short-circuit current I, (r.m.s.) and corresponding max. allowed cut-off current 1, The cut-off current 1 refers to values listed by fuse manufacturers	Lp (r.m.s.) Max. fuse size gG/aM Lp (r.m.s.) Max. fuse size gG/aM Lp (r.m.s.) Max. fuse size gG/aM	50 Hz 1min. up to 415 V 440500 V 690 V up to 415 V 440 V 500 V 690 V 50 kA 415 V 50 kA 690 V 50 kA 690 V 50 kA 690 V	kV           kV           kV           A	10 12 400 400 400 400 400 400 400 50.5 50.5 5	10 12 800 800 800 800 800 800 800 800 71.5 800/1 000	10 12 1600 1600 1250 1250 1250 1250	10 12 1600 1600 1250 1250 1250
Rated impulse withstand voltage Rated operational current, AC-22A Rated operational current, AC-23A Rated conditional short-circuit rurrent I <sub>2</sub> (r.m.s.) and corresponding max. allowed rut-off current î <sub>2</sub> . The cut-off current î <sub>2</sub> refers to ralues listed by fuse manufacturers	L. (r.m.s.) Max. fuse size gG/aM L. (r.m.s.) Max. fuse size gG/aM L. (r.m.s.) Max. fuse size gG/aM at prospective SC-current	50 Hz 1min. up to 415 V 440500 V 690 V up to 415 V 440 V 500 V 690 V 50 kA 415 V 50 kA 690 V 50 kA 690 V 50 kA 690 V 80 kA	kV           kV           kV           A	10 12 400 400 400 400 400 400 400 50.5 500/500 59	10 12 800 800 800 800 800 800 800 71.5 800/1 000 83.5	10 12 1600 1600 1250 1250 1250 1250	10 12 1600 1600 1250 1250 1250
Dielectric strength Rated impulse withstand voltage Rated operational current, AC-22A Rated operational current, AC-23A Rated conditional short-circuit current I <sub>p</sub> (r.m.s.) and corresponding max. allowed cut-off current î <sub>c</sub> . The cut-off current î <sub>c</sub> refers to ralues listed by fuse manufacturers single phase test acc. to IEC60269)	L <sub>p</sub> (r.m.s.) Max. fuse size gG/aM L <sub>p</sub> (r.m.s.) Max. fuse size gG/aM L <sub>p</sub> (r.m.s.) Max. fuse size gG/aM at prospective SC-current Max. fuse size gG/aM	50 Hz 1min. up to 415 V 440500 V 690 V up to 415 V 440 V 500 V 690 V 50 kA 415 V 50 kA 690 V 50 kA 690 V 50 kA 690 V 80 kA 690 V	kV           kV           kV           A	10 12 400 400 400 400 400 400 400 50.5 500/500 59 500/500	10 12 800 800 800 800 800 800 800 71.5 800/1 000 83.5 800/1 000	10 12 1600 1600 1250 1250 1250 1250	10 12 1600 1600 1250 1250 1250 1250 1250 1250
Dielectric strength Rated impulse withstand voltage Rated operational current, AC-22A Rated operational current, AC-23A Rated conditional short-circuit current I <sub>p</sub> (r.m.s.) and corresponding max. allowed cut-off current î <sub>c</sub> . The cut-off current î <sub>c</sub> refers to ralues listed by fuse manufacturers single phase test acc. to IEC60269) Rated short-time withstand current	L. (r.m.s.) Max. fuse size gG/aM L. (r.m.s.) Max. fuse size gG/aM L. (r.m.s.) Max. fuse size gG/aM at prospective SC-current Max. fuse size gG/aM r.m.svalue L.	50 Hz 1min. up to 415 V 440500 V 690 V up to 415 V 440 V 500 V 690 V 50 kA 415 V 50 kA 690 V 50 kA 690 V 80 kA 690 V 80 kA 690 V 690 V, 1 s	kV           kV           kV           A	10 12 400 400 400 400 400 400 400 50.5 500/500 59 500/500 15	10 12 800 800 800 800 800 800 800 71.5 800/1 000 83.5 800/1 000 20	10 12 1600 1600 1250 1250 1250 1250 1250 1250 50	10 12 1600 1600 1250 1250 1250 1250 1250 1250 50
Dielectric strength Rated impulse withstand voltage Rated operational current, AC-22A Rated operational current, AC-23A 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 (single phase test acc. to IEC60269) Rated short-time withstand current Rated short circuit making capacity	L. (r.m.s.) Max. fuse size gG/aM L. (r.m.s.) Max. fuse size gG/aM L. (r.m.s.) Max. fuse size gG/aM at prospective SC-current Max. fuse size gG/aM r.m.svalue L. Peak value L.	50 Hz 1min. up to 415 V 440500 V 690 V up to 415 V 440 V 500 V 690 V 50 kA 415 V 50 kA 690 V 50 kA 690 V 50 kA 690 V 80 kA 690 V 80 kA 690 V 690 V 80 kA 690 V	kV           kV           kV           A           KA           A           KA           A           KA           A           KA           A           KA           A	10 12 400 400 400 400 400 400 400 50.5 500/500 59 500/500 15 65	10 12 800 800 800 800 800 800 800 71.5 800/1 000 83.5 800/1 000 20 80	10 12 1600 1600 1250	10 12 1600 1600 1250
Dielectric strength Rated impulse withstand voltage Rated operational current, AC-22A Rated operational current, AC-23A Rated conditional short-circuit current I <sub>p</sub> (r.m.s.) and corresponding max. allowed cut-off current î <sub>c</sub> . The cut-off current î <sub>c</sub> 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	I. (r.m.s.)         Max. fuse size gG/aM         at prospective SC-current         Max. fuse size gG/aM         r.m.svalue I         Peak value I         Max fuse operational current	50 Hz 1min. up to 415 V 440500 V 690 V up to 415 V 440 V 500 V 500 V 50 kA 415 V 50 kA 690 V 50 kA 690 V 50 kA 690 V 80 kA 690 V 80 kA 690 V 690 V 80 kA 690 V 500 V 690 V 70 kA 690 V 70 kA 70 kA	kV           kV           kV           A           KA           A           KA           A           KA           A           W	10 12 400 400 400 400 400 400 400 50.5 500/500 59 500/500 15 65 10	10 12 800 800 800 800 800 800 800 71.5 800/1 000 83.5 800/1 000 20 80 40	10 12 1600 1600 1250 1250 1250 1250 1250 1250 50	10 12 1600 1600 1250 1250 1250 1250 1250 1250 50
Dielectric strength Rated impulse withstand voltage Rated operational current, AC-22A Rated operational current, AC-23A Rated conditional short-circuit current I, (r.m.s.) and corresponding max. allowed cut-off current î, The cut-off current î refers to ralues listed by fuse manufacturers single phase test acc. to IEC60269) Rated short-time withstand current Rated short circuit making capacity	L. (r.m.s.) Max. fuse size gG/aM L. (r.m.s.) Max. fuse size gG/aM L. (r.m.s.) Max. fuse size gG/aM at prospective SC-current Max. fuse size gG/aM r.m.svalue L. Peak value L.	50 Hz 1min. up to 415 V 440500 V 690 V up to 415 V 440 V 500 V 500 V 50 kA 415 V 50 kA 690 V 50 kA 690 V 50 kA 690 V 80 kA 690 V 80 kA 690 V 690 V 80 kA 690 V 500 V 690 V 70 kA 690 V 70 kA 70 kA	kV           kV           kV           A           KA           A           KA           A           KA           A           KA           A           KA           A	10 12 400 400 400 400 400 400 400 50.5 500/500 59 500/500 15 65	10 12 800 800 800 800 800 800 800 71.5 800/1 000 83.5 800/1 000 20 80	10 12 1600 1600 1250	10 12 1600 1600 1250

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