



Breakers and Switches

Low voltage switches  
Wide range of high quality switches

# Switches for diverse applications

**ABB has a wide portfolio of low voltage switches with ratings between 16 and 4000 Amperes. ABB's offering includes diverse fusible and non-fusible solutions suitable for numerous applications.**

**Switch-disconnectors.** The offering includes AC switches (manual or motorized) and DC switches. Switch disconnectors can be used for example in machinery, power distribution, switchboards, motor control centers or photovoltaic applications.

**Switch fuses.** Manual or motorized, they are available for all types of fuse links: DIN, BS, NFC, Neozed, UL and CSA. ABB's portfolio includes heavy-duty switch fuses that can be installed close to the main transformer, for example, in heavy industry and ships.

**Change-over and transfer switches.** ABB offers both motorized and manual change-over switches. The range includes switches to transfer loads from one power source to another manually, remotely or automatically. These types of switches are commonly used in applications with a backup power supply.

**Enclosed switches.** Switch-disconnectors, change-over switches and switch fuses in plastic, steel or aluminum enclosures. They are used as main switches in industrial, commercial or residential applications.

**Cam switches.** To be installed in control circuits such as volt- and ammeter circuits, change-over connections, motor starter circuits and as regular on-off switches.



# Wide range offering of high quality products

## ABB's switches offer a compact solution, superior performance and protection

ABB's offering includes switches that can be operated manually, remotely or automatically. For remote operation, a PLC, a cam switch or push buttons can be used. Automatic operation is possible with a control unit.

**A compact solution.** Possible thanks to a uniquely short current path and a double-sided spring construction combined with a small amount of components. ABB's switches therefore have a small footprint area, allowing installation in confined spaces.

- ▶ Space savings mean cost reduction

**High performance.** The switches have a powerful construction that enhances performance. They have high insulation and current ratings. In motorized switches, the motor operators have a wide voltage operation range, making it possible to use the same device in diverse applications.

- ▶ ABB's switches are designed for your application

**Safe to use.** The design of ABB's switches is based on substantial experience in electrical safety. Safe operation is ensured by all-time reliable position and status indication, prevention of unwanted operation, high protection degree in enclosures and handles and accessories that prevent the contact with live parts.

- ▶ ABB's switches protect people and equipment

**Easy to install.** ABB's offering includes switches that can be mounted on door, base or DIN-rail. In some of the ranges, it is possible to install the switch in any direction. In addition, there are many cabling options and snap-on mounted accessories, so no tools are needed.

- ▶ Quick and perfect installation every time

### Selecting the right switch

To select and configure the products according to your needs, three web-tools are available. The selection tools are user friendly and rule out wrong selection.



**Camweb.** To configure standard and customized cam switches. For switches from 40 to 315 A, Camweb is available at <http://switchselector.com/> in nine languages. For switches from 10 to 25 Amperes, the tool Camweb2 is available in English and Chinese at <https://camweb2.com/>.

**eOT.** To select enclosed switches. Available in eight languages.

**Switches.** To select switch-disconnectors, standard and special connected switch fuses. In this tool it is also possible to view accessories. Available in three languages at <http://switchselector.com/>.

# Switch-disconnectors 16... 4000 Amperes

## High performance, compact solution



### Manual operation

<b>IEC</b>		OT16F	OT63F	OT100F	OT160EV		OT315E
		OT25F	OT80F	OT125F	OT200E		OT400E
		OT40F			OT250E		
<b>UL 98 file # E101914</b>		OT16F	OT63F	OT30F		OT200U	
<b>UL 508 file # E63822</b>		OT25F	OT80F	OT60F			
		OT40F		OT100F			
<b>Switch size</b>		<b>16 25 40</b>	<b>63 80</b>	<b>30 60 100 125</b>	<b>160 200 250</b>	<b>200</b>	<b>315 400</b>
<b>IEC</b>	$I_n$ [A]	25 32 40	63 80	115 125	160 200 250		315 400
	$I_n$ /AC22A, 415V [A]	16 25 40	63 80	100 125	160 200 250		315 400
	$I_n$ /AC23A, 415V [A]	16 20 23	45 75	80 90	160 200 250		315 400
<b>UL</b>	Ampere rating [A]	20 30 40	60 80	30 60 100		200	

\*) Please consult us for UL 98 ratings above 1200 A



### Motor operation

<b>IEC</b>	OTM40F	OTM160E	OTM315E	OTM630E
	OTM63F	OTM200E	OTM400E	OTM800E
	OTM80F	OTM250E		
	OTM100F			
	OTM125F			
<b>Switch size [A]</b>	<b>40 63 80 100 125</b>	<b>160 200 250</b>	<b>315 400</b>	<b>630 800</b>

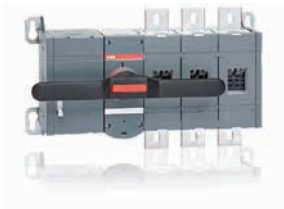
### Accessories for switch-disconnectors

Optional handles	N & PE terminals
Extended shafts	Terminal shrouds
Legend plates	Connecting accessories
Auxiliary contacts	Conversion kits
Fourth poles	Locking accessories





	OT630E	OT1000E	OT2000E	OT3200E
	OT800E	OT1250E	OT2500E	OT4000E
		OT1600E		
OT400U	OT600U	OT800U	*	
		OT1200U		
<b>400</b>	<b>600 630 800</b>	<b>800 1000 1200 1250 1600</b>	<b>2000 2500</b>	<b>3200 4000</b>
	630 800	1000 1250 1600	2000 2500	3200 4000
	630 800	1000 1250 1600	2000 2500	
	630 800	1000 1250		
400	600	800 1200		



OTM1000E	OTM1600E	OTM2000E
OTM1250E		OTM2500E
<b>1000 1250</b>	<b>1600</b>	<b>2000 2500</b>

# DC-Switch-disconnectors up to 1000 VDC

## Switches for photovoltaic applications



### DC-Switch-disconnectors, manual operation

<b>IEC</b>	OTDC16F2	OTDC16F3	OTDC16F4	OTDC100E02	OTDC100E11
	OTDC25F2	OTDC25F3	OTDC25F4	OTDC160E02	OTDC160E11
	OTDC32F2	OTDC32F3	OTDC32F4	OTDC200E02	OTDC200E11
			OTDC250E02	OTDC250E11	
<b>U<sub>e</sub> [V DC]</b>	<b>660</b>	<b>1000</b>	<b>1000 / 2x660</b>	<b>1000</b>	<b>1000</b>
<b>I<sub>e</sub> DC-21B [A]</b>	16 25 32	16 25 32	16 25 32	100 160 200 250	100 160 200 250



### DC-Switch-disconnectors, manual operation

<b>IEC</b>	OTDC315E02	OTDC315E11	OTDC315EV12	OTDC315E22
	OTDC400E02	OTDC400E11	OTDC400EV12	OTDC400E22
	OTDC500E02	OTDC500E11	OTDC500EV12	OTDC500E22
<b>U<sub>e</sub> [V DC]</b>	<b>1000</b>	<b>1000</b>	<b>1500</b>	<b>1000</b>
<b>I<sub>e</sub> DC-21B [A]</b>	315 400 500	315 400 500	315 400 500	315 400 500

#### Accessories for

#### DC-switch-disconnectors

Optional handles

Extended shafts

Auxiliary contacts

Terminal shrouds

Connecting accessories

Short-circuit links

Locking accessories



DC-Disconnect switches, manual operation						
<b>UL, UL98B</b>	OTDC100U02	OTDC100US02	OTDC100U11	OTDC100US11	OTDC100U22	OTDC100US22
	OTDC200U02	OTDC200US02	OTDC200U11	OTDC200US11	OTDC180U22	OTDC180US22
<b>U<sub>e</sub> [V DC]</b>	<b>1000</b>	<b>1000</b>	<b>1000</b>	<b>1000</b>	<b>1000</b>	<b>1000</b>
Rated current [A]	100 200	100 200	100 200	100 200	100 180	100 180



DC-Disconnect switches, manual operation						
<b>UL, UL98B</b>	OTDC250U11	OTDC250U22	OTDC250US02	OTDC250US11	OTDC250US22	
	OTDC320U11	OTDC320U22	OTDC320US02	OTDC320US11	OTDC320US22	
	OTDC400U11	OTDC400U22	OTDC400US02	OTDC400US11	OTDC400US22	
<b>U<sub>e</sub> [V DC]</b>	<b>1000</b>	<b>1000</b>	<b>1000</b>	<b>1000</b>	<b>1000</b>	
Rated current [A]	250 320 400	250 320 400	250 320 400	250 320 400	250 320 400	

# Change-over, bypass and transfer switches 16... 3200 Amperes

## Securing your power supply



### Manual operation, change-over switches

Types	OT16F_C	OT63F_C	OT100F_C	OT160E_C	OT160E_W_C	OT315E_C	OT630E_C
	OT25F_C	OT80F_C	OT125F_C	OT200E_C	OT200E_W_C	OT400E_C	OT800E_C
	OT40F_C			OT250E_C	OT250E_W_C		
<b>I<sub>th</sub> /A</b>	<b>25 32 40</b>	<b>63 80</b>	<b>115 125</b>	<b>160 200 250</b>	<b>160 200 250</b>	<b>315 400</b>	<b>630 800</b>
I <sub>e</sub> /AC-22A, < 415V	16 25 40	63 80	100 125	160 200 250	160 200 250	315 400	630 800
I <sub>e</sub> /AC-23A, < 415V	16 20 23	45 75	80 90	160 200 250	160 200 250	315 400	630 800
I <sub>e</sub> /AC-21B, < 415V							



### Motor operation, change-over switches

Types	OTM40F_C	OTM160E_C	OTM160E_W_C	OTM315E_C
	OTM63F_C	OTM200E_C	OTM200E_W_C	OTM400E_C
	OTM80F_C	OTM250E_C	OTM250E_W_C	
	OTM100F_C			
	OTM125F_C			
<b>I<sub>th</sub> /A</b>	<b>40 63 80 115 125</b>	<b>160 200 250</b>	<b>160 200 250</b>	<b>315 400</b>
I <sub>e</sub> /AC-22A, < 415V	40 63 80 100 125	160 200 250	160 200 250	315 400
I <sub>e</sub> /AC-23A, < 415V	40 63 80 80 90	160 200 250	160 200 250	315 400
I <sub>e</sub> /AC-21B, < 415V				



### Automatic operation, transfer switches

Types	OTM160E_C_D	OTM160E_W_C_D	OTM315E_C_D	OTM630E_C_D
	OTM200E_C_D	OTM200E_W_C_D	OTM400E_C_D	OTM800E_C_D
	OTM250E_C_D	OTM250E_W_C_D		
<b>I<sub>th</sub> /A</b>	<b>160 200 250</b>	<b>160 200 250</b>	<b>315 400</b>	<b>630 800</b>
I <sub>e</sub> /AC-22A, < 415V	160 200 250	160 200 250	315 400	630 800
I <sub>e</sub> /AC-23A, < 415V	160 200 250	160 200 250	315 400	630 800

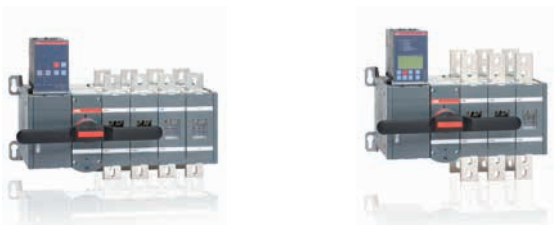




				Manual operation, bypass switches		
OT1000E_C	OT1600E_C	OT2000E_C	OT3200E_C	OT160_Y	OT315_Y	OT630_Y
OT1250E_C		OT2500E_C		OT200_Y	OT400_Y	OT800_Y
				OT250_Y		
<b>1000 1250</b>	<b>1600</b>	<b>2000 2500</b>	<b>3200</b>	<b>160 200 250</b>	<b>315 400</b>	<b>630 800</b>
1000 1250	1600			160 200 250	315 400	630 800
1000 1250	1250			160 200 250	315 400	630 800
		2000 2500	3200			



OTM630E_C	OTM1000E_C	OTM1600E_C	OTM2000E_C
OTM800E_C	OTM1250E_C		OTM2500E_C
<b>630 800</b>	<b>1000 1250</b>	<b>1600</b>	<b>2000 2500</b>
630 800	1000 1250	1600	
630 800	1000 1250	1600	
			2000 2500



OTM1000E_C_D	OTM1600E_C_D
OTM1250E_C_D	
<b>1000 1250</b>	<b>1600</b>
1000 1250	1600
1000 1250	1250

#### Accessories for change-over, bypass and transfer switches

- Automatic control units
- Auxiliary contacts
- Bridging bars
- Connecting accessories
- Conversion kits
- Dual power sources

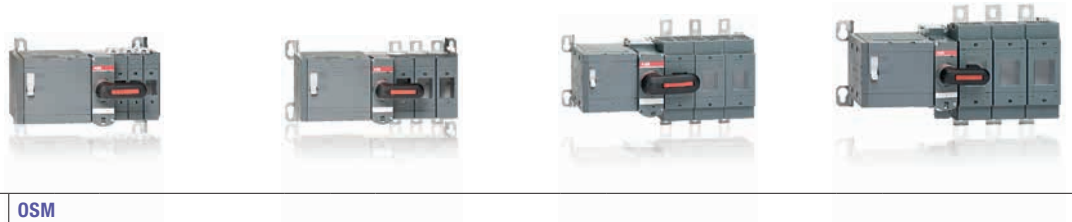
- Extended shafts
- Fourth poles
- Locking accessories
- Optional handles
- Parallel connection kits
- Reversing bars
- Terminal shrouds
- Voltage sensing connectors

# Switch fuses 16...1250 Amperes

## Designed for extreme conditions



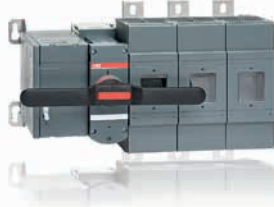
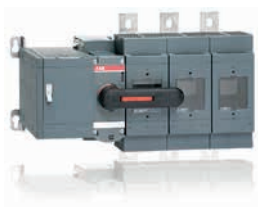
Manual operation	OS Mini							OS							
<b>DIN</b>	OS16FD		OS40FD		OS32GD		OS125GD								
	OS35FD				OS63GD		OS160GD								
<b>BS</b>	OS20FB				OS32GB		OS100GB								
	OS32FB				OS63GB		OS125GB								
<b>NFC</b>	OS25FF				OS50GF		OS125GF								
	OS32FF														
<b>UL/CSA</b>	OS30FACC				OS60GJ								OS100GJ		
	OS30FAJ														
<b>Switch size [A]</b>	<b>16</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>32</b>	<b>35</b>	<b>40</b>	<b>32</b>	<b>50</b>	<b>60</b>	<b>63</b>	<b>100</b>	<b>125</b>	<b>160</b>	<b>100</b>
AC23/400 V [kW]	7.5	11	15	15	18.5			15	22	30		55	75		
AC23/415 V [kW]		7.5	15					15		30		55	55	75	
480 V [HP]			15							30					60
600 V [HP]			20							50					75



Motor operation	OSM														
<b>DIN</b>	OSM32GD			OSM125GD			OSM200D			OSM400D					
	OSM63GD			OSM160GD			OSM250D								
<b>BS</b>	OSM32GB			OSM100GB			OSM200B			OSM315B					
	OSM63GB			OSM125GB			OSM250B			OSM400B					
<b>NFC</b>	OSM50GF			OSM125GF											
<b>Switch size [A]</b>	<b>32</b>	<b>50</b>	<b>63</b>	<b>100</b>	<b>125</b>	<b>160</b>	<b>200</b>	<b>250</b>	<b>315</b>	<b>400</b>					



OS200D		OS400D	OS630D	OS1250D
OS250D			OS800D	
OS200B		OS315B	OS630B	OS1250B
OS250B		OS400B	OS800B	
	OS200J	OS400J	OS600J	OS1200L
			OS800L	
<b>200 250</b>	<b>200</b>	<b>315 400</b>	<b>600 630 800</b>	<b>1200 1250</b>
110 140		230	355 450	560
110 145		180 230	355 450	560
	150	250	400 500	-
	200	350	500 600	-



OSM630D	OSM1250D
OSM800D	
OSM630B	OSM1250B
OSM800B	
<b>630 800</b>	<b>1250</b>

- Accessories for switch fuses**
- Optional handles
  - Extended shafts
  - Auxiliary contacts
  - Fourth poles
  - N & PE terminals

- Solid links
- Terminal shrouds
- Connecting accessories
- Conversion kits
- Blown fuse indicators
- Locking accessories

# Enclosed switches 16...1600 Amperes

## Safe and reliable



Plastic, IP65, black / red-yellow handle types			Side operated			Front operated		
Switch-disconnectors from 16 to 800 Amperes			BW_16..._25	BW_40	BW625...640	OTP16	OTP16...32	
Rated operational current, AC22A, up to 690V	2-pole	[A]	25*	40*		-	-	
	3-pole	[A]	16* 25*	40*		16	25	40
	4-pole	[A]	25*	40*		-	16	25 40
	6-pole	[A]	-	-	25* 40*	-	16	25 40
Switch fuses, BS / DIN -types from 32 to 400 Amperes								
Rated operational current, AC22A, up to 690V	3-pole, BS type	[A]						
	4-pole, BS type	[A]						
	3-, 4-pole, DIN type	[A]						

\* 500V



Steel sheet, IP65, IP54, black / red-yellow handle types			Front operated				
Switch-disconnectors from 16 to 1600 Amperes			OT16...63		OT125	OTL16...63	OTL100...125
Rated operational current, AC22A, up to 690V	3-, 4-pole	[A]	16	25 40 63 80	125	16 25 40 63 80	100 125
	6-pole	[A]	-		16 25 40 63 80	16 25 40	63 80
Change-over switches from 16 to 800 Amperes					OT16...63		
Rated operational current, AC22A, up to 690V	3-pole	[A]			16 25 32 45 63		
	4-pole	[A]			-		
Switch fuses, BS / DIN -types from 20 to 800 Amperes					OS20...32		
Rated operational current, AC22A, up to 690V	2-pole, BS type	[A]			-		
	3-, 4-pole, BS type	[A]			20 32		
	3-, 4-pole, DIN type	[A]			-		

\* 500V



Aluminum, IP65, black / red handle types			Side operated		Front operated	
Switch-disconnectors from 25 to 630 Amperes			KSE_25	KSE_40	KSE_63..._125	
Rated operational current, AC22A, up to 500V	2-pole	[A]	25	40	-	
	3-pole	[A]	25	40	63	80 125
	4-pole	[A]	25	40	63	80



				DC-switches, DC-21B										
OTP45...63		OTP125		OT160...800				OTDCP16...32S/SA_						
-	-	-	-	-	-	-	-	660V, 2-pole	16	25	32			
63	80	125		160	200	250	315	400	570	720	1000V, 3-pole	16	25	32
63	80	125		160	200	250	315	400	570	720	1000V, 2x660V, 4-pole	16	25	32
45	63	125		160	200	250	315	400	570	720				
				OS20...32		OS32...400								
				20	32	32*	63*	135*	200	315	400			
				20	32		32*	63*	100*	200				
				-	-	32*	63*	125*	135*	250	400			



										Stainless steel sheet, IP65, black / red-yellow handle types			Front operated							
OT160...1600										Switch-disconnectors from 16 to 125 Amperes			OTR16...63			OTR100...125				
125	160	200	250	315	400	570	720	1000	1250	1600	Rated operational current, AC22A, up to 690V	3-, 4-pole	[A]	16	25	40	63	80	100	125
125	160	200	250	315	400	570	720					6-pole	[A]	16	25	40			63	80
OT160...800																				
160 200 250 315 400 570 720																				
160 200 250 315 400 570 720																				
OS20...800																				
32* 63* 125* 135* 200 315 400 600 720 720																				
20* 32* 63* 125* 135* 200 315 400																				
32* 63* 125* 135* 250 400 600 720																				



					Fireman's switch			
KSE3160...3630					KSF_25		KSF_40	
-					25		-	
160 250 315 500 630					25		40	
-					25		40	

#### Accessories for enclosed switches

- Cable glands and entries
- Auxiliary contacts
- Padlock shackle



# Cam switches OC10...25 Amperes

## Quick and easy to install



		Door mounted			
Cam switch size		OC10	OC25	OL40	OL63
$I_{th}$ / IEC 60947 [A]		10	25	45	63
UL 508 [A]		-	-	40	-
<b>Standard cam switches</b>					
ON-OFF switches		X	X	X	X
Change-over switches		X	X	X	X
Bypass switches			X	X	X
Multistep switches		X	X	X	X
Motor control switches					
	Ventilation switches	X	X	X	
	Reversing switches		X	X	X
	Star-delta switches		X	X	X
	Pole-change switches (Dahlander)		X	X	X
	Pumpstart switches	X	X		
	Stop switches	X	X		
	Start switches	X	X		
Voltmeter switches		X	X		
Ammeter switches		X	X	X	
Volt-ammeter switches			X		
Binarycode switches			X		

\*1) Cam switch OL80 with rated current 80 A is available and can be configured in Camweb

### Accessories for cam switches

Handles	Spare key
Front plates	Connection jumpers
Base mounting kit	Protective rear cover
Lettering plates	Nut spanner tool

### Customized cam switches for applications with special requirements

Two configuration tools are available: Camweb2 for OC 10...25 A switches (<https://camweb2.com/>) and Camweb for OL 40...315 A switches (<http://switchselector.com>). With these tools you can configure cam switches according to your needs.

Our tools are very user friendly. It guides the user during the specification process, so incompatible solutions are avoided.

### Ordering is easy

The tools generate the type and ordering codes automatically. The complete delivery, has only one number and it includes handle and front plate. For every special switch that is specified, Camweb generates a unique product type. The order handling process is the same for standard and non-standard switches.



# Accessories



**Designing and executing your installation is quick and easy with the extensive variety of accessories offered by ABB.**

## Handles

You can choose between selector, pistol and direct-mounted handle types according to switch type and size. The handles are available in plastic or metal.

A safe operation is ensured through protection degrees up to IP65, possibility to padlock in OFF position and interlock the door in ON position.

## Shafts

Shafts with 6 and 12 mm diameters are used with selector and pistol type handles. The length range is between 85 and



535 mm. The shafts are adjustable to different installation depths. It is not necessary to cut them to precise length.

## Auxiliary contacts

The snap-on auxiliary contacts can be fitted on the side of the switch or inside the mechanism cover, depending on the switch size and type.

## OMD control units for automatic operation

OMD control units can be used together with motorized change-over switches to create an automatic transfer switch. Different types of control units ensure that you find a suitable product for your needs.

## Fuse monitors

ABB offers you a wide variety of fuse monitoring options for both AC and DC circuits.

## Other accessories

- Additional power poles, neutral and earth terminals
- Terminal clamps for different cable types and sizes
- Terminal shrouds
- Conversion kits





Designing and executing your installation is quick and easy with the extensive variety of accessories offered by ABB.







# Contact us

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You can find the address of your local sales organisation on the ABB homepage:

**[www.abb.com/contacts](http://www.abb.com/contacts)**

**> Low Voltage Products and Systems**

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