

Low Voltage Products

OT switch disconnectors
200, 250, 315, 400, 630 and 800 Amps

Catalogue OT6GB05_05
1SCC301011C0201

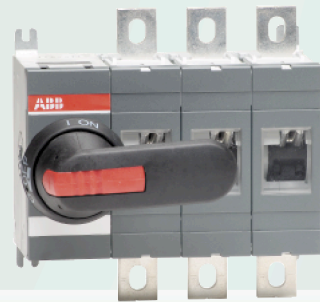
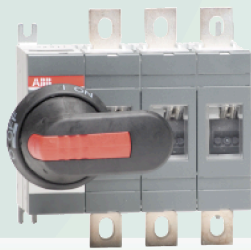


ABB

SwitchLine

200...800
Switch discon

IEC



I_{th} /A
 I_e /AC22A, ≤ 415V
 I_e /AC23A, ≤ 415V

OT200E
OT250E
200 250
200 250
200 250

OT315E
OT400E
315 400
315 400
315 400

UL

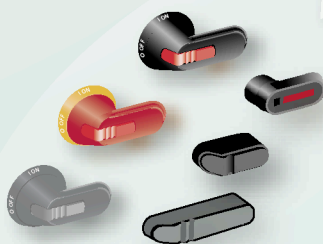


Ampere rating

OT200U
200

OT400U
400

Accessories



Optional handles
Extended shafts
Legend plates
Auxiliary contacts
Fourth poles
N & PE terminals

Terminal shrouds
Connecting accessories
Conversion kits
Locking accessories
Motor operators

Amps nectors



OT630E
OT800E
630 800
630 800
630 800



SwitchLine Switch disconnectors OT 200-800

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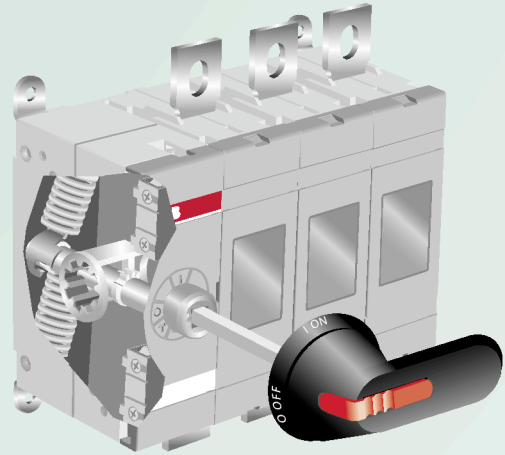
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NEW OT200...OT800

The most compact disconnect (isolation) solution on the market today

Optimally designed, the OT switch-disconnector offers an advanced and compact solution, providing you with added value.

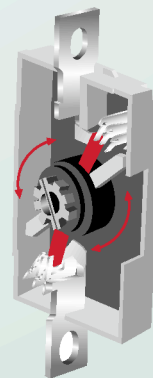
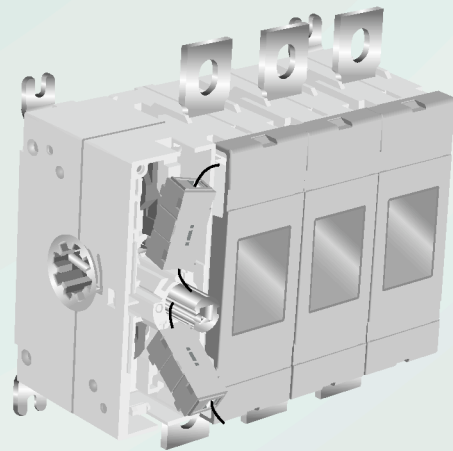
- The new double-sided spring construction in combination with fewer components made an innovative and compact design of the operation mechanism possible.
- The mechanism housing featuring built-in snap-on slots for auxiliary contacts minimizes the need for space.
- The uniquely short current path enabled a small-sized contact construction.



High performance, despite the small size

The powerful new construction, with its quick-make and quick-break operation features and two contact points instead of one, adds value to and enhances the performance of the switch-disconnectors.

- The new OT range offers you improved power ratings, the highest on the market. Full I_{th} ratings can be used both in open air and in enclosures, without having to derate or enlarge the box.
- User-friendly and flexible, the OT switch-disconnector provides you with full AC-23A current ratings for all the voltages, even up to 690 V.



switch disconnectors

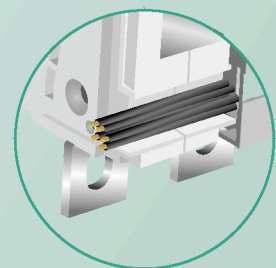
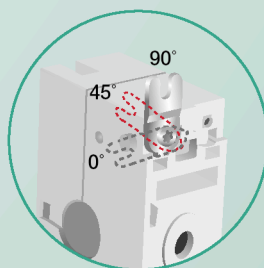
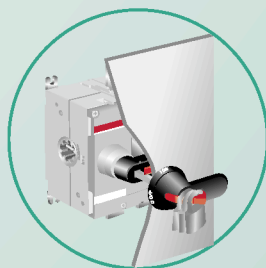
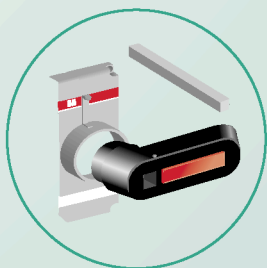
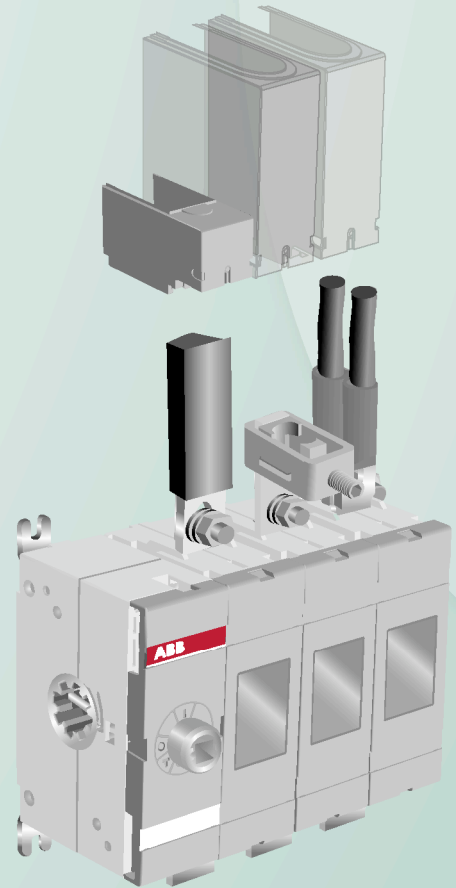
It's a snap to install

The OT switch-disconnector is easy to use and a snap to install according to your choice: horizontally or vertically - even in the ceiling! The adjustable mounting feet allow both top and side mounting of the switch.

The OT switch-disconnector offers you flexible cabling options. The high terminal positioning with space to the back plate simplifies the mounting of cables. It's also ideal for double cabling, which in turn saves on space. Despite the small size of the switch, cables thick enough can be used in installation.

Covered cable trays for the control circuit wiring eliminate the need for additional cable trays, cable ties or other equipment.

Connecting the direct mounted handle to the external handle with a shaft through the direct mounted handle makes the usage of the switch-disconnector diverse and flexible. User safety is guaranteed by triple padlocking the handles in the OFF-position.



ABB's new OT switch-disconnector range meets disconnect and isolation requirements more effectively than ever, maximizing the benefits and optimizing your use of assets.

Technical data

OT switch-disconnectors 200 - 800

Technical data according to IEC 60947-3

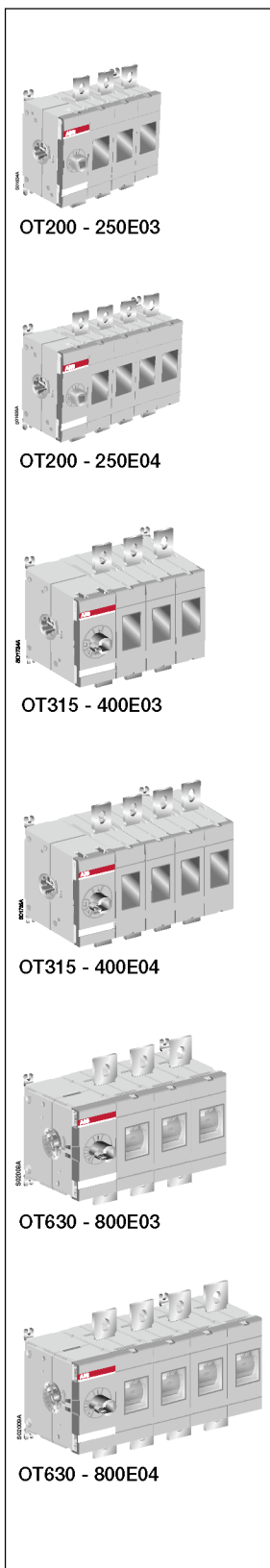
Switch size				OT200E_	OT250_	OT315_	OT400_	OT630_ ²⁾	OT800_ ²⁾
Rated insulation voltage and rated operational voltage AC-20, DC-20	Pollution degree 3	V		1 000	1 000	1 000	1 000	1 000	1 000
		50 Hz 1 min.	kV	10	10	10	10	10	10
Dielectric strength			kV	12	12	12	12	12	12
Rated impulse withstand voltage			kV	12	12	12	12	12	12
Rated thermal current and rated operational current AC-20, DC-20 in ambient 40 °C	In open air		A	200	250	315	400	630	800
	In enclosure		A	200	250	315	400	630	800
	...with minimum cable cross section	Cu	mm ²	95	120	185	240	2x185	2x240
Rated operational current, AC-21A		≤ 500 V	A	200	250	315	400	630	800
		690 V	A	200	250	315	400	630	800
Rated operational current, AC-22A		≤ 500 V	A	200	250	315	400	630	800
		690 V	A	200	250	315	400	630	800
Rated operational current, AC-23A		≤ 500 V	A	200	250	315	400	630	800
		690 V	A	200	250	315	400	630	800
Rated operational power, AC-23 ¹⁾		230 V	kW	60	75	100	110	200	250
		400 V	kW	110	140	160	220	355	400
		415 V	kW	110	145	185	230	355	400
		500 V	kW	140	170	220	280	400	560
		690 V	kW	190	240	310	390	630	800
Rated breaking capacity in category AC-23		≤ 500 V	A	1600	2000	2520	3200	5040	5600
		690 V	A	1600	2000	2520	3200	5040	5600
Rated conditional short-circuit current I _p (R.M.S.) and corresponding max. allowed cut-off current i _c	I _p (R.M.S.) Max. OFA fuse size gG/aM	100 kA, 500 V	kA	40.5	40.5	61.5	61.5	70	70
			A	315/315	315/315	500/450	500/450	800/	800/
The cut-off current i _c refers to values listed by fuse manufacturers (single phase test acc. to IEC60269).	I _p (R.M.S.) Max. OFA fuse size gG/aM	80 kA, 690 V	kA	40.5	40.5	59	59	70	70
			A	355/315	355/315	500/500	500/500		
Rated short-time withstand current	R.M.S. -value I _{cw}	690 V 0,15s	kA	15	15	31	31	38	38
		690 V 0,25s	kA	15	15	24	24	36	36
		690 V 1s	kA	8	8	15	15	18	18
Rated short-time making capacity	Peak -value I _{cm}	690 V	kA	30	30	65	65	80	80
Power loss / pole	With rated current		W	4	6,5	6,5	10	25	40
Mechanical endurance	Divide by two for oper. cycles		Oper.	20 000	20 000	16 000	16 000	10 000	10 000
Weight without accessories	3-pole switch		kg	1.2	1.2	2.2	2.2	5.2	5.2
Terminal bolt size	Metric thread diameter x length		mm	M8x25	M8x25	M10x30	M10x30	M12x40	M12x40
Terminal tightening torque	Counter torque required		Nm	15-22	15-22	30-44	30-44	50-75	50-75
Operating torque	Typical for 3-pole switch fuses		Nm	7	7	16	16	27	27

¹⁾ These values are given for guidance and may vary acc. to the motor manufacturer.

²⁾ Preliminary values.

Ordering information

OT switch-disconnectors 200 - 800



Front operated rotary type switch-disconnectors with pistol handle

Including a black ON-OFF plastic handle and shaft as standard. The handle is IP65 protected, padlockable in the OFF-position and with door interlock in the ON-position. The shaft is adjustable for a range of installation depths.

Number of poles	Type	Order number	Weight [kg]
3	OT200E03P	1SCA022712R0800	1.6
4	OT200E04P	1SCA022713R4930	2.0
3	OT200E12P	1SCA022721R3990	1.6
4	OT200E22P	1SCA022721R4020	2.0
3	OT250E03P	1SCA022710R0100	1.6
4	OT250E04P	1SCA022710R0520	2.0
3	OT250E12P	1SCA022721R4110	1.6
4	OT250E22P	1SCA022721R4290	2.0
3	OT315E03P	1SCA022718R8510	3.1
4	OT315E04P	1SCA022719R1730	3.7
3	OT315E12P	1SCA022727R4190	3.1
4	OT315E22P	1SCA022727R4270	3.7
3	OT400E03P	1SCA022718R8780	3.1
4	OT400E04P	1SCA022719R1810	3.7
3	OT400E12P	1SCA022727R5750	3.1
4	OT400E22P	1SCA022727R5830	3.7
3	OT630E03P	1SCA022718R8940	6.3
3+N ¹⁾	OT630E03N3P	1SCA022779R4860	6.7
4	OT630E04P	1SCA022719R2030	7.5
3	OT630E12P	1SCA022753R4790	6.3
4	OT630E22P	1SCA022753R4870	7.5
3	OT800E03P	1SCA022718R9410	6.3
3+N ¹⁾	OT800E03N3P	1SCA022779R4780	6.7
4	OT800E04P	1SCA022719R2110	7.5
3	OT800E12P	1SCA022753R5170	6.3
4	OT800E22P	1SCA022753R5250	7.5

Shafts and handles included as standard

Suitable for switches	Included shaft	Included handle
OT200...250_P	OXp6X161	OHB65J6
OT315...400_P	OXp12X166	OHB95J12
OT630...800_P	OXp12X185	OHB125J12

¹⁾ Include a detachable neutral link integrated into the mechanism.

Ordering information

OT switch-disconnectors 200 - 400

Front operated rotary type switch-disconnectors with direct mounted handle

Including a black Test-OFF-ON plastic handle and shaft as standard. The handle is padlockable in the OFF-position.

Number of poles	Type	Order number	Weight [kg]
3	OT200E03K	1SCA022763R4820	1.5
4	OT200E04K	1SCA022763R4910	1.9
3	OT250E03K	1SCA022763R5040	1.5
4	OT250E04K	1SCA022763R5210	1.9
3	OT315E03K	1SCA022763R5630	2.9
4	OT315E04K	1SCA022763R5710	3.5
3	OT400E03K	1SCA022763R5390	2.9
4	OT400E04K	1SCA022763R5550	3.5

Switch-disconnectors with wide phase distance

The distance between phases is 43 mm and the phase barriers are mounted as standard. Including a black Test-OFF-ON plastic handle and shaft as standard. The handle is IP65 protected, padlockable in the OFF-position and with door interlock in the ON-position. The shaft is adjustable for a range of installation depths.

Number of poles	Type	Order number	Weight [kg]
3	OT200E03WP	1SCA022744R2670	1.8
4	OT200E04WP	1SCA022744R3130	2.2
3	OT200E12WP	1SCA022744R2910	1.8
4	OT200E22WP	1SCA022744R3300	2.2
3	OT250E03WP	1SCA022744R3560	1.8
4	OT250E04WP	1SCA022744R3810	2.2
3	OT250E12WP	1SCA022745R0000	1.8
4	OT250E22WP	1SCA022745R0180	2.2

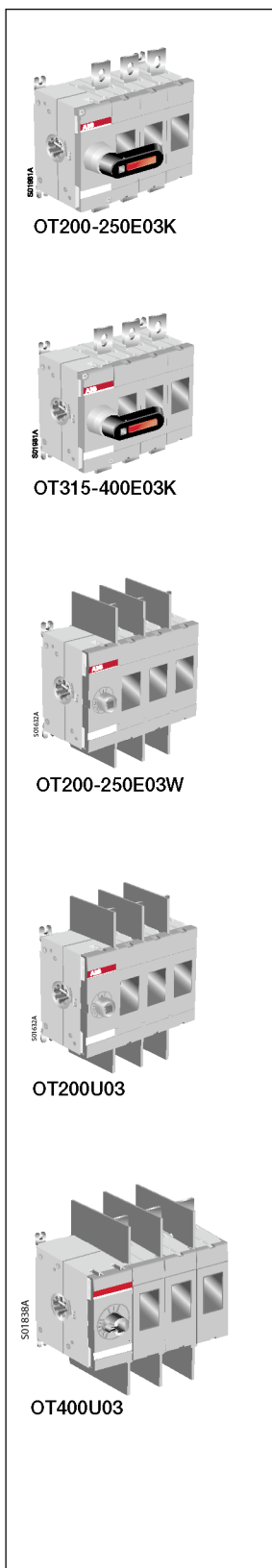
Non-fusible disconnect switches (UL)

Including a black ON-OFF plastic handle and shaft as standard. The handle is IP65 protected, padlockable in the OFF-position and with door interlock in the ON-position. The shaft is adjustable for a range of installation depths.

Number of poles	UL general purpose amp rating	Maximum horse power rating Three phase				Type	Order number	Weight [kg]
		200/208V	240V	480V	600V			
3	200	60	75	150	200	OT200U03P	1SCA022709R9920	1.8
4	200					OT200U04P	1SCA022710R0610	2.2
3	200					OT200U12P	1SCA022752R2010	1.8
4	200					OT200U22P	1SCA022741R8880	2.2
3	400	100	125	250	350	OT400U03P	1SCA022718R9670	3.4
4	400					OT400U04P	1SCA022719R1900	4.0
3	400					OT400U12P	1SCA022754R6960	3.4
4	400					OT400U22P	1SCA022762R7290	4.0

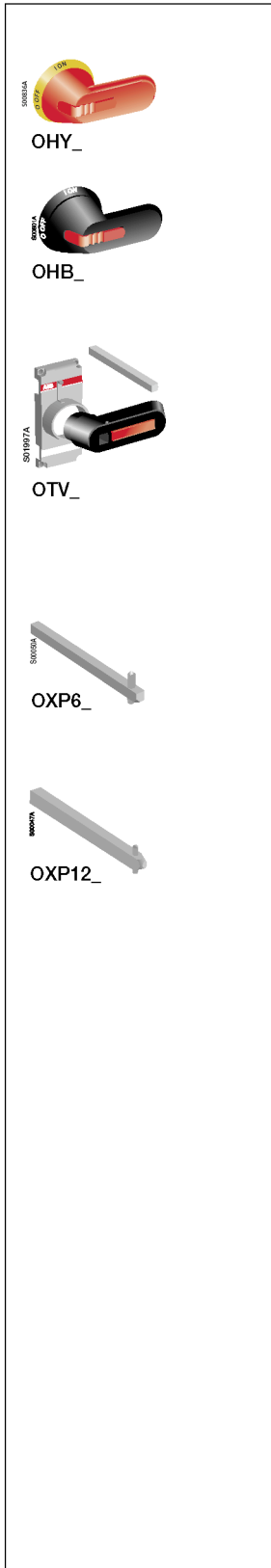
Shafts and handles included as standard

Suitable for switches	Included shaft	Included handle
OT200...250_P	OSP6X161	OHB65J6
OT400_P	OSP12X166	OHB95J12
OT200...250_K		OHB65D6
OT315...400_K		OHB95D12



Ordering information

Accessories



Optional plastic handles

IP65 protected, padlockable with three padlocks in OFF-position, door interlock in ON-position.

ON-OFF/I-O indication

Suitable for switches	Colour	Handle length [mm]	Shaft diam. [mm]	Type	Order number	Weight [kg]
OT200...250_P	Yellow-red	65	6	OHY65J6	1SCA022380R9820	0.12
OT315...400_P	Yellow-red	95	12	OHY95J12	1SCA022381R1050	0.17
OT630...800_P	Yellow-red	125	12	OHY125J12	1SCA022381R1720	0.16

Test-OFF-ON/Test-O-I indication

OT200...250_P	Black	65	6	OHB65J6T	1SCA022399R8110	0.12
OT200...250_P	Yellow-red	65	6	OHY65J6T	1SCA022456R9540	0.12
OT315...400_P	Black	95	12	OHB95J12T	1SCA022736R1750	0.17
OT315...400_P	Yellow-red	95	12	OHY95J12T	1SCA022736R1910	0.17
OT630...800_P	Black	125	12	OHB125J12T	1SCA022652R2220	0.16
OT630...800_P	Yellow-red	125	12	OHY125J12T	1SCA022652R2310	0.16

Test-OFF-ON for direct mounting.

Padlockable with three padlocks in OFF-position. Includes shaft and mechanism cover.

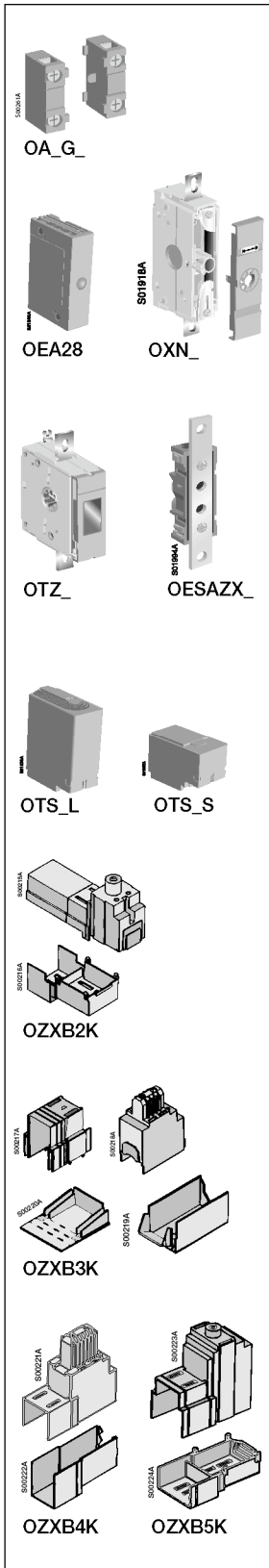
OT200...250_K	Black	65		OTV250EK	1SCA022763R2700	0.10
OT200...250_K	Yellow-red	65		OTVY250EK	1SCA022772R7910	0.10
OT315...400_K	Black	95		OTV400EK	1SCA022763R2960	0.20
OT315...400_K	Yellow-red	95		OTVY400EK	1SCA022772R7830	0.20

Extended shafts

Suitable for switches	Installation depth [mm]	Type	Order number	Weight [kg]
Shaft diameter 6 mm				
OT200...250_P	109...174	EXP6X130	1SCA022057R0570	0.04
	129...194	EXP6X150	1SCA022295R5600	0.05
	140...205	EXP6X161	1SCA022067R1760	0.05
	189...254	EXP6X210	1SCA022295R6080	0.06
	269...334	EXP6X290	1SCA022042R6370	0.08
	339...404	EXP6X360	1SCA022042R6530	0.10
	409...474	EXP6X430	1SCA022056R6030	0.12
Shaft diameter 12 mm				
OT315...400_P	146...226	EXP12X166	1SCA022325R7100	0.20
	165...245	EXP12X185	1SCA022325R6710	0.20
	230...310	EXP12X250	1SCA022325R6980	0.28
	260...340	EXP12X280	1SCA022137R5140	0.30
	305...385	EXP12X325	1SCA022042R5810	0.36
	445...525	EXP12X395	1SCA022042R5990	0.43
	439...519	EXP12X465	1SCA022042R6020	0.51
	515...595	EXP12X535	1SCA022042R6110	0.59
	Shaft diameter 12 mm			
OT630...800_P	230...345	EXP12X250	1SCA022325R6980	0.28
	260...375	EXP12X280	1SCA022137R5140	0.30
	305...420	EXP12X325	1SCA022042R5810	0.36
	375...490	EXP12X395	1SCA022042R5990	0.43
	445...560	EXP12X465	1SCA022042R6020	0.51
	515...630	EXP12X535	1SCA022042R6110	0.59

Ordering information

Accessories



Auxiliary contact blocks

Mounting on the left side of the switch: Max. 8 auxiliary contact blocks with the OEA28 module
 Mounting under the mechanism cover: Max. 4 test contacts or 2 test contacts + 2 test indication contacts. The test contacts can be used as standard auxiliary contacts as well.

Function	Protection degree	Type	Order number	Weight [kg]
1NO	IP20	OA1G10	1SCA022353R4970	0.03
1NC	IP20	OA3G01	1SCA022456R7410	0.03

Module for auxiliary contacts

Screw mounting to the left side of the switch

Suitable for switches	Type	Order number	Weight [kg]
OT200...800	OEA28	1SCA022714R8810	0.04

Fourth poles

Mounting on either side of the switch or on the mechanism.

Suitable for switches	Type	Order number	Weight [kg]
OT200...250	OTZ250E	1SCA022735R9420	0.35
OT315...400	OTZ400E	1SCA022749R1960	0.59

Detachable neutral links

Mounting separately on the base plate, protected construction.

I _{th} [A]	Type	Order number	Weight [kg]
250	OXN250	1SCA022752R9950	0.26
400	OXN400	1SCA022770R3060	0.70

Mounting separately on the base plate, open construction.

250	OESAZX 162	1SCA022193R0400	0.12
315	OESAZX 164	1SCA022202R9520	0.10
400	OESAZX 165	1SCA022202R9790	0.12

Terminal shrouds

Snap-on mounting, grey plastic, IP 3X. Transparent shrouds available on request.

Suitable for switches	Number of poles	Description	Type	Order number	Weight [kg]
OT200...250	3	Long type	OTS250G1L/3	1SCA022731R8150	0.09
	3	Short type	OTS250G1S/3	1SCA022731R8310	0.06
OT200...250	4	Long type	OTS250G1L/4	1SCA022731R8230	0.12
	4	Short type	OTS250G1S/4	1SCA022731R8400	0.08
OT315...400	3	Long type	OTS400G1L/3	1SCA022736R8840	0.15
	3	Short type	OTS400G1S/3	1SCA022736R9060	0.09
OT315...400	4	Long type	OTS400G1L/4	1SCA022736R9490	0.20
	4	Short type	OTS400G1S/4	1SCA022736R9650	0.12
OT630...800	3	Long type	OTS800G1L/3	1SCA022776R7890	0.32
	3	Short type	OTS800G1S/3	1SCA022776R8190	0.17
OT630...800	4	Long type	OTS800G1L/4	1SCA022776R7970	0.42
	4	Short type	OTS800G1S/4	1SCA022776R8270	0.26

Snap-on mounting, transparent plastic, IP 2X.

Suitable for terminal clamps	Number of poles	Type	Order number	Weight [kg]
OZXB2, 2L	3	OZXB2K	1SCA022264R0010	0.05
OZXB3, 4	3	OZXB3K	1SCA022264R0440	0.20
OZXB5, 6	3	OZXB4K	1SCA022199R2850	0.24
OZXB7, 7L	3	OZXB5K	1SCA022283R8040	0.13

Ordering information

Accessories



Terminal clamp sets for Al- and Cu-cables

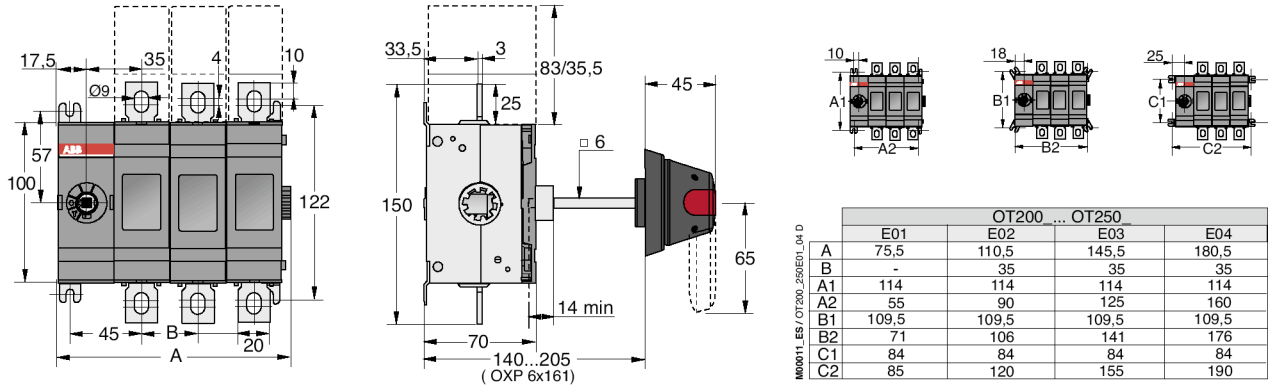
Suitable for switches	Cable cross section [mm ²]	Suitable shroud	Type	Order number	Pack. [pcs]	
OT 200...250	10...70	OTS250_L	OZXB1L	1SCA022169R2030	3	
	10...70	OTS250_L	OZXB1L/1	1SCA022194R0030	1	
	25...120	OZXB2K	OZXB2	1SCA022119R7610	3	
	25...120	OZXB2K	OZXB2/1	1SCA022194R0200	1	
	25...120	OZXB2K	OZXB2L	1SCA022158R7750	3	
	25...120	OZXB2K	OZXB2L/1	1SCA022194R0460	1	
	95...185	OTS250_L	OZXB8	1SCA022744R1510	3	
	95...185	OTS250_L	OZXB8/1	1SCA022744R1600	1	
	95...240	OTS250_L	OZXB9	1SCA022750R3210	3	
	95...240	OTS250_L	OZXB9/1	1SCA022750R3300	1	
OT 315...400	25...120	OZXB2K	OZXB2L	1SCA022158R7750	3	
	25...120	OZXB2K	OZXB2L/1	1SCA022194R0460	1	
	95...185	OZXB3K	OZXB3	1SCA022136R8100	3	
	95...185	OZXB3K	OZXB3/1	1SCA022194R0620	1	
	2x(95...185)	OZXB3K	OZXB4	1SCA022137R4760	3	
	2x(95...185)	OZXB3K	OZXB4/1	1SCA022194R0890	1	
	120...240	OZXB5K	OZXB7	1SCA022185R0040	3	
	120...240	OZXB5K	OZXB7/1	1SCA022194R1430	1	
	120...240	OZXB5K	OZXB7L	1SCA022185R7130	3	
	120...240	OZXB5K	OZXB7L/1	1SCA022194R1600	1	
	95...185	OTS400_L	OZXB8	1SCA022744R1510	3	
	95...185	OTS400_L	OZXB8/1	1SCA022744R1600	1	
	95...240	OTS400_L	OZXB9	1SCA022750R3210	3	
	95...240	OTS400_L	OZXB9/1	1SCA022750R3300	1	
	OT630...800	120...300	OZXB4K	OZXB5	1SCA022137R2470	3
		120...300	OZXB4K	OZXB5/1	1SCA02194R1010	1
2x(120...300)		OZXB4K	OZXB6	1SCA022137R4920	3	
2x(120...300)		OZXB4K	OZXB6/1	1SCA022194R1270	1	

Conversion kits

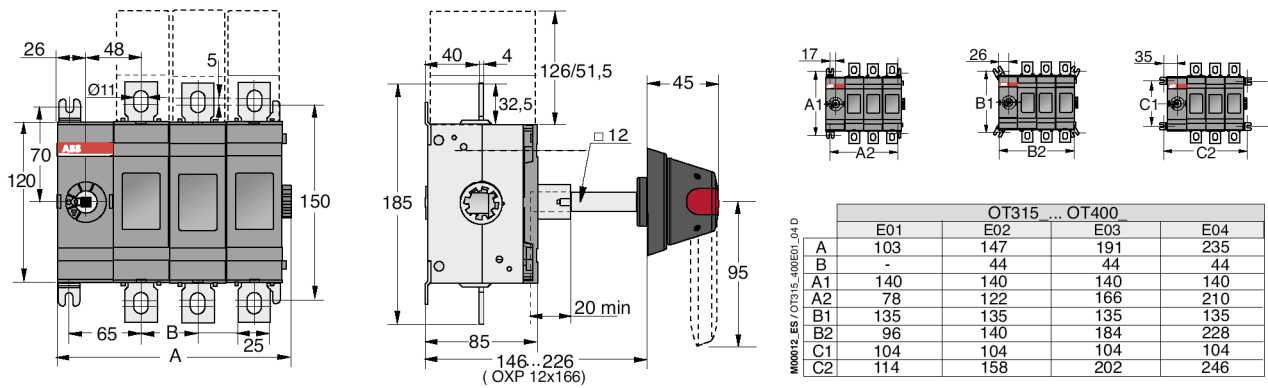
Suitable for switches	For shaft diameter	Shaft distance [mm]	Type	Order number	Weight [kg]
6- and 8-pole switches					
Parallel attachment for connecting 3- and 4-pole switches. Both switches work simultaneously					
OT200...250	6 mm	45+(0...13)x15	OESAZW2	1SCA022078R1600	0.8
OT315...800	12 mm	60+(0...19)x20	OETLZW9	1SCA022061R3300	1.1
Change-over switches					
Two switches connected with a mechanism operating into I-O-II positions.					
OT200...250	6 mm	210+(0...18)x20	OTZW25	1SCA022778R6920	2.8
OT315...800	12 mm	210+(0...11)x20	OETLZW11	1SCA022078R0030	3.0
By-pass switches					
A combination of two switches in parallel with a third switch for change-over operation.					
OT200...250	6 mm		OTZW26	1SCA022778R7060	3.3
OT315...800	12 mm	210+(0...18)x20	OETLZW13	1SCA022078R0460	4.0
Mechanical interlock					
Prevents one switch from closing to the ON-position if the other is not in the OFF-position.					
OT200...250	6 mm	190	OTZW10	1SCA022431R5280	0.4
OT315...400	12 mm	250	OETLZW14	1SCA022077R3410	0.5
OT315...800	12 mm	300	OETLZW3	1SCA022049R0380	0.6
OT315...800	12 mm	500	OETLZW15	1SCA022081R9340	1.2

Dimension drawings OT switch-disconnectors 200 - 800

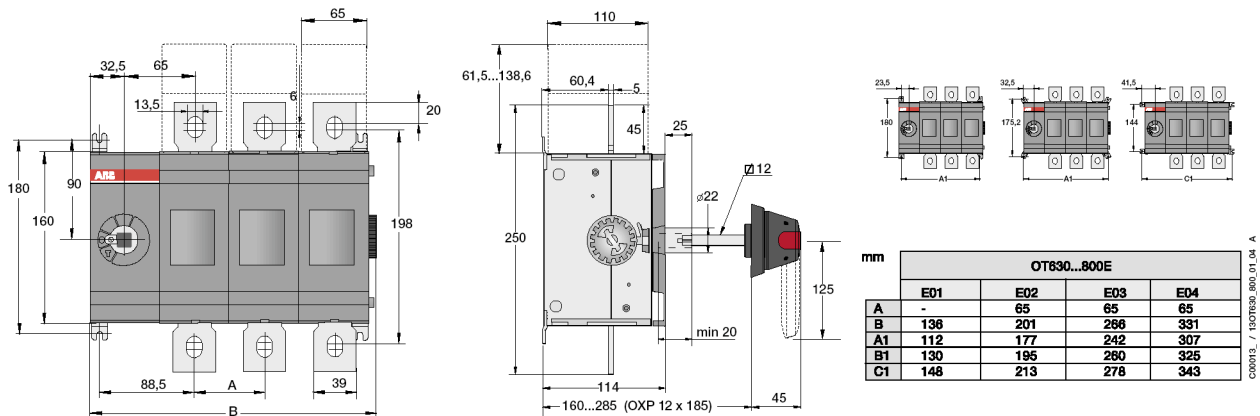
Switch-disconnectors OT 200_P and OT 250_P



Switch-disconnectors OT 315_P and OT 400_P

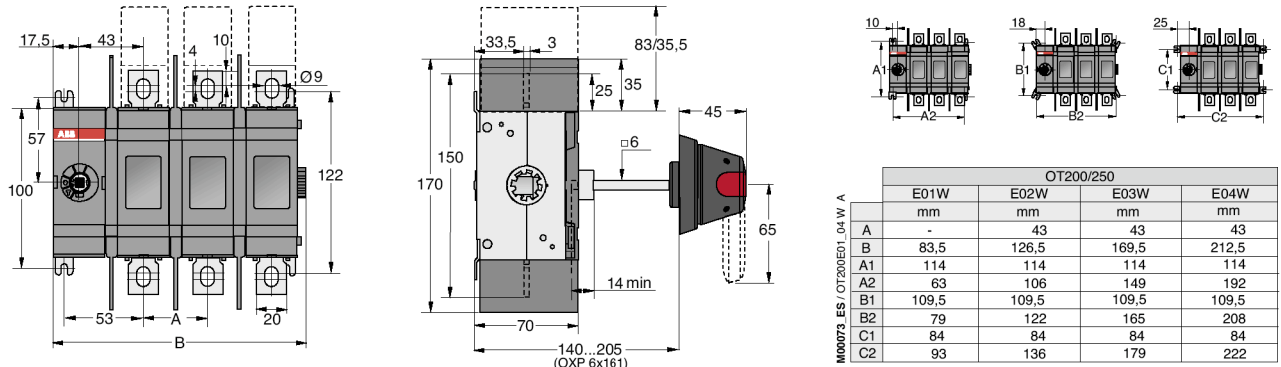


Switch-disconnectors OT 630_P and OT 800_P

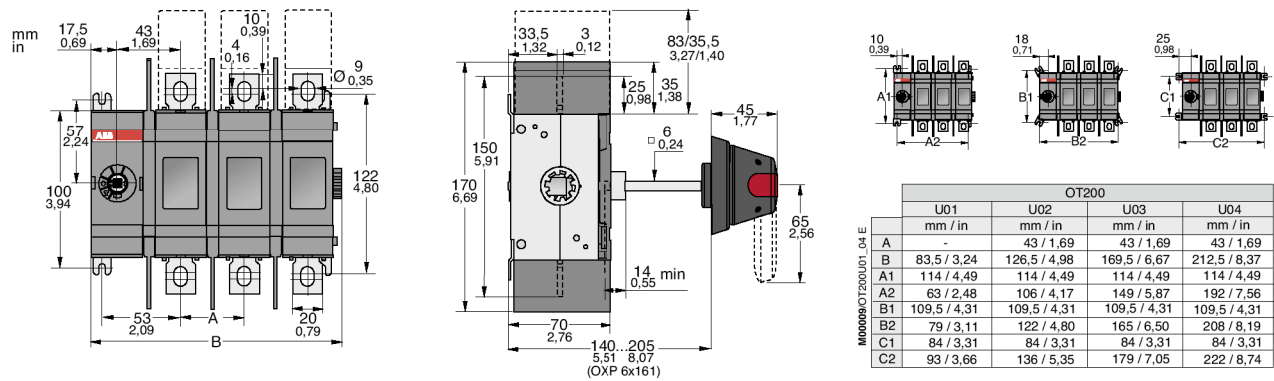


Dimension drawings OT switch-disconnectors 200 - 400

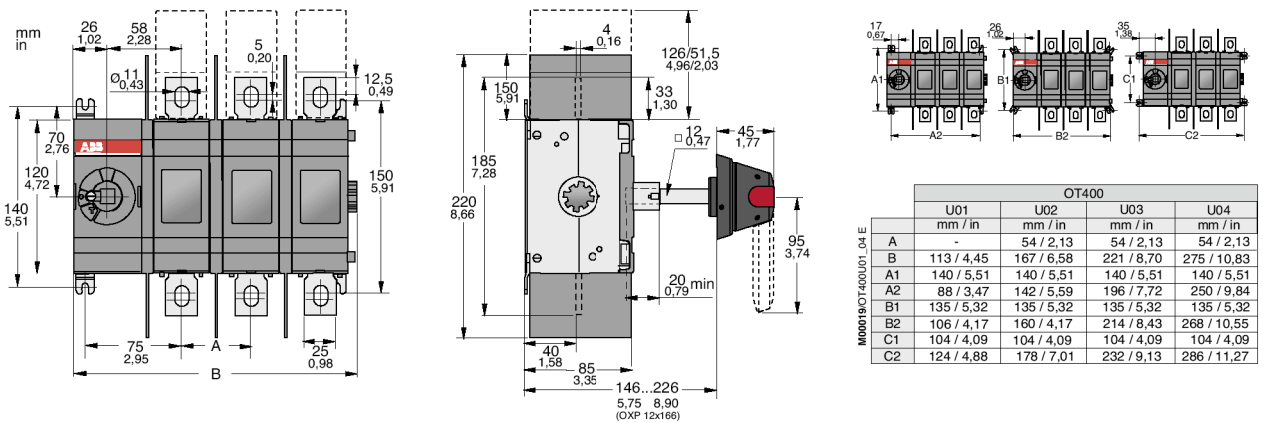
Switch-disconnectors OT 200_W and OT 250_W



Non-fusible disconnect switches OT 200U_P

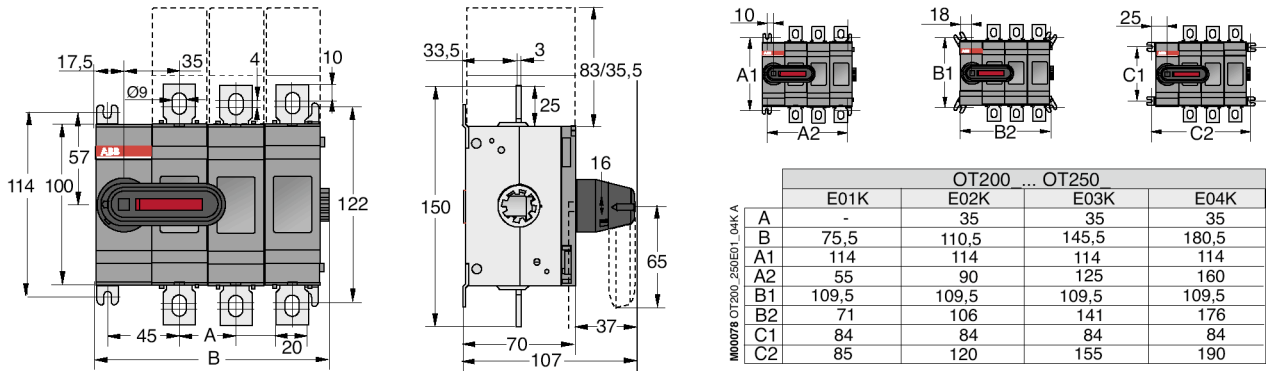


Non-fusible disconnect switches OT 400U_P

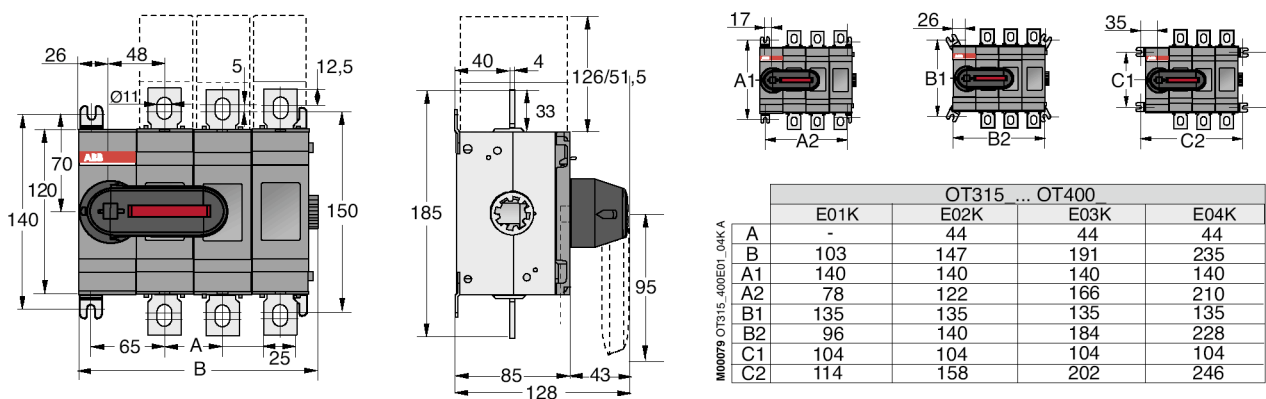


Dimension drawings OT switch-disconnectors 200 - 400

Switch-disconnectors OT 200_K and OT 250_K



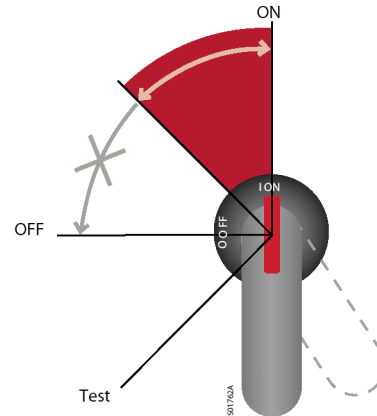
Switch-disconnectors OT 315_K and OT 400_K



Handle and contact functions OT switch-disconnectors 200 - 800

Handle indications and functions

- The handle indicates the position of the contacts with complete reliability in all situations.
If the contacts are welded together, the handle doesn't reach the OFF-position but remains between ON and OFF, maintaining the door interlock.
- Padlocking is not possible to do if the contacts have welded.
- When operating the switch fuse to the Test-position with a test handle the test auxiliary contacts change position. The main contacts remain open.



ON and OFF-functions of main and auxiliary contacts

Contact type	Shaft movement	Handle movement				
		TEST -45°	OFF 0°	30°	60°	ON 90°
Main contacts	0 I 0 I					
NO test contacts inside the mechanism	0 I 0 I					
NC test contacts inside the mechanism	0 I 0 I					
NO test indicatin contacts inside the mechanism	0 I 0 I					
NC test indication contacts inside the mechanism	0 I 0 I					
NO auxiliary contacts in the module on the side of the switch	0 I 0 I					
NC auxiliary contacts in the module on the side of the switch	0 I 0 I					



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