
03

Motorized change-over switches



Motorized change-over switches

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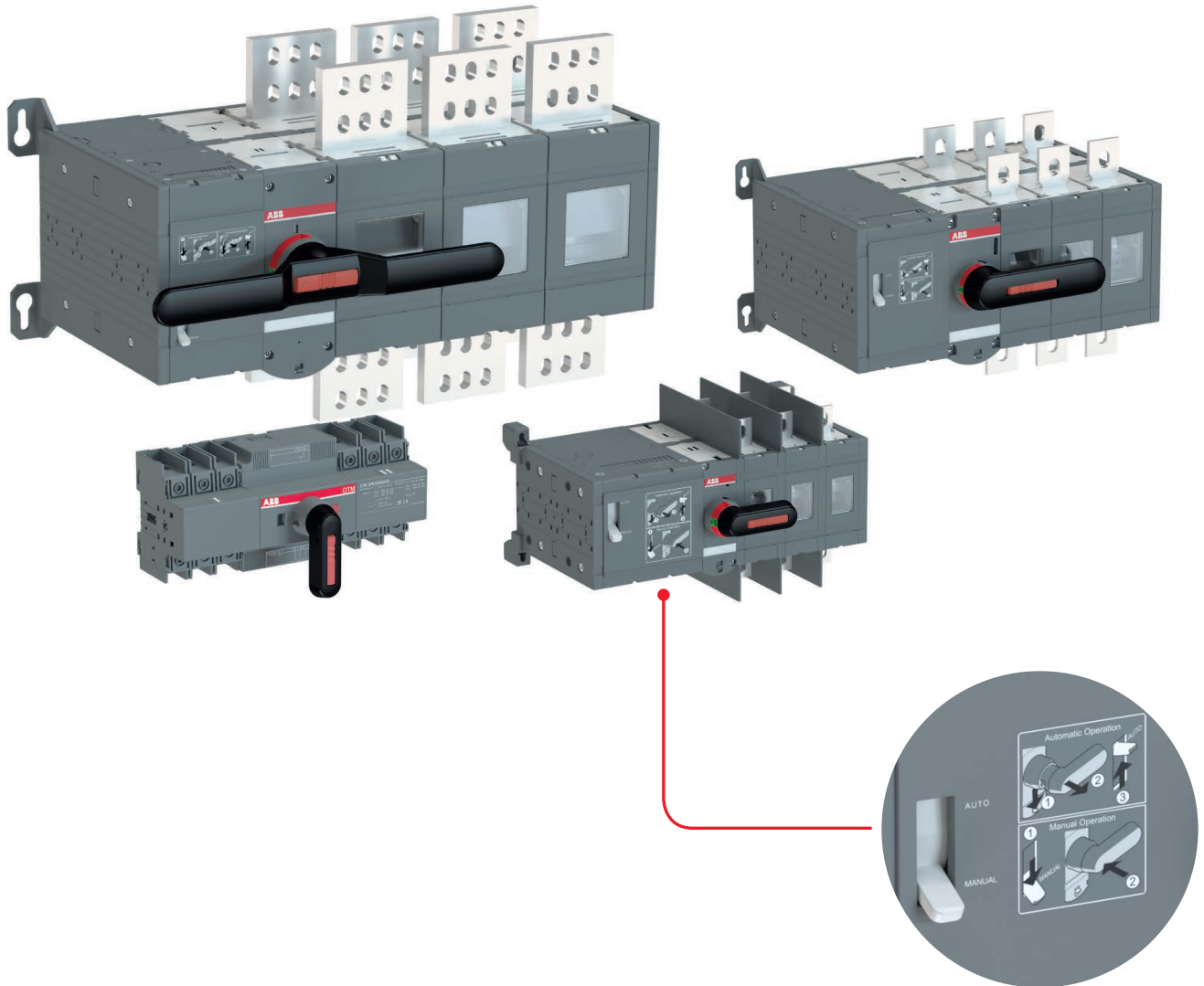
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Motorized change-over switches

Uninterrupted power supply with motorized functionality



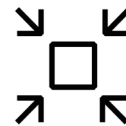
High performance level

Ensuring a high performance level for you is of the utmost importance to us. In change-over applications where the loaded switch may need to be operated remotely, adequate durability has been ensured by testing against the IEC 60947-6-1 standard in the specification of endurance requirements.



Safe and reliable

Our switches come equipped with a comprehensive range of inbuilt safety features such as mechanical interlock, which ensures the isolation of the two asynchronous power supplies. This eliminates risk of short-circuiting between them. The motorized change-over switches are also equipped with a handle for manual operation in case of emergency.



Space-saving design

ABB provides compact and cost-effective components for any and all installations. On average, our motorized change-over switches are 20% smaller than other similar products on the market.

Motorized change-over switches

Open transition from 40 to 3200 Amperes

Manual operation, change-over switches 16-125A



Types	OTM40F_C					OTM63F_C OTM80F_C OTM100F_C OTM125F_C				
I_{th}	40 A	63 A	80 A	115 A	125 A	40 A	63 A	80 A	115 A	125 A
I_e /AC-22A, < 415V	40 A	63 A	80 A	100 A	125 A	40 A	63 A	80 A	100 A	125 A
I_e /AC-23A, < 415V	40 A	63 A	80 A	80 A	90 A	40 A	63 A	80 A	80 A	90 A

Motor operation, change-over switches 160-800 A



Types	OTM160E_C OTM200E_C OTM250E_C			OTM160E_WC OTM200E_WC OTM250E_WC			OTM315E_C OTM400E_C		OTM630E_C OTM800E_C	
I_{th}	160 A	200 A	250 A	160 A	200 A	250 A	315 A	400 A	630 A	800 A
I_e /AC-22A, < 415V	160 A	200 A	250 A	160 A	200 A	250 A	315 A	400 A	630 A	800 A
I_e /AC-23A, < 415V	160 A	200 A	250 A	160 A	200 A	250 A	315 A	400 A	630 A	800 A
I_e /AC-31B, < 415V	160 A	200 A	250 A	160 A	200 A	250 A	315 A	400 A	650 A	720 A

Motor operation, change-over switches 1000-3200 A



Types	OTM1000E_C OTM1250E_C		OTM1600E_C		OTM2000E_C OTM2500E_C OTM3200E_C	
I_{th} /A	1000 A	1250 A	1600 A	2000 A	2500 A	3200 A
I_e /AC-t22A, < 415V	1000 A	1250 A	1600 A	-	-	-
I_e /AC-21B, < 415V	-	-	-	2000 A	2500 A	3200 A
I_e /AC-31B, < 415V	1000 A	1250 A	1600 A	-	-	-

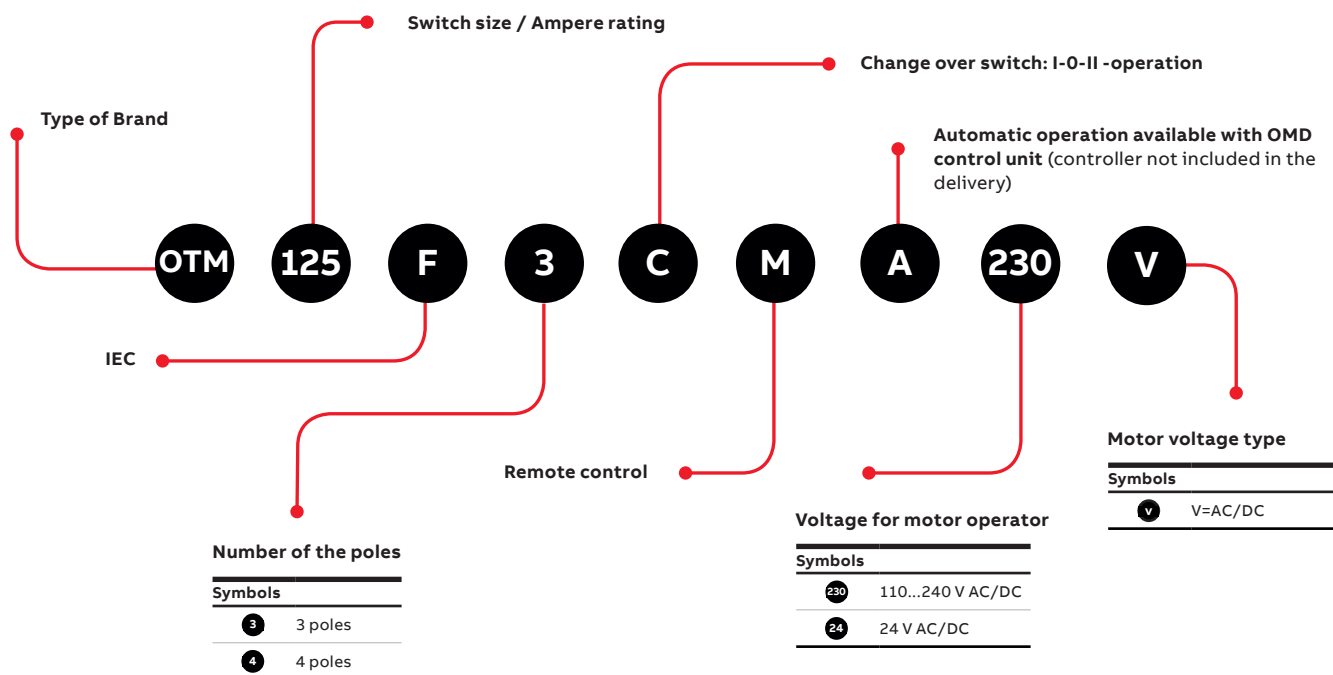
Motorized change-over switches

Type codes

Type codes

Understanding the type code keys below will help you quickly identify the correct product for your needs. The simple naming system allows you to see the products type, Ampere rating, standard classification and number of poles, all in one glance.

Explanation of the types OTM40...125_C



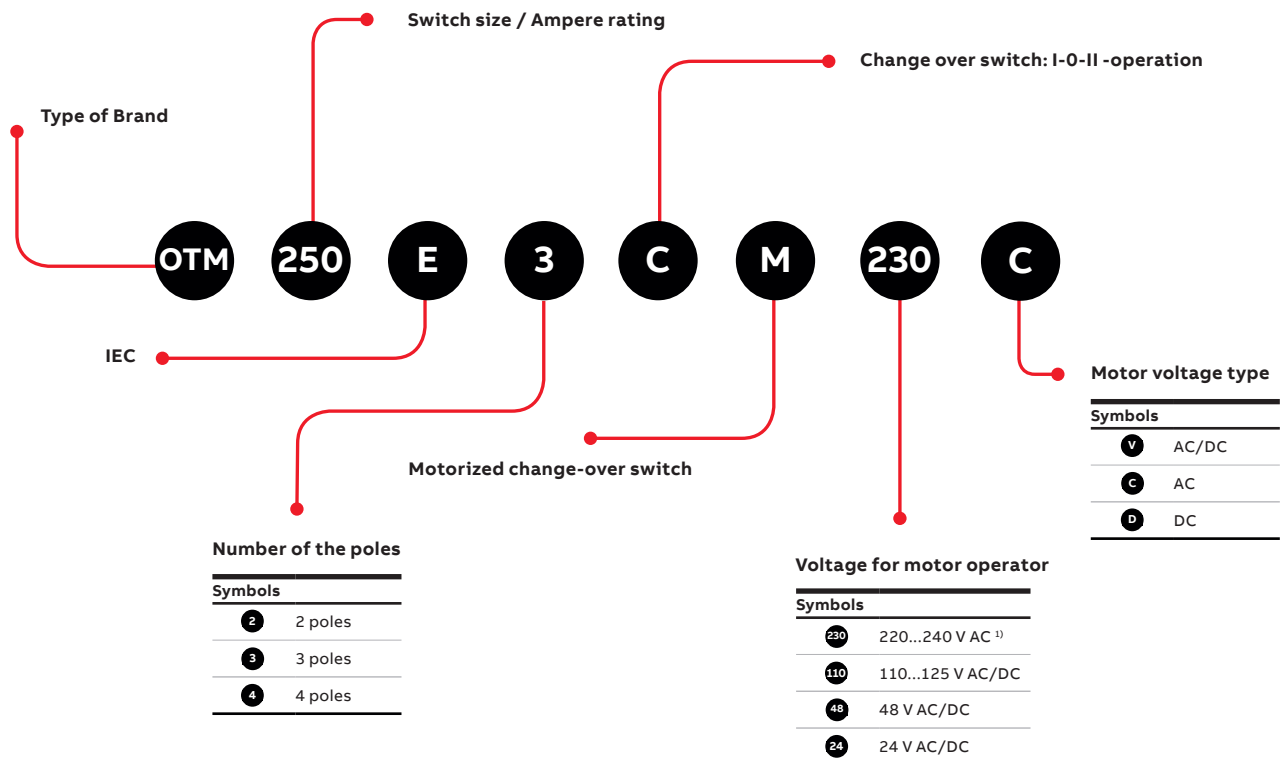
Motorized change-over switches

Type codes

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Understanding the type code keys below will help you quickly identify the correct product for your needs. The simple naming system allows you to see the products type, Ampere rating, standard classification and number of poles, all in one glance.

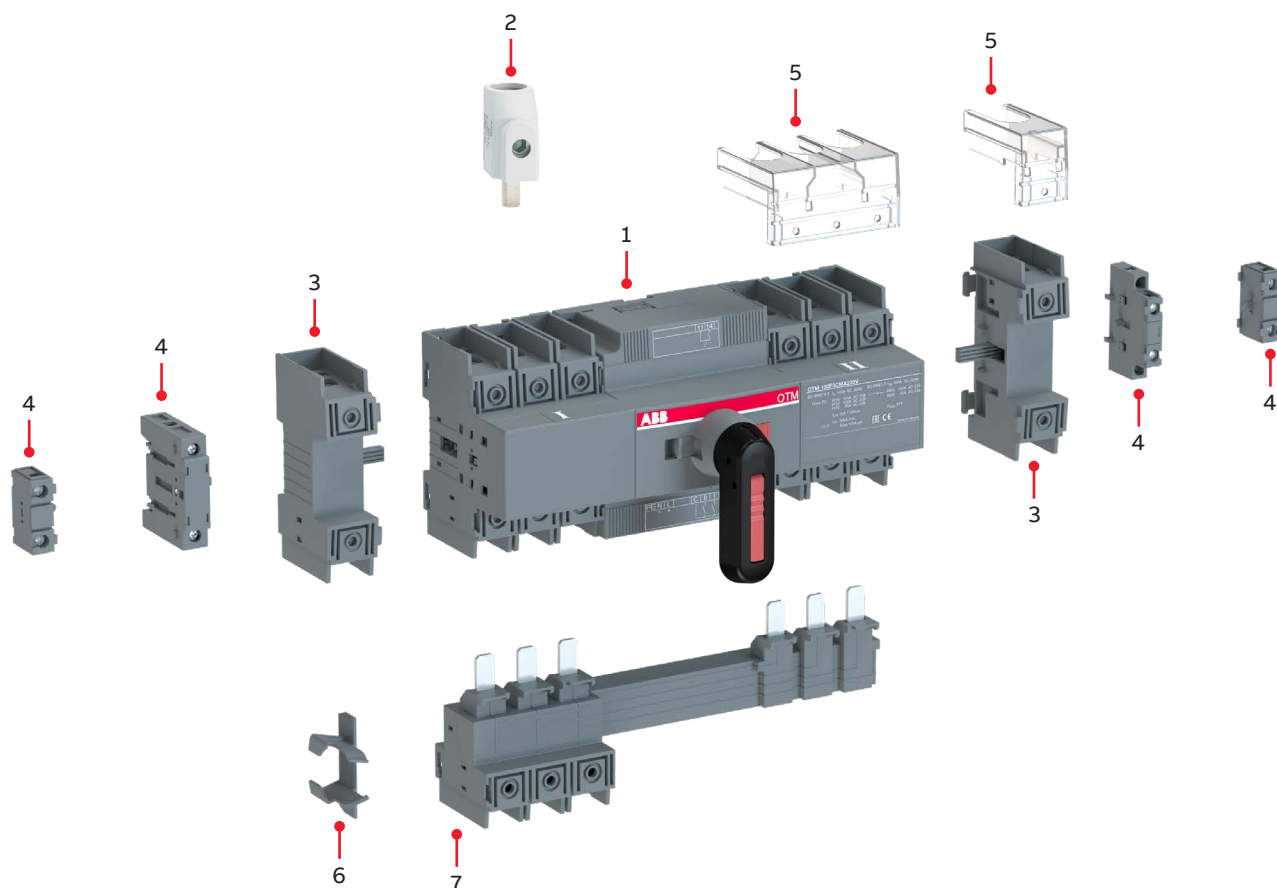
Explanation of the types OTM160...2500_C



¹⁾ 2-pole versions, motor voltage U_e 220...240V AC/DC

Motorized change-over switches

Ordering information for OTM40...OTM125_CMA



Motorized change-over switch accessory guide

- | | |
|---|--|
| 1. Motorized change-over switch | 4. Auxiliary contact (Different types for left and right side) |
| 2. Terminal clamp including voltage sensing connector | 5. Terminal shroud |
| 3. Fourth pole | 6. Handle storage clip |
| | 7. Parallel connection kit |

To learn how to install the key accessories, watch the video



Motorized transfer switches OTM 40...125 A

Please note that not all listed accessories are automatically included in your order. See next page for recommendations.

Motorized change-over switches

Ordering information for OTM40...OTM125_CMA



OTM40...125F3C_



OTM40...125F4C_

Motorized change-over switches, open transition, OTM40...OTM125_CMA

Delivered with a handle for manual operation, a storage clip for the handle and male connectors for control circuit.

No. of poles	Rated current AC-21A, AC-22A ≤ 415V, I	Rated power 400V S	Rated current AC-31B/ AC-33B 415V, I	Type	Order code	Weight/ unit
	A	kVA	A			kg
Motor voltage U, 110...240 V AC/DC						
3	40	27	40/40	OTM40F3CMA230V	1SCA120096R1001	1.64
4	40	27	40/40	OTM40F4CMA230V	1SCA120102R1001	1.86
3	63	43	63/63	OTM63F3CMA230V	1SCA120095R1001	1.64
4	63	43	63/63	OTM63F4CMA230V	1SCA120101R1001	1.86
3	80	55	80/80	OTM80F3CMA230V	1SCA120093R1001	1.64
4	80	55	80/80	OTM80F4CMA230V	1SCA120100R1001	1.86
3	100	70	100/80	OTM100F3CMA230V	1SCA120071R1001	1.64
4	100	70	100/80	OTM100F4CMA230V	1SCA120098R1001	1.86
3	125	86	125/80	OTM125F3CMA230V	1SCA120070R1001	1.64
4	125	86	125/80	OTM125F4CMA230V	1SCA120097R1001	1.86

Motor voltage U_n 24 V DC

3	40	27	40/40	OTM40F3CMA24D	1SCA124061R1001	1.64
4	40	27	40/40	OTM40F4CMA24D	1SCA124063R1001	1.86
3	63	43	63/63	OTM63F3CMA24D	1SCA124060R1001	1.64
4	63	43	63/63	OTM63F4CMA24D	1SCA124064R1001	1.86
3	80	55	80/80	OTM80F3CMA24D	1SCA124059R1001	1.64
4	80	55	80/80	OTM80F4CMA24D	1SCA124062R1001	1.86
3	100	70	100/80	OTM100F3CMA24D	1SCA124058R1001	1.64
4	100	70	100/80	OTM100F4CMA24D	1SCA124066R1001	1.86
3	125	86	125/80	OTM125F3CMA24D	1SCA124057R1001	1.64
4	125	86	125/80	OTM125F4CMA24D	1SCA124065R1001	1.86

Handles included as standard, cable cross section

Suitable for switches	Cable cross section	Handle
	mm ²	
OTM40F_CM	2.5...25 or 2 x 2.5...16	OHB65D6CM
OTM63...125F_CM	10 ... 70	OHB65D6CM

Recommended accessories

Suitable for switches	Cable cross section	Type	Order code	Units/ type	Weight/ unit
	mm ²			pcs	kg
Parallel connection kits					
OTM40F3C_	2.5...25/2x2.5...16	OMZC003	1SCA121324R1001	1	0.5
OTM40F4C_	2.5...25/2x2.5...16	OMZC004	1SCA121325R1001	1	0.65
OTM40...125F3C_	10...70	OMZC03	1SCA117037R1001	1	0.5
OTM40...125F4C_	10...70	OMZC04	1SCA117038R1001	1	0.65
Terminal clamp					
OTM40...125F_	16...50 Al/2.5...50 Cu	OZXT6	1SCA122537R1001	3	0.06



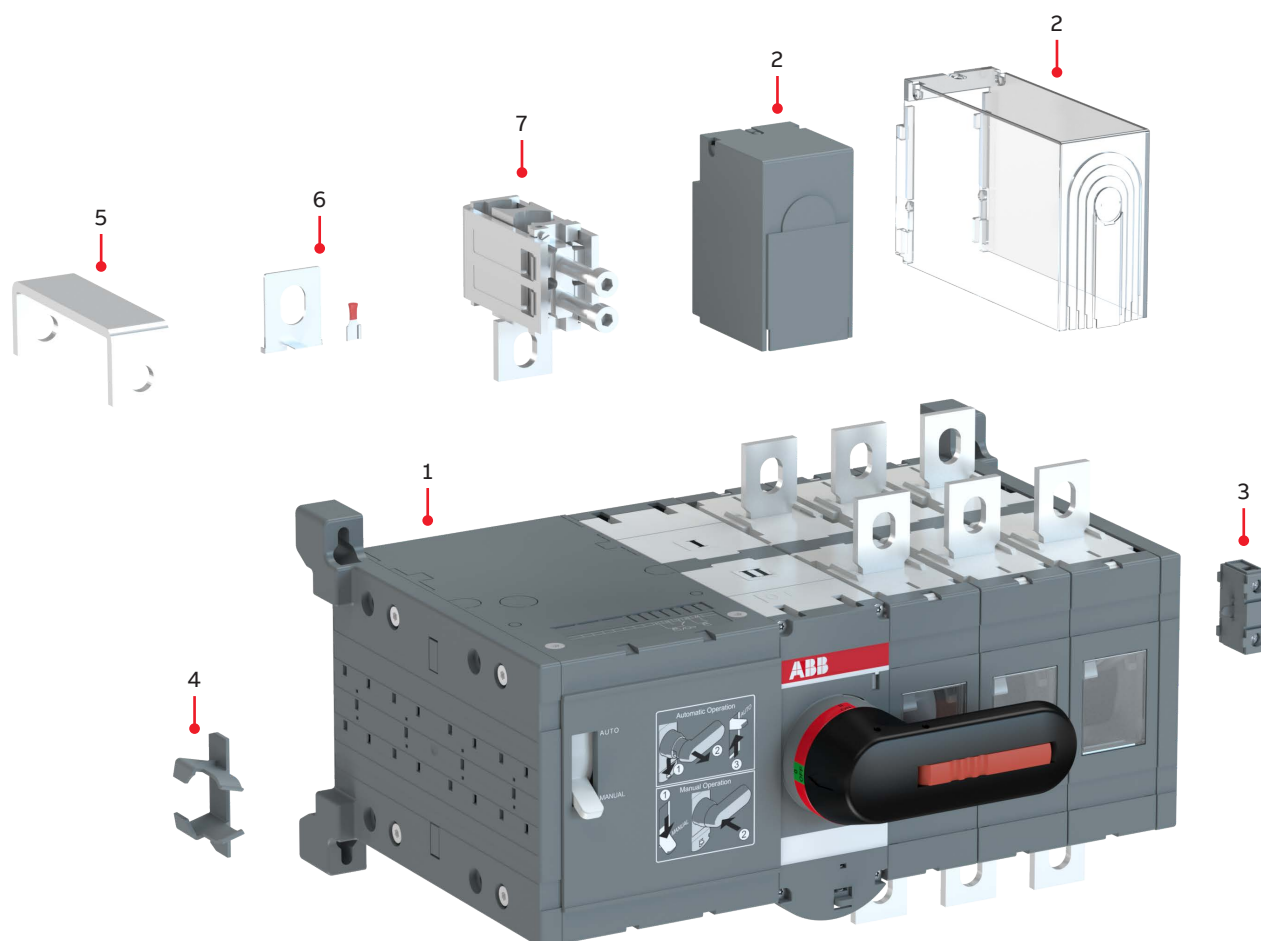
OMZC_



OZXT6

Motorized change-over switches

Ordering information for OTM160...OTM3200_CM



Motorized change-over switch accessory guide

- | | |
|---------------------------------|-------------------------------|
| 1. Motorized change-over switch | 5. Bridging bar |
| 2. Terminal shroud | 6. Voltage sensing connectors |
| 3. Auxiliary contact | 7. Terminal clamp |
| 4. Storage for handle and fuses | |

To learn how to install the key accessories, watch the video



Motorized transfer switches OTM 160...800 A

Please note that not all listed accessories are automatically included in your order. See next page for recommendations.

Motorized change-over switches

Ordering information for OTM160...OTM400_CM



OTM160...250E2CM230V



OTM160...250E2WCM230V



OTM160...250E3CM230C



OTM160...250E4WCM230C



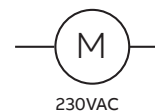
OTM315...400E3CM230V



OTM315...400E4CM230C

Motorized change-over switches, open transition, OTM160...OTM400_CM

Delivered with a handle for manual operation, bolt kit with nut and washers for all terminals and male connectors for control circuits. Types OTM160...400E include a storage clip for the handle and spare fuses. Types OTM160...250E_W are equipped with extended phase distance.



No. of poles	Rated current (1) AC-21A, AC-22A ≤ 415V, I	Rated power 400V S	Rated current AC-31B/ AC-33B 415V, I	Type	Order code	Weight/ unit
	A	kVA	A			kg
Motor voltage U _e 220...240 V AC ¹⁾						
2	160	110	160/160	OTM160E2CM230V	1SCA121216R1001	5.7
2	160	110	160/160	OTM160E2WCM230V	1SCA121218R1001	5.9
3	160	110	160/160	OTM160E3CM230C	1SCA022845R8610	6.6
3	160	110	160/160	OTM160E3WCM230C	1SCA022846R4000	6.9
4	160	110	160/160	OTM160E4CM230C	1SCA022848R1510	7.5
4	160	110	160/160	OTM160E4WCM230C	1SCA022846R7440	7.9
2	200	135	200/200	OTM200E2CM230V	1SCA121209R1001	5.7
2	200	135	200/200	OTM200E2WCM230V	1SCA121294R1001	5.9
3	200	135	200/200	OTM200E3CM230C	1SCA022845R8960	6.6
3	200	135	200/200	OTM200E3WCM230C	1SCA022846R3960	6.9
4	200	135	200/200	OTM200E4CM230C	1SCA022846R1590	7.5
4	200	135	200/200	OTM200E4WCM230C	1SCA022846R7870	7.9
2	250	170	250/250	OTM250E2CM230V	1SCA121211R1001	5.7
2	250	170	250/250	OTM250E2WCM230V	1SCA121220R1001	5.9
3	250	170	250/250	OTM250E3CM230C	1SCA022845R9260	6.6
3	250	170	250/250	OTM250E3WCM230C	1SCA022846R4770	6.9
4	250	170	250/250	OTM250E4CM230C	1SCA022846R1910	7.5
4	250	170	250/250	OTM250E4WCM230C	1SCA022846R8250	7.9
2	315	215	315/315	OTM315E2CM230V	1SCA121221R1001	9.7
3	315	215	315/315	OTM315E3CM230C	1SCA022847R1210	11.1
4	315	215	315/315	OTM315E4CM230C	1SCA022847R2870	12.5
2	400	275	400/400	OTM400E2CM230V	1SCA121226R1001	9.7
3	400	275	400/400	OTM400E3CM230C	1SCA022847R1630	11.1
4	400	275	400/400	OTM400E4CM230C	1SCA022847R3250	12.5

¹⁾ 2-pole versions, motor voltage U_e 220...240V AC/DC

Handles and bolt kits included as standard

Suitable for switches	Handle	Bolt kit
OTM160...250	OTV250ECMK	M8x25
OTM315...400	OTV400ECMK	M10x30

Recommended accessories: Bridging bars and voltage sensing connectors

See pages 65-66

Motorized change-over switches

Ordering information for OTM630...OTM3200_CM



OTM630...800E2CM230V



OTM630...800E3CM230C



OTM1000...1250E3CM230C



OTM1000...1250E4CM230C



OTM1600E2CM230V



OTM1600E4CM230C



OTM2000...2500E3CM230C



OTM2000...2500E4CM230C

Motorized change-over switches, open transition, OTM630...OTM3200_CM

Delivered with a handle for manual operation, bolt kit with nut and washers for all terminals and male connectors for control circuits. Types OTM630...3200E_ include a storage clip for the handle and spare fuses.



No. of poles	Rated current ¹⁾ AC-21A, AC-22A ≤ 415V, I	Rated power 400V S	Rated current AC-31B/ AC-33B 415V, I	Type	Order code	Weight/ unit
	A	kVA	A			kg
Motor voltage U _e 220...240 V AC ²⁾						
2	630	435	650/650	OTM630E2CM230V	1SCA121268R1001	19
3	630	435	650/650	OTM630E3CM230C	1SCA103567R1001	22
4	630	435	650/650	OTM630E4CM230C	1SCA022873R1990	25
2	800	550	720/650	OTM800E2CM230V	1SCA121270R1001	19
3	800	550	720/650	OTM800E3CM230C	1SCA103570R1001	22
4	800	550	720/650	OTM800E4CM230C	1SCA022872R8340	25
2	1000	680	1000/1000	OTM1000E2CM230V	1SCA121279R1001	45
3	1000	680	1000/1000	OTM1000E3CM230C	1SCA112677R1001	55
4	1000	680	1000/1000	OTM1000E4CM230C	1SCA112703R1001	65
2	1250	850	1250/1000	OTM1250E2CM230V	1SCA121293R1001	45
3	1250	850	1250/1000	OTM1250E3CM230C	1SCA112676R1001	55
4	1250	850	1250/1000	OTM1250E4CM230C	1SCA112702R1001	65
2	1600	1000	1600/1000	OTM1600E2CM230V	1SCA121280R1001	49
3	1600	1000	1600/1000	OTM1600E3CM230C	1SCA112678R1001	59
4	1600	1000	1600/1000	OTM1600E4CM230C	1SCA112704R1001	69
2	2000	1350	-	OTM2000E2CM230V	1SCA121289R1001	61
3	2000	1350	-	OTM2000E3CM230C	1SCA112709R1001	78
4	2000	1350	-	OTM2000E4CM230C	1SCA112712R1001	95
2	2500	1700	-	OTM2500E2CM230V	1SCA121291R1001	61
3	2500	1700	-	OTM2500E3CM230C	1SCA112710R1001	78
4	2500	1700	-	OTM2500E4CM230C	1SCA112713R1001	95
3	3200	-	-	OTM3200E3CM230C	1SCA129240R1001	83
4	3200	-	-	OTM3200E4CM230C	1SCA129242R1001	101

¹⁾ OTM2000...3200: Category AC-21B

²⁾ 2-pole versions, motor voltage U_e 220...240V AC/DC

Handles and bolt kits included as standard

Suitable for switches	Handle	Bolt kit
OTM630...800	OTV800ECMK	M12x40
OTM1000...2500	OTV1000ECMK	M12x60

Recommended accessories: Bridging bars and voltage sensing connectors

See pages 65-66

Motorized change-over switches

Ordering information for OTM160...OTM2500_CM



OTM160...250E3CM110V



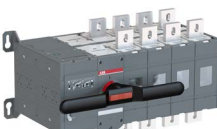
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OTM315...400E3CM110V



OTM630...800E4CM110V



OTM1000...1250E4CM110V



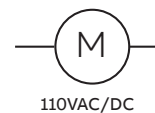
OTM1600E3CM230C



OTM2000...2500E4CM110V

Motorized change-over switches, open transition, OTM160...OTM2500_CM

Delivered with a handle for manual operation, bolt kit with nut and washers for all terminals and male connectors for control circuits. Types OTM160...2500E_ include a storage clip for the handle and spare fuses. Types OTM160...250E_W are equipped with extended phase distance.



No. of poles	Rated current ¹⁾ AC-21A, AC-22A ≤ 415V, I	Rated power 400V S	Rated current AC-31B/ AC-33B 415V, I	Type	Order code	Weight/ unit kg
	A	kVA	A			
Motor voltage U _i , 110...125 V AC/DC						
3	160	110	160/160	OTM160E3CM110V	1SCA022845R8530	6.6
3	160	110	160/160	OTM160E3WCM110V	1SCA022846R3450	6.9
4	160	110	160/160	OTM160E4CM110V	1SCA022846R1080	7.5
4	160	110	160/160	OTM160E4WCM110V	1SCA022846R7360	7.9
3	200	135	200/200	OTM200E3CM110V	1SCA022845R8880	6.6
3	200	135	200/200	OTM200E3WCM110V	1SCA022846R3880	6.9
4	200	135	200/200	OTM200E4CM110V	1SCA022846R1410	7.5
4	200	135	200/200	OTM200E4WCM110V	1SCA022846R7790	7.9
3	250	170	250/250	OTM250E3CM110V	1SCA022845R9180	6.6
3	250	170	250/250	OTM250E3WCM110V	1SCA022846R4690	6.9
4	250	170	250/250	OTM250E4CM110V	1SCA022846R1830	7.5
4	250	170	250/250	OTM250E4WCM110V	1SCA022846R8170	7.9
3	315	215	315/315	OTM315E3CM110V	1SCA022847R1120	11.1
4	315	215	315/315	OTM315E4CM110V	1SCA022847R2790	12.5
3	400	275	400/400	OTM400E3CM110V	1SCA022847R1550	11.1
4	400	275	400/400	OTM400E4CM110V	1SCA022847R3170	12.5
3	630	435	650/650	OTM630E3CM110V	1SCA022873R1050	22
4	630	435	650/650	OTM630E4CM110V	1SCA022873R1810	25
3	800	550	720/650	OTM800E3CM110V	1SCA022872R5750	22
4	800	550	720/650	OTM800E4CM110V	1SCA022872R8260	25
3	1000	680	1000/1000	OTM1000E3CM110V	1SCA113653R1001	55
4	1000	680	1000/1000	OTM1000E4CM110V	1SCA113656R1001	65
3	1250	850	1250/1000	OTM1250E3CM110V	1SCA113652R1001	55
4	1250	850	1250/1000	OTM1250E4CM110V	1SCA113655R1001	65
3	1600	1000	1600/1000	OTM1600E3CM110V	1SCA113654R1001	59
4	1600	1000	1600/1000	OTM1600E4CM110V	1SCA113657R1001	69
3	2000	1350	-	OTM2000E3CM110V	1SCA113683R1001	78
4	2000	1350	-	OTM2000E4CM110V	1SCA113685R1001	95
3	2500	1700	-	OTM2500E3CM110V	1SCA113684R1001	78
4	2500	1700	-	OTM2500E4CM110V	1SCA113686R1001	95

¹⁾ OTM2000...2500: Category AC-21B

Handles and bolt kits included as standard

Suitable for switches	Handle	Bolt kit
OTM160...250	OTV250ECMK	M8x25
OTM315...400	OTV400ECMK	M10x30
OTM630...800	OTV800ECMK	M12x40
OTM1000...2500	OTV1000ECMK	M12x60

Recommended accessories: Bridging bars and voltage sensing connectors

See pages 65-66

Motorized change-over switches

Ordering information for OTM160...OTM2500_CM



OTM160...250E3CM48D



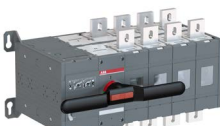
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OTM315...400E4CM48D



OTM630...800E3CM48D



OTM1000...1250E4CM48D



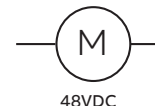
OTM1600E3CM48D



OTM2000...2500E4CM48D

Motorized change-over switches, open transition, OTM160...OTM2500_C

Delivered with a handle for manual operation, bolt kit with nut and washers for all terminals and male connectors for control circuits. Types OTM160...2500E_ include a storage clip for the handle and spare fuses. Types OTM160...250E_W are equipped with extended phase distance.



No. of poles	Rated current ¹⁾ AC-21A, AC-22A ≤ 415V, I	Rated power 400V S	Rated current AC-31B/ AC-33B 415V, I	Type	Order code	Weight/ unit kg
	A	kVA	A			
Motor voltage U _n 48 V DC						
3	160	110	160/160	OTM160E3CM48D	1SCA022845R8450	6.6
3	160	110	160/160	OTM160E3WCM48D	1SCA022846R3370	6.9
4	160	110	160/160	OTM160E4CM48D	1SCA022846R0940	7.5
4	160	110	160/160	OTM160E4WCM48D	1SCA022846R7280	7.9
3	200	135	200/200	OTM200E3CM48D	1SCA022845R8700	6.6
3	200	135	200/200	OTM200E3WCM48D	1SCA022846R3700	6.9
4	200	135	200/200	OTM200E4CM48D	1SCA022846R1320	7.5
4	200	135	200/200	OTM200E4WCM48D	1SCA022846R7610	7.9
3	250	170	250/250	OTM250E3CM48D	1SCA022845R9000	6.6
3	250	170	250/250	OTM250E3WCM48D	1SCA022846R4510	6.9
4	250	170	250/250	OTM250E4CM48D	1SCA022846R1750	7.5
4	250	170	250/250	OTM250E4WCM48D	1SCA022846R8090	7.9
4	315	215	315/315	OTM315E4CM48D	1SCA022847R2610	11.1
3	400	275	400/400	OTM400E3CM48D	1SCA022847R1470	12.5
4	400	275	400/400	OTM400E4CM48D	1SCA022847R3090	11.1
3	315	215	315/315	OTM315E3CM48D	1SCA022847R1040	12.5
3	630	435	650/650	OTM630E3CM48D	1SCA022873R1300	22
4	630	435	650/650	OTM630E4CM48D	1SCA022873R2110	25
3	800	550	720/650	OTM800E3CM48D	1SCA022872R6050	22
4	800	550	720/650	OTM800E4CM48D	1SCA022872R8510	25
3	1000	680	1000/1000	OTM1000E3CM48D	1SCA113663R1001	55
4	1000	680	1000/1000	OTM1000E4CM48D	1SCA113666R1001	65
3	1250	850	1250/1000	OTM1250E3CM48D	1SCA113662R1001	55
4	1250	850	1250/1000	OTM1250E4CM48D	1SCA113665R1001	65
3	1600	1000	1600/1000	OTM1600E3CM48D	1SCA113664R1001	59
4	1600	1000	1600/1000	OTM1600E4CM48D	1SCA113667R1001	69
3	2000	1350	-	OTM2000E3CM48D	1SCA113689R1001	78
4	2000	1350	-	OTM2000E4CM48D	1SCA113691R1001	95
3	2500	1700	-	OTM2500E3CM48D	1SCA113690R1001	78
4	2500	1700	-	OTM2500E4CM48D	1SCA113692R1001	95

¹⁾ OTM2000...2500: Category AC-21B

Handles and bolt kits included as standard

Suitable for switches	Handle	Bolt kit
OTM160...250	OTV250ECMK	M8x25
OTM315...400	OTV400ECMK	M10x30
OTM630...800	OTV800ECMK	M12x40
OTM1000...2500	OTV1000ECMK	M12x60

Recommended accessories: Bridging bars and voltage sensing connectors

See pages 65-66

Motorized change-over switches

Ordering information for OTM160...OTM2500_CM



OTM160...250E3CM24D



OTM160...250E4WCM24D



OTM315...400E4CM24D



OTM630...800E3CM24D



OTM1000...1250E4CM24D



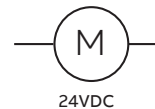
OTM1600E3CM24D



OTM2000...2500E4CM24D

Motorized change-over switches, open transition, OTM160...OTM2500_C

Delivered with a handle for manual operation, bolt kit with nut and washers for all terminals and male connectors for control circuits. Types OTM160...2500E_ include a storage clip for the handle and spare fuses. Types OTM160...250E_W are equipped with extended phase distance.



No. of poles	Rated current ¹⁾ AC-21A, AC-22A ≤ 415V, I	Rated power 400V S	Rated current AC-31B/ AC-33B 415V, I	Type	Order code	Weight/ unit kg
Motor voltage U _n 24 V DC						
3	160	110	160/160	OTM160E3CM24D	1SCA022845R8110	6.6
3	160	110	160/160	OTM160E3WCM24D	1SCA022846R3290	6.9
4	160	110	160/160	OTM160E4CM24D	1SCA022846R0860	7.5
4	160	110	160/160	OTM160E4WCM24D	1SCA022846R7100	7.9
3	200	135	200/200	OTM200E3CM24D	1SCA022845R8290	6.6
3	200	135	200/200	OTM200E3WCM24D	1SCA022846R3610	6.9
4	200	135	200/200	OTM200E4CM24D	1SCA022846R1240	7.5
4	200	135	200/200	OTM200E4WCM24D	1SCA022846R7520	7.9
3	250	170	250/250	OTM250E3CM24D	1SCA022845R8370	6.6
3	250	170	250/250	OTM250E3WCM24D	1SCA022846R4420	6.9
4	250	170	250/250	OTM250E4CM24D	1SCA022846R1670	7.5
4	250	170	250/250	OTM250E4WCM24D	1SCA022846R7950	7.9
3	315	215	315/315	OTM315E3CM24D	1SCA022847R0910	11.1
4	315	215	315/315	OTM315E4CM24D	1SCA022847R2520	12.5
3	400	275	400/400	OTM400E3CM24D	1SCA022847R1390	11.1
4	400	275	400/400	OTM400E4CM24D	1SCA022847R2950	12.5
3	630	435	650/650	OTM630E3CM24D	1SCA022873R1210	22
4	630	435	650/650	OTM630E4CM24D	1SCA022873R2020	25
3	800	550	720/650	OTM800E3CM24D	1SCA022872R5910	22
4	800	550	720/650	OTM800E4CM24D	1SCA022872R8420	25
3	1000	680	1000/1000	OTM1000E3CM24D	1SCA113672R1001	55
4	1000	680	1000/1000	OTM1000E4CM24D	1SCA113675R1001	65
3	1250	850	1250/1000	OTM1250E3CM24D	1SCA113671R1001	55
4	1250	850	1250/1000	OTM1250E4CM24D	1SCA113674R1001	65
3	1600	1000	1600/1000	OTM1600E3CM24D	1SCA113673R1001	59
4	1600	1000	1600/1000	OTM1600E4CM24D	1SCA113676R1001	69
3	2000	1350	-	OTM2000E3CM24D	1SCA113695R1001	78
4	2000	1350	-	OTM2000E4CM24D	1SCA113697R1001	95
3	2500	1700	-	OTM2500E3CM24D	1SCA113696R1001	78
4	2500	1700	-	OTM2500E4CM24D	1SCA113698R1001	95

¹⁾ OTM2000...2500: Category AC-21B

Handles and bolt kits included as standard

Suitable for switches	Handle	Bolt kit
OTM160...250	OTV250ECMK	M8x25
OTM315...400	OTV400ECMK	M10x30
OTM630...800	OTV800ECMK	M12x40
OTM1000...2500	OTV1000ECMK	M12x60

Recommended accessories: Bridging bars and voltage sensing connectors

See pages 65-66

Manual and motorized bypass switches

Ordering information for motorized OTM160...800E_YM_C



OTM160...250E3YM230C



OTM315...400E3YM230C



OTM315...400E4YM230C



OTM630-800E3YM230C



OTM630-800E4YM230C



OTZC13



OTZC23

Motorized bypass switches, open transition, OTM160...800E_YM_C

Included a manual direct handle, bolt set for the cable connection and storage clip for handle and spare fuses. Handle padlockable in the 0-position.

No. of poles	Rated current and power			Type	Order code	Weight/ unit kg
	AC-21A...AC-22A AC-23A					
	≤ 415V I	400V S	400...415V I / P			
	A	kVA	kW			
Types -W: with wide phase distance.						
3	160	110	160/90	OTM160E3YM230C	1SCA141435R1001	7.72
4	160	110	160/90	OTM160E4YM230C	1SCA141436R1001	8.1
3	200	135	200/110	OTM200E3YM230C	1SCA141437R1001	7.72
4	200	135	200/110	OTM200E4YM230C	1SCA141438R1001	8.1
3	250	170	250/140	OTM250E3YM230C	1SCA141439R1001	7.72
4	250	170	250/140	OTM250E4YM230C	1SCA140870R1001	8.1
3	315	215	315/160	OTM315E3YM230C	1SCA141440R1001	14
4	315	215	315/160	OTM315E4YM230C	1SCA141441R1001	16
3	400	275	400/220	OTM400E3YM230C	1SCA136735R1001	14
4	400	275	400/220	OTM400E4YM230C	1SCA136677R1001	16
3	630	435	630/355	OTM630E3YM230C	1SCA136615R1001	25.9
4	630	435	630/355	OTM630E4YM230C	1SCA136613R1001	28.5
3	800	550	800/450	OTM800E3YM230C	1SCA136616R1001	25.9
4	800	550	800/450	OTM800E4YM230C	1SCA136614R1001	28.5

Recommended accessories: Bridging bars

Please note that two sets of bridging bars are required to make a complete connection.

Suitable for switches	No. of poles	Type	Order code	Units/type pcs	Weight/unit kg
OT_160...250_C,_Y	3	OTZC13	1SCA022767R6910	3	0.6
OT_160...250_C,_Y	4	OTZC14	1SCA022767R7040	4	0.8
OT_315...400_C,_Y	3	OTZC23	1SCA022767R7120	3	0.6
OT_315...400_C,_Y	4	OTZC24	1SCA022767R7210	4	0.8
OT_600_C...800E_C,_Y	3	OTZC33	1SCA022785R7020	3	1.0
OT_600_C...800E_C,_Y	4	OTZC34	1SCA022785R7110	4	1.3

Recommended accessories: Phase barriers

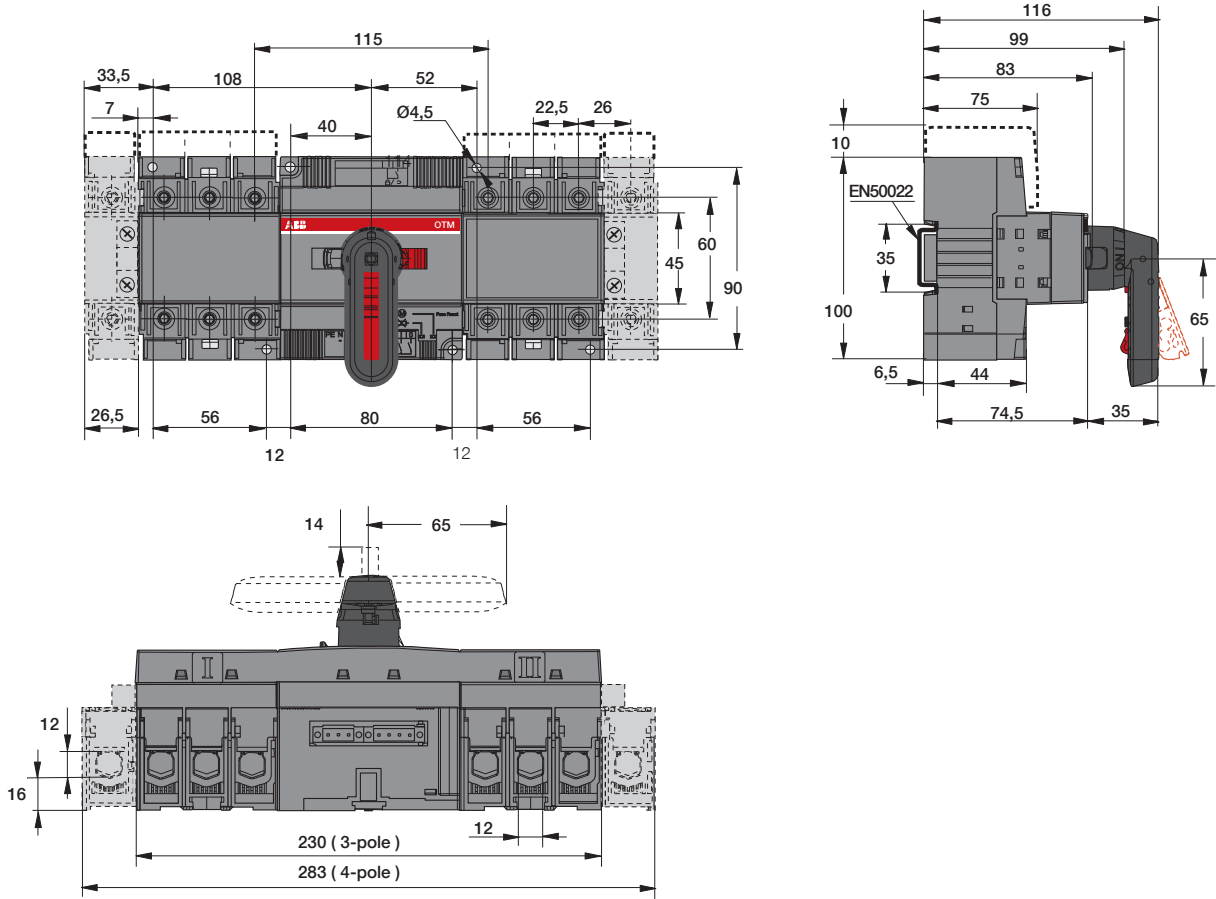
Suitable for switches	No. of poles	Height	Cutting width of the phase barrier	Type	Order code	Units/type pcs
		mm	mm			
OT_160...250E_C	3	100	55	PB100 low	1SDA054970R1	4
OT_160...250E_C	3	200	55	PB200 high	1SDA054972R1	4
OT_160...250E_C	4	100	55	PB100 low	1SDA054971R1	6
OT_160...250E_C	4	200	55	PB200 high	1SDA054973R1	6
OT_315...400E_C	3	100	67	PB100 low	1SDA054970R1	4
OT_315...400E_C	3	200	67	PB200 high	1SDA054972R1	4

Motorized change-over switches

Dimensional drawings

OTMa40...125F3/4_CM

M00352/OTM30-125F_C_M_A

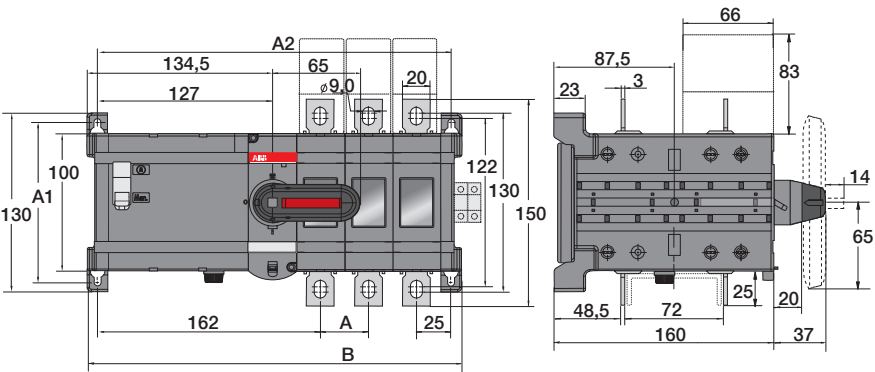


OTM160...250E2/3/4CM

OTM160-250_C_M

	E2	E3	E4
	mm	mm	mm
A	35	35	35
A1	116	116	116
A2	223	258	293
B	238	273	308

M00111 / OTM160-250E_C_M E



Motorized change-over switches

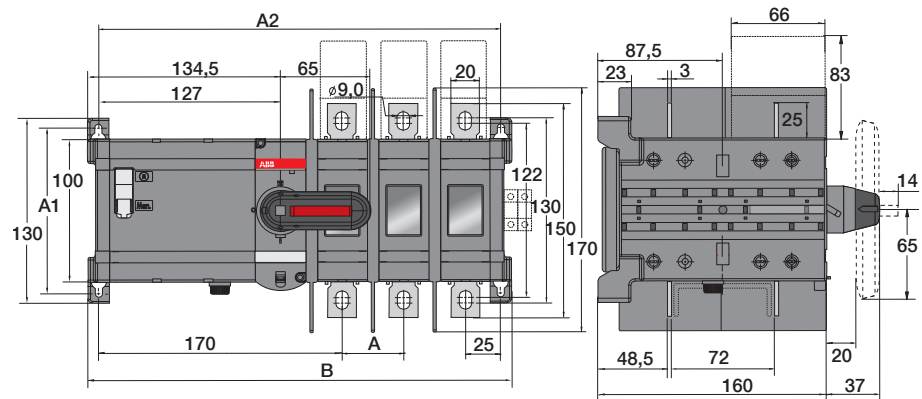
Dimensional drawings

OTM16a0...250E2/3/4WCM

OTM160-250_WCM

	E2	E3	E4
	mm	mm	mm
A	43	43	43
A1	116	116	116
A2	239	282	325
B	254	297	340

M00115 / OTM160-250E_WC_M E

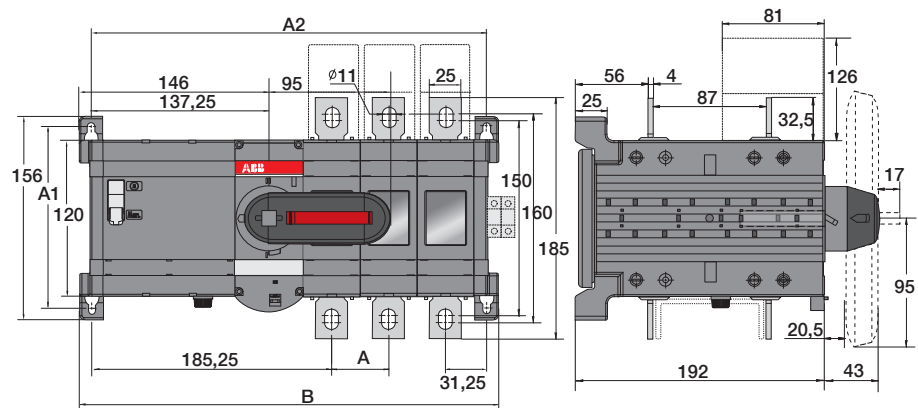


OTM315...400E2/3/4CM

OTM315-400_C_M

	E2	E3	E4
	mm	mm	mm
A	44	44	44
A1	142	142	142
A2	261	305	349
B	280	323	367

M00113 / OTM315-400E_C_M F

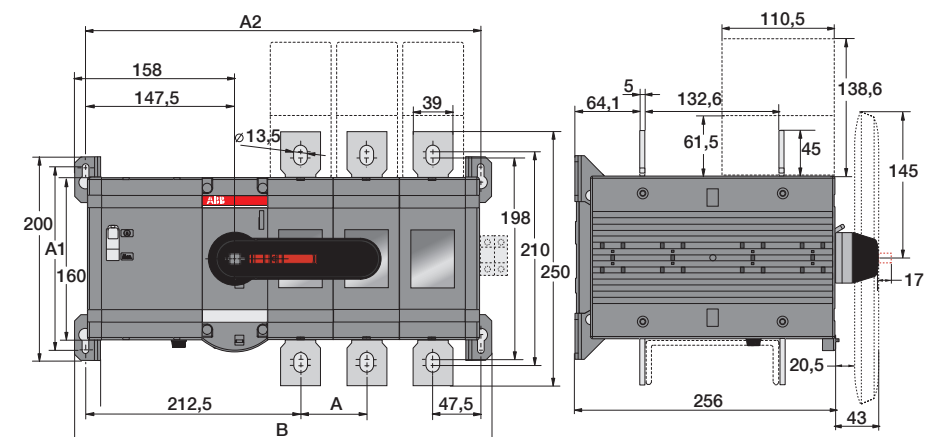


OTM630...800E2/3/4CM

OTM630-800E_C_M

	E2	E3	E4
	mm	mm	mm
A	65	65	65
A1	180	180	180
A2	325	390	455
B	346	411	476

M00140 / OTM630-800E02-04C_M C



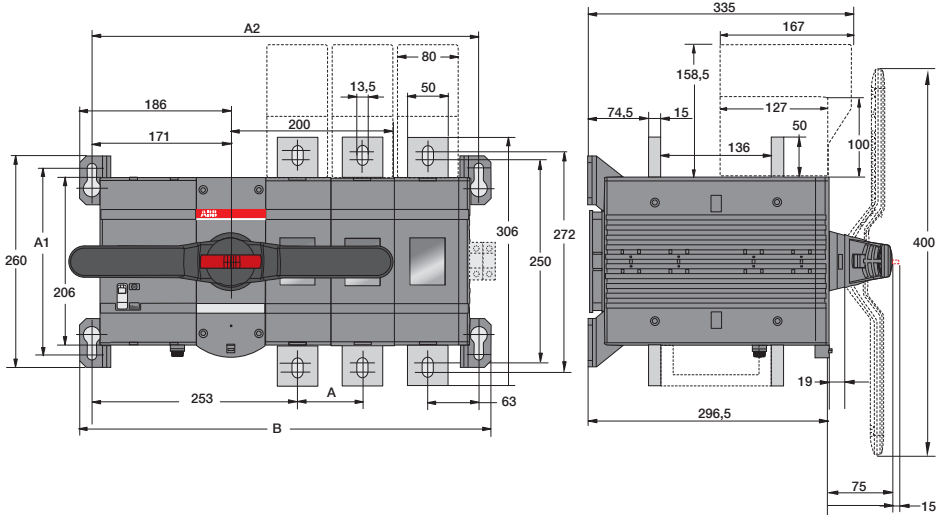
Motorized change-over switches

Dimensional drawings

OTM1000...1250E2/3/4CM

OTM1000-1250_C_M			
	E2	E3	E4
	mm	mm	mm
A	80	80	80
A1	230	230	230
A2	296.5	476.5	556.5
B	426.5	506.5	586.5

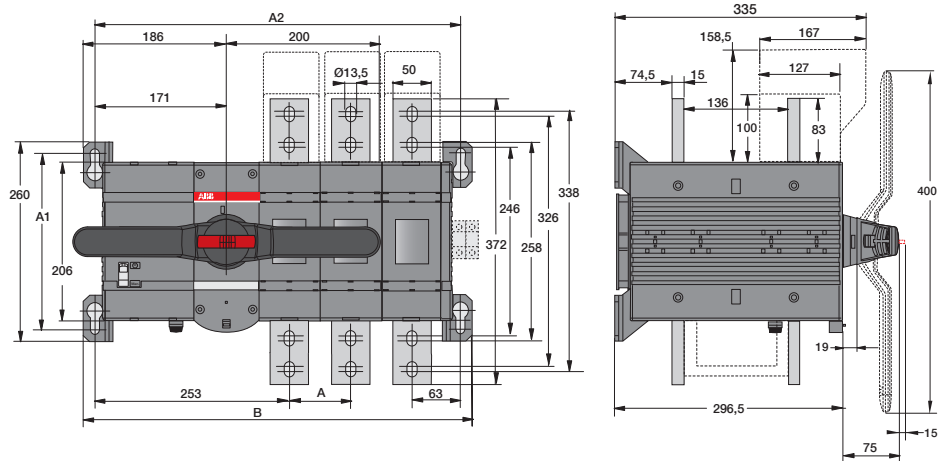
M00256 / OTM1000-1250E_C_M C



OTM1600E2/3/4CM

OTM1600_C_M			
	E2	E3	E4
	mm	mm	mm
A	80	80	80
A1	230	230	230
A2	396.6	476.5	556.5
B	426.5	506.5	586.5

M00258 / OTM1600E_C_M C



Motorized change-over switches

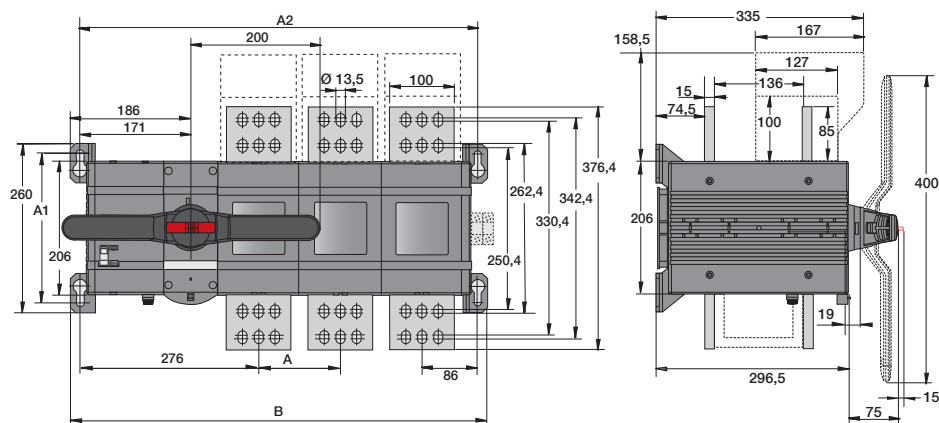
Dimensional drawings

OTM2000...2500E3/4CM

OTM2000-2500_C_M

	E2	E3	E4
	mm	mm	mm
A	126	126	126
A1	230	230	230
A2	488.5	614.5	740.5
B	518.5	644.5	770.5

M00259 / OTM2000-2500E_C_M C

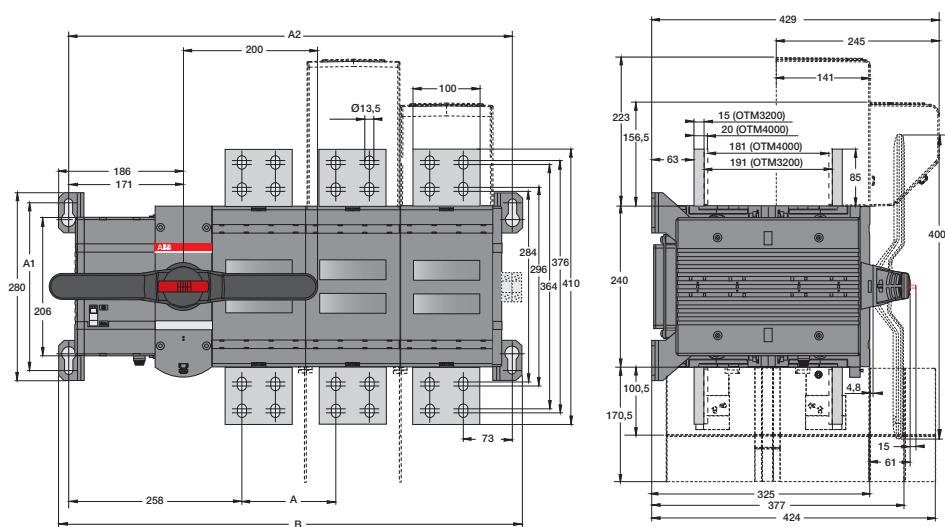


OT3200E2/3/4CM

OTM3200_C_M

	E2	E3	E4
	mm	mm	mm
A	140	140	140
A1	250	250	250
A2	521.5	661.5	801.5
B	551.5	691.5	831.5

M00432/OTM3200-4000_C_M A



Manual and motorized bypass switches

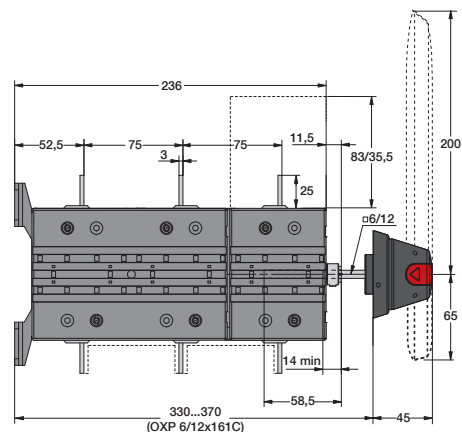
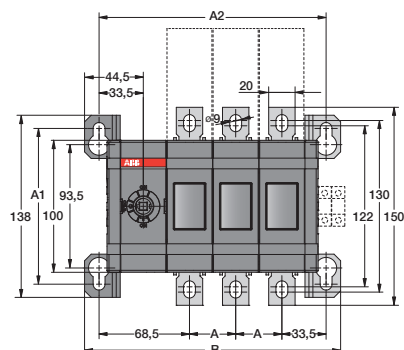
Dimensional drawings for manual bypass switches

OT160...250E03/04Y

OT160...250_Y

	E03	E04
	mm	mm
A	35	35
A1	118	118
A2	172	207
B	194	229

M00405 / OT160-250E02-04Y A

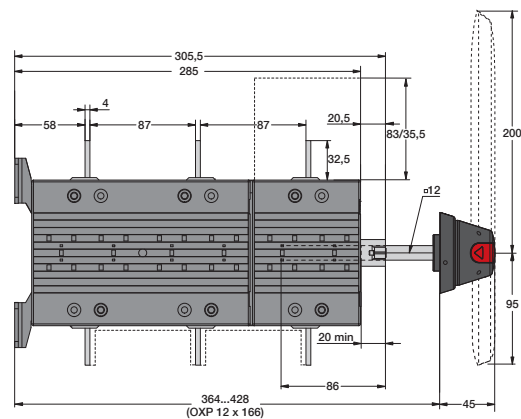
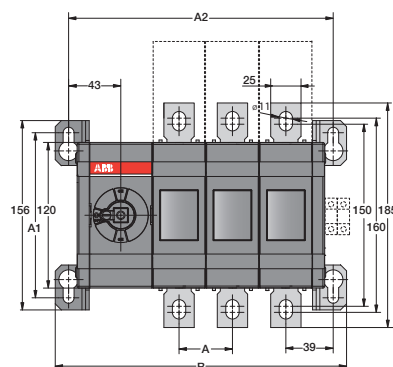


OT315...400E03/04Y

OT315...400E_Y

	E03	E04
	mm	mm
A1	136	136
A2	218	262
B	240	284

M00409 / OT315-400E02-04Y B/E

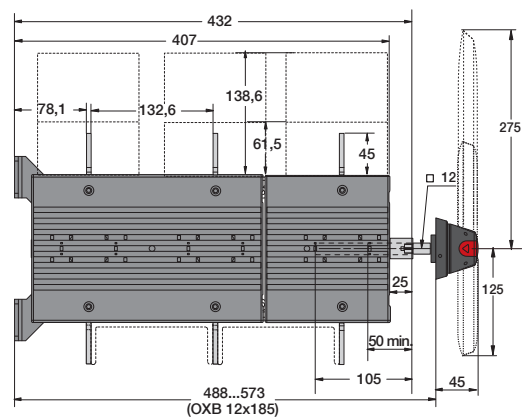
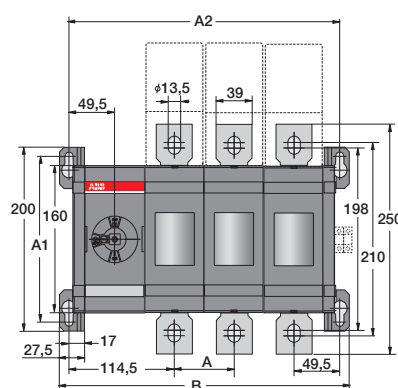


OT630...800E03/04Y

OT630...800E_Y

	E03	E04
	mm	mm
A1	180	180
A2	294	359
B	315	380

M00397 / OT630-800E02-04Y B/ES



Manual and motorized bypass switches

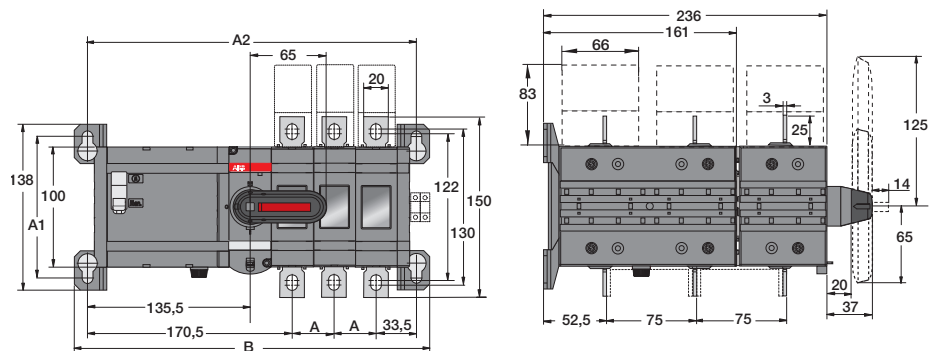
Dimensional drawings motorized bypass switches

OT160...250E03-04Y

OTM160...250_Y

	E2	E3	E4
	mm/in	mm/in	mm/in
A	35	35	35
A1	118	118	118
A2	239	274	309
B	251	296	331

M00339 / OTM160-250E2-4Y A

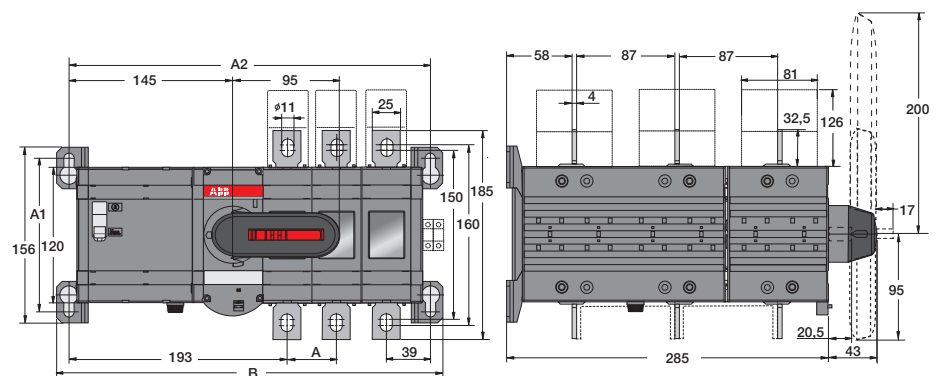


OTM315...400E_Y

OTM315-400E_Y

	E2	E3	E4
	mm/in	mm/in	mm/in
A	44	44	44
A1	136	136	136
A2	276	320	364
B	298	342	386

M00401 / OTM315-400E_Y A

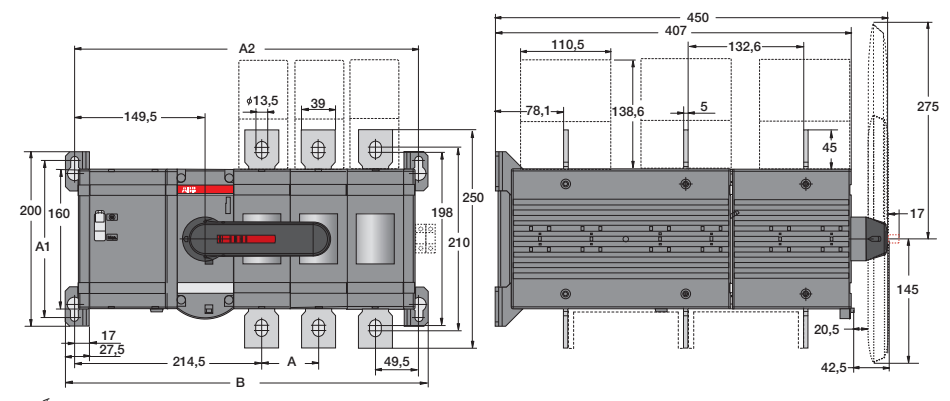


OTM630...800E_Y

OTM630-800E_Y

	E2	E3	E4
	mm/in	mm/in	mm/in
A	65	65	65
A1	180	180	180
A2	329	394	459
B	350	415	480

M00404 / OTM630-800E2_4Y A



Optional accessories for motorized change-over switches

Ordering information for handles and storage clips



OTV400ECMK

Plastic handle, direct mounting, indication I-O-II

Includes a shaft and a mechanism cover. The type and ordering numbers are for one piece.

Suitable for switches	Colour	Type	Order code	Delivery batch pcs	Weight/unit kg
Padlockable with three padlocks in 0-position. Types -ECMK include also microswitches.					
OTM160...250_C	Black	OTV250ECMK	1SCA022804R0570	1	0.10
OTM315...400_C	Black	OTV400ECMK	1SCA022843R2900	1	0.28
OTM630...800_C	Black	OTV800ECMK	1SCA022804R3410	1	0.32
OTM1000...2500_C	Black	OTV1000ECMK	1SCA111301R1001	1	0.77



OTVS0



OTVS1

Handle and spare fuse storage clip for motorized change-over switches

OTM40...125F, the handle can be stored in the handle storage clip OTVS0. The clip can be fixed to a panel frame using the included adhesive tape. OTM160...3200E_, the handle and two spare fuses can be stored in the OTVS1 and OTVS2. OTVS1 and OTVS2 can be installed onto the left side of the switch. Snap-on mounting, no tools required. On OTM160...3200E_, the size of the handle prevents the installation onto the switch frame. However, the handle clip can be installed separately onto the panel frame and the fuse holder clip onto the switch frame.

Suitable for switches	Type	Order code	Units/type pcs	Weight/unit kg
OTM40...125F	OTVS0	1SCA117524R1001	1	0.02
OTM160...250E_	OTVS1	1SCA111413R1001	1	0.02
OTM315...3200E_	OTVS2	1SCA111414R1001	1	0.04

Optional accessories for manual and motorized bypass switches

Ordering information for external handles



OHBZX200



OHBZX275

Handle extension for bypass switches, plastic

The handle extension is snap-on mounted on the standard handle for manual operation. The handle extension shall be removed when padlocking the standard handle. Units / type = 1 pcs.

Suitable for switches	Colour	Type	Order code	Delivery batch pcs	Weight/unit kg
OT160...400E_Y	Black	OHBZX200	1SCA125960R1001	1	0.12
OT630...800E_Y	Black	OHBZX275	1SCA125963R1001	1	0.12

Optional accessories for motorized change-over switches

Ordering information for terminal shrouds



OTS_T3



OTS_T1



OTS_L_



OTS_S_

Terminal shrouds, grey plastic

Snap-on mounting to the switches, IP20. A kit includes three or four shrouds which can be used on either side of the switch. Suitable for the upperswitch. Transparent shrouds for OTM160...3200 available on request, please replace the letter "G" with "T".

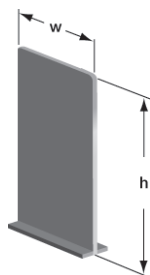
Suitable for switches	No. of poles	Description	Type	Order code	Units/ type pcs	Weight/ unit kg
OTM40...125F_			OTS125T3	1SCA022379R9680	10	0.01
OT_160...250_C	3	Long type	OTS250G1L/3	1SCA022731R8150	3	0.09
OT_160...250_C	3	Short type	OTS250G1S/3	1SCA022731R8310	3	0.06
OT_160...250_C	4	Long type	OTS250G1L/4	1SCA022731R8230	4	0.12
OT_160...250_C	4	Short type	OTS250G1S/4	1SCA022731R8400	4	0.08
OT_315...400_C	3	Long type	OTS400G1L/3	1SCA022736R8840	3	0.15
OT_315...400_C	3	Short type	OTS400G1S/3	1SCA022736R9060	3	0.09
OT_315...400_C	4	Long type	OTS400G1L/4	1SCA022736R9490	4	0.20
OT_315...400_C	4	Short type	OTS400G1S/4	1SCA022736R9650	4	0.12
OT_600...800_C	3	Long type	OTS800G1L/3	1SCA022776R7890	3	0.32
OT_600...800_C	3	Short type	OTS800G1S/3	1SCA022776R8190	3	0.17
OT_600...800_C	4	Long type	OTS800G1L/4	1SCA022776R7970	4	0.42
OT_600...800_C	4	Short type	OTS800G1S/4	1SCA022776R8270	4	0.26
OT_1000...1600_C	3	Long type	OTS1600G1L/3	1SCA022871R9510	3	0.64
OT_1000...1600_C	3	Short type	OTS1600G1S/3	1SCA022871R9600	3	0.37
OT_1000...1600_C	4	Long type	OTS1600G1L/4	1SCA022871R9780	4	0.85
OT_1000...1600_C	4	Short type	OTS1600G1S/4	1SCA022871R9860	4	0.49
OT_2000...2500_C	3	Long type	OTS2500G1L/3	1SCA107261R1001	3	0.77
OT_2000...2500_C	3	Short type	OTS2500G1S/3	1SCA107260R1001	3	0.47
OT_2000...2500_C	4	Long type	OTS2500G1L/4	1SCA107262R1001	4	1.00
OT_2000...2500_C	4	Short type	OTS2500G1S/4	1SCA107271R1001	4	0.61
OT3200_C	3	Long type	OTS4000G1L/3	1SCA129042R1001	3	1.20
OT3200_C	3	Short type	OTS4000G1S/3	1SCA129044R1001	3	1.00
OT3200_C	4	Long type	OTS4000G1L/4	1SCA129043R1001	4	1.40
OT3200_C	4	Short type	OTS4000G1S/4	1SCA129045R1001	4	1.60

Optional accessories for motorized change-over switches

Ordering information for phase barriers



OTB_



PB_

Phase barriers

The phase barriers designed for ABB Tmax T4-T5 MCCB's can also be used for OT_160...800 change-over switches. 3-pole change-overs need 8 barriers and 4-pole change-overs need 12 barriers for full protection.

Suitable for switches	No. of poles	Height mm	Cutting width of the phase barrier mm	Type	Order code	Units/ type pcs
OT_160...250E_C	3	100	55	PB100 low	1SDA054970R1	4
OT_160...250E_C	3	200	55	PB200 high	1SDA054972R1	4
OT_160...250E_C	4	100	55	PB100 low	1SDA054971R1	6
OT_160...250E_C	4	200	55	PB200 high	1SDA054973R1	6
OT_315...400E_C	3	100	67	PB100 low	1SDA054970R1	4
OT_315...400E_C	3	200	67	PB200 high	1SDA054972R1	4
OT_315...400E_C	4	100	67	PB100 low	1SDA054971R1	6
OT_315...400E_C	4	200	67	PB200 high	1SDA054973R1	6
OT_600...800E_C	3	100	90	PB100 low	1SDA054970R1	4
OT_600...800E_C	3	200	90	PB200 high	1SDA054972R1	4
OT_600...800E_C	4	100	90	PB100 low	1SDA054971R1	6
OT_600...800E_C	4	200	90	PB200 high	1SDA054973R1	6

Ordering information for terminal clamps



OZXT1



OZXT2...3



OZXT6

Terminal clamp sets for Al- and Cu-cables insulated versions

Suitable for switches	Cable cross section	Type	Order code	Units/ type	Weight/ unit
	mm ²			pcs	kg
OTM40...125F_	16...50 Al/2.5...50 Cu	OZXT1	1SCA022469R6310	3	0.06
OTM63...125F_	16...120 Al/Cu	OZXT2	1SCA022620R7200	3	0.21
OTM63...125F_	2x(16...50) Al/Cu	OZXT3	1SCA022639R0720	3	0.21
Including 0.75...2.5 mm ² voltage sensing connection. Voltage sensing wires are not included					
OTM40...125F_	16...50 Al/2.5...50 Cu	OZXT6	1SCA122537R1001	3	0.06

Optional accessories for motorized change-over switches

Ordering information for bridging- and reversing bars



OTZC13...34

OTZC43...44
OTZC53...54

Bridging bars

The bridging bars provide a connection link either on the incoming or outgoing side of the switch.

Suitable for switches	No. of poles	Type	Order code	Units/ type pcs	Weight/ unit kg
OT_160...250_C	3	OTZC13	1SCA022767R6910	3	0.6
OT_160...250_C	4	OTZC14	1SCA022767R7040	4	0.8
OT_315...400_C	3	OTZC23	1SCA022767R7120	3	0.6
OT_315...400_C	4	OTZC24	1SCA022767R7210	4	0.8
OT_600_C...800E_C	3	OTZC33	1SCA022785R7020	3	1.0
OT_600_C...800E_C	4	OTZC34	1SCA022785R7110	4	1.3
OT_1000...1250E_C	3	OTZC43	1SCA022868R0710	3	4.2
OT_1000...1250E_C	4	OTZC44	1SCA022868R0800	4	5.6
OT800U_, OT_1600E_C	3	OTZC53	1SCA022868R0980	3	5.6
OT800U_, OT_1600E_C	4	OTZC54	1SCA022868R1010	4	7.4
OT_2000...2500E_C	3	OTZC63	1SCA022868R1100	3	10.8
OT_2000...2500E_C	4	OTZC64	1SCA022868R1360	4	14.5
OT_3200E_C	3	OTZC73	1SCA128843R1001	3	14.1
OT_3200E_C	4	OTZC74	1SCA128844R1001	4	18.7

Correct mounting of bridging bars onto the switch shown here.



OTZR_

Reversing bars

A reversing switch can be built by using phase sequence bars in two phases.

The kit includes two phase sequence conversion bars. The missing bridging bars must be ordered separately, see above. For example 3-pole switches: one 4-pole standard bridging bar kit is required (one bar for the reversing side, three bars for the other side).

Suitable for switches	Type	Order code	Units/ type pcs	Weight/ unit kg
OT_160...250_C	OTZR1	1SCA100352R1001	2	0.3
OT_315...400_C	OTZR2	1SCA104647R1001	2	0.3
OT_600_C...800E_C	OTZR3	1SCA100355R1001	2	0.4

Optional accessories for motorized change-over switches

Ordering information for voltage sensing connector



OMZB18...28



OMZB38



OMZB18...28



OMZB48

Voltage sensing connectors*

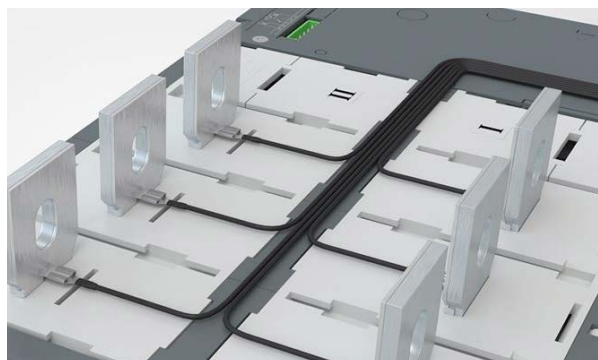
For 0.5...1.5mm² voltage sensing connection of the top or bottom power poles. The connector package includes also the faston terminals (see the picture). One package includes 8 connectors and 8 faston terminals. Wires are not included.

Suitable for switches	Faston terminal cable cross section mm ²	Type	Order code	Units/ type pcs	Weight/ unit kg
OT_160...250_C	0.5...1.5	OMZB18	1SCA120153R1001	8	0.2
OT_315...400_C	0.5...1.5	OMZB28	1SCA120154R1001	8	0.2
OT_630...800E_C	0.5...1.5	OMZB38	1SCA120155R1001	8	0.2
OT_1000...3200_C	0.5...1.5	OMZB48	1SCA120156R1001	8	0.2

* Terminal clamp OZXT6 is recommended to use with OTM40...125_C for voltage sensing connection.

Terminal clamp OZXT6 includes 0.75...2.5 mm² voltage sensing connection. See ordering information on page 57.

Correct mounting of voltage sensing connectors onto the switch shown here.



Ordering information for parallel connection kits



OMZC_

Parallel connection kits

Finger protected connection bars for parallel connection of the upper or lower terminals. The bars accept additional cables, the maximum size is stated below.

Suitable for switches	Cable cross section mm ²	Type	Order code	Units/ type pcs	Weight/ unit kg
OTM40F3C_	2.5...25/2x2.5...16	OMZC03	1SCA121324R1001	1	0.5
OTM40F4C_	2.5...25/2x2.5...16	OMZC04	1SCA121325R1001	1	0.65
OTM40...125F3C_	10...70	OMZC03	1SCA117037R1001	1	0.5
OTM40...125F4C_	10...70	OMZC04	1SCA117038R1001	1	0.65

Optional accessories for motorized change-over switches

Ordering information and technical data for auxiliary contacts



OA1G01
OA7G10



OA1G10
OA8G01



OA2G11

Auxiliary contact blocks for OTM40...125F

Snap-on mounting to the switch, IP20, max. 2 blocks/ side. Ith = 16 A, suitable for cable cross sections max. 2 x 2.5 mm². Simultaneous action with the main contacts.

Suitable for switches	Contact functions	Installation side	Type	Order code	Delivery batch pcs	Weight/unit kg
OT_16...125F_C	1NO	Right	OA1G10	1SCA022353R4970	10	0.03
OT_16...125F_C	1NC	Right	OA8G01	1SCA022744R2240	10	0.03
OT_16...125F_C	1NO	Left	OA7G10	1SCA022673R1140	10	0.03
OT_16...125F_C	1NC	Left	OA1G01	1SCA022353R4890	10	0.03
OT63...125F3C	1NO+1NC	Either	OA2G11 ¹⁾	1SCA022379R8100	10	0.03

¹⁾ Not mountable on 4-pole change-over switches

Auxiliary contact blocks for OTM160...3200

Mounting on the right side of the switch: Max. 4 auxiliary contact blocks/switch (totally 8 blocks). Types _AU have gold plated contacts for harsh environments and low operating voltages. Simultaneous action with the main contacts, IP20.

Suitable for switches	Contact functions	Installation side	Type	Order code	Delivery batch pcs	Weight/unit kg
OT_160...3200_	1NO	Right	OA1G10	1SCA022353R4970	10	0.03
OT_160...3200_	1NC	Right	OA3G01	1SCA022456R7410	10	0.03
OT_160...3200_	1NO	Right	OA1G10AU	1SCA022436R7910	10	0.03
OT_160...3200_	1NC	Right	OA3G01AU	1SCA022819R5260	10	0.03

Auxiliary contacts

Technical data for auxiliary contacts according to IEC 60947-5-1, for OA1G_, OA2G_, OA3G_, OA7G_, OA8G_

AC15			DC12		DC13	
Ue	Ie	Ue	Ie	P	Ie	P
V	A	V	A	W	A	W
230	6	24	10	240	2	50
400	4	72	4	290	0.8	60
415	4	125	2	250	0.55	70
690	2	250	0.55	140	0.27	70
-	-	440	0.1	44	-	-

Function tables

Function table of OT160...3200, OT160...800_Y and OTM160...2500 auxiliary contacts / Switch I (max. 2+2)

Handle position	Main contacts	OA1G10 NO	OA3G01 NC
I	closed	closed	open
0	open	open	closed
II	closed	open	closed

Function table of OT160...3200, OT160...800_Y and OTM160...2500 auxiliary contacts / Switch II (max. 2+2)

Handle position	Main contacts	OA1G10 NO	OA3G01 NC
I	closed	open	closed
0	open	open	closed
II	closed	closed	open

Optional accessories for motorized change-over switches

Ordering information for automatic control units and related accessories



OMD300



OMD800



OMZD1



OMZC2

Automatic control units

OMD automatic control units can be used with OTM40...3200 motorized change-over switches in order to assemble an automatic transfer switch. The type and ordering codes include the OMD control unit, PCB connectors and 2 OMZD1 fasteners for door mounting.

If used with OTM40...125_CMA_:

1 x OTM40...125_CMA_ motorized change-over switch and 2 or 3 x OZXT6 terminal clamp sets (including voltage sensing connection) must be ordered separately to be able to assemble an automatic transfer switch.

If used with OTM160...3200_CM_:

1 x OTM160...3200_CM_ motorized change-over switch, 1 x OMZB_ voltage sensing connectors and 2 x OA1G10 auxiliary contacts must be ordered separately to be able to assemble an automatic transfer switch. The control unit can be mounted on a door or on DIN rail.

Suitable for switches	Type	Order code	Units/type pcs	Weight/unit kg
OTM40...3200_CM_	OMD300E480C-A1	1SCA123790R1001	1	1.0
OTM40...3200_CM_	OMD800E480C-A1	1SCA123791R1001	1	1.3

Panel fasteners

For mounting the OMD automatic control unit on the door. The type and ordering code is for 1 piece, so 2 units must be ordered for mounting the control on the door.

Suitable for OMD control unit	Type	Order code	Units/type pcs
OMD300_, OMD800_	OMZD1	1SCA022787R5190	1

Cover plate

Providing protection against accidental contact. Padlockable transparent cover. The type and ordering codes are for 1 piece.

Suitable for OMD control unit	Type	Order code	Units/type pcs
OMD300_, OMD800_	OMZC2	1SCA101001R1001	1

Optional accessories for motorized change-over switches

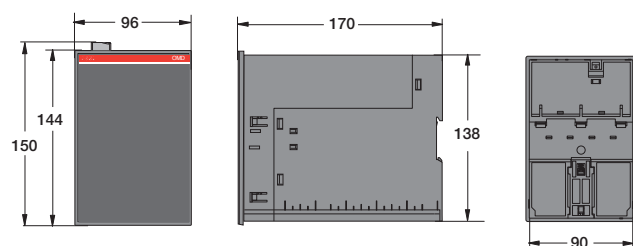
Technical data and dimensional drawings for automatic control units

Technical data for automatic control units OMD300/800

OMD300		
Rated operational voltage U_e	Phase - Neutral	208 V AC - 480 V AC +/- 20% + N
		120 V AC - 277 V AC +/- 20%
Rated frequency		50 / 60 Hz +/- 10%
Voltage sensing precision		5%
Frequency sensing precision		1%
Relay ratings:	X21, X22	12 A, AC1, 250 V / 12 A, DC1, 24 V
	X23, X24	8 A, AC1, 250 V / 8 A, DC1, 24 V
	X26, X27, X28	10 A, AC1, 250 V / 5 A, DC1, 24 V
Rated impulse withstand voltage, U_{imp}		6 kV
Overvoltage category		III
Pollution degree		2
OMD800		
Rated operational voltage U_e on 3 phase system	Phase - Neutral	100 V AC - 480 V AC +/- 20%
		57.7 V AC - 277 V AC +/- 20%
Rated operational voltage U_e on 1 phase system ¹⁾		57.7 V AC - 277 V AC +/- 20%
Rated frequency		50 / 60 Hz +/- 10%
Voltage sensing precision		1%
Frequency sensing precision		1%
Relay ratings:	X21, X22, X24	12 A, AC1, 250 V / 12 A, DC1, 24 V
	X23	8 A, AC1, 250 V / 8 A, DC1, 24 V
	X29	5 A, AC1, 250 V / 6 A, DC1, 24 V
Rated impulse withstand voltage, U_{imp}		6 kV
Overvoltage category		III
Pollution degree		2
AUX voltage (1)		24 V DC - 110 V DC (-10% to +15%)
Protection rating for the front panel		IP40
Operating temperature		-20...+60 °C
Transportation and storage temperature		-25...+80 °C
Altitude		Max. 2000m
Humidity		
With condensation		5 %...98 %
Without condensation		5 %...90 %

¹⁾ If on 1 phase system the voltage level is between 57.7 – 109 V AC, AUX voltage supply must be used

OMD300/800



Main dimensions (mm)



Optional accessories for motorized change-over switches

Ordering information for dual power sources

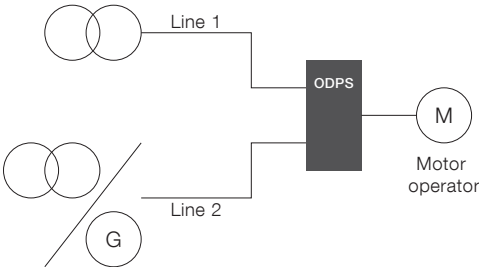


ODPSE230C

Dual power source

Provides power supply to the motor operator by using two lines. The device has two inputs, from line I (LN I) and line II (LN II), and one output for the motor operator. The motor operator is automatically energized whenever power is available in one of the lines. Can be used with 230VAC motor operators. Snap-on mounted PCB connectors are included in the delivery. The device can be DIN-rail or screw mounted.

Suitable for switches	Type	Order code	Units/ type pcs	Weight/ unit kg
OTM40...3200_	ODPSE230C	1SCA116892R1001	1	0.3



Connection diagram, ODPSE230C

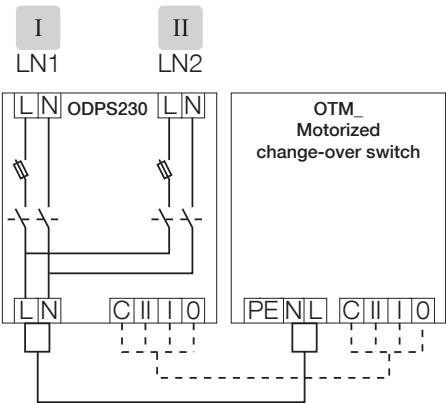


ODPS230

Dual power source including ATS functionality

Similar to previous dual power source but also including ATS (Automatic Transfer Switch) functionality and in-built short-circuit protection. Provides power supply to the motor operator by using two 220...240 V AC lines. Motor operator is automatically energized whenever power is available in one of the lines. The device has a three position (AUTO-MAN-O) DIP switch to choose the correct operating mode. The AUTO position enables and the MAN position disables the ATS functionality when used with OTM motorized change-over switch. The O position is used for safety reasons: it operates the OTM to position 0 to isolate the load from the feeding sources. The device can be DIN-rail or screw mounted.

Suitable for switches	Type	Order code	Units/ type pcs	Weight/ unit kg
OTM40...3200_	ODPS230	1SCA122946R1001	1	0.3



Connection diagram, ODP5230

Optional accessories for motorized change-over switches

Technical data and dimensional drawings for dual power sources

Technical data for dual power source ODPSE230C

Dual power source ODPSE230C	
Rated operational voltage U [V]	220...240 V AC +/- 20%
Rated frequency	50 / 60 Hz +/- 10%
Short-circuit protection device	Max. MCB 4 A
Nominal output current I _n [A]	4 A
Startup time	Max. 1.0 s (with 230 V AC)
Operating transfer time LN1 - LN2 or LN2 - LN1	Max. 0.5 s (with 230 V AC)
Cable size	0.2...2.5 mm ²
Rated impulse withstand voltage, U _{imp}	4 kV
Overvoltage category	III
Pollution degree	3
Protection rating for the front panel	IP20
Operating temperature	- 25...+ 60 °C
Transportation and storage temperature	- 40...+ 70 °C
Altitude	Max. 2 000m

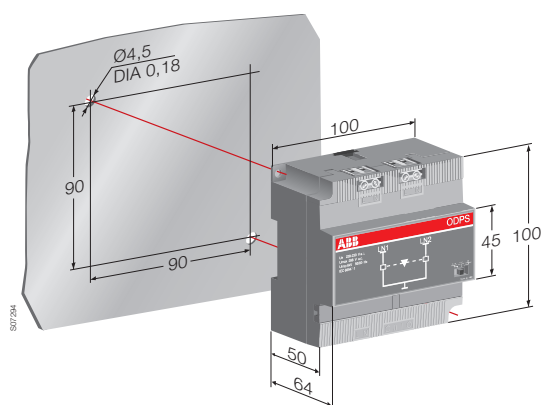
Technical data for new dual power source ODPS230 with ATS functionality

Dual power source ODPS230	
Rated operational voltage U [V]	220...240 V AC, 50 / 60 Hz
Maximum voltage	288 V AC
Pick-up voltage	≥198 V AC
Drop-out voltage	≤154 V AC
Operating time	1 s ± 0.5 s
Nominal output current I _n [A]	3.15 A
Rated conditional short-circuit current, I _p (r.m.s.)	50 kA
Internal fuse	T / 3.15 A / H*
Fuse size	6.3 x 32 mm
Rated impulse withstand voltage, U _{imp}	4 kV
Overvoltage category	III
Pollution degree	3
Cable size	Max. 6 mm ²
Protection rating for the front panel	IP20
Operating temperature	- 25...+ 60 °C
Transportation and storage temperature	- 40...+ 70 °C
Altitude	Max. 2 000m

* The breaking capacity must be 50 kA to achieve 50 kA I_p (r.m.s.) rating

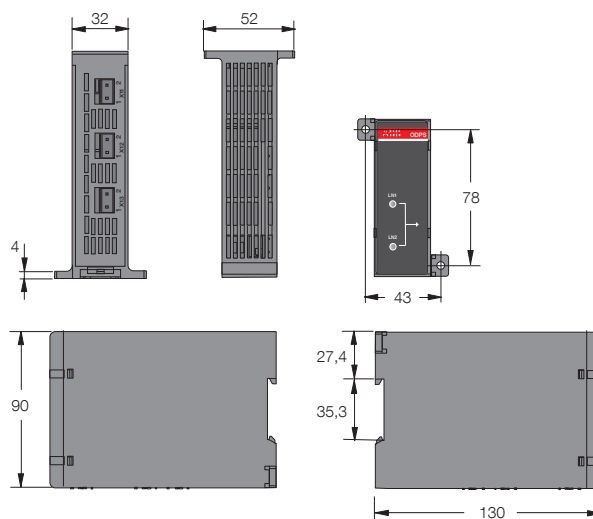
Dimensional drawings for dual power sources

ODPS230



Main dimensions (mm)

ODPSE230C





Motorized change-over switches

Technical data for OTM16...125_C

Switch size				OTM40_	OTM63_	OTM80_	OTM100_	OTM125_
Data according to IEC 60947-3								
Rated insulation voltage and rated operational voltage AC20/DC20			Pollution degree 3	V	800	800	800	800
Dielectric strength			50 Hz 1min.	kV	6	6	6	6
Rated impulse withstand voltage				kV	8	8	8	8
Rated thermal current and rated operational current AC20/DC20 ..with minimum conductor cross section	/ ambient 40°C	In open air	A	40	63	80	115	125
	/ ambient 40°C	In enclosure	A	40	63	80	115	125
	/ ambient 60°C	In enclosure	A	32	50	63	80	100
		Cu	mm ²	10	16	25	35	50
Rated operational current, AC-21A			up to 500 V	A	40	63	80	100
			690 V	A	40	63	80	100
Rated operational current, AC-22A			up to 500 V	A	40	63	80	100
			690 V	A	40	63	80	100
Rated operational current, AC-23A			up to 415 V	A	40	63	80	90
			500 V	A	40	60	60	70
			690 V	A	40	40	40	50
Rated operational current / poles in series, DC-21A			up to 48 V	A	40/1	63/1	80/1	100/1
			110 V	A	40/2	63/2	80/2	100/2
			220 V	A	40/4	63/4	80/4	100/4
Rated operational current / poles in series, DC-22A			up to 48 V	A	40/1	63/1	80/1	100/1
			110 V	A	40/2	63/2	80/2	100/2
			220 V	A	40/4	63/4	80/4	100/4
Rated operational current / poles in series, DC-23A			up to 48 V	A	40/1	63/1	80/1	100/1
			110 V	A	40/2	63/2	80/2	100/2
			220 V	A	40/4	63/4	63/4	63/4
Rated operational power, AC-23A ¹⁾			230 V	kW	7.5	15	22	22
The kW-ratings are accurate for 3-phase 1500 R.P.M. standard asynchronous motors			415 V	kW	18.5	30	37	45
			500 V	kW	22	37	37	45
			690 V	kW	37	37	37	45
Rated breaking capacity in category AC-23			up to 415 V	A	320	504	640	720
			500 V	A	320	480	480	560
			690 V	A	320	320	320	400
Rated conditional short-circuit current I _p (r.m.s.) and corresponding max. allowed cut-off current $\hat{i}_c$ (peak) value. The cut-off current $\hat{i}_c$ refers to values listed by fuse manufacturers (single phase test acc. to IEC60269).	I _p (r.m.s.) 50 kA, 415 V	$\hat{i}_c$ (peak)	kA	16.5	16.5	16.5	16.5	16.5
	Max. OFA_ fuse size	gG/aM	A/A	125/125	125/125	125/125	125/125	125/125
	I _p (r.m.s.) 18 kA, 690 V	$\hat{i}_c$ (peak)	kA	11	11	11	11	11
	Max. OFA_ fuse size	gG	A	125	125	125	125	125
	I _p (r.m.s.) 50 kA, 690 V	$\hat{i}_c$ (peak)	kA	10	10	10	10	10
	Max. OFA_ fuse size	gG/aM	A/A	63/63	63/63	63/63	63/63	63/63
Rated short-time withstand current			I _{cw} (r.m.s.)	690 V 1s	kA	2.5	2.5	2.5
Rated short-time making capacity ²⁾			I _{cm} (peak)	690 V	kA	3.6	3.6	3.6
Power loss / pole			With rated current	W	1.6	2.8	3.5	4.0
Mechanical endurance			Number of oper. cycles ³⁾	Cycles	10 000	10 000	10 000	10 000
Cable size			Cu-wire size suitable for terminal clamps	mm ²	2.5-25/2x2.5-16	10-70	10-70	10-70
				AWG	14-4/2x14-6	8-00	8-00	8-00
Terminal tightening torque			Counter torque required	Nm	6	6	6	6
Operating torque			3-pole switches	Nm	5	5	5	5
Weight without accessories			3-pole switch	kg	1.37	1.37	1.37	1.37
			4-pole switch	kg	1.60	1.60	1.60	1.60
Data according to IEC 60947-6-1								
Class of equipment					PC	PC	PC	PC
Rated short-time withstand current			I _{cw} (r.m.s.)	690 V 0.1s	kA	5	5	5
Conditional short-circuit current			I _{cc} (r.m.s.)	415 V	kA	50	50	50
Corresponding fuse rating			gG/aM fuse	415 V	A	125	125	125
Rated operational current, AC-31B			up to 415 V	A	40	63	80	100
Rated operational current, AC-32B			up to 415 V	A	40	63	80	100
Rated operational current, AC-33B			up to 415 V	A	40	63	80	80

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

²⁾ Short circuit duration > 50ms, without fuse protection

³⁾ Operating cycle: O - I - O - II - O

Motorized change-over switches

Technical data for OTM160...800_C

Switch size				OT_160_	OT_200_	OT_250_	OT_315_	OT_400_	OT_630_	OT_800_
Data according to IEC 60947-3										
Rated insulation voltage and rated operational voltage AC20/DC20 ¹⁾			Pollution degree 3 ²⁾	V	1000	1000	1000	1000	1000	1000
Dielectric strength			50 Hz 1min.	kV	10	10	10	10	10	10
Rated impulse withstand voltage ³⁾				kV	12	12	12	12	12	12
Rated thermal current and rated operational current AC20/DC20 ..with minimum conductor cross section	/ ambient 40°C	In open air	A	160	200	250	315	400	630	800
	/ ambient 40°C	In enclosure	A	160	200	250	315	400	630	800
		Cu	mm ²	70	95	120	185	240	2x185	2x240
Rated operational current, AC-21A			up to 500 V	A	160	200	250	315	400	630
			690 V	A	160	200	250	315	400	630
Rated operational current, AC-22A			up to 500 V	A	160	200	250	315	400	630
			690 V	A	160	200	250	315	400	630
Rated operational current, AC-23A			up to 500 V	A	160	200	250	315	400	630
			690 V	A	160	200	250	315	400	630
Rated operational current / poles in series, DC-21A ⁴⁾			≤ 110 V	A	160/2	200/2	250/2	315/1 ¹⁾	400/1 ¹⁾	630/1
			220 V	A	160/2	200/2	250/2	315/2 ¹⁾	400/2 ¹⁾	630/1
			440 V	A	160/3	200/3	230/3	315/3	360/3	630/2
			660 V	A	160/4	200/4	200/4	315/4	315/4	630/4 ¹⁾
Rated operational power, AC-23A ²⁾			230 V	kW	45	60	75	100	132	200
The kW-ratings are accurate for 3-phase 1500 R.P.M. standard asynchronous motors			400 V	kW	90	110	140	160	220	355
			415 V	kW	90	110	145	180	230	355
			500 V	kW	110	132	170	220	280	400
			690 V	kW	160	200	250	315	400	630
Rated breaking capacity in category AC-23			up to 415 V	A	1 280	1 600	2 000	2 520	3 200	5 040
			500 V	A	1 280	1 600	2 000	2 520	3 200	5 040
			690 V	A	1 280	1 600	2 000	2 520	3 200	5 040
Rated conditional short-circuit current I _p (r.m.s.) and cut-off current I _c (peak) value. The cut-off current I _c refers to values listed by fuse manufacturers (single phase test acc. to IEC60269).	I _p (r.m.s.) 80 kA, 415 V	I _c (peak)	kA	40.5	40.5	40.5	59	59	83.5	83.5
	Max. OFA_ fuse size	gG/aM	A/A	355/315	355/315	355/315	500/500	500/500	800/1 000	800/1 000
	I _p (r.m.s.) 100 kA, 500 V	I _c (peak)	kA	40.5	40.5	40.5	61.5	61.5	90	90
	Max. OFA_ fuse size	gG/aM	A	315/315	315/315	315/315	500/450	500/450	800/800	800/800
	I _p (r.m.s.) 80 kA, 690 V	I _c (peak)	kA	40.5	40.5	40.5	59	59	83.5	83.5
	Max. OFA_ fuse size	gG/aM	A	355/315	355/315	355/315	500/500	500/500	800/1 000	800/1 000
Rated short-time withstand current			I _{ew} (r.m.s.)	690 V 0.15s	kA	15	15	15	31	31
				690 V 0.25s	kA	15	15	15	24	24
				690 V 1s	kA	8	8	8	15	15
Rated short-time making capacity ³⁾			I _{cm} (peak) ⁴⁾	690 V	kA	30	30	30	65	65
Power loss / pole			With rated current	W	2.4	4	6.5	6.5	10	25
Mechanical endurance			Number of oper. cycles ⁵⁾	Cycles	8 000	8 000	8 000	8 000	8 000	5 000
Terminal bolt size			Metric thread diameter x length	mm	M8x25	M8x25	M8x25	M10x30	M10x30	M12x40
Terminal tightening torque			Counter torque required	Nm	15-22	15-22	15-22	30-44	30-44	50-75
Operating torque			3-pole change-over switches	Nm	7	7	7	16	16	27
Weight without accessories			3-pole switch	kg	5.7	5.7	5.7	10.2	10.2	17.5
			4-pole switch	kg	6.4	6.4	6.4	11.4	11.4	20.4
Data according to IEC 60947-6-1										
Class of equipment				PC	PC	PC	PC	PC	PC	PC
Rated short-time withstand current	I _{ew} (r.m.s.)	690 V 0.1s	kA	15	15	15	25	25	38	38
Rated operational current, AC-31B				up to 415 V	A	160	200	250	315	400
Rated operational current, AC-33B				up to 415 V	A	160	200	250	315	400

¹⁾ Utilization category B

²⁾ These values are given for guidance and may vary acc. to the motor manufacturer

³⁾ Short circuit duration > 50ms, without fuse protection

⁴⁾ Max. distance from switch frame to nearest busbar / cable support 150 mm

⁵⁾ Operating cycle: O - I - O - II - O

⁶⁾ Further ratings on request

Motorized change-over switches

Technical data for OTM1000...3200_C

Switch size				OT_1000_	OT_1250_	OT_1600_	OT_2000_	OT_2500_	OT_3200_
Data according to IEC 60947-3									
Rated insulation voltage and rated operational voltage AC20/DC20 ¹⁾ Dielectric strength		Pollution degree 3 ²⁾	V	1 000	1 000	1 000	1 000	1 000	1 000
		50 Hz 1min.	kV	10	10	10	10	10	10
			kV	12	12	12	12	12	12
Rated impulse withstand voltage ³⁾									
Rated thermal current and rated operational current AC20/DC20 ..with minimum conductor cross section	/ ambient 40°C	In open air	A	1 000	1 250	1 600	2 000	2 500	3 200
	/ ambient 40°C	In enclosure	A						
		Cu	mm ²	2x300	2x400	2x500	3x500	4x500	4x1 000
Rated operational current, AC-21A		up to 500 V	A	1 000	1 250	1 600	2 000 ⁵⁾	2 500 ⁵⁾	3 200 ⁵⁾
		690 V	A	1 000	1 250	1 600			
Rated operational current, AC-22A		up to 500 V	A	1 000	1 250	1 600			
		690 V	A	1 000	1 250	1 600			
Rated operational current, AC-23A		up to 500 V	A	1 000	1 250	1 250			
		690 V	A	1 000	1 250	1 250			
Rated operational power, AC-23A ¹⁾ The kW-ratings are accurate for 3-phase 1500 R.P.M. standard asynchronous motors		230 V	kW	315	400	400			
		415 V	kW	560	710	710			
		500 V	kW	710	900	900			
		690 V	kW	1 000	1 200	1 200			
Rated breaking capacity in category AC-23		up to 415 V	A	10 000	10 000	10 000			
		500 V	A	10 000	10 000	10 000			
		690 V	A	10 000	10 000	10 000			
Rated conditional short-circuit current I _p (r.m.s.) and cut-off current i _c (peak) value. The cut-off current i _c refers to values listed by fuse manufacturers (single phase test acc. to IEC60269).	I _p (r.m.s.) 80 kA, 415 V	i _c (peak)	kA	100	100	100			
	Max. OFA_ fuse size	gG/aM	A/A	1 250/1 250	1 250/1 250	1 250/1 250			
	I _p (r.m.s.) 100 kA, 500 V	i _c (peak)	kA	106	106	106			
	Max. OFA_ fuse size	gG/aM	A	1 250/1 250	1 250/1 250	1 250/1 250			
	I _p (r.m.s.) 80 kA, 690 V	i _c (peak)	kA						
	Max. OFA_ fuse size	gG/aM	A						
Rated short-time withstand current	I _{cw} (r.m.s.)	690 V 0.15s	kA	50	50	50	50	50	
		690 V 0.25s	kA	50	50	50	50	50	
		690 V 1s	kA	50	50	50	55	55	65
Rated short-time making capacity ²⁾	I _{cm} (peak) ³⁾	690 V	kA	92	92	92	110	110	143
Power loss / pole	With rated current		W	19	29	48	55	85	95
Mechanical endurance	Number of oper. cycles ⁴⁾		Cycles	3 000	3 000	3 000	2 000	2 000	2 000
Terminal bolt size	Metric thread diameter x length		mm	M12x60	M12x60	M12x60	M12x60	M12x60	M12x100
Terminal tightening torque	Counter torque required		Nm	50-75	50-75	50-75	50-75	50-75	50-75
Operating torque	3-pole change-over switches		Nm	78	78	78	78	78	80
Weight without accessories	3-pole switch		kg	42	42	44	56	56	83
	4-pole switch		kg	50	50	52	70	70	101
Data according to IEC 60947-6-1									
Class of equipment				PC	PC	PC			
Rated short-time withstand current	I _{cw} (r.m.s.)	690 V 0.1s	kA	50	50	50			
Rated operational current, AC-31B		up to 415 V	A	1 000	1 250	1 600			
Rated operational current, AC-33B		up to 415 V	A	1 000	1 000	1 000			

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

²⁾ Short circuit duration > 50ms, without fuse protection

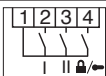
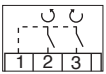
³⁾ Max. distance from switch frame to nearest busbar / cable support 150 mm

⁴⁾ Operating cycle: O - I - O - II - O

⁵⁾ Category AC-21B, up to 415V

Motorized change-over switches

Motor operator performance data for OTM40...125_C

Switch size				40...125
Data according to IEC 60947				
Rated operational voltage U_e	Pollution degree 3 50/60 Hz		V AC/DC	110 - 240
			V DC	24
Operating voltage range				0.85 - 1.1 x U_e
Operating time ¹⁾	90° I-O, 0-I, 0-II, II-O	110...240 V AC/DC	s	0.5-1.0
		24 V DC	s	0.6-1.3
Operating transfer time ¹⁾	180° I-II, II-I	110...240 V AC/DC	s	1.2-1.5
		24 V DC	s	1.4-2.1
OFF -time when operating I-II or II-I ¹⁾	180° I-II, II-I	110...240 V AC/DC	s	0.4-0.8
		24 V DC	s	0.6-1.0
Nominal current I_n ¹⁾		110...240 V AC/DC	A	0.2-0.5
		24 V DC	A	0.6
Current inrush ¹⁾		110...240 V AC/DC	A	1.5-3.0
		24 V DC	A	3.6
Operating rate	Cycle 0-I-0-II-0	Max. continuous	cycles/min	1
		Max. short-time ≤ 10 cycles	cycles/min	10
Overvoltage category				III
Rated impulse withstand voltage U_{imp}			kV	4
Dielectric strength		50 Hz 1 min.	kV	1.5
Impulse command		Min. impulse duration	ms	100
Terminals				
Voltage supply wiring for U_e				PE - N - L
Cross section		Solid/stranded	mm ²	1.5 - 2.5
Short-circuit protection device		Max. MCB	A	C16
Control terminal				C - II - I - O
Cross section		Solid/stranded	mm ²	1.5 - 2.5
Maximum cable length			m	100
Terminal for state information				
Terminal for state information		Solid/stranded	mm ²	1.5
Also used with the OMD automatic control unit		Rating	A	3
				AC-1/250V
Common, voltage supply	1			
Position of switch I	2			
Position of switch II	3			
Handle attached or motor operator locked	4			
Short-circuit protection device		Max. MCB	A	C2
Control terminal for OMD automatic control unit				
Control terminal for OMD automatic control unit		Solid/stranded	mm ²	1.5 - 2.5
Common, voltage supply from motor operator			V DC	24
Close switch I or open switch II			V DC	24
			mW	500
Close switch II or open switch I	3		V DC	24
			mW	500
Operating temperature			°C	-25...+55
Transportation and storage temperature			°C	-40...+70
Max. altitude			m	2 000
Protection degree (front panel)				IP20

¹⁾ Under nominal conditions

Motorized change-over switches

Motor operator performance data for OTM160...3200_C

Switch size				160...250	315...400	630...800	1000...1600	2000...3200
Data according to IEC 60947								
Rated operational voltage U _e	Pollution degree 3 50/60 Hz		V AC	220 - 240				
			V AC/DC	110 - 125				
			V DC	48				
			V DC	24				
Operating voltage range				0.85 - 1.1 x U _e				
Operating time ¹⁾	90° I-O, O-I, O-II, II-O	220-240VAC	s	0.4-1.0	0.4-1.0	0.4-1.0	0.5-1.5	0.5-1.5
		110-125VAC/DC	s	0.5-1.5	0.5-1.5	0.6-1.2	0.5-1.5	0.5-1.5
		48VDC	s	0.5-1.5	0.4-1.0	0.6-1.6	0.5-1.5	0.5-1.5
		24VDC	s	0.4-1.0	0.4-1.0	0.5-1.5	1.0-2.0	1.0-2.0
Operating transfer time ¹⁾	180° I-O-II, II-O-I	220-240VAC	s	1.0-2.0	0.9-2.0	0.9-2.0	1.5-3.0	1.5-3.0
		110-125VAC/DC	s	1.1-2.5	1.2-2.6	1.2-3.0	1.5-3.0	1.5-3.0
		48VDC	s	1.4-2.5	1.0-2.0	1.3-3.0	1.5-3.0	1.5-3.0
		24VDC	s	1.0-2.0	1.0-2.0	1.1-2.5	2.0-3.5	2.0-3.5
OFF -time when operating I-II or II-I ¹⁾	180° I-II, II-I	220-240VAC	s	0.4-1.0	0.4-1.0	0.4-1.0	0.5-1.5	0.5-1.5
		110-125VAC/DC	s	0.4-1.1	0.5-1.5	0.6-1.5	0.5-1.5	0.5-1.5
		48VDC	s	0.5-1.1	0.4-1.0	0.7-1.6	0.5-1.5	0.5-1.5
		24VDC	s	0.4-1.0	0.4-1.0	0.5-1.5	0.8-1.7	0.8-1.7
Nominal current I _n ¹⁾		220-240VAC	A	0.2	0.5	0.7	1.8	1.8
		110-125VAC/DC	A	0.5	0.6	0.8	3.0	3.0
		48VDC	A	1.1	2.1	2.6	5.3	5.3
		24VDC	A	3.3	4.2	4	8.0	8.0
Current inrush ¹⁾		220-240VAC	A	1.3	2.1	2.8	7.7	7.7
		110-125VAC/DC	A	2.1	2.5	4.6	13.3	13.3
		48VDC	A	4.4	8.3	8.4	22.4	22.4
		24VDC	A	16.8	17.5	22.4	26.6	26.6
Overload fuse	Type / I _n / Capacity	220-240VAC	mA	T/315/H	T/500/H	T/1 000/H	T/2 000/H	T/2 000/H
		110-125VAC/DC	mA	T/500/H	T/630/H	T/1 000/H	T/4 000/H	T/4 000/H
		48VDC	A	T/1.25/H	T/2.5/H	T/2.5/H	T/5/H	T/5/H
		24VDC	A	T/4.0/H	T/5.0/H	T/5.0/H	T/10/H	T/10/H
	Size		mm	5x20	5x20	5x20	5x20	5x20
Operating rate	Cycle O-I-O-II-O, max. continuous	220-240VAC	cycles/min	1	1	1	0.5	0.5
		110-125VAC/DC	cycles/min	1	1	1	0.5	0.5
		48VDC	cycles/min	1	1	1	0.5	0.5
		24VDC	cycles/min	1	1	1	0.5	0.5
	Max. short-time, ≤ 10 cycles	220-240VAC	cycles/min	10	10	10	5	5
		110-125VAC/DC	cycles/min	10	10	10	5	5
		48VDC	cycles/min	10	10	10	5	5
		24VDC	cycles/min	10	10	10	5	5
Overvoltage category			III					
Rated impulse withstand voltage U _{imp}		kV	4					
Dielectric strength		50 Hz 1 min.	kV	1.5				
Impulse command		Min. impulse duration	ms	100				
Terminals								
Voltage supply wiring for U _e				PE - N - L				
Cross section		solid/stranded	mm ²	1.5 - 2.5				
Short-circuit protection device		max. MCB	A	C16				
Control terminal (no SELV)				C - II - I - O				
Cross section		solid/stranded	mm ²	1.5 - 2.5				
Maximum cable length			m	100				
State information of locking (no SELV)								
Handle attached or motor operator locked		11-12-14 (C/O)		5A/250V/cosΦ=1				
Locking motor operator		23-24 (NO)		5A/250V/cosΦ=1				
Short-circuit protection device		Max. MCB	A	C2				
Protection degree				IP20				
Operating temperature			°C	-25...+55				
Transportation and storage temperature			°C	-40...+70				
Max. altitude			m	2 000				

¹⁾ Under nominal conditions

04

Compact ATS



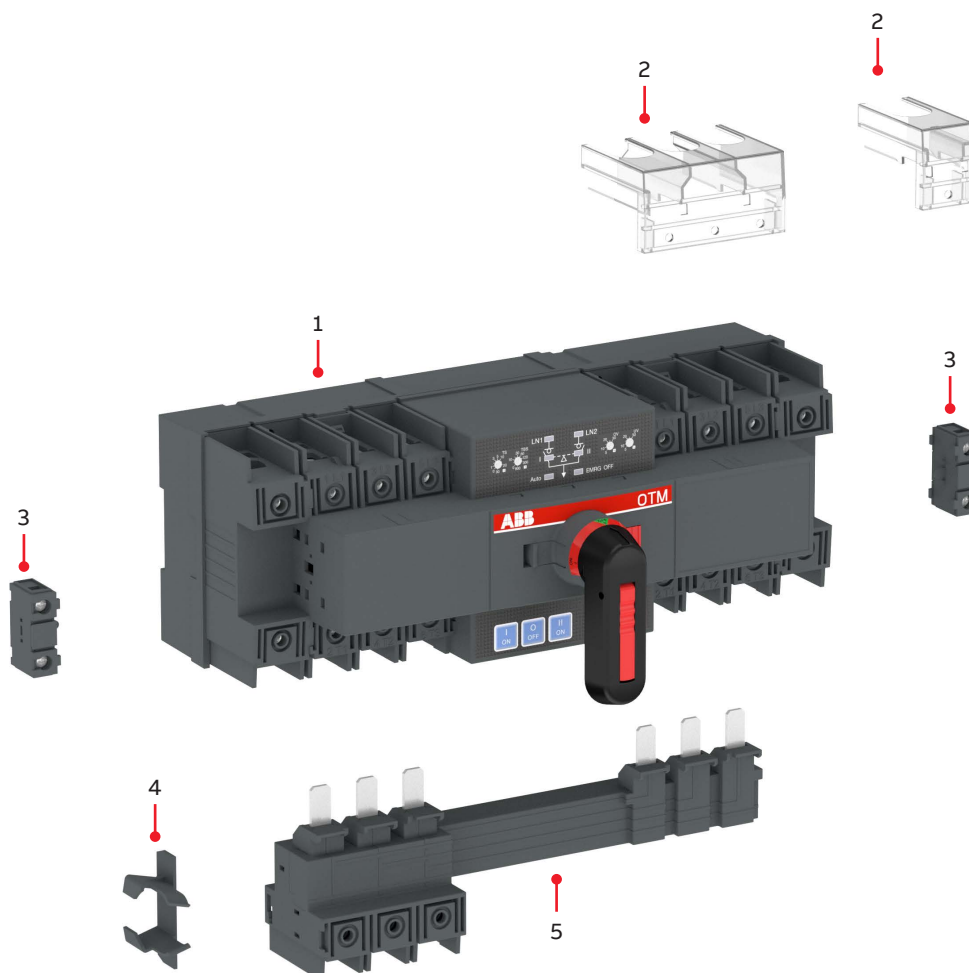
Compact ATS

Automatic transfer switches

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Compact ATS

Compact without compromise



Motorized change-over switch accessory guide

1. Compact ATS
2. Terminal shroud
3. Auxiliary contact

4. Storage clip
5. Bridging bar

To learn how to install the key accessories, watch the video



Compact ATS – Range and installation of accessories

Please note that not all listed accessories are automatically included in your order. See next page for recommendations.

Compact ATS

Compact without compromise

The new Compact ATS by ABB is just that – It's a compact, economical and innovative all-in-one solution that delivers all the safety and performance you would expect from a product supplying your most valuable assets. An automatic transfer switch does not need to be complex and difficult to use. Compared to conventional solutions, the ABB Compact ATS offers 100% easier and simpler operation in a 40% more compact package.



OTM_C20D, for Network/Network applications.

The Compact ATS is an ideal device for securing the availability of stand-by power in a wide variety of residential, commercial, industrial and agricultural structures. The IEC 60947-6-1 tested devices fulfil the requirements of Part 6-1, making them multiple function apparatus. ABB Compact ATS is a safe and approved solution for any application where a reliable and complete source transfer device is required.

To learn how Compact ATS works, watch the video



Compact ATS – Operation and functionality



OTM_C21D, for Network/Network and Network/Genset applications.

Compact ATS

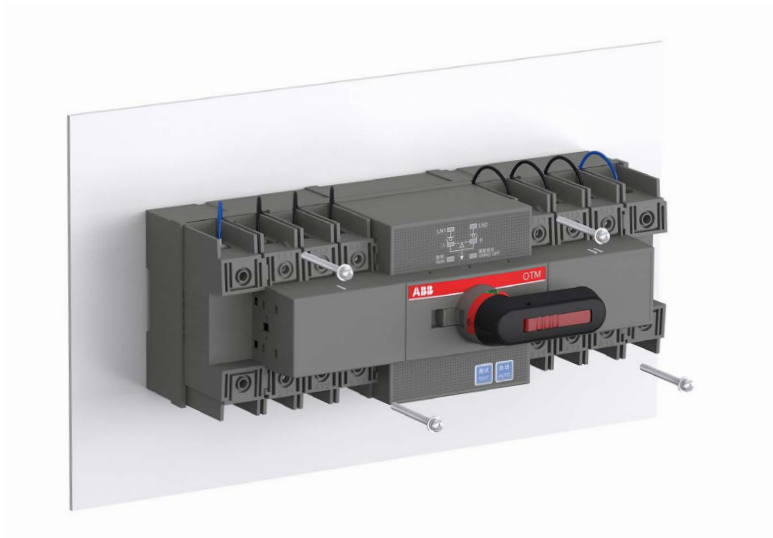
Compact without compromise



DIN-rail mounting



Easy manual operation with the handle in case of emergency

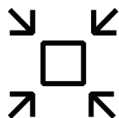


Base mounting with screws



Safety and protection

All current-carrying parts of the device are fully enclosed without exposed wiring, providing protection against direct contact. In case of an emergency or testing event, an external, easily accessible manual handle provides a safe and easy (electrical or non-electrical) source transfer.



Space saving

The device has been designed to be extremely compact and fully enclosed. Compared to a conventional solution, the Compact ATS takes up approximately 40% less cabinet space. The all-in-one design means that no additional accessories are needed. You don't even need an extra external power source.



Affordable range

Affordability has been one of the key objectives for this device. The available functionalities have been carefully selected to meet market requirements without added niche features that would elevate price. It is simple, reliable and functional.

Ordering information

OTM_C_D products overview



Fixed version

OTM_C20D

For Network/Network application

Fixed version with pre-defined delay times and voltage thresholds

Number of poles	Rated current	Rated voltage	Voltage sensing	Type	Ordering code	Weight kg
	A	V				
2	63	230:220-240	Top in	OTM63F2C20D230C	1SCA151421R1001	1.75
2	125	230:220-240	Top in	OTM125F2C20D230C	1SCA151417R1001	1.75
3	63	400:380-415	Top in	OTM63F3C20D400C	1SCA151423R1001	1.75
3	125	400:380-415	Top in	OTM125F3C20D400C	1SCA151419R1001	1.75
4	40	400:380-415	Top in	OTM40F4C20D400C	1SCA151252R1001	2.00
4	63	400:380-415	Top in	OTM63F4C20D400C	1SCA151254R1001	2.00
4	125	400:380-415	Top in	OTM125F4C20D400C	1SCA151250R1001	2.00



Adjustable version

OTM_C21D

For Network/Network and Network/Genset applications

Adjustable version with configurable transfer and back-switching delays

Adjustable over and under-voltage thresholds

Number of poles	Rated current	Rated voltage	Voltage sensing	Type	Ordering code	Weight kg
	A	V				
2	63	230:220-240	Top in	OTM63F2C21D230C	1SCA151422R1001	1.75
2	125	230:220-240	Top in	OTM125F2C21D230C	1SCA151418R1001	1.75
3	63	400:380-415	Top in	OTM63F3C21D400C	1SCA151424R1001	1.75
3	125	400:380-415	Top in	OTM125F3C21D400C	1SCA151420R1001	1.75
4	40	400:380-415	Top in	OTM40F4C21D400C	1SCA151253R1001	2.00
4	63	400:380-415	Top in	OTM63F4C21D400C	1SCA151255R1001	2.00
4	125	400:380-415	Top in	OTM125F4C21D400C	1SCA151251R1001	2.00
4	40	400:380-415	Bottom in	OTM40F4CB21D400C	1SCA150580R1001	2.00
4	63	400:380-415	Bottom in	OTM63F4CB21D400C	1SCA150586R1001	2.00
4	125	400:380-415	Bottom in	OTM125F4CB21D400C	1SCA150574R1001	2.00

Ordering information

Accessories



OTVS0

OA1G01
OA7G01OA1G10
OA8G01

Handles, direct mounting

Plastic I - O - II handle.

Suitable for switches	Colour	Installation side	Type	Order number	Units/type	Weight/unit
					pcs	kg
OTM40...125F_CM	Black	Shaft incl.	OHB65D6CM	1SCA022807R9430	1	0.12

Handle storage clip

The handle can be stored in the handle storage clip OTVS0. The handle storage clip can be fixed to a panel frame using the included adhesive tape.

Suitable for switches	Type	Order number	Units/type	Weight/unit
			pcs	kg
OTM40...125F_CM	OTVS0	1SCA117524R1001	1	0.02

Auxiliary contacts

Snap-on mounting to the switch, IP 20, max. 2 blocks/ side. $I_{th} = 16$ A, suitable for cable cross sections max. 2×2.5 mm². Simultaneous action with the main contacts. The type and ordering number is for one piece.

Suitable for switches	Contact function	Installation side	Type	Order number	Units/type	Weight/unit
					pcs	kg
OTM40...125F_CM	1NO	Right	OA1G10	1SCA022353R4970	1	0.03
OTM40...125F_CM	1NC	Right	OA8G01	1SCA022744R2240	1	0.03
OTM40...125F_CM	1NO	Left	OA7G10	1SCA022673R1140	1	0.03
OTM40...125F_CM	1NC	Left	OA1G01	1SCA022353R4890	1	0.03

Ordering information

Accessories



OTS_T3



OTS_T1



OZXT1



OZXT2...3



OZXT6



OMZC_

Terminal shrouds

Transparent plastic, snap-on mounting to the switches, IP20. The full shrouding of a 3-pole change-over switch is achieved with four 3-pole shrouds.*

Suitable for switches	Type	Order number	Units/type pcs	Weight/ unit kg
For three pole switches				
OTM40...125F_CM	OTS125T3	1SCA022379R9680	1	0.03
For fourth pole				
OTPS60FP, OTPS125FP	OTS125T1	1SCA022379R9760	1	0.03

Terminal clamp sets

Suitable for switches	Contact function	Type	Order number	Units/type pcs	Weight/ unit kg
Terminal clamp sets for Al- and Cu-cables insulated versions					
OTM40...125F_CM	16...50 Al / 2.5...50 Cu	OZXT1	1SCA022469R6310	3	0.06
OTM63...125F_CM	16...120 Al/Cu	OZXT2	1SCA022620R7200	3	0.21
OTM63...125F_CM	2x(16...50) Al/Cu	OZXT3	1SCA022639R0720	3	0.21
Including 0.75...2.5 mm² voltage sensing connection. Voltage sensing wires are not included in the delivery					
OTM40...125F_CM	16...50 Al/2.5...50 Cu	OZXT6	1SCA122537R1001	3	0.06
Terminal clamp sets for Al- and Cu-cables					
OTM40...125F_CM	10...70 Al/Cu	OZXL1	1SCA022439R6770	3	0.14

Parallel connection kits

Finger protected connection bars for parallel connection of the upper or lower terminals. The bars accept additional cables, the maximum size is stated below.

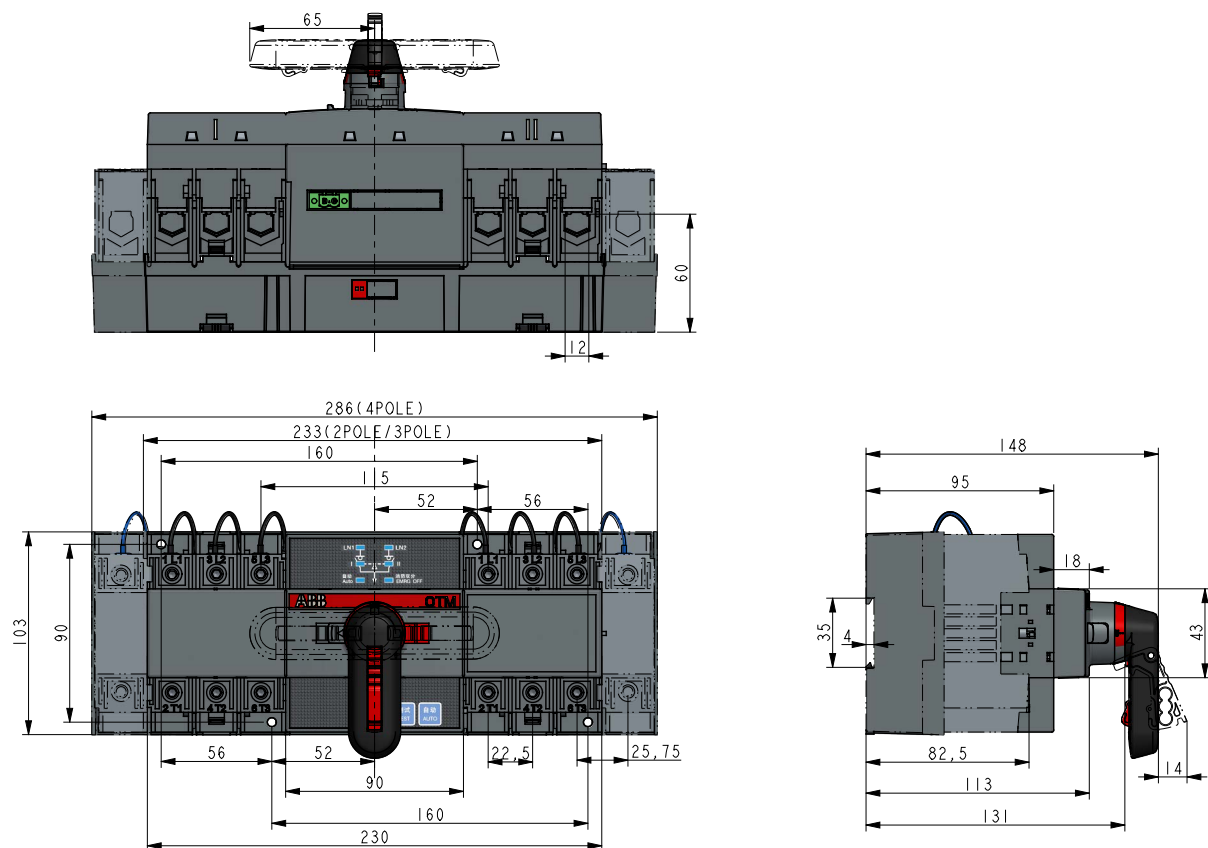
Suitable for switches	Cable crosssection mm ²	Type	Order number	Units/type pcs	Weight/ unit kg
OTM40F3CM_	2.5...25/2x2.5...16	OMZC003	1SCA121324R1001	1	0.5
OTM40F4CM_	2.5...25/2x2.5...16	OMZC004	1SCA121325R1001	1	0.65
OTM40...125F3CM_	10...70	OMZC03	1SCA117037R1001	1	0.5
OTM40...125F4CM_	10...70	OMZC04	1SCA117038R1001	1	0.65

* Terminal shrouds can also be mounted on parallel connection kits.

Parallel connection kit cannot be used with 2 pole devices

Compact ATS

Dimensional drawings



Technical data

Compact automatic transfer switches

Automatic transfer switches functionality

OTM_C_D products overview	OTM_C20D_	OTM_C21D_
Features		
Rated operational voltage U _e	154 V AC - 480 V AC +/- 20% + N	
Rated frequency	50 / 60 Hz +/- 10%	
Voltage sensing precision	5%	
Frequency sensing precision	1%	
Rated impulse withstand voltage, U _{imp}	6 kV	
Overvoltage category	III	
Pollution degree	2	
Protection rating for the front panel	IP20	
Operating temperature	– 20...+ 60 °C	
Transportation and storage temperature	– 25...+ 80 °C	
Altitude	Max. 2000m	
Humidity With condensation	5 %...98 %	
Humidity Without condensation	5 %...90 %	
Operation Types		
Manual operation with handle	x	x
Local operation with front panel keypad		x
Automatic transfer switching equipment (ATSE)	x	x
Applications		
Transfer between two Transformers	x	x
Transfer between a Transformers and a generator		x
Operation modes		
Automatic transfer and back-switching operation	x	x
Automatic transfer and manual back-switching operation	x	x
Source failure detections		
No voltage	x	x
Undervoltage	Fixed 0.7U _e	0.7-0.95 U _e
Overvoltage	Fixed 1.3U _e	1.05-1.3 U _e
Phase missing	x	x
Voltage unbalance		x
Invalid frequency		x
Configuration		
By DIP switches	x	x
By rotary switches		x
Two power status display	x	x
Two switches status display	x	x
Auto status display	x	x
Alarm display	x	x



Technical data

Compact automatic transfer switches



Automatic transfer switches functionality

OTM_C_D products overview	OTM_C20D_	OTM_C21D_
Time delays		
Total transfer time 1->0->2	2 - 2,5s	2 - 2,5s
OFF time during transfer cycle	0,5 - 0,7s	0,5 - 0,7s
Delay on transfer ³⁾		0-30s
Back-switching delay		0-900s
Generator stop delay		30s,400s
Signals input and output		
Emergency Off with 24VDC signal input	x	x
Test signal input		x
Switch position signal	With Auxiliary contacts	Without Auxiliary contact
Alarm output signal		x

³⁾ Overvoltage and undervoltage conditions

Technical data

Compact automatic transfer switches OTM40...125_

Compact automatic transfer switches

Data according to IEC 60947-3				Switch size		
				OTM40_	OTM63_	OTM125_
Rated insulation voltage and rated operational voltage AC20/DC20	Pollution degree 3	V		800	800	800
Dielectric strength	50 Hz 1min.	kV		6	6	6
Rated impulse withstand voltage		kV		8	8	8
Rated thermal current and rated operational current AC20/DC20	/ ambient 40°C	In open air	A	40	63	125
	/ ambient 40°C	In enclosure	A	40	63	125
	/ ambient 60°C	In enclosure	A	32	50	100
..with minimum conductor cross section		Cu	mm ²	10	16	50
Rated operational current, AC-21A	up to 500 V	A		40	63	125
Rated operational current, AC-22A	up to 500 V	A		40	63	125
Rated operational current, AC-23A	up to 415 V	A		40	63	90
Rated operational power, AC-23A ¹⁾	230 V	kW		7.5	15	22
The kW-ratings are accurate for 3-phase 1500 R.P.M. standard asynchronous motors	400 V	kW		18.5	30	45
	415 V	kW		18.5	30	45
	500 V	kW		22	37	45
	690 V	kW		37	37	45
Rated breaking capacity in category AC-23	up to 415 V	A		320	504	720
	500 V	A		320	480	560
	690 V	A		320	320	400
Rated conditional short-circuit current I _p (r.m.s.) and corresponding max. allowed cut-off current î _c (peak) value. The cut-off current î _c refers to values listed by fuse manufacturers (single phase test acc. to IEC60269).	I _p (r.m.s.) 50 kA, 415 V	î _c (peak)	kA	16.5	16.5	16.5
	Max. OFA_ fuse size	gG/aM	A/A	125/125	125/125	125/125
	I _p (r.m.s.) 18 kA, 690 V	î _c (peak)	kA	11	11	11
	Max. OFA_ fuse size	gG	A	125	125	125
	I _p (r.m.s.) 50 kA, 690 V	î _c (peak)	kA	10	10	10
	Max. OFA_ fuse size	gG/aM	A/A	63/63	63/63	63/63
Rated short-time withstand current	I _{cw} (r.m.s.)	690 V 1s	kA	2.5	2.5	2.5
Rated short-time making capacity ²⁾	I _{cm} (peak)	690 V	kA	3.6	3.6	3.6
Power loss / pole	With rated current		W	1.6	2.8	6.3
Mechanical endurance	Number of oper. cycles ³⁾		Cycles	10 000	10 000	10 000
Cable size	Cu-wire size suitable for terminal clamps		mm ²	2.5-25/2x2.5-16	10-70	10-70
			AWG	14-4/2x14-6	8-00	8-00
Terminal tightening torque	Counter torque required		Nm	6	6	6
Operating torque	Typical for 3-pole switches		Nm	5	5	5
Weight without accessories	3-pole switch		kg	1.75	1.75	1.75
	4-pole switch		kg	2.00	2.00	2.00



Technical data

Compact automatic transfer switches OTM40...125_



Compact automatic transfer switches

Data according to IEC 60947-6-1				Switch size		
				OTM40_	OTM63_	OTM125_
Class of equipment				PC	PC	PC
Rated short-time withstand current	Icw (r.m.s.)	690 V 0.1s	kA	5	5	5
Conditional short-circuit current	Icc (r.m.s.)	415 V	kA	50	50	50
Corresponding fuse rating	gG/aM fuse	415 V	A	125	125	125
Rated operational current, AC-31B		up to 415 V	A	40	63	125
Rated operational current, AC-32B		up to 415 V	A	40	63	125
Rated operational current, AC-33B		up to 415 V	A	40	63	80

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

²⁾ Short circuit duration > 50ms, without fuse protection

³⁾ Operating cycle: O - I - O - II - O