



Breakers and Switches

# Switches

## Change-over, bypass and transfer switches

# Change-over, bypass and transfer switches

<b>Product overview, features</b>	
Product overview	4
Features	6
<b>Technical data</b>	
Manual / motorized change-over, transfer and bypass switches	10
Motor operators, automatic control units and dual power sources	16
UL/CSA manual change-over switches	22
<b>Ordering information, IEC-types, open transition</b>	
Manual change-over switches	23
Manual change-over switches, fast transition	27
Manual bypass switches	28
Motorized change-over switches	29
Automatic transfer switches	35
<b>Ordering information, IEC-types, closed transition</b>	
Manual change-over switches	40
<b>Ordering information, UL/CSA-types, open transition</b>	
UL/CSA manual change-over switches	42
<b>Selection overview</b>	
Accessories	43
<b>Ordering information, accessories</b>	
Handles	47
Extended shafts	51
Auxiliary contacts	53
Fourth poles	54
Terminal shrouds, phase separators and –barriers	55
Terminal clamps	57
Conversion kits	59
Parallel connection kits, bridging- and reversing bars	61
Automatic control units	63
Voltage sensing connectors and interlocking device for locks	64
Dual power sources	65
<b>Dimension drawings</b>	
Manual change-over switches	66
Manual bypass switches	76
Motorized change-over switches	79
Automatic transfer switches	83
Manual change-over switches, UL/CSA –types	89
Automatic control units, dual power sources and handles	91
<b>Contact functions</b>	
Diagrams	94
<b>Index</b>	
List of products with page number in alphabetical order	96

# Change-over, bypass and transfer switches

## 16... 3200A



### Manual operation, change-over switches

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



### Motor operation, change-over switches

Types	OTM40F_C	OTM160E_C	OTM160E_WC	OTM315E_C
	OTM63F_C	OTM200E_C	OTM200E_WC	OTM400E_C
	OTM80F_C	OTM250E_C	OTM250E_WC	
	OTM100F_C			
	OTM125F_C			
<b>I<sub>th</sub> /A</b>	<b>40 63 80 115 125</b>	<b>160 200 250</b>	<b>160 200 250</b>	<b>315 400</b>
I <sub>e</sub> /AC-22A, < 415V	40 63 80 100 125	160 200 250	160 200 250	315 400
I <sub>e</sub> /AC-23A, < 415V	40 63 80 80 90	160 200 250	160 200 250	315 400
I <sub>e</sub> /AC-21B, < 415V				



### Automatic operation, transfer switches

Types	OTM160E_C_D	OTM160E_WC_D	OTM315E_C_D	OTM630E_C_D
	OTM200E_C_D	OTM200E_WC_D	OTM400E_C_D	OTM800E_C_D
	OTM250E_C_D	OTM250E_WC_D		
<b>I<sub>th</sub> /A</b>	<b>160 200 250</b>	<b>160 200 250</b>	<b>315 400</b>	<b>630 800</b>
I <sub>e</sub> /AC-22A, < 415V	160 200 250	160 200 250	315 400	630 800
I <sub>e</sub> /AC-23A, < 415V	160 200 250	160 200 250	315 400	630 800



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



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



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



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

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

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

# Growing importance of a secure power supply

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



### High performance level

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.

### Utilization categories:

- AC-31 for non-inductive or slightly inductive load
- AC-33 for motor loads or mixed loads including motors
- ▶ ABB change-over switches are rated according to IEC 60947-6-1 standard

### Easy installation for local or remote control

ABB change-over switches are very easy to install: the manually operated switch is operated via a handle fixed directly on the switch or on the panel door. The 16 to 125 Ampere sizes can be snapped on to a DIN rail and the front fits in the 45 mm consumer unit cut-out.

The motorized change-over switches have snap-on control wire connections. Auxiliary contacts can be snapped on to the sides of the switches and the power terminals can be connected in parallel with bridging bars.

The automatic transfer switches feature the automatic control unit, which can be adjusted according to the mounting depth of the panel. The voltage sensing kit is installed at the factory thus reducing the expensive and time consuming installation work.

- ▶ Quick and easy installation

### Safe and reliable

ABB automatic transfer switches ensure service continuity with a number of built-in, integrated safety features. The change-over mechanism, for example, offers three stable positions which ensure isolation of the two asynchronous power supplies. This eliminates any risk of short-circuit between them, even in the presence of transient voltages. The automatic transfer switches are equipped with a handle for manual operation in case of emergency.

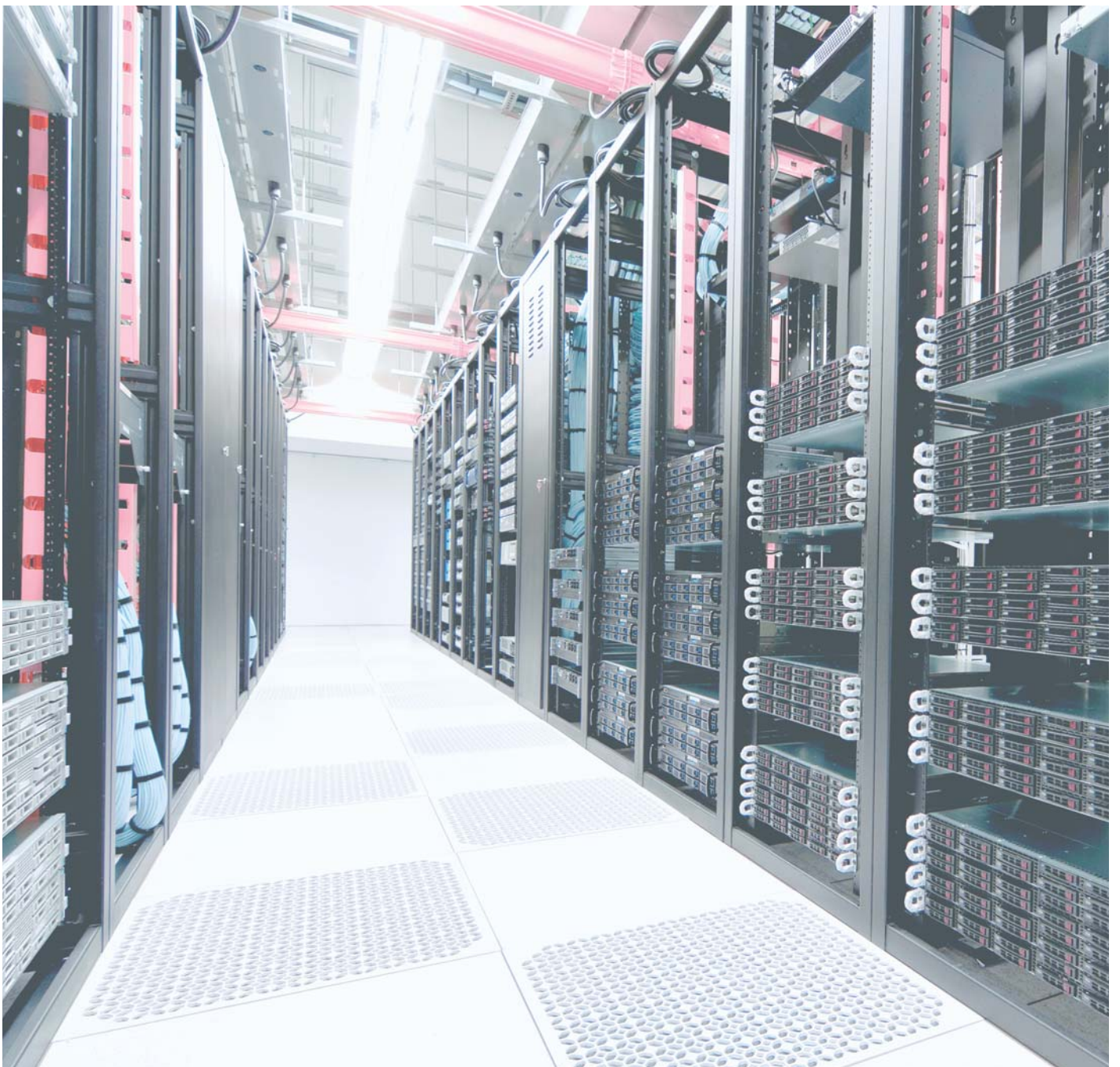
- ▶ Inbuilt safety

### Compact design

The design of ABB change-over switches is advanced and compact, allowing installation in confined spaces at considerable savings. Compact double layer construction.

- ▶ Minimizing the need for space

Aware of the importance of a secure power supply, ABB offers a wide variety of change-over and transfer switches from 16 to 3200 Amperes. ABB's range includes switches to transfer a load from one power source to another manually, remotely or automatically.



# Space saving solution

## Manual bypass switches 160...800 Amperes



Bypass switches are typically used for bypassing various types of electrical equipment. Traditionally, bypass switches were built by using individual switch-disconnectors connected with conversion kits. ABB offers a modern solution: one single device, consisting of three switches and no conversion kits. This does not only have a high performance, but optimizes space.

### Compact design

Three switches are stacked on top of each other; so the total footprint is equivalent to only one switch. ABB's bypass switches can be fitted into a smaller cabinet, compared to bypass switches built using conversion kits.

- ▶ Space-saving solution

### Safe maintenance

ABB's bypass switches fulfill isolating requirements according to IEC 60947-3. There is no need for additional isolating devices.

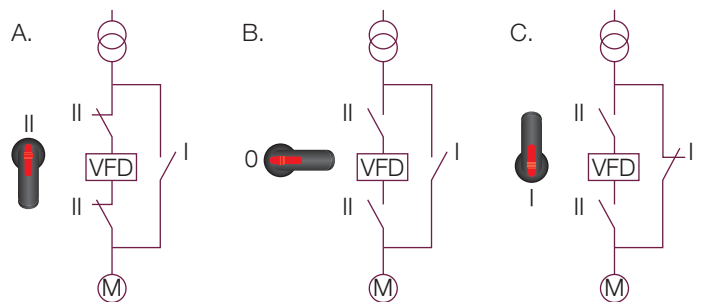
- ▶ Equipment can be safely maintained while the load is being supplied directly from the source.

### Typical application - Drives bypass

One typical place for a bypass switch is in drives application. On the following example the drives unit can be bypassed, for maintenance purposes.

The ABB bypass switch has three stable positions:

- Position II, where two switches are closed.
- Position O, where all three switches are opened.
- Position I, where one switch is closed.



VFD = variable frequency drive

- A. Normal situation: the load is supplied through the drive.
- B. The load and the drive are disconnected
- C. Bypass situation: The drive is isolated from the supply, but at the same time the load is connected directly to the power supply.

See ordering information on page 28.

# Dual power source ODPS230 with ATS functionality

The ODPS230 dual power source provides power supply to the motor operator by using two 230 Vac lines. The device has two fuse protected inputs, for line I (LNI) and line II (LNII), and one output for the motor operator. Thereby the motor operator is automatically energized whenever power is available in one of the lines.

There is one LED for each line LNI and LNII, for indicating the operation of the device. A green LED light indicates which one of the two lines is connected to the motor operator.

## Status indication

Line I	Line II	Output	LEDs
OK	NOT OK	Line I	Line I
NOT OK	OK	Line II	Line II
NOT OK	NOT OK	None	None
OK	OK	Line I	Line I

The ODPS230 integrates also a simplified ATS (Automatic Transfer Switch) functionality: in case of line I failure, the ODPS230 can be used for operating the OTM motorized change-over switch to the line II, provided that line II is operational. Voltage sensing is based on single-phase measurement. If line I voltage drops below 154 Vac, while line II voltage is above 198 Vac, the device will operate the OTM motorized change-over switch to the line II. When line I voltage is restored above 198 Vac, the ODPS230 operates the switch back to line I.

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 isolates loads from the feeding sources. The O position operates the OTM motorized change-over switch to O position.



## Features:

- The device is self supplied from the available lines.
  - ▶ There is no need for external power supply.
- Isolation provided between lines I and II.
  - ▶ Two asynchronous sources are always isolated from each other.
- In-built ATS functionality for mains-mains applications as standard.
  - ▶ There is no need for additional ATS controllers.
- Three position DIP switch: AUTO – MAN – O
  - ▶ Easy to choose the correct operating mode.
- Replaceable internal fuses, Ip tested up to 50 kA
  - ▶ No need for external fuse protection

The ODPSE230C dual power source can be used with 230 VAC motor operators: OTM motorized change-over switches from 40 to 2500 Amperes, OTM Automatic Transfer Switches from 160 to 1600 Amperes and motorized circuit breakers. The device can be DIN-rail or screw mounted.





# Technical data

## Manual change-over switches OT16...125\_C

### Manual change-over switches

#### Data according to IEC 60947-3

Rated insulation voltage and rated operational voltage AC20/DC20		Pollution degree 3	V
Dielectric strength		50 Hz 1min.	kV
Rated impulse withstand voltage			kV
Rated thermal current and rated operational current AC20/DC20	/ ambient 40°C / ambient 40°C / ambient 60°C	In open air In enclosure In enclosure	A A A
..with minimum conductor cross section		Cu	mm <sup>2</sup>
Rated operational current, AC-21A		up to 500 V 690 V	A A
Rated operational current, AC-22A		up to 500 V 690 V	A A
Rated operational current, AC-23A		up to 415 V 440 V 500 V 690 V	A A A A
Rated operational current / poles in series, DC-21A		up to 48 V <sup>1)</sup> 110 V 220 V 440 V 500 V	A A A A A
Rated operational current / poles in series, DC-22A		up to 48 V <sup>1)</sup> 110 V 220 V 440 V	A A A A
Rated operational current / poles in series, DC-23A		up to 48 V <sup>1)</sup> 110 V 220 V 440 V	A A A A
Rated operational power, AC-23A <sup>2)</sup>		230 V	kW
The kW-ratings are accurate for 3-phase 1500 R.P.M. standard asynchronous motors		400 V 415 V 500 V 690 V	kW kW kW kW
Rated breaking capacity in category AC-23		up to 415 V 500 V 690 V	A A A
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 Max. OFA_ fuse size $I_p$ (r.m.s.) 100 kA, 500 V Max. OFA_ fuse size	$\hat{i}_c$ (peak) gG/aM $\hat{i}_c$ (peak) gG/aM	kA A/A kA A
Rated short-time withstand current	$I_{tzw}$ (r.m.s.)	690 V 1s	kA
Rated short-time making capacity <sup>3)</sup>	$I_{sm}$ (peak)	690 V	kA
Power loss / pole	With rated current		W
Mechanical endurance	Number of oper. cycles <sup>4)</sup>		Cycles
Cable size	Cu-wire size suitable for terminal clamps		mm <sup>2</sup> AWG
Terminal tightening torque	Counter torque required		Nm
Operating torque	Typical for 3-pole switches		Nm
Weight without accessories	3-pole switch 4-pole switch		kg kg

#### Data according to UL508 (Listed)

Current			A
Horsepower, 3-phase		200 V 208 V 240 V 480 V 600 V	HP HP HP HP HP

<sup>1)</sup> Below 48 V, two poles in parallel up to OT80 are recommended particularly in polluted atmosphere

<sup>2)</sup> These values are given for guidance and may vary according to the motor manufacturer

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

<sup>4)</sup> Operating cycle: O - I - O - II - O

Switch size							
OT16_	OT25_	OT40_	OT63_	OT80_	OT100_	OT125_	
750	750	750	750	750	750	750	750
6	6	6	6	6	6	6	6
8	8	8	8	8	8	8	8
25	32	40	63	80	115	125	125
25	32	40	63	80	115	125	125
20	25	32	50	63	80	100	100
4	6	10	16	25	35	50	50
16	25	40	63	80	100	125	125
16	25	40	63	80	100	125	125
16	25	40	63	80	100	125	125
16	25	40	63	80	100	125	125
16	20	23	45	75	80	90	90
16	20	23	45	65	65	78	78
16	20	23	45	58	60	70	70
10	11	12	20	20	40	50	50
16/1	25/1	32/1	63/1	80/1	100/1	125/1	125/1
16/2	25/2	32/2	63/2	80/2	100/2	125/2	125/2
16/3	25/3	32/3	63/4	63/4	100/4	100/4	100/4
16/4	16/4	16/4	16/4	16/4			
16/4	16/4	16/4	16/4	16/4			
16/1	25/1	32/1	63/1	80/1	100/1	125/1	125/1
16/2	25/2	32/2	63/2	80/2	100/2	125/2	125/2
16/3	25/3	32/4	45/4	45/4	63/4	80/4	80/4
10/4	10/4	10/4	10/4	10/4			
16/1	25/1	32/1	63/1	80/1	100/1	125/1	125/1
16/2	25/2	32/2	63/2	80/2	100/2	125/2	125/2
16/4	25/4	32/4	45/4	45/4	63/4	63/4	63/4
10/4	10/4	10/4	10/4	10/4			
3	4	5.5	11	22	22	22	22
7.5	9	11	22	37	37	45	45
7.5	9	11	22	37	37	45	45
7.5	9	11	22	37	37	45	45
7.5	9	11	15	18.5	37	45	45
128	160	184	360	640	640	720	720
128	160	184	360	464	480	560	560
80	88	96	160	160	320	400	400
6.5	6.5	6.5	13	13	16.5	16.5	16.5
40/32	40/32	40/32	100/80	100/80	125/125	125/125	125/125
			17	17			
			100/80	100/80			
0.5	0.5	0.5	1	1.5	2.5	2.5	2.5
0.7	0.7	0.7	1.4	2.1	3.6	3.6	3.6
0.3	0.6	1.6	2.8	4.5	4.0	6.3	6.3
10 000	10 000	10 000	10 000	10 000	10 000	10 000	10 000
0.75-10	0.75-10	0.75-10	1.5-35	1.5-35	10-70	10-70	10-70
18-8	18-8	18-8	14-4	14-4	8-00	8-00	8-00
0.8	0.8	0.8	2	2	6	6	6
1	1	1	1.2	1.2	2	2	2
0.25	0.25	0.25	0.64	0.64	0.90	0.90	0.90
0.31	0.31	0.31	0.70	0.70	1.18	1.18	1.18
16	25	40	60	80			
3	7.5	10	15	20			
3	7.5	10	15	20			
5	7.5	10	15	20			
10	15	20	30	40			
10	20	25	30	40			

# Technical data

## Motorized change-over switches OTM40...125\_C\_

### Motorized change-over switches

#### Data according to IEC 60947-3

Rated insulation voltage and rated operational voltage AC20/DC20		Pollution degree 3	V
Dielectric strength		50 Hz 1min.	kV
Rated impulse withstand voltage			kV
Rated thermal current and rated operational current AC20/DC20	/ ambient 40°C / ambient 40°C / ambient 60°C	In open air In enclosure In enclosure	A A A
..with minimum conductor cross section		Cu	mm <sup>2</sup>
Rated operational current, AC-21A		up to 500 V 690 V	A A
Rated operational current, AC-22A		up to 500 V 690 V	A A
Rated operational current, AC-23A		up to 415 V 500 V 690 V	A A A
Rated operational current / poles in series, DC-21A		up to 48 V 110 V 220 V	A A A
Rated operational current / poles in series, DC-22A		up to 48 V 110 V 220 V	A A A
Rated operational current / poles in series, DC-23A		up to 48 V 110 V 220 V	A A A
Rated operational power, AC-23A <sup>1)</sup>		230 V	kW
The kW-ratings are accurate for 3-phase 1500 R.P.M. standard asynchronous motors		400 V 415 V 500 V 690 V	kW kW kW kW
Rated breaking capacity in category AC-23		up to 415 V 500 V 690 V	A A A
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 Max. OFA_ fuse size	$\hat{I}_c$ (peak) gG/aM	kA A/A
	$I_p$ (r.m.s.) 18 kA, 690 V Max. OFA_ fuse size	$\hat{I}_c$ (peak) gG	kA A
	$I_p$ (r.m.s.) 50 kA, 690 V Max. OFA_ fuse size	$\hat{I}_c$ (peak) gG/aM	kA A/A
Rated short-time withstand current	$I_{cw}$ (r.m.s.)	690 V 1s	kA
Rated short-time making capacity <sup>2)</sup>	$I_{cm}$ (peak)	690 V	kA
Power loss / pole	With rated current		W
Mechanical endurance	Number of oper. cycles <sup>3)</sup>		Cycles
Cable size	Cu-wire size suitable for terminal clamps		mm <sup>2</sup> AWG
Terminal tightening torque	Counter torque required		Nm
Operating torque	Typical for 3-pole switches		Nm
Weight without accessories	3-pole switch 4-pole switch		kg kg

#### Data according to IEC 60947-6-1

Class of equipment			
Rated short-time withstand current	$I_{cw}$ (r.m.s.)	690 V 0.1s	kA
Conditional short-circuit current	$I_{cc}$ (r.m.s.)	415 V	kA
Corresponding fuse rating	gG/aM fuse	415 V	A
Rated operational current, AC-31B		up to 415 V	A
Rated operational current, AC-32B		up to 415 V	A
Rated operational current, AC-33B		up to 415 V	A

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

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

<sup>3)</sup> Operating cycle: O - I - O - II - O

Switch size					
OTM40_	OTM63_	OTM80_	OTM100_	OTM125_	
800	800	800	800	800	800
6	6	6	6	6	6
8	8	8	8	8	8
40	63	80	115	125	125
40	63	80	115	125	125
32	50	63	80	100	100
10	16	25	35	50	50
40	63	80	100	125	125
40	63	80	100	125	125
40	63	80	100	125	125
40	63	80	100	125	125
40	63	80	80	90	90
40	60	60	60	70	70
40	40	40	40	50	50
40/1	63/1	80/1	100/1	125/1	125/1
40/2	63/2	80/2	100/2	125/2	125/2
40/4	63/4	80/4	100/4	100/4	100/4
40/1	63/1	80/1	100/1	125/1	125/1
40/2	63/2	80/2	100/2	125/2	125/2
40/4	63/4	80/4	80/4	80/4	80/4
40/1	63/1	80/1	100/1	125/1	125/1
40/2	63/2	80/2	100/2	125/2	125/2
40/4	63/4	63/4	63/4	63/4	63/4
7.5	15	22	22	22	22
18.5	30	37	37	45	45
18.5	30	37	37	45	45
22	37	37	37	45	45
37	37	37	37	45	45
320	504	640	640	720	720
320	480	480	480	560	560
320	320	320	320	400	400
16.5	16.5	16.5	16.5	16.5	16.5
125/125	125/125	125/125	125/125	125/125	125/125
11	11	11	11	11	11
125	125	125	125	125	125
10	10	10	10	10	10
63/63	63/63	63/63	63/63	63/63	63/63
2.5	2.5	2.5	2.5	2.5	2.5
3.6	3.6	3.6	3.6	3.6	3.6
1.6	2.8	3.5	4.0	6.3	6.3
10 000	10 000	10 000	10 000	10 000	10 000
2.5-25/2x2.5-16	10-70	10-70	10-70	10-70	10-70
14-4/2x14-6	8-00	8-00	8-00	8-00	8-00
6	6	6	6	6	6
5	5	5	5	5	5
1.37	1.37	1.37	1.37	1.37	1.37
1.60	1.60	1.60	1.60	1.60	1.60
PC	PC	PC	PC	PC	PC
5	5	5	5	5	5
50	50	50	50	50	50
125	125	125	125	125	125
40	63	80	100	125	125
40	63	80	100	125	125
40	63	80	80	80	80

# Technical data

## Manual, motorized and automatic transfer switches, bypass switches OT/OTM160... 3200\_C\_, OT160...800\_Y

### Manual / motorized change-over switches and automatic transfer switches, bypass switches

Data according to IEC 60947-3				Switch size , OT_ , OTM_	
				OT_160_	OT_200_
Rated insulation voltage and rated operational voltage AC20/DC20 <sup>1)</sup>		Pollution degree 3 <sup>2)</sup>	V	1000	1000
Dielectric strength		50 Hz 1min.	kV	10	10
Rated impulse withstand voltage <sup>3)</sup>			kV	12	12
Rated thermal current and rated operational current AC20/DC20	/ ambient 40°C	In open air	A	160	200
..with minimum conductor cross section	/ ambient 40°C	In enclosure	A	160	200
Rated operational current, AC-21A		Cu	mm <sup>2</sup>	70	95
Rated operational current, AC-22A		up to 500 V	A	160	200
Rated operational current, AC-23A		690 V	A	160	200
Rated operational current / poles in series, DC-21A <sup>13)</sup>		up to 500 V	A	160	200
Rated operational power, AC-23A <sup>5)</sup>		690 V	A	160	200
The kW-ratings are accurate for 3-phase 1500 R.P.M. standard asynchronous motors		up to 415 V	A	160	200
Rated breaking capacity in category AC-23		440 V	A	160	200
Rated conditional short-circuit current $I_p$ (r.m.s.) and 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.) 80 kA, 415 V	500 V	A	160	200
	Max. OFA_ fuse size	690 V	A	160	200
	$I_p$ (r.m.s.) 100 kA, 500 V	440 V	A	160	200
	Max. OFA_ fuse size	500 V	A	160	200
	$I_p$ (r.m.s.) 80 kA, 690 V	690 V	A	160	200
	Max. OFA_ fuse size	690 V	A	160	200
Rated short-time withstand current	$I_{cw}$ (r.m.s.)	≤ 110 V	A	160/2	200/2
Rated short-time making capacity <sup>6)</sup>	$I_{cm}$ (peak) <sup>7)</sup>	220 V	A	160/2	200/2
Power loss / pole	With rated current	440 V	A	160/3	200/3
Mechanical endurance	Number of oper. cycles <sup>8)</sup>	500 V	A	160/4	200/4
Terminal bolt size	Metric thread diameter x length	690 V	kW	45	60
Terminal tightening torque	Counter torque required	400 V	kW	90	110
Operating torque	Typical for 3-pole change-over switches	415 V	kW	90	110
	Typical for 3-pole bypass switches	500 V	kW	110	132
Weight without accessories	Manual change-over switches	690 V	kW	160	200
	3-pole switch				
	4-pole switch				
	Motorized and automatic transfer switches				
	3-pole switch				
	4-pole switch				
	Manual bypass switches				
	3-pole switch				
	4-pole switch				
<b>Data according to IEC 60947-6-1</b>					
Class of equipment				PC	PC
Rated short-time withstand current	$I_{cw}$ (r.m.s.)	up to 415 V	A	160	200
Rated operational current, AC-31B		up to 415 V	A	160	200
Rated operational current, AC-33B					

<sup>1)</sup> Automatic transfer switches: operational voltage = max. 415 V AC for OTM\_C2D\_, OTM\_C3D\_ and OTM\_C8D\_

<sup>2)</sup> Automatic transfer switches: pollution degree 2 for OTM\_C2D\_, OTM\_C3D\_ and OTM\_C8D\_

<sup>3)</sup> Automatic transfer switches:  $U_{imp}$  = 6 kV for OTM\_C2D\_, OTM\_C3D\_ and OTM\_C8D\_

<sup>4)</sup> Utilization category B

<sup>5)</sup> These values are given for guidance and may vary acc. to the motor manufacturer

<sup>6)</sup> Short circuit duration > 50ms, without fuse protection

<sup>7)</sup> Max. distance from switch frame to nearest busbar / cable support 150 mm

<sup>8)</sup> Operating cycle: O - I - O - II - O

<sup>9)</sup> Category AC-21B, up to 415V

<sup>10)</sup> For manual change-over and bypass switches

<sup>11)</sup> For motorized and automatic transfer switches

<sup>12)</sup> 500 V



<sup>13)</sup> Further ratings on request

	OT_250_	OT_315_	OT_400_	OT_630_	OT_800_	OT_1000_	OT_1250_	OT_1600_	OT_2000_	OT_2500_	OT_3200_
	1000	1000	1000	1000	1000	1 000	1 000	1 000	1 000	1 000	1 000
	10	10	10	10	10	10	10	10	10	10	10
	12	12	12	12	12	12	12	12	12	12	8
	250	315	400	630	800	1 000	1 250	1 600	2 000	2 500	3 200
	250	315	400	630	800						
	120	185	240	2x185	2x240	2x300	2x400	2x500	3x500	4x500	4x1000
	250	315	400	630	800	1 000	1 250	1 600	2 000 <sup>9)</sup>	2 500 <sup>9)</sup>	3 200 <sup>9)</sup>
	250	315	400	630	800	1 000	1 250	1 600			
	250	315	400	630	800	1 000	1 250	1 600			
	250	315	400	630	800	1 000	1 250	1 250			
	250	315	400	630	800	1 000	1 250	1 250			
	250	315	400	630	800	1 000	1 250	1 250			
	250	315	400	630	800	1 000	1 250	1 250			
	250/2	315/1 <sup>4)</sup>	400/1 <sup>4)</sup>	630/1	800/1						
	250/2	315/2 <sup>4)</sup>	400/2 <sup>4)</sup>	630/1	800/1						
	230/3	315/3	360/3	630/2	720/2						
	200/4	315/4	315/4	630/4 <sup>4)</sup>	630/4 <sup>4)</sup>						
	75	100	132	200	250	315	400	400			
	140	160	220	355	450	560	710	710			
	145	180	230	355	450	560	710	710			
	170	220	280	400	560	710	900	900			
	250	315	400	630	800	1 000	1 200	1 200			
	2 000	2 520	3 200	5 040	6 400	10 000	10 000	10 000			
	2 000	2 520	3 200	5 040	6 400	10 000	10 000	10 000			
	2 000	2 520	3 200	5 040	6 400	10 000	10 000	10 000			
	40.5	59	59	83.5	83.5	100	100	100			
	355/315	500/500	500/500	800/1 000	800/1 000	1 250/1 250	1 250/1 250	1 250/1 250			
	40.5	61.5	61.5	90	90	106	106	106			
	315/315	500/450	500/450	800/800	800/800	1 250/1 250	1 250/1 250	1 250/1 250			
	40.5	59	59	83.5	83.5						
	355/315	500/500	500/500	800/1 000	800/1 000						
	15	31	31	38	38	50	50	50	50	50	
	15	24	24	36	36	50	50	50	50	50	
	8	15	15	20	20	50	50	50	55	55	65 <sup>12)</sup>
	30	65	65	80	80	92	92	92	110	110	143 <sup>12)</sup>
	6.5	6.5	10	25	40	19	29	48	55	85	95
	8 000	8 000	8 000	5 000	5 000	3 000	3 000	3 000	2000	2000	400
	M8x25	M10x30	M10x30	M12x40	M12x40	M12x60	M12x60	M12x60	M12x60	M12x60	M12x100
	15-22	30-44	30-44	50-75	50-75	50-75	50-75	50-75	50-75	50-75	50-75
	7	16	16	27	27	78	78	78	78	78	80
	14	32	32	54	54						
	2.5	4.7	4.7	12.8	12.8	32.3	32.3	34.8	48	48	57
	3.2	5.8	5.8	15.6	15.6	40.2	40.2	43.3	60	60	72
	5.7	10.2	10.2	17.5	17.5	42	42	44	56	56	
	6.4	11.4	11.4	20.4	20.4	50	50	52	70	70	
	4.3	8.2	8.2	19.9	19.9						
	5.8	11.0	11.0	26.6	26.6						
	PC	PC	PC	PC	PC	PC	PC	PC	PC	PC	
	15	25	25	38	38	50	50	50	50	50	
	250	315	400	630 <sup>10)</sup> /650 <sup>11)</sup>	800 <sup>10)</sup> /720 <sup>11)</sup>	1 000	1 250	1 600	2000 <sup>10)</sup>	2000 <sup>10)</sup>	
	250	315	400	630 <sup>10)</sup> /650 <sup>11)</sup>	800 <sup>10)</sup> /650 <sup>11)</sup>	1 000	1 000	1 000			

# Technical data, motor operators

## Motorized change-over switches OTM40...125\_C\_

### Motor operator

				Switch size
<b>Data according to IEC 60947</b>				<b>40...125</b>
Rated operational voltage $U_e$	Pollution degree 3 50/60 Hz		V AC/DC V DC	110 - 240 24
Operating voltage range				0.85 - 1.1 x $U_e$
Operating time <sup>1)</sup>	90° I-0, 0-I, 0-II, II-0	110...240 V AC/DC	s	0.5-1.0
Operating transfer time <sup>1)</sup>	180° I-II, II-I	24 V DC	s	0.6-1.3
Operating transfer time <sup>1)</sup>	180° I-II, II-I	110...240 V AC/DC	s	1.2-1.5
OFF -time when operating I-II or II-I <sup>1)</sup>	180° I-II, II-I	24 V DC	s	1.4-2.1
OFF -time when operating I-II or II-I <sup>1)</sup>	180° I-II, II-I	110...240 V AC/DC	s	0.4-0.8
Nominal current $I_n$ <sup>1)</sup>		24 V DC	A	0.6-1.0
Current inrush <sup>1)</sup>		110...240 V AC/DC	A	0.2-0.5
Current inrush <sup>1)</sup>		24 V DC	A	0.6
Operating rate	Cycle 0-I-0-II-0	Max. continuous	cycles/min	1
Operating rate		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
<b>Terminals</b>				
Voltage supply wiring for $U_e$				PE - N - L
Cross section		Solid/stranded	mm <sup>2</sup>	1.5 - 2.5
Short-circuit protection device		Max. MCB	A	C16
<b>Control terminal</b>				
Cross section		Solid/stranded	mm <sup>2</sup>	C - II - I - 0
Maximum cable length			m	1.5 - 2.5
Maximum cable length				100
<b>Terminal for state information</b>				
Terminal for state information		Solid/stranded	mm <sup>2</sup>	1.5
Also used with the OMD automatic control unit		Rating	A	3
Common, voltage supply	1			AC-1/250V
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
<b>Control terminal for OMD automatic control unit</b>				
Control terminal for OMD automatic control unit		Solid/stranded	mm <sup>2</sup>	1.5 - 2.5
Common, voltage supply from motor operator	1		V DC	24
Close switch I or open switch II	2		V DC	24
Close switch I or open switch II			mW	500
Close switch II or open switch I	3		V DC	24
Close switch II or open switch I			mW	500
Operating temperature			°C	-25...+55
Transportation and storage temperature			°C	-40...+70
Max. altitude			m	2000
Protection degree (front panel)				IP20

<sup>1)</sup> Under nominal conditions

# Technical data, motor operators

## Motorized change-over switches OTM160...2500\_C\_

### Motor operator

Data according to IEC 60947				Switch size				
				160...250	315...400	630...800	1000...1600	2000...2500
Rated operational voltage $U_e$	Pollution degree 3	50/60 Hz	V AC V AC/DC V DC V DC	220 - 240 110 - 125 48 24				
Operating voltage range				0,85 - 1,1 x $U_e$				
Operating time <sup>1)</sup>	90° I-0, 0-I, 0-II, II-0	220-240VAC 110-125VAC/DC 48VDC 24VDC	s s s s	0.4-1.0 0.5-1.5 0.5-1.5 0.4-1.0	0.4-1.0 0.5-1.5 0.4-1.0 0.4-1.0	0.4-1.0 0.6-1.2 0.6-1.6 0.5-1.5	0.5-1.5 0.5-1.5 0.5-1.5 1.0-2.0	0.5-1.5 0.5-1.5 0.5-1.5 1.0-2.0
Operating transfer time <sup>1)</sup>	180° I-0-II, II-0-I	220-240VAC 110-125VAC/DC 48VDC 24VDC	s s s s	1.0-2.0 1.1-2.5 1.4-2.5 1.0-2.0	0.9-2.0 1.2-2.6 1.0-2.0 1.0-2.0	0.9-2.0 1.2-3.0 1.3-3.0 1.1-2.5	1.5-3.0 1.5-3.0 1.5-3.0 2.0-3.5	1.5-3.0 1.5-3.0 1.5-3.0 2.0-3.5
OFF -time when operating I-II or II-I <sup>1)</sup>	180° I-II, II-I	220-240VAC 110-125VAC/DC 48VDC 24VDC	s s s s	0.4-1.0 0.4-1.1 0.5-1.1 0.4-1.0	0.4-1.0 0.5-1.5 0.4-1.0 0.4-1.0	0.4-1.0 0.6-1.5 0.7-1.6 0.5-1.5	0.5-1.5 0.5-1.5 0.5-1.5 0.8-1.7	0.5-1.5 0.5-1.5 0.5-1.5 0.8-1.7
Nominal current $I_n$ <sup>1)</sup>		220-240VAC 110-125VAC/DC 48VDC 24VDC	A A A A	0.2 0.5 1.1 3.3	0.5 0.6 2.1 4.2	0.7 0.8 2.6 4	1.8 3.0 5.3 8.0	1.8 3.0 5.3 8.0
Current inrush <sup>1)</sup>		220-240VAC 110-125VAC/DC 48VDC 24VDC	A A A A	1.3 2.1 4.4 16.8	2.1 2.5 8.3 17.5	2.8 4.6 8.4 22.4	7.7 13.3 22.4 26.6	7.7 13.3 22.4 26.6
Overload fuse	Type / $I_n$ / Capacity	220-240VAC 110-125VAC/DC 48VDC 24VDC	mA mA A A	T/315/H T/500/H T/1,25/H T/4,0/H	T/500/H T/630/H T/2,5/H T/5,0/H	T/1000/H T/1000/H T/2,5/H T/5,0/H	T/2000/H T/4000/H T/5/H T/10/H	T/2000/H T/4000/H T/5/H T/10/H
	Size		mm	5x20	5x20	5x20	5x20	5x20
Operating rate	Cycle 0-I-0-II-0, max. continuous	220-240VAC 110-125VAC/DC 48VDC 24VDC	cycles/min cycles/min cycles/min cycles/min	1 1 1 1	1 1 1 1	1 1 1 1	0.5 0.5 0.5 0.5	0.5 0.5 0.5 0.5
	Max. short-time, ≤ 10 cycles	220-240VAC 110-125VAC/DC 48VDC 24VDC	cycles/min cycles/min cycles/min cycles/min	10 10 10 10	10 10 10 10	10 10 10 10	5 5 5 5	5 5 5 5
Overvoltage category				III				
Rated impulse withstand voltage $U_{imp}$			kV	4				
Dielectric strength			kV	1.5				
Impulse command		50 Hz 1 min. Min. impulse duration	ms	100				
<b>Terminals</b>								
Voltage supply wiring for $U_e$				PE - N - L				
Cross section		solid/stranded	mm <sup>2</sup>	1.5 - 2.5				
Short-circuit protection device		max. MCB	A	C16				
Control terminal (no SELV)				C - II - I - 0				
Cross section		solid/stranded	mm <sup>2</sup>	1.5 - 2.5				
Maximum cable length			m	100				
<b>State information of locking (no SELV)</b>								
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	2000				

<sup>1)</sup> Under nominal conditions



# Technical data, power circuit

## Automatic transfer switches

### Technical data for automatic transfer switches, power circuit

<b>OTM_C2D_ (OMD200)</b>		
Rated operational voltage $U_e$		208 - 415 V AC +/- 20 % + N
	Phase - Neutral	120 - 240 V AC +/- 20 %
Rated frequency		50 / 60 Hz +/- 10 %
Rated impulse withstand voltage $U_{imp}$		6 kV
<b>OTM_C3D_ (OMD300)</b>		
Rated operational voltage $U_e$		208 - 415 V AC +/- 20 % + N
	Phase - Neutral	120 - 240 V AC +/- 20 %
Rated frequency		50 / 60 Hz +/- 10 %
Rated impulse withstand voltage $U_{imp}$		6 kV
<b>OTM_C8D_ (OMD800)</b>		
Rated operational voltage $U_e$ on 3 phase system		100 - 415 V AC +/- 20 %
	Phase - Neutral	57,7 - 240 V AC +/- 20 %
Rated operational voltage $U_e$ on 1 phase system <sup>1)</sup>		57,7 - 240 V AC +/- 20 %
Rated frequency		50 / 60 Hz +/- 10 %
Rated impulse withstand voltage $U_{imp}$		6 kV
AUX voltage <sup>1)</sup>		24 V DC - 110 V DC (-10 to 15 %)
Operating temperature		-5...+40°C
Transportation and storage temperature		-25...+70°C
Altitude		Max.2000m

<sup>1)</sup> If on 1 phase system the voltage level is between 57,7 – 109 V AC, AUX voltage supply must be used

# Technical data, motor operator Automatic transfer switches

## Technical data for motor operator, control circuit

<b>Motor operator, control circuit</b>				<b>OTM160...250</b>	<b>OTM315...400</b>	<b>OTM630...800</b>	<b>OTM1000...1600</b>
Rated operational voltage U [V]	Pollution degree 3	50/60 Hz		220 - 240 V AC			
Operating voltage range				0,8...1,2 x U <sub>n</sub>			
Operating times				See the table below			
Nominal current I <sub>n</sub> <sup>a)</sup>		A	0.2	0.5	0.7	1.8	
Current Inrush <sup>a)</sup>		A	1.3	2.1	2.8	7.7	
Overload fuse	Type / In / Capacity	mA	T/315/H	T/500/H	T/1000/H	T/2000/H	
	Size	mm	5x20	5x20	5x20	5x20	
Operating rate	Cycle 0 - I - 0 - II - 0						
	Max. continuous	cycles / min	1	1	1	0.5	
Max. short-time ≤ 10 cycles		cycles / min	10	10	10	5	
Overvoltage category					III		
Rated impulse withstand voltage U <sub>imp</sub>		kV			4		
Dielectric strength	50 Hz 1 min.	kV			1.5		
<b>Terminals</b>							
Voltage supply wiring for U						PE - N - L	
Cross section		solid/stranded	mm <sup>2</sup>			1.5 - 2.5	
Short-circuit protection device		max. MCB	A			C16	
<b>State information of locking (no SELV)</b>							
Cross section		solid/stranded	mm <sup>2</sup>			1.5 - 2.5	
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			2000	

## Operating times

<b>Type</b>	<b>Operating transfer time<sup>a)</sup> I - II, II - I [s]</b>	<b>OFF-time when operating<sup>a)</sup> I - II, II - I [s]</b>
OTM160...250_C2D_	2.0 - 4.0	0.4 - 1.0
OTM160...250_C3D_	2.0 - 4.0	0.4 - 1.0
OTM160...250_C8D_	1.5 - 3.0	0.4 - 1.0
OTM315...400_C2D_	2.0 - 5.0	0.4 - 1.0
OTM315...400_C3D_	2.0 - 5.0	0.4 - 1.0
OTM315...400_C8D_	1.5 - 3.0	0.4 - 1.0
OTM630...800_C2D_	2.0 - 5.0	0.4 - 1.0
OTM630...800_C3D_	2.0 - 5.0	0.4 - 1.0
OTM630...800_C8D_	1.5 - 3.0	0.4 - 1.0
OTM1000...1600_C2D_	3.0 - 6.0	0.6 - 1.5
OTM1000...1600_C3D_	3.0 - 6.0	0.6 - 1.5
OTM1000...1600_C8D_	2.5 - 4.0	0.6 - 1.5

<sup>a)</sup> Under nominal conditions

# Technical data

## Automatic control units

### Technical data for automatic control units OMD200/300/800

#### OMD200 and OMD300

Rated operational voltage $U_e$		208 V AC - 480 V AC +/- 20% + N
	Phase - Neutral	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		100 V AC - 480 V AC +/- 20%
	Phase - Neutral	57,7 V AC - 277 V AC +/- 20%
Rated operational voltage $U_e$ on 1 phase system <sup>1)</sup>		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 <sup>1)</sup>		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 %

<sup>1)</sup> If on 1 phase system the voltage level is between 57,7 – 109 V AC, AUX voltage supply must be used

# Technical data

## 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 <sub>n</sub> [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 <sup>2</sup>
Rated impulse withstand voltage, U <sub>imp</sub>	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. 2000m

### 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 <sub>n</sub> [A]	3,15 A
Rated conditional short-circuit current, I <sub>p</sub> (r.m.s.)	50 kA
Internal fuse	T/3,15A/H*
Fuse size	6,3 x 32 mm
Rated impulse withstand voltage, U <sub>imp</sub>	4 kV
Overvoltage category	III
Pollution degree	3
Cable size	Max. 6 mm <sup>2</sup>
Protection rating for the front panel	IP20
Operating temperature	- 25...+ 60 °C
Transportation and storage temperature	- 40...+ 70 °C
Altitude	Max. 2000m

\* The breaking capacity must be 50 kA to achieve 50 kA I<sub>p</sub> (r.m.s.) rating

# Technical data

## UL/CSA manual change-over switches OT200...800U\_C\_ and auxiliary contacts

### Manual change-over switches

Data according to UL and CSA				Switch size			
				OT200U_	OT400U_	OT600U_	OT800U_
Standards				UL98 CSA 22.2#4	UL98 CSA 22.2#4	UL98 CSA 22.2#4	UL98 CSA 22.2#4
General use ratings, 1- or 3-phase ratings			V A	600 200	600 400	600 600	600 800
Horsepower, 3-phase ratings		240V 480V 600V	HP HP HP	75 150 200	125 250 350	200 450 500	250 500 500
Short-circuit ratings	Required protection	Circuit breaker	kA	14	25	35	42
		Class J/L fuse	kA	65/100	100	100	100
		... fuse size	A	400/200	600	800	800
		Class RK5 fuse	kA			100	
... fuse size	A			600			
<b>Data according to IEC 60947-3</b>							
Rated insulation voltage and rated operational voltage AC20/DC20	Pollution degree 3		V	1000	1000	1000	1000
Dielectric strength	50 Hz 1min.		kV	10	10	10	10
Rated impulse withstand voltage			kV	12	12	12	12
Rated thermal current and rated operational current AC20/DC20	/ ambient 40°C	In open air	A	250	400	800	1600
...with minimum conductor cross section		Cu	mm <sup>2</sup>	120	240	2x240	2x500
Rated operational current, AC-21A		up to 690 V	A	250	400	800	1600
Rated operational current, AC-22A		up to 500 V	A	250	400	800	1600
		690 V	A	250	400	800	1600
Rated operational current, AC-23A		up to 500 V	A	250	400	800	1250
		690 V	A	250	400	800	1250
Rated conditional short-circuit current I <sub>p</sub> (r.m.s.) and corresponding max. allowed cut-off current $\hat{i}_c$ peak value <sup>1)</sup>	I <sub>p</sub> (r.m.s.) : 100 kA, 500 V Max. OFA_ fuse size	$\hat{i}_c$ (peak)	kA	40.5	61.5	90	106
		gG/aM	A	315/315	500/450	800/800	1250/1250
Rated short-time withstand current	I <sub>p</sub> (r.m.s.) : 80 kA, 690 V Max. OFA_ fuse size	$\hat{i}_c$ (peak)	kA	40.5	59	83.5	
		gG/aM	A	355/315	500/500	800/1000	
Rated short-time withstand current	I <sub>sw</sub> (r.m.s.)	690V, 1s	kA	8	15	20	50
Rated short-circuit making capacity	I <sub>cm</sub> (peak)	690V	kA	30	65	80	92
Mechanical endurance	Number of operating cycles <sup>2)</sup>		Cycles	8000	8000	5000	3000
Terminal bolt size	Metric thread diameter x length		mm	M8x25	M10x30	M12x40	M12x60
Terminal tightening torque	Counter torque required		Nm	15...22	30...44	50...75	50...75
Operating torque	3-pole switches		Nm	7	16	27	78
Weight without accessories	3-pole switch		kg	2.8	5.0	13.1	34.8
	4-pole switch		kg	3.5	6.1	15.9	43.3
<b>Data according to IEC 60947-6-1</b>							
Class of equipment				PC	PC	PC	PC
Rated short-time withstand current	I <sub>sw</sub> (r.m.s.)	690 V 0.1s		15	25	38	50
Rated operational current, AC-31B		up to 415 V	A	250	400	800	1600
Rated operational current, AC-33B		up to 415 V	A	250	400	800	1000

<sup>1)</sup> The fuse in single-phase test according to IEC 60269

<sup>2)</sup> Operating cycle: O - I - O - II - O

### Auxiliary contacts

#### Technical data for auxiliary contacts according to IEC 60947-5-1, for OA1G\_, OA2G\_, OA3G\_, OA7G\_, OA8G\_

U <sub>e</sub> /[V]	AC15		U <sub>e</sub> /[V]	DC12		DC13	P/[W]
	I <sub>e</sub> /[A]			I <sub>e</sub> /[A]	P/[W]		
230	6	24	10	240		50	
400	4	72	4	290		60	
415	4	125	2	250		70	
690	2	250	0.55	140		70	
		440	0.1	44			

# Ordering information

## Manual change-over switches, IEC-types, open transition



OT16...40F3C



OT63...80F3C



OT100...125F3C

### Manual change-over switches, I-O-II -operation

Including terminal clamps, IP20. Handle and shaft have to be ordered separately. OT 16...80 are UL Listed.

No. of poles	Rated current and power			Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
	AC-21A/AC-22A		AC-23A				
	≤ 415V I[A]	400V S[kVA]	400...415V I[A]/P[kW]				
3	16	11	16/7.5	OT16F3C	1SCA104816R1001	1	0.25
4	16	11	16/7.5	OT16F4C	1SCA104831R1001	1	0.31
3	25	17	20/9	OT25F3C	1SCA104863R1001	1	0.25
4	25	17	20/9	OT25F4C	1SCA104877R1001	1	0.31
3	40	27	23/11	OT40F3C	1SCA104913R1001	1	0.25
4	40	27	23/11	OT40F4C	1SCA104934R1001	1	0.31
3	63	43	45/22	OT63F3C	1SCA105338R1001	1	0.64
4	63	43	45/22	OT63F4C	1SCA105369R1001	1	0.70
3	80	55	75/37	OT80F3C	1SCA105402R1001	1	0.64
4	80	55	75/37	OT80F4C	1SCA105418R1001	1	0.70
3	100	70	80/37	OT100F3C	1SCA105008R1001	1	0.90
4	100	70	80/37	OT100F4C	1SCA105019R1001	1	1.18
3	125	86	90/45	OT125F3C	1SCA105037R1001	1	0.90
4	125	86	90/45	OT125F4C	1SCA105054R1001	1	1.18

### Cable cross section of the change-over switches

Suitable for switches	Cable cross section [mm <sup>2</sup> ]
OT16...40F_C	0.75 ... 10
OT63...80F_C	1.5 ... 35
OT100...125F_C	10 ... 70

# Ordering information

## Manual change-over switches, IEC-types, open transition



OT160...250E03CP



OT160...250E03WCP



OT160...250E04CP



OT160...250E04WCP



OT160...250E33CP



OT160...250E33WCP

### Manual change-over switches, I-O-II -operation

Including a black plastic IP65 I-O-II pistol type handle (see the table below), shaft and bolt set for the cable connection. Handle padlockable in the 0-position, door interlock in the I- and II-positions and when padlocked.

No. of poles	Rated current and power			Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
	AC-21A/AC-22A ≤ 415V I[A]	400V S[kVA]	AC-23A 400...415V I[A]/P[kW]				
Types -W: with wide phase distance.							
3	160	110	160/90	OT160E03CP	1SCA022772R6510	1	3.3
3	160	110	160/90	OT160E12CP	1SCA022776R9080	1	3.3
3	160	110	160/90	OT160E03WCP	1SCA022772R8210	1	3.6
4	160	110	160/90	OT160E04CP	1SCA022775R9440	1	4.1
4	160	110	160/90	OT160E13CP	1SCA022777R0170	1	4.1
4	160	110	160/90	OT160E04WCP	1SCA022775R0220	1	4.4
6	160	110	160/90	OT160E33CP	1SCA118537R1001	1	5.7
6	160	110	160/90	OT160E33WCP	1SCA118603R1001	1	6.0
3	200	135	200/110	OT200E03CP	1SCA022771R7520	1	3.3
3	200	135	200/110	OT200E12CP	1SCA022776R8510	1	3.3
3	200	135	200/110	OT200E03WCP	1SCA022772R8720	1	3.6
4	200	135	200/110	OT200E04CP	1SCA022771R7280	1	4.1
4	200	135	200/110	OT200E13CP	1SCA022777R0250	1	4.1
4	200	135	200/110	OT200E04WCP	1SCA022775R0650	1	4.4
6	200	135	200/110	OT200E33CP	1SCA118541R1001	1	5.7
6	200	135	200/110	OT200E33WCP	1SCA118607R1001	1	6.0
3	250	170	250/140	OT250E03CP	1SCA022771R3450	1	3.3
3	250	170	250/140	OT250E12CP	1SCA022776R9320	1	3.3
3	250	170	250/140	OT250E03WCP	1SCA022772R8300	1	3.6
4	250	170	250/140	OT250E04CP	1SCA022775R4640	1	4.1
4	250	170	250/140	OT250E13CP	1SCA022777R0330	1	4.1
4	250	170	250/140	OT250E04WCP	1SCA022775R0810	1	4.4
6	250	170	250/140	OT250E33CP	1SCA118551R1001	1	5.7
6	250	170	250/140	OT250E33WCP	1SCA118608R1001	1	6.0

### Shafts, handle and bolt kits included as standard

Suitable for switches	Shaft	Handle	Bolt kit
OT160...250_C	XP6x161	OHB65J6E011	M8x25

# Ordering information

## Manual change-over switches, IEC-types, open transition



OT315...400E03CP



OT315...400E13CP



OT315...400E33CP



OT630...800E03CP



OT630...800E04CP



OT630...800E33CP

### Manual change-over switches, I-O-II -operation

Including a black plastic IP65 I-O-II pistol type handle (see the table below), shaft and bolt set for the cable connection. Handle padlockable in the 0-position, door interlock in the I- and II-positions and when padlocked.

No. of poles	Rated current and power			Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
	AC-21A/AC-22A ≤ 415V I[A]	400V S[kVA]	AC-23A 400...415V I[A]/P[kW]				
Place of mechanism, see the pictures.							
3	315	215	315/160	OT315E03CP	1SCA022772R6780	1	5.9
3	315	215	315/160	OT315E12CP	1SCA022776R9910	1	5.9
4	315	215	315/160	OT315E04CP	1SCA022775R7150	1	7.1
4	315	215	315/160	OT315E13CP	1SCA022777R0410	1	7.1
6	315	215	315/160	OT315E33CP	1SCA118635R1001	1	9.5
3	400	275	400/220	OT400E03CP	1SCA022771R8500	1	5.9
3	400	275	400/220	OT400E12CP	1SCA022776R9590	1	5.9
4	400	275	400/220	OT400E04CP	1SCA022771R8680	1	7.1
4	400	275	400/220	OT400E13CP	1SCA022777R0500	1	7.1
6	400	275	400/220	OT400E33CP	1SCA118629R1001	1	9.5
3	630	435	630/355	OT630E03CP	1SCA022785R6050	1	17.7
3	630	435	630/355	OT630E12CP	1SCA022785R8690	1	17.7
4	630	435	630/355	OT630E04CP	1SCA022785R6130	1	21
4	630	435	630/355	OT630E13CP	1SCA022785R9070	1	21
6	630	435	630/355	OT630E33CP	1SCA118652R1001	1	27.6
3	800	550	800/450	OT800E03CP	1SCA022785R6300	1	17.7
3	800	550	800/450	OT800E12CP	1SCA022785R8850	1	17.7
4	800	550	800/450	OT800E04CP	1SCA022785R6210	1	21
4	800	550	800/450	OT800E13CP	1SCA022785R9230	1	21
6	800	550	800/450	OT800E33CP	1SCA118649R1001	1	27.6

### Shafts, handle and bolt kits included as standard

Suitable for switches	Shaft	Handle	Bolt kit
OT315...400_C	OX P12x166	OHB95J12E011	M10x30
OT630...800_C	OX P12x185	OHB125J12E011	M12x40



# Ordering information

## Manual change-over switches, IEC-types, open transition



OT1250E03CP



OT1000...1250E22CP



OT1600E03CP



OT2000...2500E03CP



OT3200E03CP

### Manual change-over switches, I-O-II -operation

Including a black plastic IP65 I-O-II pistol type handle (see the table below), shaft and bolt set for the cable connection. Handle padlockable in the 0-position, door interlock in the I- and II-positions and when padlocked.

No. of poles	Rated current <sup>1)</sup> and power			Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
	AC-21A/AC-22A ≤ 415V I[A]	400V S[kVA]	AC-23A 400...415V I[A]/P[kW]				
Place of mechanism, see the pictures.							
3	1000	680	1000/560	OT1000E03CP	1SCA022872R1680	1	48
3	1000	680	1000/560	OT1000E12CP	1SCA103287R1001	1	48
4	1000	680	1000/560	OT1000E04CP	1SCA022872R1500	1	60
4	1000	680	1000/560	OT1000E13CP	1SCA103291R1001	1	60
4	1000	680	1000/560	OT1000E22CP	1SCA103289R1001	1	60
3	1250	850	1250/710	OT1250E03CP	1SCA022872R0790	1	48
3	1250	850	1250/710	OT1250E12CP	1SCA103308R1001	1	48
4	1250	850	1250/710	OT1250E04CP	1SCA022872R1250	1	60
4	1250	850	1250/710	OT1250E13CP	1SCA103313R1001	1	60
4	1250	850	1250/710	OT1250E22CP	1SCA103311R1001	1	60
3	1600	1000	1250/710	OT1600E03CP	1SCA022872R1840	1	51
3	1600	1000	1250/710	OT1600E12CP	1SCA103293R1001	1	51
4	1600	1000	1250/710	OT1600E04CP	1SCA022872R2310	1	63
4	1600	1000	1250/710	OT1600E13CP	1SCA103306R1001	1	63
4	1600	1000	1250/710	OT1600E22CP	1SCA103303R1001	1	63
3	2000	1350		OT2000E03CP	1SCA103908R1001	1	70
3	2000	1350		OT2000E12CP	1SCA103915R1001	1	70
4	2000	1350		OT2000E04CP	1SCA103912R1001	1	86
4	2000	1350		OT2000E13CP	1SCA103918R1001	1	86
4	2000	1350		OT2000E22CP	1SCA103953R1001	1	86
3	2500	1700		OT2500E03CP	1SCA105615R1001	1	70
3	2500	1700		OT2500E12CP	1SCA103891R1001	1	70
4	2500	1700		OT2500E04CP	1SCA103906R1001	1	86
4	2500	1700		OT2500E13CP	1SCA103895R1001	1	86
4	2500	1700		OT2500E22CP	1SCA103902R1001	1	86
3	3200	2170		OT3200E03CP	1SCA129156R1001	1	79
4	3200	2170		OT3200E04CP	1SCA129158R1001	1	97

<sup>1)</sup> OT2000...3200: Category AC-21B

### Shafts, handle and bolt kits included as standard

Suitable for switches	Shaft	Handle	Bolt kit
OT1000...2500_C	EXP12x185	OHB200J12PE011	M12x60
OT3200_C	EXP12x185	OHB200J12PE011	M12x100

# Ordering information

## Manual change-over switches, IEC-types, open transition



OT160...250E03CFP



OT160...250E03WCFP



OT315...400E13CFP



OT630...800E03CFP

### Manual change-over switches, I-O-II -operation, fast transition

Including a black plastic IP65 I-O-II pistol type handle (see the table below), shaft and bolt set for the cable connection. Handle not padlockable and no door interlocking. Operating angle 90° to achieve fast switching. Minimum OFF-time between transfer from I-II or II-I is 20 ms.

No. of poles	Rated current and power			Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
	AC-21A/AC-22A ≤ 415V I[A]	400V S[kVA]	AC-23A 400...415V I[A]/P[kW]				
Place of mechanism, see the pictures. Types -W: with wide phase distance.							
3	160	110	160/90	OT160E03CFP	1SCA106086R1001	1	3.3
3	160	110	160/90	OT160E12CFP	1SCA108496R1001	1	3.3
3	160	110	160/90	OT160E03WCFP	1SCA108484R1001	1	3.6
4	160	110	160/90	OT160E04CFP	1SCA108489R1001	1	4.1
4	160	110	160/90	OT160E13CFP	1SCA108502R1001	1	4.1
4	160	110	160/90	OT160E04WCFP	1SCA108492R1001	1	4.4
3	200	135	200/110	OT200E03CFP	1SCA108520R1001	1	3.3
3	200	135	200/110	OT200E12CFP	1SCA108535R1001	1	3.3
3	200	135	200/110	OT200E03WCFP	1SCA107578R1001	1	3.6
4	200	135	200/110	OT200E04CFP	1SCA108528R1001	1	4.1
4	200	135	200/110	OT200E13CFP	1SCA108543R1001	1	4.1
4	200	135	200/110	OT200E04WCFP	1SCA108531R1001	1	4.4
3	250	170	250/140	OT250E03CFP	1SCA108591R1001	1	3.3
3	250	170	250/140	OT250E12CFP	1SCA108609R1001	1	3.3
3	250	170	250/140	OT250E03WCFP	1SCA107577R1001	1	3.6
4	250	170	250/140	OT250E04CFP	1SCA108600R1001	1	4.1
4	250	170	250/140	OT250E13CFP	1SCA108615R1001	1	4.1
4	250	170	250/140	OT250E04WCFP	1SCA108606R1001	1	4.4
3	315	215	315/160	OT315E03CFP	1SCA108629R1001	1	5.9
3	315	215	315/160	OT315E12CFP	1SCA108633R1001	1	5.9
4	315	215	315/160	OT315E04CFP	1SCA114535R1001	1	7.1
4	315	215	315/160	OT315E13CFP	1SCA106436R1001	1	7.1
3	400	275	400/220	OT400E03CFP	1SCA106360R1001	1	5.9
3	400	275	400/220	OT400E12CFP	1SCA108652R1001	1	5.9
4	400	275	400/220	OT400E04CFP	1SCA108650R1001	1	7.1
4	400	275	400/220	OT400E13CFP	1SCA106441R1001	1	7.1
3	630	435	630/355	OT630E03CFP	1SCA106915R1001	1	17.7
3	630	435	630/355	OT630E12CFP	1SCA106963R1001	1	17.7
4	630	435	630/355	OT630E04CFP	1SCA108753R1001	1	21
4	630	435	630/355	OT630E13CFP	1SCA106988R1001	1	21
3	800	550	800/450	OT800E03CFP	1SCA106916R1001	1	17.7
3	800	550	800/450	OT800E12CFP	1SCA106966R1001	1	17.7
4	800	550	800/450	OT800E04CFP	1SCA106945R1001	1	21
4	800	550	800/450	OT800E13CFP	1SCA106983R1001	1	21

### Shafts, handle and bolt kits included as standard

Suitable for switches	Shaft	Handle	Bolt kit
OT160...250_CF	OXp6x161	OHB65J6E69	M8x25
OT315...400_CF	OXp12x166	OHB95J12E69	M10x30
OT630...800_CF	OXp12x185	OHB145J12E69	M12x40

# Ordering information

## Manual bypass switches, IEC-types, open transition



OT160...250E03\_YP



OT315...400E03\_YP



OT630...800E03\_YP

### Manual bypass switches, I-O-II -operation

Including a black plastic IP65 I-O-II pistol type handle and a handle extension for enabling smooth manual operation, shaft and bolt set for the cable connection. 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. The handle padlockable in the 0-position, door interlock in the I- and II-positions and when padlocked.

No. of poles	Rated current and power			Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
	AC-21A/AC-22A ≤ 415V I[A]	400V S[kVA]	AC-23A 400...415V I[A]/P[kW]				
3	160	110	160/90	OT160E03YP	1SCA123551R1001	1	5.6
3	160	110	160/90	OT160E12YP	1SCA1235563R1001	1	5.6
4	160	110	160/90	OT160E04YP	1SCA123556R1001	1	7.5
4	160	110	160/90	OT160E13YP	1SCA123569R1001	1	7.5
4	160	110	160/90	OT160E22YP	1SCA123575R1001	1	7.5
3	200	135	200/110	OT200E03YP	1SCA123552R1001	1	5.6
3	200	135	200/110	OT200E12YP	1SCA123564R1001	1	5.6
4	200	135	200/110	OT200E04YP	1SCA123557R1001	1	7.5
4	200	135	200/110	OT200E13YP	1SCA123570R1001	1	7.5
4	200	135	200/110	OT200E22YP	1SCA123576R1001	1	7.5
3	250	170	250/140	OT250E03YP	1SCA123553R1001	1	5.6
3	250	170	250/140	OT250E12YP	1SCA123565R1001	1	5.6
4	250	170	250/140	OT250E04YP	1SCA123558R1001	1	7.5
4	250	170	250/140	OT250E13YP	1SCA123571R1001	1	7.5
4	250	170	250/140	OT250E22YP	1SCA123577R1001	1	7.5
3	315	215	315/160	OT315E03YP	1SCA123581R1001	1	10.1
3	315	215	315/160	OT315E12YP	1SCA123585R1001	1	10.1
4	315	215	315/160	OT315E04YP	1SCA123583R1001	1	13.5
4	315	215	315/160	OT315E13YP	1SCA123588R1001	1	13.5
4	315	215	315/160	OT315E22YP	1SCA123586R1001	1	13.5
3	400	275	400/220	OT400E03YP	1SCA123582R1001	1	10.1
3	400	275	400/220	OT400E12YP	1SCA123584R1001	1	10.1
4	400	275	400/220	OT400E04YP	1SCA124026R1001	1	13.5
4	400	275	400/220	OT400E13YP	1SCA123589R1001	1	13.5
4	400	275	400/220	OT400E22YP	1SCA123587R1001	1	13.5
3	630	435	630/355	OT630E03YP	1SCA123590R1001	1	43.9
3	630	435	630/355	OT630E12YP	1SCA123594R1001	1	43.9
4	630	435	630/355	OT630E04YP	1SCA123592R1001	1	58.5
4	630	435	630/355	OT630E13YP	1SCA123599R1001	1	58.5
4	630	435	630/355	OT630E22YP	1SCA123597R1001	1	58.5
3	800	550	800/450	OT800E03YP	1SCA123591R1001	1	43.9
3	800	550	800/450	OT800E12YP	1SCA123595R1001	1	43.9
4	800	550	800/450	OT800E04YP	1SCA123593R1001	1	58.5
4	800	550	800/450	OT800E13YP	1SCA123598R1001	1	58.5
4	800	550	800/450	OT800E22YP	1SCA123596R1001	1	58.5

### Shafts, handle, handle extension and bolt kits included as standard

Suitable for switches	Shaft	Handle	Handle extension	Bolt kit
OT160...250_Y	OSP6/12x161C	OHB65J12E011	OHBZX200	M8x25
OT315...400_Y	OSP12x166	OHB95J12E011	OHBZX200	M10x30
OT630...800_Y	OSP12x185	OHB125J12E011	OHBZX275	M12x40

# Ordering information

## Motorized change-over switches, IEC-types, open transition



OTM40...125F3C\_



OTM40...125F4C\_

### Change-over switches, motor operation, I-O-II -operation

Including a handle for manual operation, a storage clip for the handle and male connectors for control circuits.

No. of poles	Rated current AC-21A, AC-22A $\leq 415V, I[A]$	Rated power 400V S[kVA]	Rated current AC-31B/ AC-33B 415V, I[A]	Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
<b>Motor voltage <math>U_e</math> 110...240 V AC/DC</b>							
3	40	27	40/40	OTM40F3CMA230V	1SCA120096R1001	1	1.64
4	40	27	40/40	OTM40F4CMA230V	1SCA120102R1001	1	1.86
3	63	43	63/63	OTM63F3CMA230V	1SCA120095R1001	1	1.64
4	63	43	63/63	OTM63F4CMA230V	1SCA120101R1001	1	1.86
3	80	55	80/80	OTM80F3CMA230V	1SCA120093R1001	1	1.64
4	80	55	80/80	OTM80F4CMA230V	1SCA120100R1001	1	1.86
3	100	70	100/80	OTM100F3CMA230V	1SCA120071R1001	1	1.64
4	100	70	100/80	OTM100F4CMA230V	1SCA120098R1001	1	1.86
3	125	86	125/80	OTM125F3CMA230V	1SCA120070R1001	1	1.64
4	125	86	125/80	OTM125F4CMA230V	1SCA120097R1001	1	1.86
<b>Motor voltage <math>U_e</math> 24 V DC</b>							
3	40	27	40/40	OTM40F3CMA24D	1SCA124061R1001	1	1.64
4	40	27	40/40	OTM40F4CMA24D	1SCA124063R1001	1	1.86
3	63	43	63/63	OTM63F3CMA24D	1SCA124060R1001	1	1.64
4	63	43	63/63	OTM63F4CMA24D	1SCA124064R1001	1	1.86
3	80	55	80/80	OTM80F3CMA24D	1SCA124059R1001	1	1.64
4	80	55	80/80	OTM80F4CMA24D	1SCA124062R1001	1	1.86
3	100	70	100/80	OTM100F3CMA24D	1SCA124058R1001	1	1.64
4	100	70	100/80	OTM100F4CMA24D	1SCA124066R1001	1	1.86
3	125	86	125/80	OTM125F3CMA24D	1SCA124057R1001	1	1.64
4	125	86	125/80	OTM125F4CMA24D	1SCA124065R1001	1	1.86

### Handles included as standard, cable cross section

Suitable for switches	Cable cross section [mm <sup>2</sup> ]	Handle
OTM40F_CM	2.5...25 or 2 x 2.5...16	OHB65D6CM
OTM63...125F_CM	10 ... 70	OHB65D6CM

# Ordering information

## Motorized change-over switches, IEC-types, open transition



OTM160...250E2C\_



OTM160...250E2WC\_



OTM160...250E3C\_



OTM160...250E3WC\_



OTM315...400E2C\_



OTM315...400E3C\_



OTM315...400E4C\_

### Change-over switches, motor operation, I-O-II -operation

Including 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 AC-21A, AC-22A ≤ 415V, I[A]	Rated power 400V S[kVA]	Rated current AC-31B/ AC-33B 415V, I[A]	Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
<b>Motor voltage U<sub>e</sub> 220...240 V AC<sup>1)</sup></b>							
2	160	110	160/160	OTM160E2CM230V	1SCA121216R1001	1	5.7
2	160	110	160/160	OTM160E2WCM230V	1SCA121218R1001	1	5.9
3	160	110	160/160	OTM160E3CM230C	1SCA022845R8610	1	6.6
3	160	110	160/160	OTM160E3WCM230C	1SCA022846R4000	1	6.9
4	160	110	160/160	OTM160E4CM230C	1SCA022848R1510	1	7.5
4	160	110	160/160	OTM160E4WCM230C	1SCA022846R7440	1	7.9
2	200	135	200/200	OTM200E2CM230V	1SCA121209R1001	1	5.7
2	200	135	200/200	OTM200E2WCM230V	1SCA121294R1001	1	5.9
3	200	135	200/200	OTM200E3CM230C	1SCA022845R8960	1	6.6
3	200	135	200/200	OTM200E3WCM230C	1SCA022846R3960	1	6.9
4	200	135	200/200	OTM200E4CM230C	1SCA022846R1590	1	7.5
4	200	135	200/200	OTM200E4WCM230C	1SCA022846R7870	1	7.9
2	250	170	250/250	OTM250E2CM230V	1SCA121211R1001	1	5.7
2	250	170	250/250	OTM250E2WCM230V	1SCA121220R1001	1	5.9
3	250	170	250/250	OTM250E3CM230C	1SCA022845R9260	1	6.6
3	250	170	250/250	OTM250E3WCM230C	1SCA022846R4770	1	6.9
4	250	170	250/250	OTM250E4CM230C	1SCA022846R1910	1	7.5
4	250	170	250/250	OTM250E4WCM230C	1SCA022846R8250	1	7.9
2	315	215	315/315	OTM315E2CM230V	1SCA121221R1001	1	9.7
3	315	215	315/315	OTM315E3CM230C	1SCA022847R1210	1	11.1
4	315	215	315/315	OTM315E4CM230C	1SCA022847R2870	1	12.5
2	400	275	400/400	OTM400E2CM230V	1SCA121226R1001	1	9.7
3	400	275	400/400	OTM400E3CM230C	1SCA022847R1630	1	11.1
4	400	275	400/400	OTM400E4CM230C	1SCA022847R3250	1	12.5

<sup>1)</sup> 2-pole versions, motor voltage U<sub>e</sub> 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

# Ordering information

## Motorized change-over switches, IEC-types, open transition



OTM630...800E2C\_



OTM630...800E3C\_



OTM1000...1250E2C\_



OTM1000...1250E3C\_



OTM1600E2C\_



OTM1600E3C\_



OTM2000...2500E2C\_



OTM2000...2500E3C\_

### Change-over switches, motor operation, I-O-II -operation

Including a handle for manual operation, bolt kit with nut and washers for all terminals and male connectors for control circuits. Types OTM630...2500E\_ include a storage clip for the handle and spare fuses.

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

<sup>1)</sup> OTM2000...2500: Category AC-21B

<sup>2)</sup> 2-pole versions, motor voltage U<sub>e</sub> 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

# Ordering information

## Motorized change-over switches, IEC-types, open transition



OTM160...250E3C\_



OTM160...250E3WC\_



OTM315...400E3C\_



OTM630...800E3C\_



OTM1000...1250E3C\_



OTM1600E3C\_



OTM2000...2500E3C\_

### Change-over switches, motor operation, I-O-II -operation

Including 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 <sup>1)</sup> AC-21A, AC-22A ≤ 415V, I[A]	Rated power 400V S[kVA]	Rated current AC-31B/ AC-33B 415V, I[A]	Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
<b>Motor voltage U<sub>e</sub> 110...125 V AC/DC</b>							
3	160	110	160/160	OTM160E3CM110V	1SCA022845R8530	1	6.6
3	160	110	160/160	OTM160E3WCM110V	1SCA022846R3450	1	6.9
4	160	110	160/160	OTM160E4CM110V	1SCA022846R1080	1	7.5
4	160	110	160/160	OTM160E4WCM110V	1SCA022846R7360	1	7.9
3	200	135	200/200	OTM200E3CM110V	1SCA022845R8880	1	6.6
3	200	135	200/200	OTM200E3WCM110V	1SCA022846R3880	1	6.9
4	200	135	200/200	OTM200E4CM110V	1SCA022846R1410	1	7.5
4	200	135	200/200	OTM200E4WCM110V	1SCA022846R7790	1	7.9
3	250	170	250/250	OTM250E3CM110V	1SCA022845R9180	1	6.6
3	250	170	250/250	OTM250E3WCM110V	1SCA022846R4690	1	6.9
4	250	170	250/250	OTM250E4CM110V	1SCA022846R1830	1	7.5
4	250	170	250/250	OTM250E4WCM110V	1SCA022846R8170	1	7.9
3	315	215	315/315	OTM315E3CM110V	1SCA022847R1120	1	11.1
4	315	215	315/315	OTM315E4CM110V	1SCA022847R2790	1	12.5
3	400	275	400/400	OTM400E3CM110V	1SCA022847R1550	1	11.1
4	400	275	400/400	OTM400E4CM110V	1SCA022847R3170	1	12.5
3	630	435	650/650	OTM630E3CM110V	1SCA022873R1050	1	22
4	630	435	650/650	OTM630E4CM110V	1SCA022873R1810	1	25
3	800	550	720/650	OTM800E3CM110V	1SCA022872R5750	1	22
4	800	550	720/650	OTM800E4CM110V	1SCA022872R8260	1	25
3	1000	680	1000/1000	OTM1000E3CM110V	1SCA113653R1001	1	55
4	1000	680	1000/1000	OTM1000E4CM110V	1SCA113656R1001	1	65
3	1250	850	1250/1000	OTM1250E3CM110V	1SCA113652R1001	1	55
4	1250	850	1250/1000	OTM1250E4CM110V	1SCA113655R1001	1	65
3	1600	1000	1600/1000	OTM1600E3CM110V	1SCA113654R1001	1	59
4	1600	1000	1600/1000	OTM1600E4CM110V	1SCA113657R1001	1	69
3	2000	1350		OTM2000E3CM110V	1SCA113683R1001	1	78
4	2000	1350		OTM2000E4CM110V	1SCA113685R1001	1	95
3	2500	1700		OTM2500E3CM110V	1SCA113684R1001	1	78
4	2500	1700		OTM2500E4CM110V	1SCA113686R1001	1	95

<sup>1)</sup> 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

# Ordering information

## Motorized change-over switches, IEC-types, open transition



OTM160...250E3C\_



OTM160...250E3WC\_



OTM315...400E3C\_



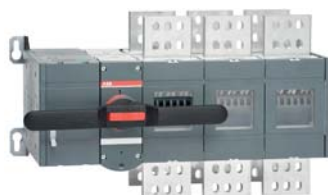
OTM630...800E3C\_



OTM1000...1250E3C\_



OTM1600E3C\_



OTM2000...2500E3C\_

### Change-over switches, motor operation, I-O-II -operation

Including 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 <sup>1)</sup> AC-21A, AC-22A ≤ 415V, I[A]	Rated power 400V S[kVA]	Rated current AC-31B/ AC-33B 415V, I[A]	Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
<b>Motor voltage U<sub>e</sub> 48 V DC</b>							
3	160	110	160/160	OTM160E3CM48D	1SCA022845R8450	1	6.6
3	160	110	160/160	OTM160E3WCM48D	1SCA022846R3370	1	6.9
4	160	110	160/160	OTM160E4CM48D	1SCA022846R0940	1	7.5
4	160	110	160/160	OTM160E4WCM48D	1SCA022846R7280	1	7.9
3	200	135	200/200	OTM200E3CM48D	1SCA022845R8700	1	6.6
3	200	135	200/200	OTM200E3WCM48D	1SCA022846R3700	1	6.9
4	200	135	200/200	OTM200E4CM48D	1SCA022846R1320	1	7.5
4	200	135	200/200	OTM200E4WCM48D	1SCA022846R7610	1	7.9
3	250	170	250/250	OTM250E3CM48D	1SCA022845R9000	1	6.6
3	250	170	250/250	OTM250E3WCM48D	1SCA022846R4510	1	6.9
4	250	170	250/250	OTM250E4CM48D	1SCA022846R1750	1	7.5
4	250	170	250/250	OTM250E4WCM48D	1SCA022846R8090	1	7.9
4	315	215	315/315	OTM315E4CM48D	1SCA022847R2610	1	11.1
3	400	275	400/400	OTM400E3CM48D	1SCA022847R1470	1	12.5
4	400	275	400/400	OTM400E4CM48D	1SCA022847R3090	1	11.1
3	315	215	315/315	OTM315E3CM48D	1SCA022847R1040	1	12.5
3	630	435	650/650	OTM630E3CM48D	1SCA022873R1300	1	22
4	630	435	650/650	OTM630E4CM48D	1SCA022873R2110	1	25
3	800	550	720/650	OTM800E3CM48D	1SCA022872R6050	1	22
4	800	550	720/650	OTM800E4CM48D	1SCA022872R8510	1	25
3	1000	680	1000/1000	OTM1000E3CM48D	1SCA113663R1001	1	55
4	1000	680	1000/1000	OTM1000E4CM48D	1SCA113666R1001	1	65
3	1250	850	1250/1000	OTM1250E3CM48D	1SCA113662R1001	1	55
4	1250	850	1250/1000	OTM1250E4CM48D	1SCA113665R1001	1	65
3	1600	1000	1600/1000	OTM1600E3CM48D	1SCA113664R1001	1	59
4	1600	1000	1600/1000	OTM1600E4CM48D	1SCA113667R1001	1	69
3	2000	1350		OTM2000E3CM48D	1SCA113689R1001	1	78
4	2000	1350		OTM2000E4CM48D	1SCA113691R1001	1	95
3	2500	1700		OTM2500E3CM48D	1SCA113690R1001	1	78
4	2500	1700		OTM2500E4CM48D	1SCA113692R1001	1	95

<sup>1)</sup> 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



# Ordering information

## Motorized change-over switches, IEC-types, open transition



OTM160...250E3C\_

### Change-over switches, motor operation, I-O-II -operation

Including 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.



OTM160...250E3WC\_



OTM315...400E3C\_



OTM630...800E3C\_



OTM1000...1250E3C\_



OTM1600E3C\_



OTM2000...2500E3C\_

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

<sup>1)</sup> 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

# Ordering information

## Automatic transfer switches



### Automatic transfer switches functionality

	OTM_C2D_	OTM_C3D_	OTM_C8D_
<b>OTM_C_D products overview</b>			
Includes automatic control unit	OMD200_	OMD300_	OMD800_
Manual operation with handle	x	x	x
Local operation with front panel keypad	x	x	x
Automatic transfer switching equipment (ATSE)	x	x	x
Dual power source for the motor operator <sup>1)</sup>	0	x	0
<b>Measurements</b>			
Three phase voltage measurement on LINE 1	x	x	x
Single phase voltage measurement on LINE 1	x	x	x
Three phase voltage measurement on LINE 2	x	x	x
Single phase voltage measurement on LINE 2	x	x	x
Frequency on LINE 1	x	x	x
Frequency on LINE 2	x	x	x
Possibility to check the measurements via LCD			x
<b>Source failure detections</b>			
No voltage	x	x	x
Undervoltage	x	x	x
Overvoltage	x	x	x
Phase missing	x	x	x
Voltage unbalance	x	x	x
Invalid frequency	x	x	x
Incorrect phase sequence			x
<b>Configuration</b>			
By DIP switches	x	x	
By rotary switches	x	x	
By keypad and LCD			x
Voltage threshold setting	x	x	x
Voltage hysteresis setting			x
Frequency threshold setting			x
Frequency hysteresis setting			x
<b>Time delays</b>			
Switching delay	x <sup>2)</sup>	x <sup>2)</sup>	0...60 s
Delay on transfer <sup>3)</sup>			0...600 s
Dead band time I-II (stop switching to position 0)			0...60 s
Back-switching delay	x <sup>4)</sup>	x <sup>4)</sup>	0...5400 s
Dead band time II-I (stop switching to position 0)			0...60 s
Generator stop delay	x <sup>5)</sup>	x <sup>5)</sup>	0...1800 s
Status of time delays on the LCD			x

<sup>1)</sup> Dual power source allows the motor operator to be supplied by two separate voltage supplies. This way the motor operator is always energized from the available line.

<sup>2)</sup> Four options: 0, 5, 10 or 30 seconds

<sup>3)</sup> Delaying the switching sequence before transferring to generator, guaranteeing that in cold locations the generator is properly warmed up

<sup>4)</sup> Two options: the duration of back-switching delay is the same as switching delay, i.e. the time delay is same for I - II and II - I, or the back-switching delay is fixed 300 seconds

<sup>5)</sup> Two options: the duration of generator stop delay is the same as Switching delay or fixed 5 min

x = included as standard

o = as an accessory

# Ordering information

## Automatic transfer switches



### Automatic transfer switches functionality

	OTM_C2D_	OTM_C3D_	OTM_C8D_
<b>Features</b>			
Generator start and stop	X	X	X
Off-load test sequence	X	X	X
On-load test sequence	X	X	X
Source status via front panel	X	X	X
Source status via digital outputs			X
Switch position via front panel	X	X	X
LCD <sup>6)</sup>			X
Fieldbus interface <sup>7)</sup>			X
Event/alarm log			X
Counter for number of operations			X
Auxiliary voltage supply <sup>8)</sup>			X
Programmable digital inputs (eight) and digital outputs (six)			X
Secondary load control (load shedding)			X
Digital input - Allow transfer to secondary <sup>9)</sup>			X
Digital input - Generator alarm <sup>10)</sup>			X
Digital input - Remote control to positions I, O and II			X
<b>Operating mode</b>			
Line priority	x <sup>11)</sup>	x <sup>11)</sup>	x <sup>12)</sup>
Manual back-switching <sup>13)</sup>	X	X	X
Automatic operation to position O, in case of source failure <sup>14)</sup>			X
<b>Applications</b>			
Transfer between two transformers	X	X	X
Transfer between a transformer and a generator	X	X	X

<sup>6)</sup> Menus available in eight languages; English, French, German, Italian, Spanish, Russian, Chinese and Finnish

<sup>7)</sup> Two-way communication, bus communication protocol is Modbus

<sup>8)</sup> In case of source failure, the control unit can be supplied with an external auxiliary supply with 24...110 V DC

<sup>9)</sup> Control unit requires an external signal before allowing the transfer to secondary

<sup>10)</sup> Two options for the operating mode after receiving the alarm: control unit either works normally, or initiates generator stop with operation to position O

<sup>11)</sup> Two options: No line priority, or Source 1 is the priority source

<sup>12)</sup> Three options: No line priority, Source 1 or Source 2 is the priority source

<sup>13)</sup> Automatic back-switching to primary source is prevented

<sup>14)</sup> Control unit and motor operator must be energized

x = included as standard

o = as an accessory

# Ordering information

## Automatic transfer switches

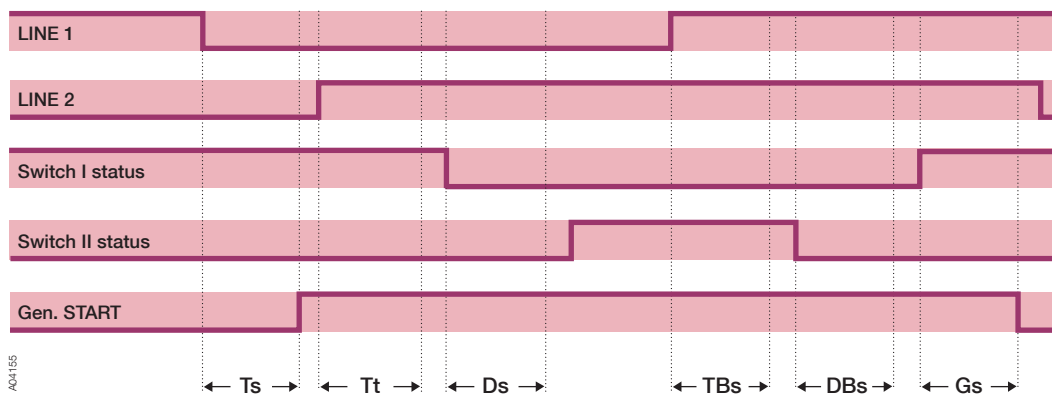
### An example of the ATS switching sequence

An example of the switching sequence can be summarized in the following steps:

- An anomaly occurs on the Line 1
- Switching delay
- Generator start
- Delay on transfer
- Change-over switch (Switch I) to the position O
- Dead band I to II delay
- Change-over switch (Switch II) to the position II

And the back switching sequence can be summarized in the following steps:

- The Line 1 will start the normal functioning
- Back switching delay
- Change-over switch (Switch II) to the position O
- Dead band II to I delay
- Change-over switch (Switch I) to the position I
- Generator stop delay
- Generator stop



**Ts:** Switching delay, **Tt:** Delay on transfer, **Ds:** Dead band I to II, **TBs:** Back switching delay, **DBs:** Dead band II to I, **Gs:** Generator stop delay

The above diagram is with OTM\_C8D and Line 1 priority operating mode

# Ordering information

## Automatic transfer switches, IEC-types



OTM160...250E4WC3D\_



OTM630...800E4C2D\_



OTM1000...1250E4C3D\_

### Automatic transfer switches, I-O-II operation

Including a handle for manual operation, PCB connectors, bolt kit with nuts and washers for all terminals. Types OTM160...1600\_C\_D\_, including a voltage sensing kit on the top of the switch. Voltage sensing kit on the bottom on the switch, available on request, please add letter "B" to the type code. For example, OTM160E4C2D230C ▶ OTM160E4CB2D230C. Types OTM160...1600E\_ include a storage clip for the handle and spare fuses. Types OTM160...250\_WC\_D\_ are equipped with extended phase distance.

No. of poles	Rated current AC-21A, AC-22A ≤ 415V, I[A]	Rated power 400V S[kVA]	Rated current AC-31B/ AC-33B 415V, I[A]	Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
<b>Automatic operation, OTM_C2D_ types, voltage sensing on the top</b>							
Motor operator voltage $U_e = 220...240$ V AC <sup>1)</sup>							
4	160	110	160/160	OTM160E4C2D230C	1SCA106230R1001	1	11
4	160	110	160/160	OTM160E4WC2D230C	1SCA101033R1001	1	11
4	200	135	200/200	OTM200E4C2D230C	1SCA106671R1001	1	11
4	200	135	200/200	OTM200E4WC2D230C	1SCA101034R1001	1	11
4	250	170	250/250	OTM250E4C2D230C	1SCA101016R1001	1	11
4	250	170	250/250	OTM250E4WC2D230C	1SCA101035R1001	1	11
4	315	215	315/315	OTM315E4C2D230C	1SCA101059R1001	1	15
4	400	275	400/400	OTM400E4C2D230C	1SCA101060R1001	1	15
4	630	435	650/650	OTM630E4C2D230C	1SCA108434R1001	1	37
4	800	550	720/650	OTM800E4C2D230C	1SCA108439R1001	1	37
4	1000	680	1000/1000	OTM1000E4C2D230C	1SCA112858R1001	1	66
4	1250	850	1250/1000	OTM1250E4C2D230C	1SCA112857R1001	1	66
4	1600	1000	1600/1000	OTM1600E4C2D230C	1SCA112854R1001	1	70
<b>Automatic operation, OTM_C3D_ types, voltage sensing on the top</b>							
Including in-built dual power source for the motor operator. Motor operator voltage $U_e = 220...240$ V AC <sup>1)</sup>							
4	160	110	160/160	OTM160E4C3D230C	1SCA106305R1001	1	11
4	160	110	160/160	OTM160E4WC3D230C	1SCA106306R1001	1	11
4	200	135	200/200	OTM200E4C3D230C	1SCA106309R1001	1	11
4	200	135	200/200	OTM200E4WC3D230C	1SCA106310R1001	1	11
4	250	170	250/250	OTM250E4C3D230C	1SCA106313R1001	1	11
4	250	170	250/250	OTM250E4WC3D230C	1SCA106314R1001	1	11
4	315	215	315/315	OTM315E4C3D230C	1SCA106317R1001	1	15
4	400	275	400/400	OTM400E4C3D230C	1SCA106318R1001	1	15
4	630	435	650/650	OTM630E4C3D230C	1SCA108726R1001	1	37
4	800	550	720/650	OTM800E4C3D230C	1SCA108728R1001	1	37
4	1000	680	1000/1000	OTM1000E4C3D230C	1SCA112852R1001	1	66
4	1250	850	1250/1000	OTM1250E4C3D230C	1SCA112851R1001	1	66
4	1600	1000	1600/1000	OTM1600E4C3D230C	1SCA112848R1001	1	70

<sup>1)</sup> Under nominal conditions

### 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...1600	OTV1000ECMK	M12x60

# Ordering information

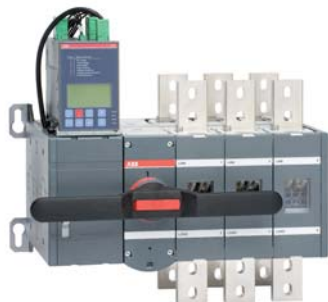
## Automatic transfer switches, IEC-types, open transition



OTM160...250E3C8D\_



OTM315...400E4C8D\_



OTM1600E3C8D\_

### Automatic transfer switches, I-O-II operation

Including a handle for manual operation, PCB connectors, bolt kit with nuts and washers for all terminals. Types OTM160...1600\_C\_D\_, including a voltage sensing kit on the top of the switch. Voltage sensing kit on the bottom on the switch, available on request, please add letter "B" to the type code. For example, OTM160E4C8D230C ▶ OTM160E4CB8D230C. Types OTM160...1600E\_ include a storage clip for the handle and spare fuses. Types OTM160...250\_WC\_D\_ are equipped with extended phase distance.

No. of poles	Rated current AC-21A, AC-22A ≤ 415V, I[A]	Rated power 400V S[kVA]	Rated current AC-31B/ AC-33B 415V, I[A]	Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
<b>Automatic operation, OTM_C8D_ types, voltage sensing on the top</b>							
Motor operator voltage $U_m = 220...240 \text{ V AC}^{1)}$							
3	160	110	160/160	OTM160E3C8D230C	1SCA101017R1001	1	10
3	160	110	160/160	OTM160E3WC8D230C	1SCA101036R1001	1	10
4	160	110	160/160	OTM160E4C8D230C	1SCA101020R1001	1	11
4	160	110	160/160	OTM160E4WC8D230C	1SCA101039R1001	1	11
3	200	135	200/200	OTM200E3C8D230C	1SCA101018R1001	1	10
3	200	135	200/200	OTM200E3WC8D230C	1SCA101037R1001	1	10
4	200	135	200/200	OTM200E4C8D230C	1SCA101021R1001	1	11
4	200	135	200/200	OTM200E4WC8D230C	1SCA101040R1001	1	11
3	250	170	250/250	OTM250E3C8D230C	1SCA101019R1001	1	10
3	250	170	250/250	OTM250E3WC8D230C	1SCA101038R1001	1	10
4	250	170	250/250	OTM250E4C8D230C	1SCA101022R1001	1	11
4	250	170	250/250	OTM250E4WC8D230C	1SCA101041R1001	1	11
3	315	215	315/315	OTM315E3C8D230C	1SCA101062R1001	1	14
4	315	215	315/315	OTM315E4C8D230C	1SCA101063R1001	1	15
3	400	275	400/400	OTM400E3C8D230C	1SCA101061R1001	1	14
4	400	275	400/400	OTM400E4C8D230C	1SCA101064R1001	1	15
3	630	435	650/650	OTM630E3C8D230C	1SCA108452R1001	1	34
4	630	435	650/650	OTM630E4C8D230C	1SCA108453R1001	1	37
3	800	550	720/650	OTM800E3C8D230C	1SCA108454R1001	1	34
4	800	550	720/650	OTM800E4C8D230C	1SCA108455R1001	1	37
3	1000	680	1000/1000	OTM1000E3C8D230C	1SCA112868R1001	1	57
4	1000	680	1000/1000	OTM1000E4C8D230C	1SCA112861R1001	1	66
3	1250	850	1250/1000	OTM1250E3C8D230C	1SCA112862R1001	1	57
4	1250	850	1250/1000	OTM1250E4C8D230C	1SCA112864R1001	1	66
3	1600	1000	1600/1000	OTM1600E3C8D230C	1SCA112866R1001	1	60
4	1600	1000	1600/1000	OTM1600E4C8D230C	1SCA112867R1001	1	70

<sup>1)</sup> Under nominal conditions

### 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...1600	OTV1000ECMK	M12x60

# Ordering information

## Manual change-over switches, IEC-types, closed transition



OT160...250E03CLP



OT160...250E03WCLP



OT315...400E03CLP

### Manual change-over switches, I - I+II - II -operation

The OT160...2500E\_CL change-over switches operate on a closed transition principle, i.e. make-before-break operation without OFF-position. Between positions I and II, there is a position I+II where both switches are closed simultaneously. The overlapping time when both contacts are closed is minimum 20 ms. Operating angle of the handle is 90°. Including a black plastic IP65 I - I+II - II pistol type handle (see the table below), shaft and bolt set for the cable connection. Handle not padlockable and no door interlocking.

No. of poles	Rated current and power			Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
	AC-21A/AC-22A ≤ 415V I[A]	400V S[kVA]	AC-23A 400...415V I[A]/P[kW]				
Place of mechanism, see the picture. Types -W: with wide phase distance.							
3	160	110	160/90	OT160E03CLP	1SCA108468R1001	1	3.3
3	160	110	160/90	OT160E12CLP	1SCA108498R1001	1	3.3
3	160	110	160/90	OT160E03WCLP	1SCA108486R1001	1	3.6
4	160	110	160/90	OT160E04CLP	1SCA108491R1001	1	4.1
4	160	110	160/90	OT160E13CLP	1SCA108504R1001	1	4.1
4	160	110	160/90	OT160E04WCLP	1SCA108494R1001	1	4.4
3	200	135	200/110	OT200E03CLP	1SCA108522R1001	1	3.3
3	200	135	200/110	OT200E12CLP	1SCA108537R1001	1	3.3
3	200	135	200/110	OT200E03WCLP	1SCA108525R1001	1	3.6
4	200	135	200/110	OT200E04CLP	1SCA108530R1001	1	4.1
4	200	135	200/110	OT200E13CLP	1SCA108548R1001	1	4.1
4	200	135	200/110	OT200E04WCLP	1SCA108532R1001	1	4.4
3	250	170	250/140	OT250E03CLP	1SCA108593R1001	1	3.3
3	250	170	250/140	OT250E12CLP	1SCA108611R1001	1	3.3
3	250	170	250/140	OT250E03WCLP	1SCA107576R1001	1	3.6
4	250	170	250/140	OT250E04CLP	1SCA108605R1001	1	4.1
4	250	170	250/140	OT250E13CLP	1SCA108618R1001	1	4.1
4	250	170	250/140	OT250E04WCLP	1SCA108607R1001	1	4.4
3	315	215	315/160	OT315E03CLP	1SCA108630R1001	1	5.9
3	315	215	315/160	OT315E12CLP	1SCA106419R1001	1	5.9
4	315	215	315/160	OT315E04CLP	1SCA106404R1001	1	7.1
4	315	215	315/160	OT315E13CLP	1SCA106443R1001	1	7.1
3	400	275	400/220	OT400E03CLP	1SCA108641R1001	1	5.9
3	400	275	400/220	OT400E12CLP	1SCA106423R1001	1	5.9
4	400	275	400/220	OT400E04CLP	1SCA106405R1001	1	7.1
4	400	275	400/220	OT400E13CLP	1SCA106447R1001	1	7.1

### Shafts, handles and bolt kits included as standard

Suitable for switches	Shaft	Handle	Bolt kit
OT160...250_CL	OMP6x161	OHB65J6E65	M8x25
OT315...400_CL	OMP12x166	OHB95J12E65	M10x30

## Ordering information

### Manual change-over switches, IEC-types, closed transition



OT630...800E03CLP

#### Manual change-over switches, I - I+II - II -operation

The OT160...2500E\_CL change-over switches operate on a closed transition principle, i.e. make-before-break operation without OFF-position. Between positions I and II, there is a position I+II where both switches are closed simultaneously. The overlapping time when both contacts are closed is minimum 20 ms. Operating angle of the handle is 90°. Including a black plastic IP65 I - I+II - II pistol type handle (see the table below), shaft and bolt set for the cable connection. Handle not padlockable and no door interlocking.

No. of poles	Rated current <sup>1)</sup> and power			Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
	AC-21A/AC-22A		AC-23A				
	≤ 415V I[A]	400V S[kVA]	400...415V I[A]/P[kW]				
3	630	435	630/355	OT630E03CLP	1SCA106917R1001	1	17.7
3	630	435	630/355	OT630E12CLP	1SCA106968R1001	1	17.7
4	630	435	630/355	OT630E04CLP	1SCA106947R1001	1	21
4	630	435	630/355	OT630E13CLP	1SCA106981R1001	1	21
3	800	550	800/450	OT800E03CLP	1SCA106928R1001	1	17.7
3	800	550	800/450	OT800E12CLP	1SCA106973R1001	1	17.7
4	800	550	800/450	OT800E04CLP	1SCA106952R1001	1	21
4	800	550	800/450	OT800E13CLP	1SCA106976R1001	1	21
3	1000	680	1000/560	OT1000E03CLP	1SCA117221R1001	1	48
3	1000	680	1000/560	OT1000E12CLP	1SCA117608R1001	1	48
4	1000	680	1000/560	OT1000E04CLP	1SCA117224R1001	1	60
4	1000	680	1000/560	OT1000E13CLP	1SCA117677R1001	1	60
3	1250	850	1250/710	OT1250E03CLP	1SCA117222R1001	1	48
3	1250	850	1250/710	OT1250E12CLP	1SCA117610R1001	1	48
4	1250	850	1250/710	OT1250E04CLP	1SCA117225R1001	1	60
4	1250	850	1250/710	OT1250E13CLP	1SCA117678R1001	1	60
3	1600	1000	1250/710	OT1600E03CLP	1SCA117223R1001	1	51
3	1600	1000	1250/710	OT1600E12CLP	1SCA117611R1001	1	51
4	1600	1000	1250/710	OT1600E04CLP	1SCA117226R1001	1	63
4	1600	1000	1250/710	OT1600E13CLP	1SCA117615R1001	1	63
3	2000	1350		OT2000E03CLP	1SCA117250R1001	1	70
3	2000	1350		OT2000E12CLP	1SCA117617R1001	1	70
4	2000	1350		OT2000E04CLP	1SCA117251R1001	1	86
4	2000	1350		OT2000E13CLP	1SCA117620R1001	1	86
3	2500	1700		OT2500E03CLP	1SCA117249R1001	1	70
3	2500	1700		OT2500E12CLP	1SCA117619R1001	1	70
4	2500	1700		OT2500E04CLP	1SCA117252R1001	1	86
4	2500	1700		OT2500E13CLP	1SCA117622R1001	1	86

<sup>1)</sup> OT2000...2500: Category AC-21B

#### Shafts, handles and bolt kits included as standard

Suitable for switches	Shaft	Handle	Bolt kit
OT630...800_CL	OXp12x185	OHB145J12E65	M12x40
OT1000...2500_CL	OXp12x185	OHB200J12PE65	M12x60



# Ordering information

## Manual change-over switches, UL/CSA -types, open transition



OT200U03CP



OT400U04CP



OT600U03CP

### Change-over switches, I-O-II -operation

The change-over switches include a black handle IP65; see the table below, Nema type 1, 3R, 12, a shaft and a bolt set for the cable connection and a set of phase separators.

No. of poles	UL98 600V general use [A]	Rated current IEC60947-3 ≤ 690 V AC-21-23A [A]	Rated current IEC60947-6-1 ≤ 415V AC-31B/ AC-33B [A]	Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
3	200	250	250/250	OT200U03CP	1SCA022771R5910	1	3.6
4	200	250	250/250	OT200U04CP	1SCA022771R6210	1	4.4
3	400	400	400/400	OT400U03CP	1SCA022771R2810	1	6.2
4	400	400	400/400	OT400U04CP	1SCA022771R2300	1	8.1
3	600	800	800/800	OT600U03CP	1SCA022785R5320	1	17.9
4	600	800	800/800	OT600U04CP	1SCA022785R5410	1	21
3	800	800	1600/1000	OT800U03CP	1SCA104031R1001	1	51
4	800	800	1600/1000	OT800U04CP	1SCA104036R1001	1	63

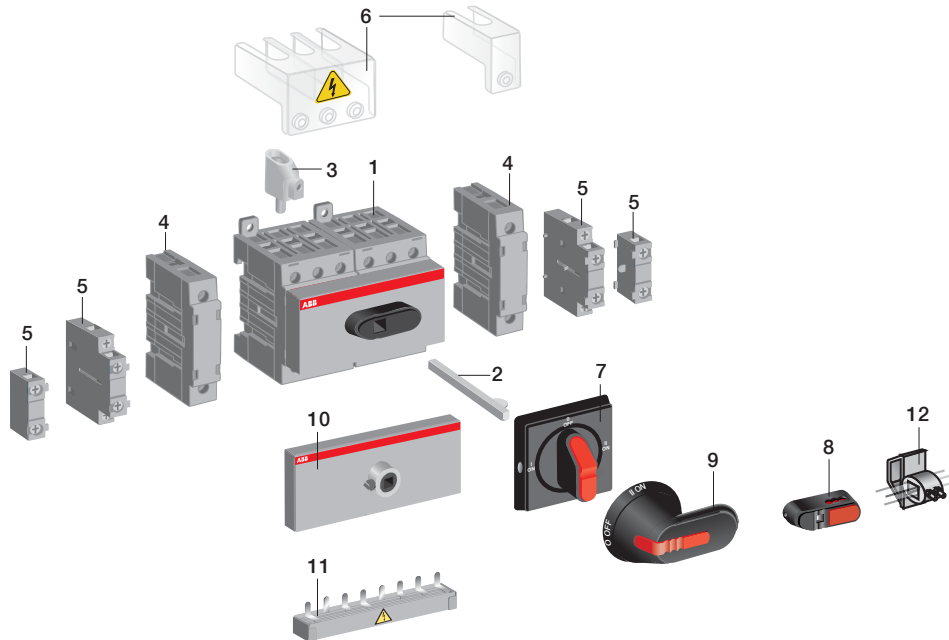
### Shafts, handles and bolt kits included as standard

The handles are equipped with door interlock function in both I- and II-position and when padlocked. Padlocking possibility in O-position with 3 padlocks, bail dia Ø 5...10 mm. Indication I-O-II. Nema type 1, 3R, 12.

Suitable for switches	Shaft	Handle	Bolt kit
OT200U_	0XP6x161	OHB65J6E011	M8x25
OT400U_	0XP12x166	OHB95J12E011	M10x30
OT600U_	0XP12x185	OHB125J12E011	M12x40
OT800U_	0XP12x185	OHB200J12PE011	M12x60

# Selection overview Accessories

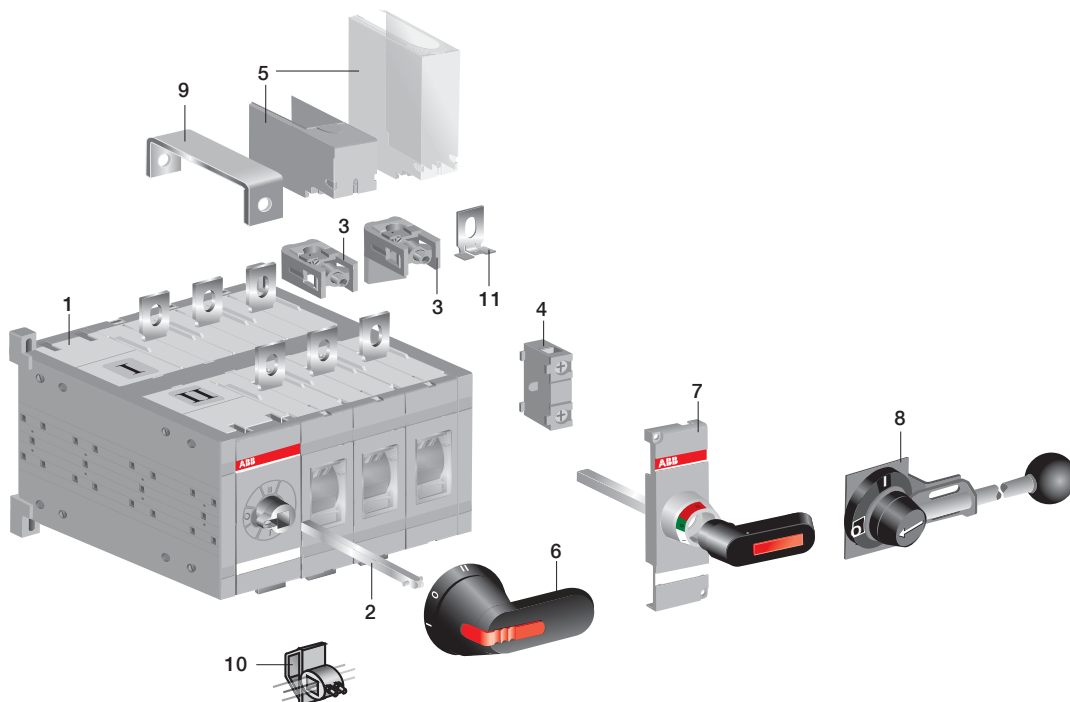
## OT16F...OT125F\_C



S07157

1 Manual change-over switch | 2 Extended shaft | 3 Terminal clamp | 4 Fourth pole | 5 Auxiliary contact | 6 Terminal shroud | 7 Selector type handle | 8 Handle knob | 9 Pistol type handle | 10 Conversion kit | 11 Parallel connection kit | 12 Cam attachment for interlocking

## OT160...OT2500\_C

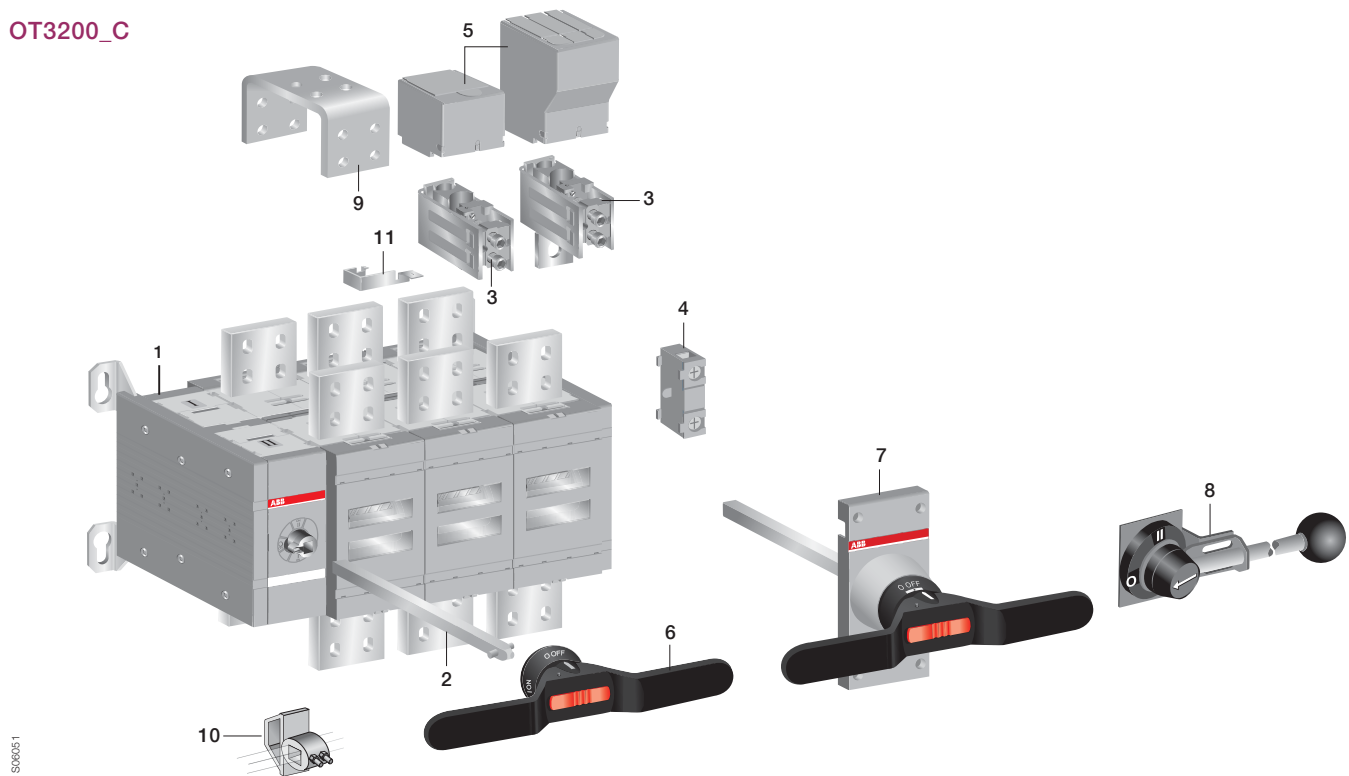


S07158

1 Manual change-over switch | 2 Extended shaft | 3 Terminal clamp | 4 Auxiliary contact | 5 Terminal shroud | 6 Pistol type handle | 7 Direct mounting type handle | 8 Metallic handle | 9 Bridging bar | 10 Cam attachment for interlocking | 11 Voltage sensing connector

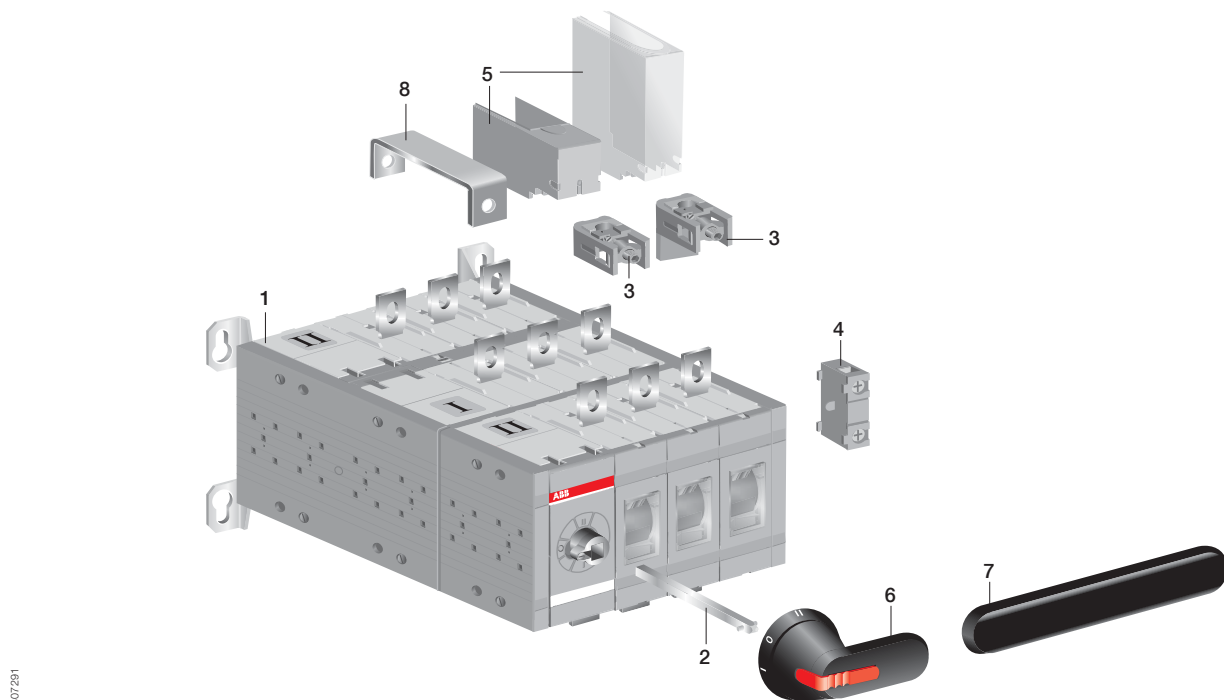
# Selection overview Accessories

## OT3200\_C



1 Manual change-over switch | 2 Extended shaft | 3 Terminal clamp | 4 Auxiliary contact | 5 Terminal shroud | 6 Pistol type handle | 7 Direct mounting type handle | 8 Metallic handle | 9 Bridging bar | 10 Cam attachment for interlocking | 11 Voltage sensing connector

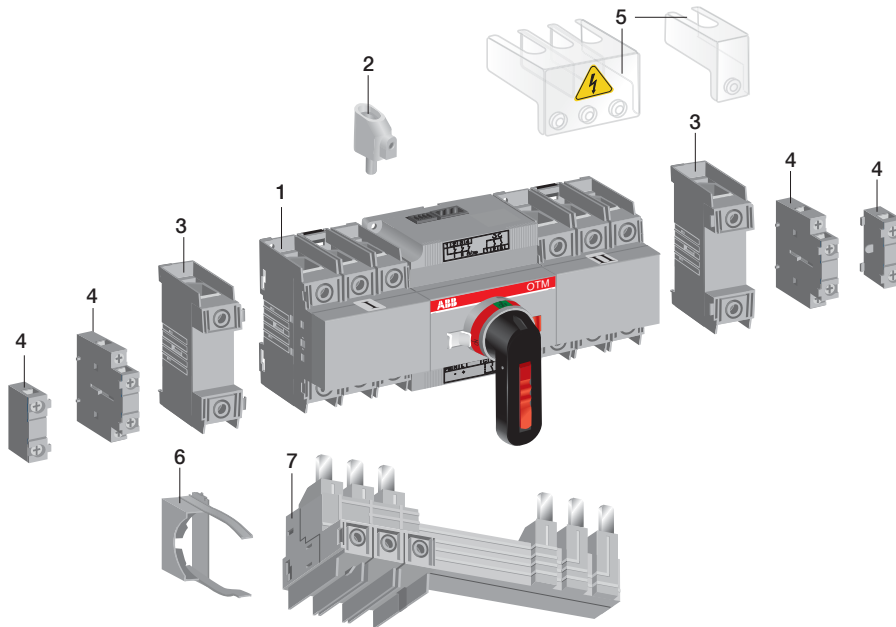
## OT160...OT800\_Y



1 Manual bypass switch | 2 Extended shaft | 3 Terminal clamp | 4 Auxiliary contact | 5 Terminal shroud | 6 Pistol type handle | 7 Handle extension | 8 Bridging bar

# Selection overview Accessories

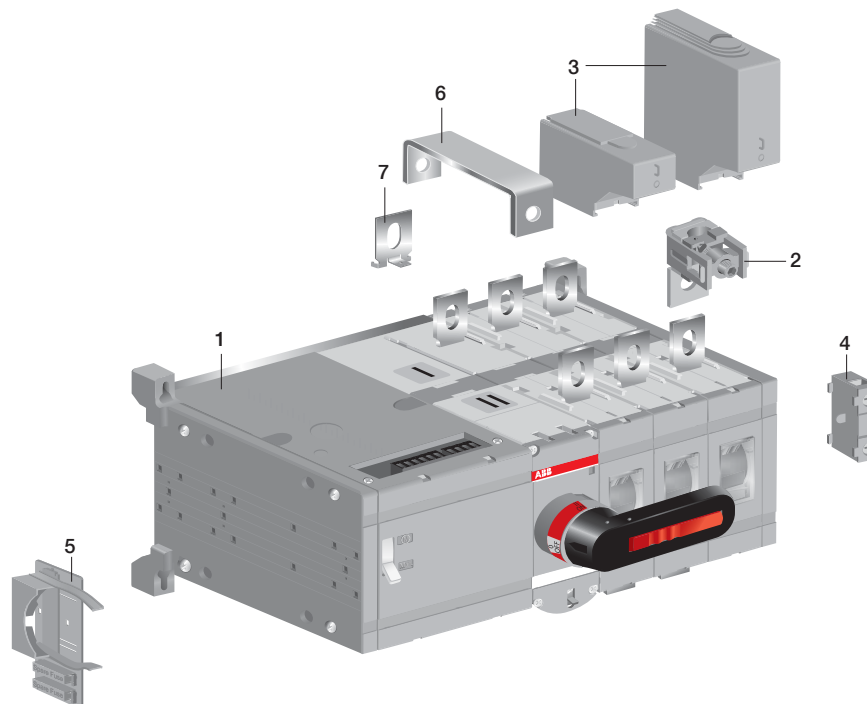
## OTM40F...OTM125F\_C



S07159

1 Motorized change-over switch | 2 Terminal clamp | 3 Fourth pole | 4 Auxiliary contact | 5 Terminal shroud | 6 Handle storage clip | 7 Parallel connection kit

## OTM160...OTM2500\_C

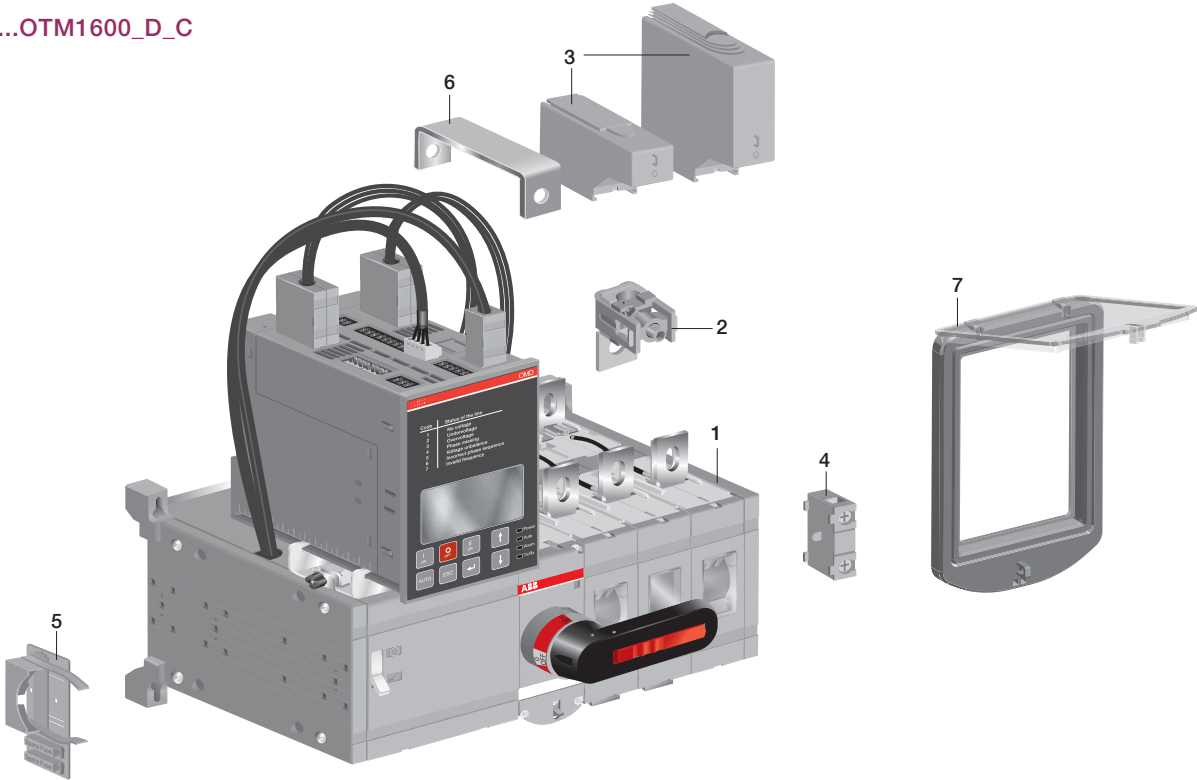


S07160

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

# Selection overview Accessories

OTM160...OTM1600\_D\_C



1 Automatic transfer switch | 2 Terminal clamp | 3 Terminal shroud | 4 Auxiliary contact | 5 Storage for handle and fuses | 6 Bridging bar | 7 Cover plate

S07161

# Ordering information

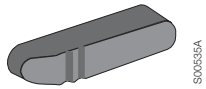
## Accessories – Handle knobs



OHRS2\_



OHRS3\_



OHBS9\_



OHBS11



OHBS12

### Handle knobs

No shaft needed, direct mounting on the top of the switch.

Suitable for switches	Colour	Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
<b>Padlockable in 0-position</b>					
OT16...80F_C	Black	OHBS2/1	1SCA109090R1001	1	0.01
OT16...80F_C	Black	OHBS2	1SCA109089R1001	10	0.01
OT16...80F_C	Red	OHRS2/1	1SCA108599R1001	1	0.01
OT16...80F_C	Red	OHRS2	1SCA108598R1001	10	0.01
OT16...80F_C	Black	OHBS12/1	1SCA109094R1001	1	0.01
OT16...80F_C	Black	OHBS12	1SCA108252R1001	10	0.01
OT16...80F_C	Red	OHRS12/1	1SCA109097R1001	1	0.01
OT16...80F_C	Red	OHRS12	1SCA108253R1001	10	0.01
OT100...125F_C	Black	OHBS11/1	1SCA109093R1001	1	0.02
OT100...125F_C	Black	OHBS11	1SCA109092R1001	10	0.02
<b>Non-padlockable</b>					
OT16...80F_C	Black	OHBS3/1	1SCA108319R1001	1	0.01
OT16...80F_C	Black	OHBS3	1SCA108320R1001	10	0.01
OT16...80F_C	Red	OHRS3/1	1SCA108688R1001	1	0.01
OT16...80F_C	Red	OHRS3	1SCA108667R1001	10	0.01
OT100...125F_C	Black	OHBS9/1	1SCA108689R1001	1	0.01
OT100...125F_C	Black	OHBS9	1SCA108665R1001	10	0.01
OT100...125F_C	Red	OHRS9/1	1SCA108690R1001	1	0.01
OT100...125F_C	Red	OHRS9	1SCA108666R1001	10	0.01

# Ordering information

## Accessories – External handles



### Selector handle, indication I-O-II

IP65, Nema type 1, 3R, 12. Padlockable in O -position with maximum three padlocks with bail diameter 5...8 mm (two lower holes) and 5...6.3 mm (the upper hole). Door interlock in I- and II-position and when padlocked in O-position. The type and ordering numbers are for one piece.



Suitable for switches	Colour	Shaft diameter [mm]	Type	Order number	Delivery batch [pcs]	Weight/unit [kg]
OT16...125F_C	Black	6	OHBS2AJE011	1SCA105220R1001	1	0.07
OT16...125F_C	Red-yellow	6	OHYS2AJE011	1SCA105301R1001	1	0.07

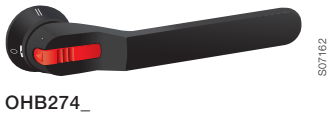


### Pistol type handle, plastic, indication I-O-II

Suitable for switches	Colour	Shaft diameter [mm]	Type	Order number	Delivery batch [pcs]	Weight/unit [kg]
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#### Padlockable in all positions

IP65, Nema type 1, 3R, 12. Door interlock in I- and II-position and when padlocked. Padlocking possibility with three padlocks, bail dia Ø 5...10 mm. Units / type = 1 pcs.



OT16...125F_C	Black	6	OHB45J6E311	1SCA022817R2130	1	0.10
OT16...125F_C	Red-yellow	6	OHY45J6E311	1SCA022817R2300	1	0.10
OT160...250_C	Black	6	OHB65J6E311	1SCA022662R4730	1	0.12
OT315...400_C	Black	12	OHB95J12E311	1SCA022779R2140	1	0.12
OT630...800_C	Black	12	OHB125J12E311	1SCA022615R1730	1	0.14
OT1000...3200_C	Black	12	OHB200J12PE311	1SCA104685R1001	1	0.40
OT160...250E_Y	Black	12	OHB65J12E311	1SCA126257R1001	1	0.12
OT315...400E_Y	Black	12	OHB95J12E311	1SCA022779R2140	1	0.12
OT630...800E_Y	Black	12	OHB125J12E311	1SCA022615R1730	1	0.14

#### Padlockable in the O-position

IP65, Nema type 1, 3R, 12. Door interlock in I- and II-position and when padlocked. Padlocking possibility with three padlocks, bail dia Ø 5...10 mm. Units / type = 1 pcs.



OT16...125F_C	Black	6	OHB45J6E011	1SCA022594R7110	1	0.10
OT16...125F_C	Red-yellow	6	OHY45J6E011	1SCA022817R2210	1	0.10
OT160...250_C	Black	6	OHB65J6E011	1SCA022383R2480	1	0.12
OT160...250_C	Red-yellow	6	OHY65J6E011	1SCA022779R1840	1	0.12
OT315...400_C	Black	12	OHB95J12E011	1SCA022621R0760	1	0.12
OT315...400_C	Red-yellow	12	OHY95J12E011	1SCA022621R0920	1	0.12
OT630...800_C	Black	12	OHB125J12E011	1SCA022589R3340	1	0.14
OT630...800_C	Red-yellow	12	OHY125J12E011	1SCA022615R1650	1	0.14
OT1000...3200_C	Black	12	OHB274J12E011	1SCA122306R1001	1	0.54
OT1000...3200_C	Black	12	OHB200J12PE011	1SCA022873R4230	1	0.40
OT1000...3200_C	Red-yellow	12	OHY200J12PE011	1SCA104686R1001	1	0.40
OT160...250E_Y	Black	12	OHB65J12E011	1SCA123656R1001	1	0.12
OT315...400E_Y	Black	12	OHB95J12E011	1SCA022621R0760	1	0.12
OT630...800E_Y	Black	12	OHB125J12E011	1SCA022589R3340	1	0.14

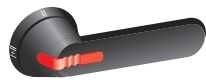
#### Handle not padlockable and no door interlocking

IP65, operating angle 90°. Units / type = 1 pcs.

OT160...250_CF	Black	6	OHB65J6E69	1SCA112052R1001	1	0.12
OT315...400_CF	Black	12	OHB95J12E69	1SCA112058R1001	1	0.12
OT630...800_CF	Black	12	OHB145J12E69	1SCA112066R1001	1	0.14

# Ordering information

## Accessories – External handles



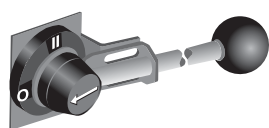
S07166

OHB\_



S07167

OHB200\_P\_



S07168

YASDA\_



S07232

OHBZX200



S07233

OHBZX275

**Pistol type handle for closed transition types, plastic, indication I - I+II - II**  
IP65, operating angle 90°. The type and ordering numbers are for one piece.

Suitable for switches	Colour	Shaft diameter [mm]	Type	Order number	Delivery batch [pcs]	Weight/unit [kg]
<b>Handle not padlockable and no door interlocking</b>						
OT160...250_CL	Black	6	OHB65J6E65	1SCA112050R1001	1	0.12
OT315...400_CL	Black	12	OHB95J12E65	1SCA112056R1001	1	0.12
OT630...800_CL	Black	12	OHB145J12E65	1SCA112063R1001	1	0.14
OT1000...2500_CL	Black	12	OHB200J12PE65	1SCA112078R1001	1	0.40

**Metallic handles, indication I-O-II**

IP65, Nema types 1, 3R, 4, 4X, 12. Padlockable with 3 padlocks in OFF- position, door interlock in I- and II- position.

Handle length [mm]	Colour	Shaft diameter [mm]	Type	Order number	Units/type [pcs]	Weight/unit [kg]
220	Metal	12	YASDA21	1SCA022098R9420	1	0.68
320	Metal	12	YASDA6	1SCA022071R2890	1	0.80

**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	Shaft diameter [mm]	Type	Order number	Delivery batch [pcs]	Weight/unit [kg]
OT160...400E_Y	Black		OHBZX200	1SCA125960R1001	1	0.12
OT630...800E_Y	Black		OHBZX275	1SCA125963R1001	1	0.12



# Ordering information

## Accessories — Handles, direct mounting and storage clips



OTV\_



OTV1000ECK



OHB65D6CM



OTVS0



OTVS1

### 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 number	Delivery batch [pcs]	Weight/unit [kg]
<b>Padlockable with three padlocks in 0-position.</b>					
OT160...250_C	Black	OTV250ECK	1SCA022783R0090	1	0.08
OT315...400_C	Black	OTV400ECK	1SCA022783R0170	1	0.26
OT630...800_C	Black	OTV800ECK	1SCA022797R2470	1	0.30
OT1000...2500_C	Black	OTV1000ECK	1SCA107481R1001	1	0.75
Includes a shaft (no mechanism cover)					
OTM40...125F_C	Black	OHB65D6CM	1SCA022807R9430	1	0.12
<b>Padlockable with three padlocks in 0-position. Types -ECMK include also microswitches.</b>					
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
<b>Handle not padlockable, operating angle 90°.</b>					
OT160...250_CF	Black	OTV250ECFK	1SCA113141R1001	1	0.08
OT315...400_CF	Black	OTV400ECFK	1SCA113147R1001	1	0.26
OT630...800_CF	Black	OTV800ECFK	1SCA113151R1001	1	0.30

### Plastic handle for closed transition types, direct mounting, indication I - I+II - II

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

Suitable for switches	Colour	Type	Order number	Delivery batch [pcs]	Weight/unit [kg]
<b>Handle not padlockable, operating angle 90°.</b>					
OT160...250_CL	Black	OTV250ECLK	1SCA113137R1001	1	0.08
OT315...400_CL	Black	OTV400ECLK	1SCA113143R1001	1	0.26
OT630...800_CL	Black	OTV800ECLK	1SCA113148R1001	1	0.30
OT1000...2500_CL	Black	OTV1000ECLK	1SCA113152R1001	1	0.75

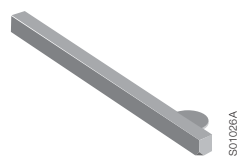
### Handle and spare fuse storage clip for motorized change-over switches

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...2500E\_, 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 OTM1000...2500E\_, 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.

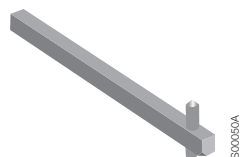
Suitable for switches	Type	Order number	Units/type [pcs]	Weight/unit [kg]
OTM40...125F	OTVS0	1SCA117524R1001	1	0.02
OTM160...250E_	OTVS1	1SCA111413R1001	1	0.02
OTM315...2500E_	OTVS2	1SCA111414R1001	1	0.04

# Ordering information

## Accessories – Extended shafts



OXS6X\_



OXP6X\_

### Shafts for selector type handles

The type and ordering numbers are for one piece.

Suitable for switches	Installation depth [mm]	Length [mm]	Type	Order number	Delivery batch [pcs]	Weight/unit [kg]
<b>Shaft diameter 6 mm</b>						
OT16...40F_C	103...114	85	OXS6X85	1SCA101647R1001	10	0.03
OT16...40F_C	123...134	105	OXS6X105	1SCA108043R1001	10	0.03
OT16...40F_C	138...149	120	OXS6X120	1SCA101654R1001	10	0.04
OT16...40F_C	148...159	130	OXS6X130	1SCA101655R1001	10	0.04
OT63...80F_C	121...131	85	OXS6X85	1SCA101647R1001	10	0.03
OT63...80F_C	141...151	105	OXS6X105	1SCA108043R1001	10	0.03
OT63...80F_C	156...166	120	OXS6X120	1SCA101654R1001	10	0.04
OT63...80F_C	166...176	130	OXS6X130	1SCA101655R1001	10	0.04
OT100...125F_C	120...130	85	OXS6X85	1SCA101647R1001	10	0.03
OT100...125F_C	140...150	105	OXS6X105	1SCA108043R1001	10	0.03
OT100...125F_C	155...165	120	OXS6X120	1SCA101654R1001	10	0.04
OT100...125F_C	165...175	130	OXS6X130	1SCA101655R1001	10	0.04

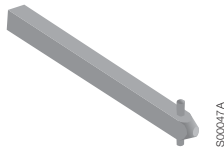
### Shafts for pistol type handles

The type and ordering numbers are for one piece.

Suitable for switches	Installation depth [mm]	Length [mm]	Type	Order number	Delivery batch [pcs]	Weight/unit [kg]
<b>Shaft diameter 6 mm</b>						
OT16...40F_C	164...175	150	OXP6X150	1SCA022295R5600	10	0.05
OT16...40F_C	184...195	170	OXP6X170	1SCA108224R1001	10	0.05
OT16...40F_C	279...290	265	OXP6X265	1SCA108225R1001	10	0.08
OT16...40F_C	414...425	400	OXP6X400	1SCA108226R1001	10	0.12
OT63...80F_C	183...194	150	OXP6X150	1SCA022295R5600	10	0.05
OT63...80F_C	203...214	170	OXP6X170	1SCA108224R1001	10	0.05
OT63...80F_C	298...309	265	OXP6X265	1SCA108225R1001	10	0.08
OT63...80F_C	433...444	400	OXP6X400	1SCA108226R1001	10	0.12
OT100...125F_C	192...206	150	OXP6X150	1SCA022295R5600	10	0.05
OT100...125F_C	212...226	170	OXP6X170	1SCA108224R1001	10	0.05
OT100...125F_C	307...321	265	OXP6X265	1SCA108225R1001	10	0.08
OT100...125F_C	442...456	400	OXP6X400	1SCA108226R1001	10	0.12
<b>Shaft diameter 6 mm</b>						
OT160...250_C	166...214	90	OXP6X90	1SCA022064R1180	10	0.03
OT160...250_C	209...254	130	OXP6X130	1SCA022057R0570	10	0.04
OT160...250_C	240...285	161	OXP6X161	1SCA022067R1760	10	0.05
OT160...250_C	289...334	210	OXP6X210	1SCA022295R6080	10	0.06
OT160...250_C	369...414	290	OXP6X290	1SCA022042R6370	10	0.08
OT160...250_C	439...484	360	OXP6X360	1SCA022042R6530	10	0.11
<b>Shaft diameter 6/12 mm (6 mm to 12 mm conversion shaft)</b>						
OT160...250E_Y	330...370	161	OXP6/12x161C	1SCA111724R1001	1	0.05

# Ordering information

## Accessories — Extended shafts



OXP12X

### Shafts for pistol type handles

Suitable for switches	Installation depth [mm]	Length [mm]	Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
<b>Shaft diameter 12 mm</b>						
OT315...400_C	209...266	107	OXP12X107	1SCA022029R9750	1	0.12
OT315...400_C	243...307	148	OXP12X148	1SCA022658R5570	1	0.17
OT315...400_C	261...325	166	OXP12X166	1SCA022325R7100	1	0.20
OT315...400_C	280...344	185	OXP12X185	1SCA022325R6710	1	0.22
OT315...400_C	345...409	250	OXP12X250	1SCA022325R6980	1	0.29
OT315...400_C	375...439	280	OXP12X280	1SCA022137R5140	1	0.33
OT315...400_C	420...484	325	OXP12X325	1SCA022042R5810	1	0.38
OT315...400_C	490...554	395	OXP12X395	1SCA022042R5990	1	0.46
OT315...400_C	560...624	465	OXP12X465	1SCA022042R6020	1	0.54
OT315...400_Y	305...369	107	OXP12X107	1SCA022029R9750	1	0.12
OT315...400_Y	346...410	148	OXP12X148	1SCA022658R5570	1	0.17
OT315...400_Y	364...428	166	OXP12X166	1SCA022325R7100	1	0.20
OT315...400_Y	383...447	185	OXP12X185	1SCA022325R6710	1	0.22
OT315...400_Y	448...512	250	OXP12X250	1SCA022325R6980	1	0.29
OT315...400_Y	478...542	280	OXP12X280	1SCA022137R5140	1	0.33
OT315...400_Y	523...587	325	OXP12X325	1SCA022042R5810	1	0.38
OT315...400_Y	593...657	395	OXP12X395	1SCA022042R5990	1	0.46
OT315...400_Y	663...727	465	OXP12X465	1SCA022042R6020	1	0.54
OT630...800_C	287...355	148	OXP12X148	1SCA022658R5570	1	0.17
OT630...800_C	324...422	185	OXP12X185	1SCA022325R6710	1	0.22
OT630...800_C	389...487	250	OXP12X250	1SCA022325R6980	1	0.29
OT630...800_C	464...562	325	OXP12X325	1SCA022042R5810	1	0.38
OT630...800_C	534...632	395	OXP12X395	1SCA022042R5990	1	0.46
OT630...800_C	604...702	465	OXP12X465	1SCA022042R6020	1	0.54
OT630...800_Y	451...536	148	OXP12X148	1SCA022658R5570	1	0.17
OT630...800_Y	488...573	185	OXP12X185	1SCA022325R6710	1	0.22
OT630...800_Y	553...638	250	OXP12X250	1SCA022325R6980	1	0.29
OT630...800_Y	628...713	325	OXP12X325	1SCA022042R5810	1	0.38
OT630...800_Y	698...783	395	OXP12X395	1SCA022042R5990	1	0.46
OT630...800_Y	768...853	465	OXP12X465	1SCA022042R6020	1	0.54
OT1000...2500_C	339...425	166	OXP12X166	1SCA022325R7100	1	0.20
OT1000...2500_C	358...444	185	OXP12X185	1SCA022325R6710	1	0.23
OT1000...2500_C	423...509	250	OXP12X250	1SCA022325R6980	1	0.29
OT1000...2500_C	498...584	325	OXP12X325	1SCA022042R5810	1	0.38
OT1000...2500_C	568...654	395	OXP12X395	1SCA022042R5990	1	0.46
OT1000...2500_C	638...724	465	OXP12X465	1SCA022042R6020	1	0.54
OT3200_C	350...436	166	OXP12X166	1SCA022325R7100	1	0.20
OT3200_C	369...455	185	OXP12X185	1SCA022325R6710	1	0.23
OT3200_C	434...520	250	OXP12X250	1SCA022325R6980	1	0.29
OT3200_C	509...595	325	OXP12X325	1SCA022042R5810	1	0.38
OT3200_C	579...665	395	OXP12X395	1SCA022042R5990	1	0.46
OT3200_C	649...735	465	OXP12X465	1SCA022042R6020	1	0.54

# Ordering information

## Accessories – Auxiliary contacts



OA1G01  
OA7G10



OA1G10  
OA8G01



OA2G11

### Auxiliary contact blocks for OT16...125F and OTM40...125F

Snap-on mounting to the switch, IP 20, max. 2 blocks/ side.  $I_{th} = 16$  A, suitable for cable cross sections max.  $2 \times 2,5$  mm<sup>2</sup>. Simultaneous action with the main contacts. The type and ordering numbers are for one piece. See the contact functions, pages 94-95.

Suitable for switches	Contact functions	Installation side	Type	Order number	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 <sup>1)</sup>	1SCA022379R8100	10	0.03
OTM40...125F3C	1NO+1NC	Either	OA2G11 <sup>1)</sup>	1SCA022379R8100	10	0.03

<sup>1)</sup> Not mountable on 4-pole change-over switches

### Auxiliary contact blocks for OT160... 3200 , OT160...800\_Y and OTM160...2500

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. The type and ordering numbers are for one piece. See the contact functions, pages 94-95.

Suitable for switches	Contact functions	Installation side	Type	Order number	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

### Function tables

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

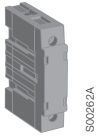
Handle position	Main contacts	OA1G10 NO	OA3G01 NC
I	closed	closed	open
0	open	open	closed
II	closed	open	closed

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

# Ordering information

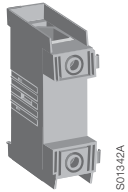
## Accessories — Fourth poles



OTS40F\_



OTS80F\_



OTS60F\_

OTS125F\_

### Fourth poles for OT16...125F

Snap-on mounting to the left or right side of the switches, IP20. Simultaneous operation with power poles. The type and ordering numbers are for one piece.

Suitable for switches	Rated current, up to 415V AC-21A/AC-22A/AC-23A I[A]	Type	Order number	Delivery batch [pcs]	Weight/unit [kg]
OT16...40F_C	40/40/23	OTPS40FPN1 <sup>1)</sup>	1SCA105001R1001	10	0.03
OT16...40F_C	40/40/23	OTPS40FPN2 <sup>2)</sup>	1SCA105000R1001	10	0.03
OT63...80F_C	80/80/75	OTPS80FP	1SCA105461R1001	10	0.06
OT100...125F_C	125/125/90	OTPS125FP	1SCA105099R1001	10	0.14

### Fourth poles for OTM40...125F

Snap-on mounting to the left or right side of the switches, IP20. Simultaneous operation with power poles. The type and ordering number is for one piece.

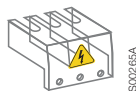
Suitable for switches	Rated current, up to 415V AC-21A/AC-22A/AC-23A I[A]	Type	Order number	Delivery batch [pcs]	Weight/unit [kg]
OTM40F_	40/40/40	OTPS60FP	1SCA111009R1001	1	0.14
OTM63...125F_	125/125/90	OTPS125FP	1SCA105099R1001	1	0.14

<sup>1)</sup> Installation to the left side

<sup>2)</sup> Installation to the right side

# Ordering information

## Accessories – Terminal shrouds



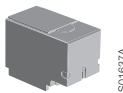
OTS\_T3



OTS\_T1



OTS\_L



OTS\_S

### 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. The type and ordering numbers are for one piece.

Suitable for switches	Type	Order number	Delivery batch [pcs]	Weight/unit [kg]
<b>For three pole switches</b>				
OT16...40F_C	OTS40T3	1SCA105317R1001	10	0.01
OT63...80F_C	OTS63T3	1SCA022353R6750	10	0.01
OT100...125F_C, OTM40...125F_	OTS125T3	1SCA022379R9680	10	0.01
<b>For fourth pole</b>				
OTPS40FPN1	OTS40T1	1SCA105314R1001	10	0.01
OTPS40FPN2	OTS40T1	1SCA105314R1001	10	0.01
OTPS80FP	OTS63T1	1SCA022353R6910	10	0.01
OTPS60FP, OTPS125FP	OTS125T1	1SCA022379R9760	10	0.01

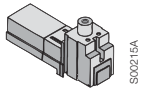
### Terminal shrouds, grey plastic

Snap-on mounting to the switches, IP 20. A kit includes three or four shrouds which can be used on either side of the switch. Suitable for the upperswitch. Transparent shrouds for OT\_160...2500 available on request, please replace the letter "G" with "T".

Suitable for switches	No. of poles	Description	Type	Order number	Units/type [pcs]	Weight/unit [kg]
OT_160...250_C,_Y	3	Long type	OTS250G1L/3	1SCA022731R8150	3	0.09
OT_160...250_C,_Y	3	Short type	OTS250G1S/3	1SCA022731R8310	3	0.06
OT_160...250_C,_Y	4	Long type	OTS250G1L/4	1SCA022731R8230	4	0.12
OT_160...250_C,_Y	4	Short type	OTS250G1S/4	1SCA022731R8400	4	0.08
OT_315...400_C,_Y	3	Long type	OTS400G1L/3	1SCA022736R8840	3	0.15
OT_315...400_C,_Y	3	Short type	OTS400G1S/3	1SCA022736R9060	3	0.09
OT_315...400_C,_Y	4	Long type	OTS400G1L/4	1SCA022736R9490	4	0.20
OT_315...400_C,_Y	4	Short type	OTS400G1S/4	1SCA022736R9650	4	0.12
OT_600...800_C,_Y	3	Long type	OTS800G1L/3	1SCA022776R7890	3	0.32
OT_600...800_C,_Y	3	Short type	OTS800G1S/3	1SCA022776R8190	3	0.17
OT_600...800_C,_Y	4	Long type	OTS800G1L/4	1SCA022776R7970	4	0.42
OT_600...800_C,_Y	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

# Ordering information

## Accessories — Terminal shrouds and phase separators and -barriers

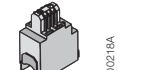


SX0215A

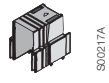


SX0216A

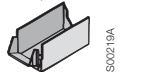
OZXB2K



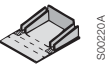
SX0218A



SX0217A

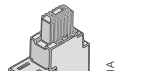


SX0219A



SX0220A

OZXB3K

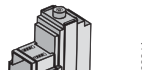


SX0221A

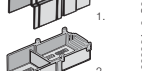


SX0222A

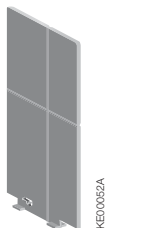
OZXB4K



1. SX0223A, 2. SX0224A

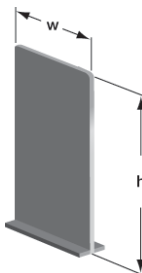


OZXB5K



KE00052A

OTB\_



PB\_

### Terminal shrouds for terminal clamps

Snap-on mounting to the terminal clamps, transparent plastic, IP 2X

Suitable for switches	No. of poles	Type	Order number	Units/type [pcs]	Weight/unit [kg]
OZXB2, 2L	3	OZXB2K	1SCA022264R0010	3	0.05
OZXB3, 4	3	OZXB3K	1SCA022264R0440	3	0.20
OZXB5, 6	3	OZXB4K	1SCA022199R2850	3	0.24
OZXB7, 7L	3	OZXB5K	1SCA022283R8040	3	0.13

### Phase separators

Grey plastic plate for maintaining clearance between the phases without terminal shrouds. Snap-on mounting. The package includes 12 plates and 6 filling plates.

Suitable for switches	Type	Order number	Units/type [pcs]	Weight/unit [kg]
OT600U, OT630...800E, 3- and 4-pole	OTB800/6C	1SCA107272R1001	12	0.55
OT800U, OT1000...2500, 3- and 4-pole	OTB1600/6C	1SCA104661R1001	12	0.74
OT3200_C, 3- and 4-pole	OTB4000/6C	1SCA129264R1001	12	1.4

### 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 h [mm]	Cutting width W of the phase barrier [mm]	Type	Order number	Units/type [pcs]	Weight/unit [kg]
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

## Accessories – Terminal clamps



S00738A

OZXT1



S01348A

OZXT2...3



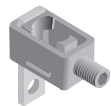
S07190

OZXT6



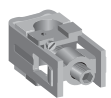
S01361A

OZXL1



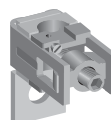
S00177A

OZXB1L



S00179A

OZXB2



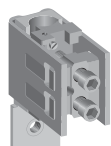
S00182A

OZXB2L, 7L



S0180CA

OZXB8, 9



S00186A

OZXB3, 5

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

Suitable for switches	Cable cross section [mm <sup>2</sup> ]	Type	Order number	Units/type [pcs]	Weight/unit [kg]
OT63...125F_	16...50 Al/2.5...50 Cu	OZXT1	1SCA022469R6310	3	0.06
OT100...125F_	16...120 Al/Cu	OZXT2	1SCA022620R7200	3	0.21
OT100...125F_	2x(16...50) Al/Cu	OZXT3	1SCA022639R0720	3	0.21
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
<b>Including 0.75...2.5 mm<sup>2</sup> voltage sensing connection. Voltage sensing wires are not included</b>					
OTM40...125F_	16...50 Al/2.5...50 Cu	OZXT6	1SCA122537R1001	3	0.06

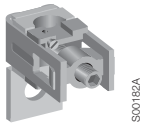
### Terminal clamp sets for Al- and Cu-cables

Suitable for switches	Cable cross section [mm <sup>2</sup> ]	Suitable shroud	Type	Order number	Units/type [pcs]	Delivery batch [pcs]	Weight/unit [kg]
OT100...125F_	10...70		OZXL1	1SCA022439R6770	3	1	0.14
OTM40...125F_	10...70		OZXL1	1SCA022439R6770	3	1	0.14
OT_160...250E_C,_Y	10...70	OTS250_L	OZXB1L	1SCA022169R2030	3	1	0.15
OT_160...250E_C,_Y	10...70	OTS250_L	OZXB1L/1	1SCA022194R0030	1	50	0.05
OT_160...250E_C,_Y	25...120	OZXB2K	OZXB2	1SCA022119R7610	3	1	0.34
OT_160...250E_C,_Y	25...120	OZXB2K	OZXB2/1	1SCA022194R0200	1	50	0.12
OT_160...250E_C,_Y	25...120	OZXB2K	OZXB2L	1SCA022158R7750	3	1	0.43
OT_160...250E_C,_Y	25...120	OZXB2K	OZXB2L/1	1SCA022194R0460	1	50	0.15
OT_160...250E_C,_Y	95...185	OTS250_L	OZXB8	1SCA022744R1510	3	1	0.50
OT_160...250E_C,_Y	95...185	OTS250_L	OZXB8/1	1SCA022744R1600	1	20	0.15
OT_160...250E_C,_Y	95...240	OTS250_L	OZXB9	1SCA022750R3210	3	1	0.50
OT_160...250E_C,_Y	95...240	OTS250_L	OZXB9/1	1SCA022750R3300	1	20	0.15
OT_315...400E_C,_Y	25...120	OZXB2K	OZXB2L	1SCA022158R7750	3	1	0.43
OT_315...400E_C,_Y	25...120	OZXB2K	OZXB2L/1	1SCA022194R0460	1	50	0.15
OT_315...400E_C,_Y	70...185	OZXB3K	OZXB3	1SCA022136R8100	3	1	1.28
OT_315...400E_C,_Y	70...185	OZXB3K	OZXB3/1	1SCA022194R0620	1	20	0.43
OT_315...400E_C,_Y	2x(70...185)	OZXB3K	OZXB4	1SCA022137R4760	3	1	1.71
OT_315...400E_C,_Y	2x(70...185)	OZXB3K	OZXB4/1	1SCA022194R0890	1	20	0.57
OT_315...400E_C,_Y	120...240	OZXB5K	OZXB7	1SCA022185R0040	3	1	1.00
OT_315...400E_C,_Y	120...240	OZXB5K	OZXB7/1	1SCA022194R1430	1	20	0.34
OT_315...400E_C,_Y	120...240	OZXB5K	OZXB7L	1SCA022185R7130	3	1	1.17
OT_315...400E_C,_Y	120...240	OZXB5K	OZXB7L/1	1SCA022194R1600	1	20	0.40
OT_315...400E_C,_Y	95...185	OTS400_L	OZXB8	1SCA022744R1510	3	1	0.50
OT_315...400E_C,_Y	95...185	OTS400_L	OZXB8/1	1SCA022744R1600	1	20	0.15
OT_315...400E_C,_Y	95...240	OTS400_L	OZXB9	1SCA022750R3210	3	1	0.50
OT_315...400E_C,_Y	95...240	OTS400_L	OZXB9/1	1SCA022750R3300	1	20	0.15



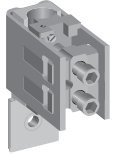
# Ordering information

## Accessories – Terminal clamps



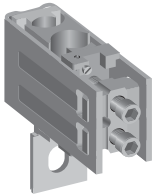
OZXB2L, 7L

500182A



OZXB3, 5

500186A



OZXB4, 6

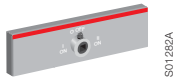
500184A

### Terminal clamp sets for Al- and Cu-cables

Suitable for switches	Cable cross section [mm <sup>2</sup> ]	Suitable shroud	Type	Order number	Units/type [pcs]	Delivery batch [pcs]	Weight/unit [kg]
OT_630...800E_C,_Y	120...300	OZXB4K	OZXB5	1SCA022137R2470	3	1	2.28
OT_630...800E_C,_Y	120...300	OZXB4K	OZXB5/1	1SCA022194R1010	1	20	0.76
OT_630...800E_C,_Y	2x(120...300)	OZXB4K	OZXB6	1SCA022137R4920	3	1	3.12
OT_630...800E_C,_Y	2x(120...300)	OZXB4K	OZXB6/1	1SCA022194R1270	1	20	1.04
OT_1000...1600E_C	70...185	OTS1600_L	OZXB3	1SCA022136R8100	3	1	1.28
OT_1000...1600E_C	70...185	OTS1600_L	OZXB3/1	1SCA022194R0620	1	20	0.13
OT_1000...1600E_C	2x(70...185)	OTS1600_L	OZXB4	1SCA022137R4760	3	1	1.71
OT_1000...1600E_C	2x(70...185)	OTS1600_L	OZXB4/1	1SCA022194R0890	1	20	0.60
OT_1000...1600E_C	120...300	OTS1600_L	OZXB5	1SCA022137R2470	3	1	2.22
OT_1000...1600E_C	120...300	OTS1600_L	OZXB5/1	1SCA022194R1010	1	20	0.80
OT_1000...1600E_C	2x(120...300)	OTS1600_L	OZXB6	1SCA022137R4920	3	1	3.03
OT_1000...1600E_C	2x(120...300)	OTS1600_L	OZXB6/1	1SCA022194R1270	1	20	1.00
OT_1000...1600E_C	120...240	OTS1600_L	OZXB7L	1SCA022185R7130	3	1	1.20
OT_1000...1600E_C	120...240	OTS1600_L	OZXB7L/1	1SCA022194R1600	1	20	0.39
OT_2000...2500E_C	70...185	OTS2500_L	OZXB3	1SCA022136R8100	3	1	1.28
OT_2000...2500E_C	70...185	OTS2500_L	OZXB3/1	1SCA022194R0620	1	20	0.13
OT_2000...2500E_C	2x(70...185)	OTS2500_L	OZXB4	1SCA022137R4760	3	1	1.71
OT_2000...2500E_C	2x(70...185)	OTS2500_L	OZXB4/1	1SCA022194R0890	1	20	0.60
OT_2000...2500E_C	120...300	OTS2500_L	OZXB5	1SCA022137R2470	3	1	2.22
OT_2000...2500E_C	120...300	OTS2500_L	OZXB5/1	1SCA022194R1010	1	20	0.80
OT_2000...2500E_C	2x(120...300)	OTS2500_L	OZXB6	1SCA022137R4920	3	1	3.03
OT_2000...2500E_C	2x(120...300)	OTS2500_L	OZXB6/1	1SCA022194R1270	1	20	1.00
OT_2000...2500E_C	120...240	OTS2500_L	OZXB7L	1SCA022185R7130	3	1	1.20
OT_2000...2500E_C	120...240	OTS2500_L	OZXB7L/1	1SCA022194R1600	1	20	0.39
OT3200E_C	70...185	OTS4000_L	OZXB3	1SCA022136R8100	3	1	1.28
OT3200E_C	70...185	OTS4000_L	OZXB3/1	1SCA022194R0620	1	20	0.13
OT3200E_C	2x(70...185)	OTS4000_L	OZXB4	1SCA022137R4760	3	1	1.71
OT3200E_C	2x(70...185)	OTS4000_L	OZXB4/1	1SCA022194R0890	1	20	0.60
OT3200E_C	120...300	OTS4000_L	OZXB5	1SCA022137R2470	3	1	2.22
OT3200E_C	120...300	OTS4000_L	OZXB5/1	1SCA022194R1010	1	20	0.80
OT3200E_C	2x(120...300)	OTS4000_L	OZXB6	1SCA022137R4920	3	1	3.03
OT3200E_C	2x(120...300)	OTS4000_L	OZXB6/1	1SCA022194R1270	1	20	1.00
OT3200E_C	120...240	OTS4000_L	OZXB7L	1SCA022185R7130	3	1	1.20
OT3200E_C	120...240	OTS4000_L	OZXB7L/1	1SCA022194R1600	1	20	0.39

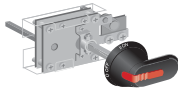
# Ordering information

## Accessories – Conversion kits



OWC6D\_

S01282A



OESAZW1

S01284A

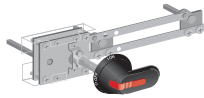


OTZW25, OETLZW11, OETLZW12

S00054B



S00055A



OTZW17

S01245A



OTZW26, OETLZW13

S00058B



S00056A

### Change-over kits

Suitable for switches	For shafts/ Shafts distance [mm]	Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
OT16...40_C	OXS6_, OXP6_	OWC6D40	1SCA022865R4550	1	0.03
OT63...80_C	OXS6_, OXP6_	OWC6D80	1SCA022865R4630	1	0.07
OT100...125_C	OXS6_, OXP6_	OWC6D125	1SCA104494R1001	1	0.09

The modular change-over switches can be built by adding a compact snap-on kit on the top of two switch-disconnectors. The kits do not require any additional foot print area, only the height is increased 12 mm.

Two standard switch-disconnectors can be connected with a mechanism operating into I-O-II positions. Two 3 or 4-pole switches are needed.

OT16...125_C	90+(0..10)x15	OESAZW1	1SCA022064R3710	1	0.78
OT160...250_C	210+(0..18)x20	OTZW25	1SCA022778R6920	1	2.8
OT315...400_C	210+(0..11)x20	OETLZW11	1SCA022078R0030	1	3.0
OT630...800E_C	210+(0..20)x20	OETLZW12	1SCA022078R0200	1	4.6

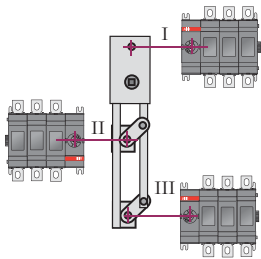
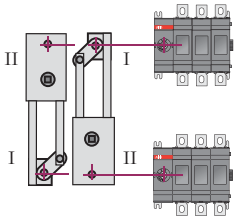
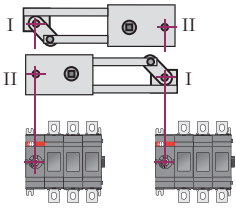
### By-pass kits

Suitable for switches	Shafts distance [mm]	Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
OT16...125_C	Between 1 and 2: 90+(0..6)x15	OTZW17	1SCA022387R1620	1	0.88
	Between 1 and 3: 90+(0..10)x15				
OT160...250_C	Between 1 and 2: 210+(0..9)x20	OTZW26	1SCA022778R7060	1	3.3
	Between 1 and 3: 250+(0..9)x20				
OT315...800E_C	Between 1 and 2: 210+(0..18)x20	OETLZW13	1SCA022078R0460	1	4.0
	Between 1 and 3: 250+(0..18)x20				

A combination of two switches in parallel with a third switch for change-over operation to by-pass, for example, a breaker for maintenance. The by-pass attachment can be used together with another combination attachment. Three 3 or 4-pole switches needed.

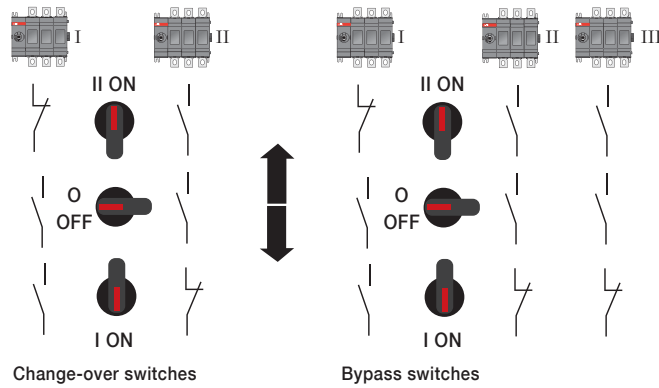
# Ordering information

## Accessories — Conversion kits



### Shafts and handles for conversion kits

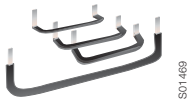
Conversion kit type	Included in conversion kit delivery	
	Shaft	Handle
OESAZW1	x (2 pcs)	OHB80J6E011
OTZW25	x (2 pcs)	OHB95J12E011
OETLZW11	x (2 pcs)	OHB145J12E011
OETLZW12	x (2 pcs)	YASDA21 (metallic)
OTZW17	x (3 pcs)	OHB80J6E011
OTZW26	x (3 pcs)	OHB95J12E011
OETLZW13	x (3 pcs)	YASDA 6



Change-over and by-pass switches

# Ordering information

## Accessories — Parallel connection kits



OZXA32

S01469



OZXA33

S01470



OZXA38

S02078



OZXA39

S02077A



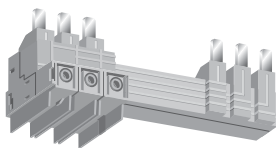
OZXA40

S02079A



OZXA41

S02080A



OMZC\_

S07104

### 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 <sup>2</sup> ]	Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
OT16...40F3C	6 (fine stranded), 10 (stranded)	OZXA33	1SCA022685R0310	1	0.02
OT16...40F4C	6 (fine stranded), 10 (stranded)	OZXA32	1SCA022683R4110	1	0.03
OT63...80F3C	25	OZXA38	1SCA022785R2140	1	0.06
OT63...80F4C	25	OZXA39	1SCA022790R3820	1	0.09
OT100...125F3C	50	OZXA40	1SCA022790R3910	1	0.16
OT100...125F4C	50	OZXA41	1SCA022790R4040	1	0.24
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

# Ordering information

## Accessories — Bridging- and reversing bars



OTZC13...34



OTZC43...44

OTZC53...54



OTZR\_

### 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 number	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
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

### 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 number	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

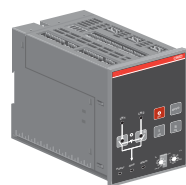
# Ordering information

## Accessories – Automatic control units and accessories



S07183

OMD200



S07184

OMD300



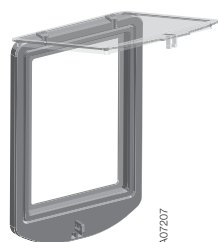
S07185

OMD800



S07187

OMZD1



A07207

OMZC2

### Automatic control units

OMD automatic control units can be used with OTM40...2500\_CM\_ 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...2500\_CM\_:

1 x OTM160...2500\_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. Information about the control features on page 31-32. Dimension drawings on page 79.

Suitable for switches	Type	Order number	Units/type [pcs]	Weight/unit [kg]
OTM40...2500_CM_	OMD200E480C-A1	1SCA123789R1001	1	0.8
OTM40...2500_CM_	OMD300E480C-A1	1SCA123790R1001	1	1.0
OTM40...2500_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 number	Units/type [pcs]	Weight/unit [kg]
OMD200_, 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 number	Units/type [pcs]	Weight/unit [kg]
OMD200_, OMD300_, OMD800_	OMZC2	1SCA101001R1001	1	

# Ordering information

## Accessories — Voltage sensing connectors and interlocking device for locks



OMZB18...28

### Voltage sensing connectors\*

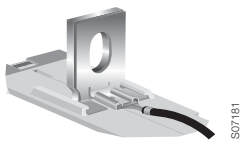
For 0.5...1.5mm<sup>2</sup> voltage sensing connection of the top or bottom power poles. The connector package includes also the faston terminals (see the picture). One package includes 8 connectors and 8 faston terminals. Wires are not included.

Suitable for switches	Faston terminal cable cross section [mm <sup>2</sup> ]	Type	Order number	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
OT800U, OT_1000...3200	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 mm<sup>2</sup> voltage sensing connection. See ordering information on page 57.



OMZB38



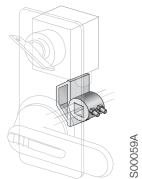
OMZB18...28 mounted

### Interlocking device for locks

Cam attachment for Castell, Lowe & Fletcher or Ronis interlock. Lock, handle or shaft not included. Mounting to OXP-shaft, works together with OH-door handle and a shaft. This accessory is mounted to the operating shaft of the switch and therefore only compatible with external handles.



OMZB48



OETLZW16, 5

Suitable for switches	Type	Order number	Units/type [pcs]	Weight/unit [kg]
OT16...125F_C	OETLZW16	1SCA022093R2070	1	0.17
OT160...250_C	OETLZW16	1SCA022093R2070	1	0.17
OT315...3200_C	OETLZW5	1SCA022052R3900	1	0.14

# Ordering information

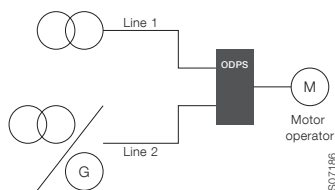
## Accessories – Dual power sources



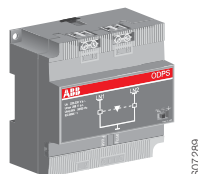
ODPSE230C

### 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. Technical data on page 21 and dimension drawing on page 92.



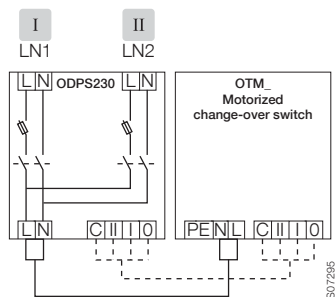
Connection diagram, ODPSE230C



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. Technical data on page 21 and dimension drawing on page 92.



Connection diagram, ODPS230

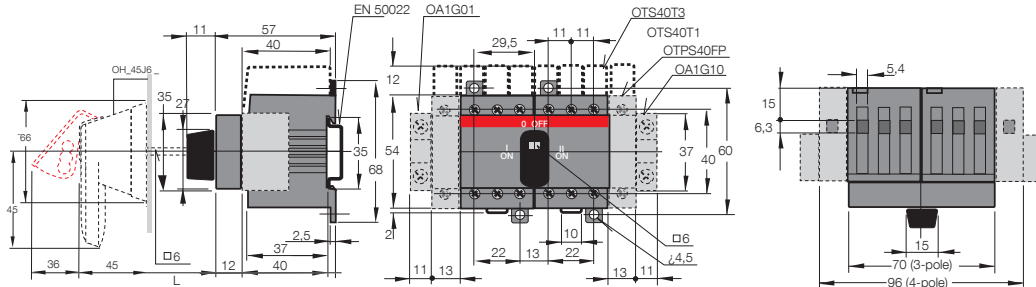
Suitable for switches	Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
OTM40...2500_	ODPSE230C	1SCA116892R1001	1	0.3

Suitable for switches	Type	Order number	Units/ type [pcs]	Weight/ unit [kg]
OTM40...2500_	ODPS230	1SCA122946R1001	1	0.3



# Dimension drawings Modular change-over switches

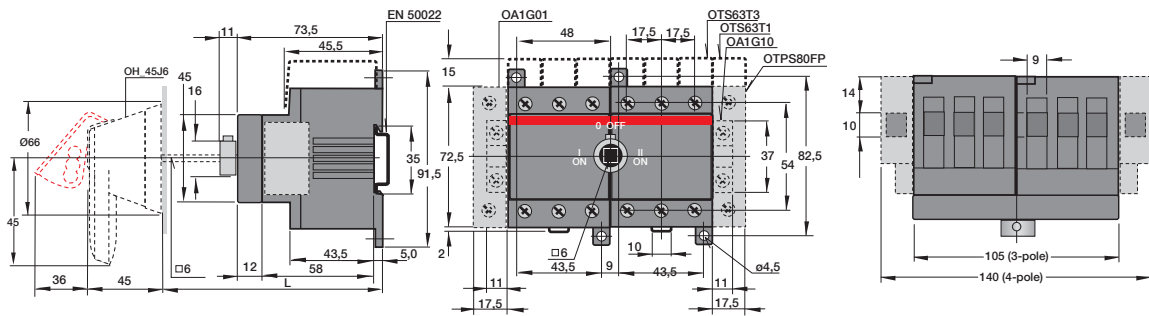
## OT16...40\_C



### OH\_45J6E311

Shaft OXP6x	L [mm]
150	164...175
170	184...195
265	279...290
400	414...425

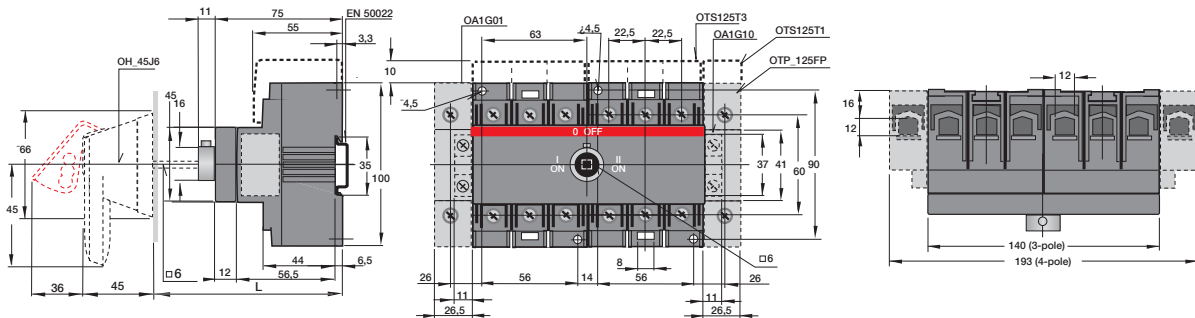
## OT63...80\_C



### OH\_45J6E311

Shaft OXP6x	L [mm]
150	183...194
170	203...214
265	298...309
400	433...444

## OT100...125\_C



### OH\_45J6E311

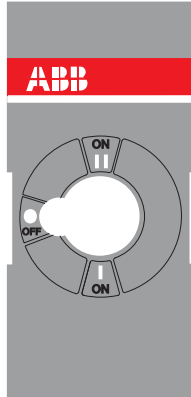
Shaft OXP6x	L [mm]
150	192...206
170	212...226
265	307...321
400	442...456

# Dimension drawings

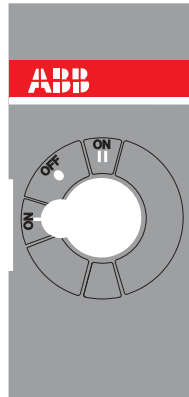
## Manual change-over switches

### Position indication in change-over switches

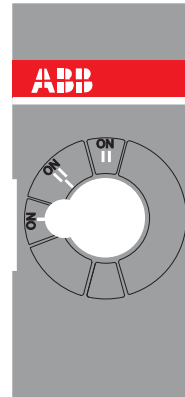
Open transition types:  
OT160-3200\_C



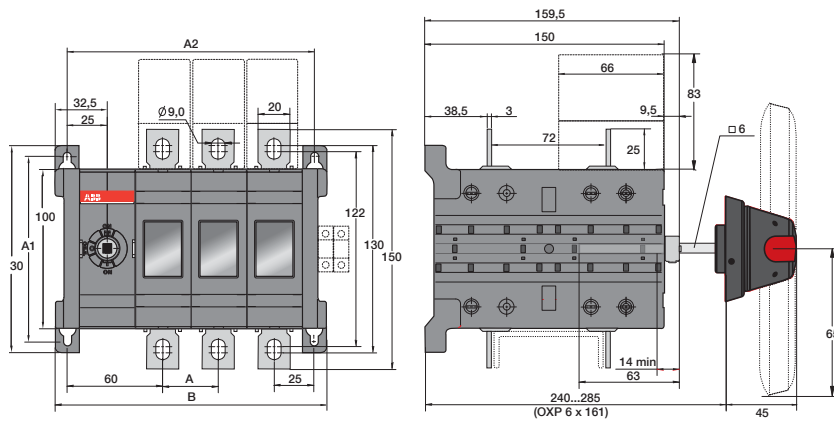
Fast transition types:  
OT160-800\_CF



Closed transition types:  
OT160-2500\_CL



### OT160...OT250E03/04C\_P



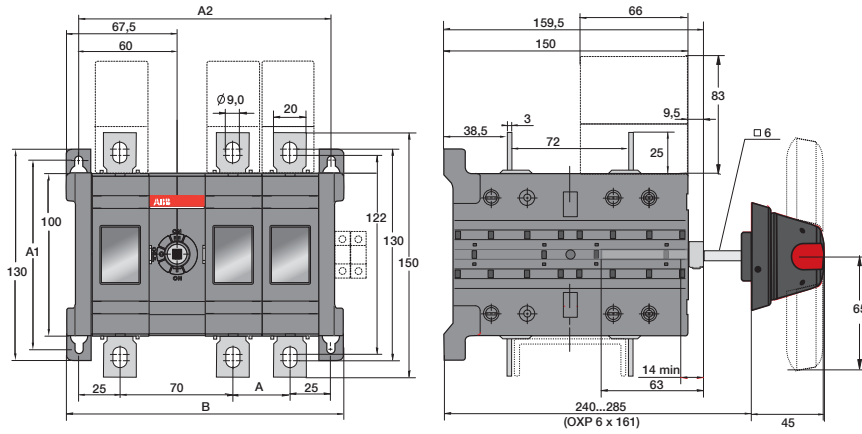
OT160-250_C		
[mm]	E03	E04
A	35	35
A1	116	116
A2	155	190
B	170	205

00.0001 / OT160-250E02-04\_C\_ C / ES

# Dimension drawings

## Manual change-over switches

### OT160...OT250E12/13/33C\_P

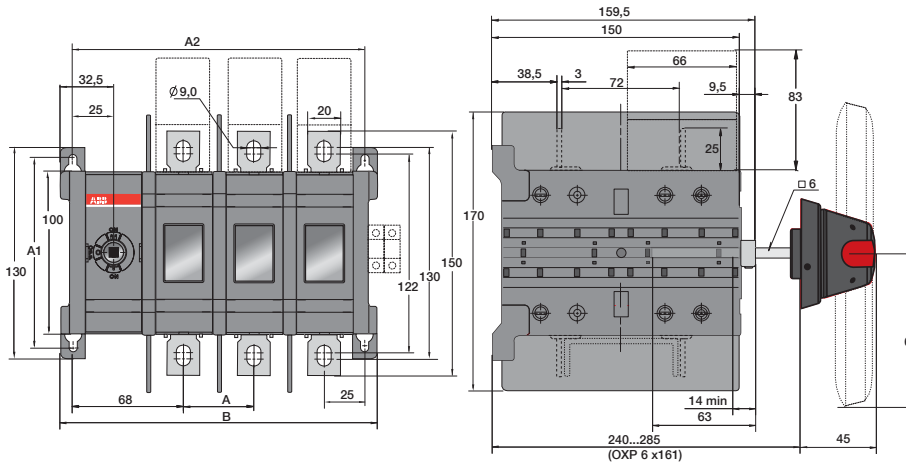


#### OT160-250\_C

[mm]	E12	E13	E22	E23	E33
A	35	35	35	35	35
A1	116	116	116	116	116
A2	155	190	190	225	260
B	170	205	205	240	275

M00052/OT160-250E12\_33C\_C

### OT160...OT250E03/04WC\_P



#### OT160-250\_WC

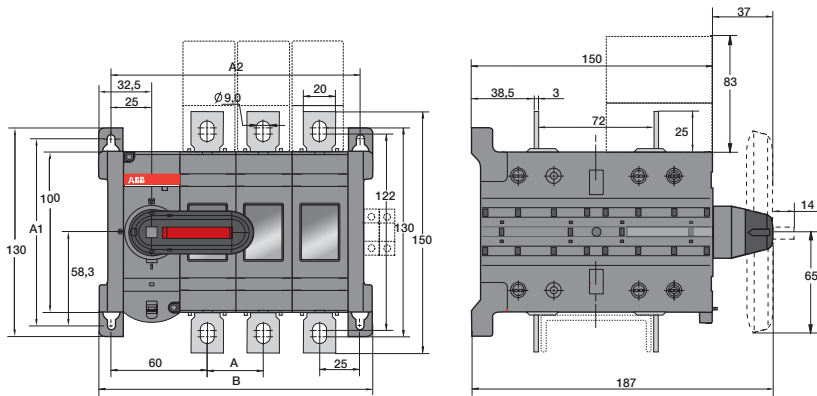
[mm]	E03	E04
A	43	43
A1	116	116
A2	179	222
B	194	237

C000010/OT160-250E\_WC\_C/E

# Dimension drawings

## Manual change-over switches

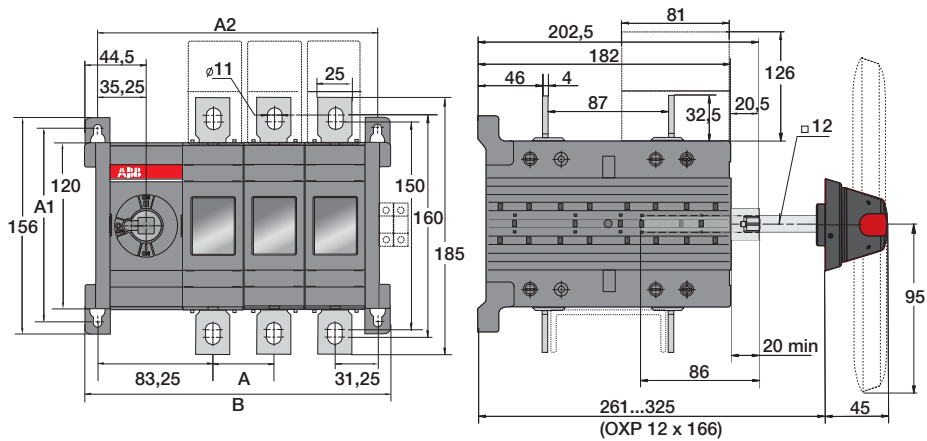
### OT160...250E03/04C with direct mount handle



M00084 / OT160...250\_CK B/E

OT160-250_C		
[mm]	E03	E04
A	35	35
A1	116	116
A2	156	191
B	171	206

### OT315...400E03/04C\_P



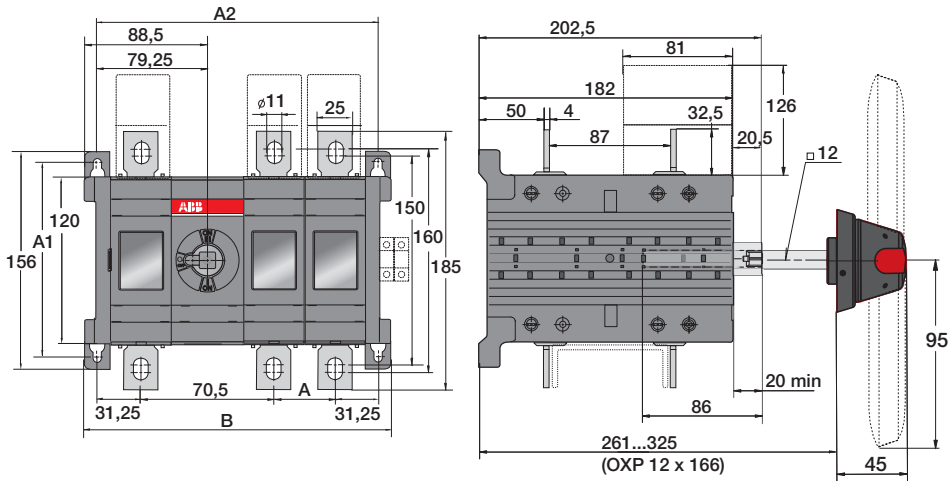
C000008 / 315...400E02-04\_C\_ C/EE

OT315-400_C		
[mm]	E03	E04
A	44	44
A1	142	142
A2	202,5	246,5
B	221	265

# Dimension drawings

## Manual change-over switches

### OT315...OT400E12/13/33C\_P

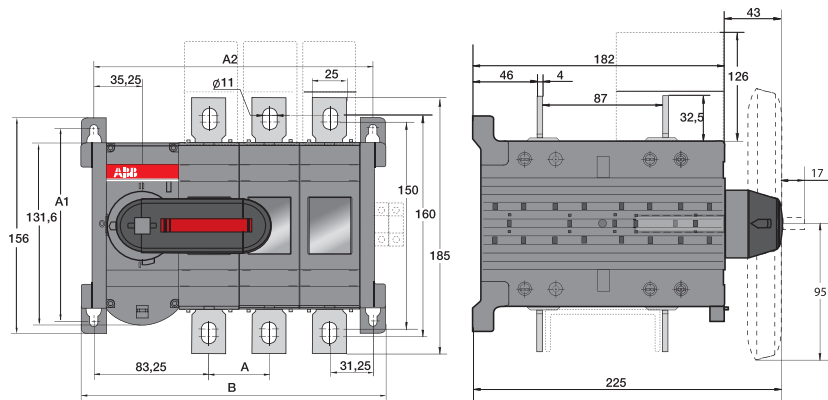


M00264 / OT315-400E12-33C\_C

#### OT315-400\_C

[mm]	E12	E13	E22	E23	E33
A	44	44	44	44	44
A1	142	142	142	142	142
A2	202,5	246,5	246,5	290,5	334,5
B	221	265	265	309	253

### OT315...400E03/04C with direct mount handle



M00093/OT315/400\_CK\_B

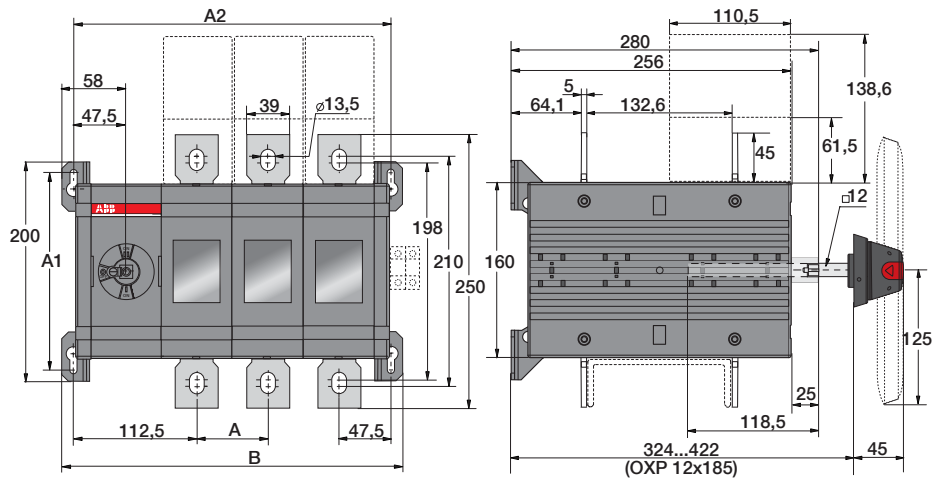
#### OT315\_400\_C

[mm]	E03	E04
A	44	44
A1	142	142
A2	202,5	246,5
B	221	265

# Dimension drawings

## Manual change-over switches

### OT630...800E03/04C\_P

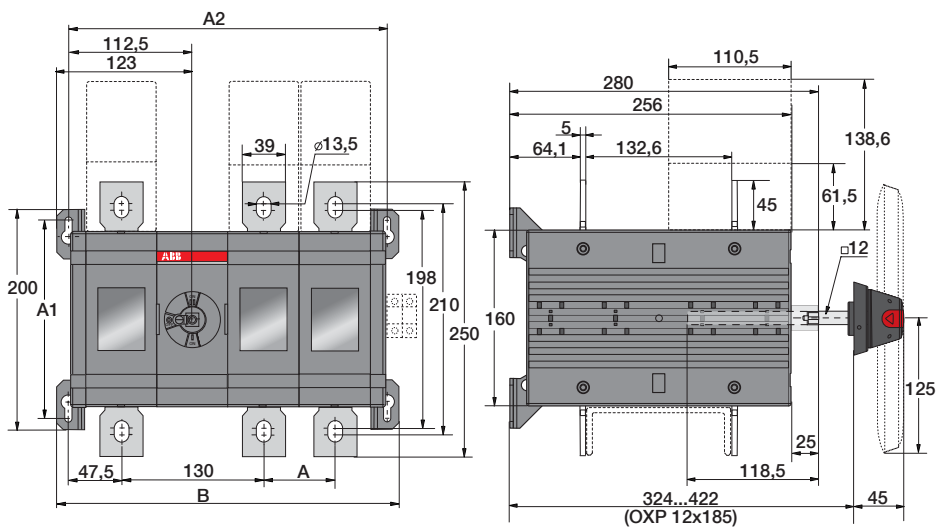


#### OT630-800\_C

[mm]	E03	E04
A	65	65
A1	180	180
A2	290	355
B	311	376

M00089/OT630-800E02-04C\_C/EE

### OT630...800E12/13/33C\_P



#### OT630-800\_C

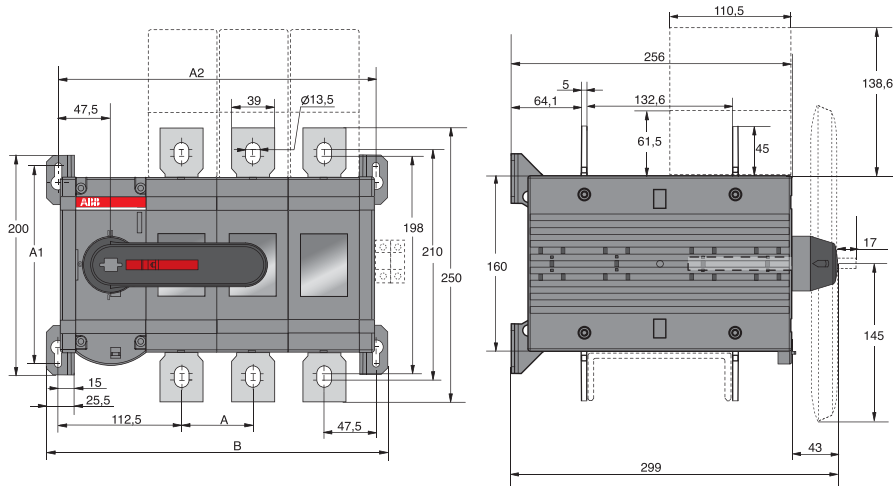
[mm]	E12	E13	E22	E23	E33
A	65	65	65	65	65
A1	180	180	180	180	180
A2	290	355	355	420	485
B	311	376	376	441	506

M00089/OT630-800E12-33C\_C

# Dimension drawings

## Manual change-over switches

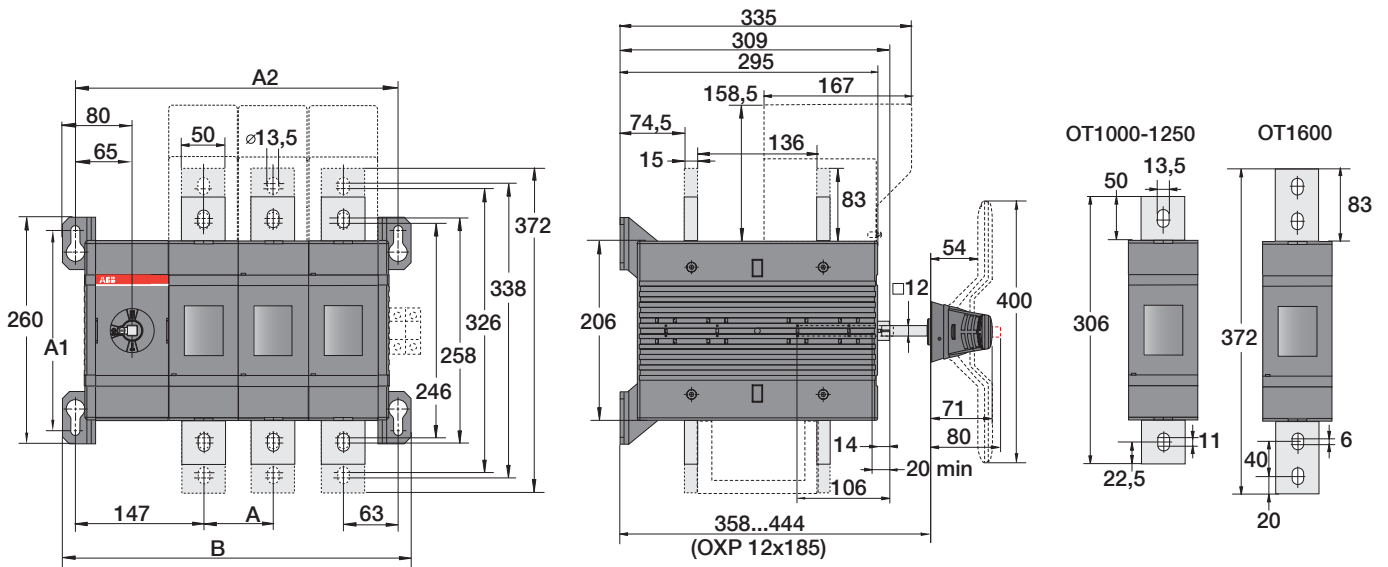
### OT630...800E03/04C with direct mount handle



M0095/OT600...800\_CK\_B

OT600_800_CK		
[mm]	E03	E04
A	65	65
A1	180	180
A2	290	355
B	311	376

### OT1000...1600E03/04CP



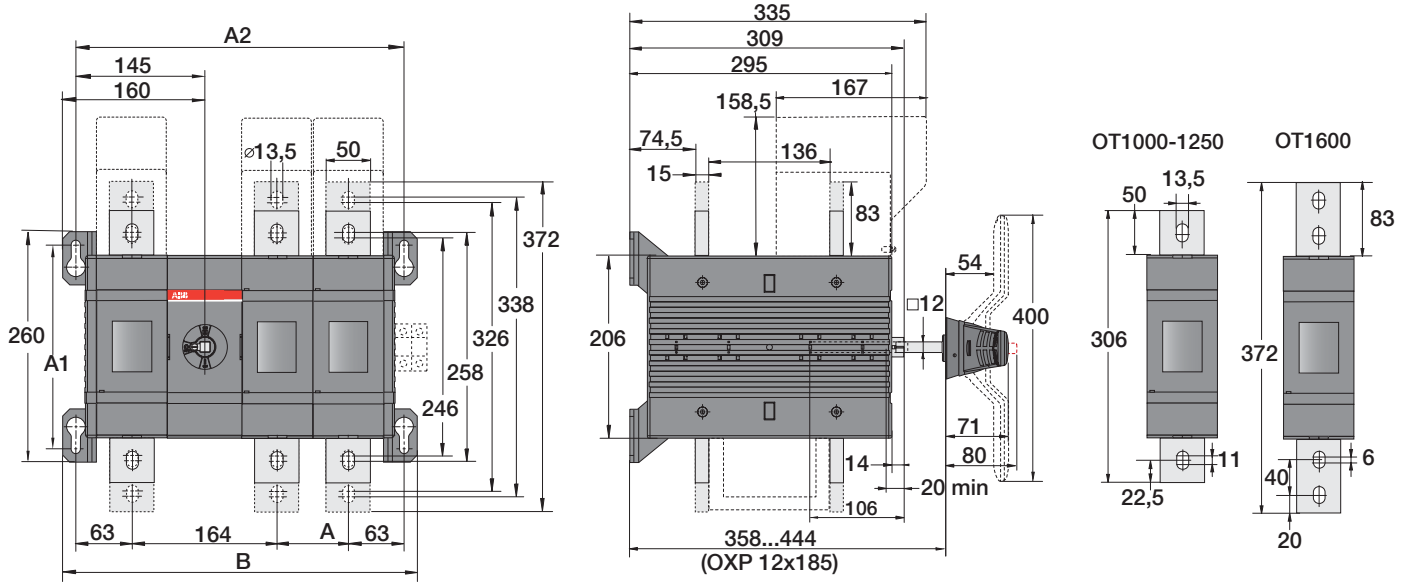
M00155/OT1000...1600E\_C-1\_E/EE

OT1000-1600_C_		
[mm]	E03	E04
A	80	80
A1	230	230
A2	370	450
B	400	480

# Dimension drawings

## Manual change-over switches

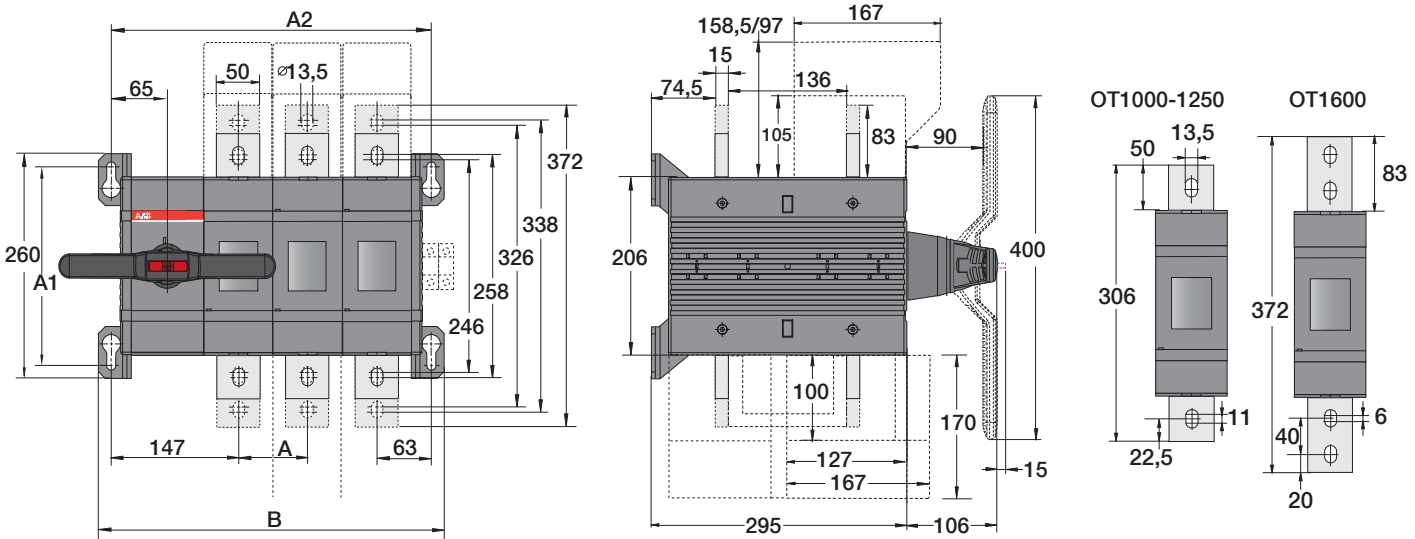
### OT1000...1600E12/E13/E22CP



OT1000-1600_C_			
[mm]	E12	E13	E22
A	80	80	80
A1	230	230	230
A2	370	450	450
B	400	480	480

M00176/OT1000-1600E12-22C-1 E /ES

### OT1000...1600E03/04C with direct mount handle



OT1000/1250/1600E_CK			
[mm]	E02	E03	E04
A	80	80	80
A1	230	230	230
A2	290	370	450
B	320	400	480

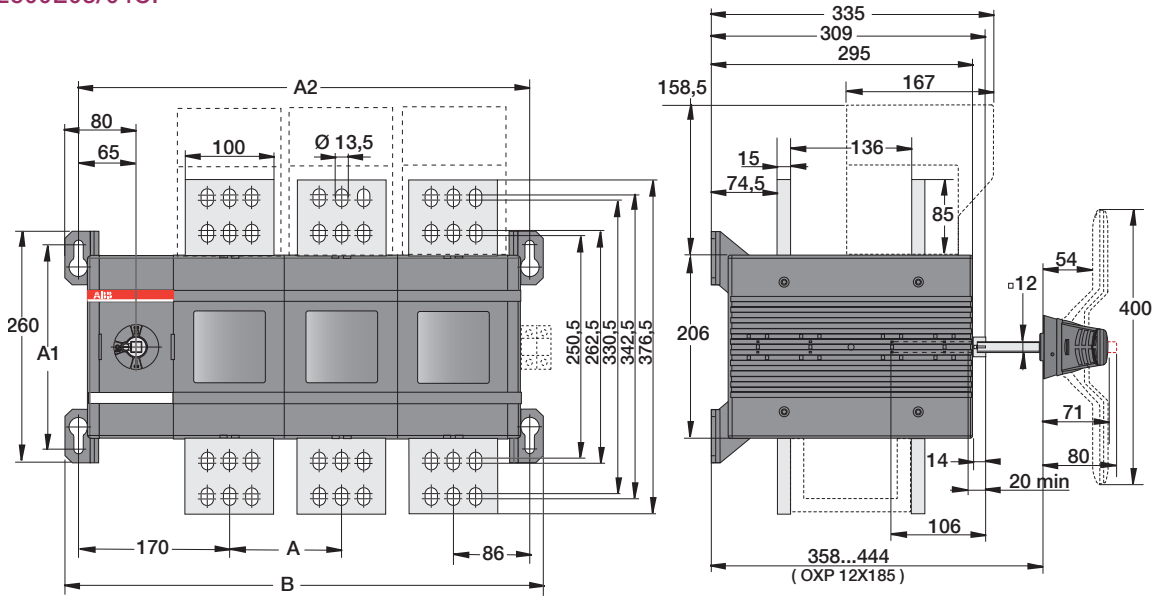
M00234/OT1600E-CK-1 B /ES



# Dimension drawings

## Manual change-over switches

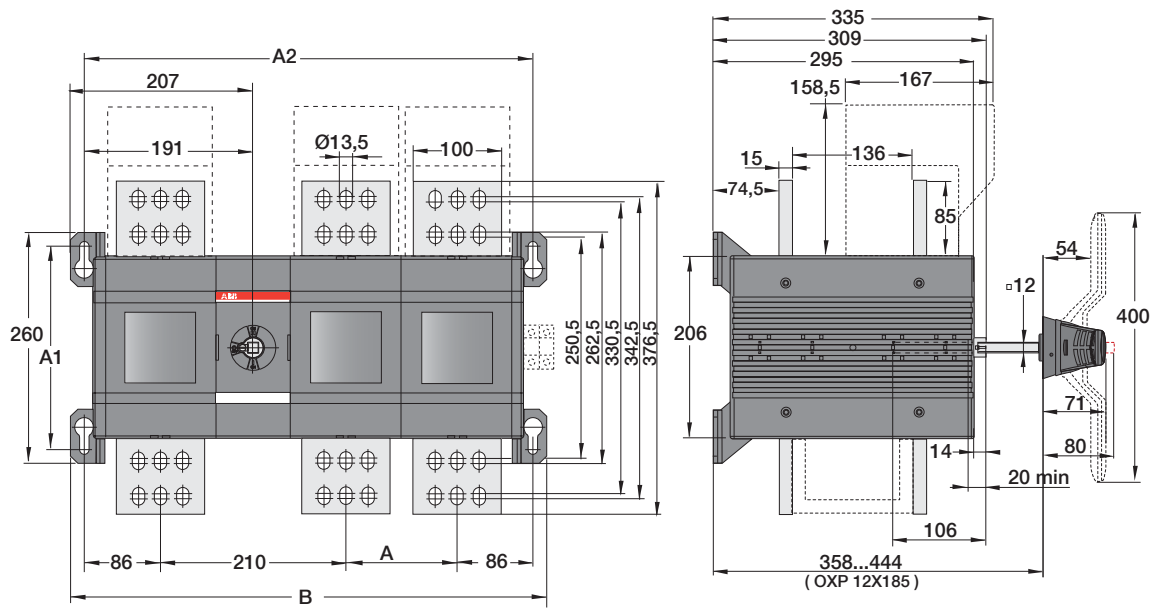
### OT2000...2500E03/04CP



M00179/OT2000-2500E\_C\_ D / E

OT2000-2500_C_		
[mm]	E03	E04
A	126	126
A1	230	230
A2	508	634
B	538	664

### OT2000...2500E12/E13/E22CP



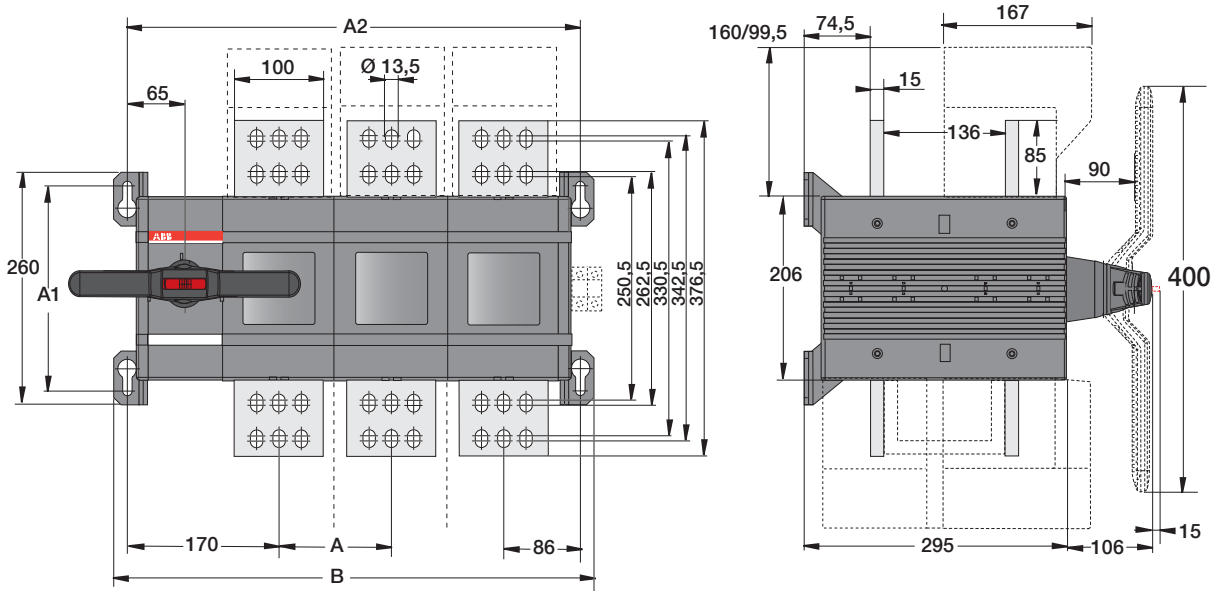
M00178/OT2000-2500E12\_C\_ D / E3

OT2000-2500_C_		
[mm]	E13	E22
A	126	126
A1	230	230
A2	634	634
B	664	664

# Dimension drawings

## Manual change-over switches

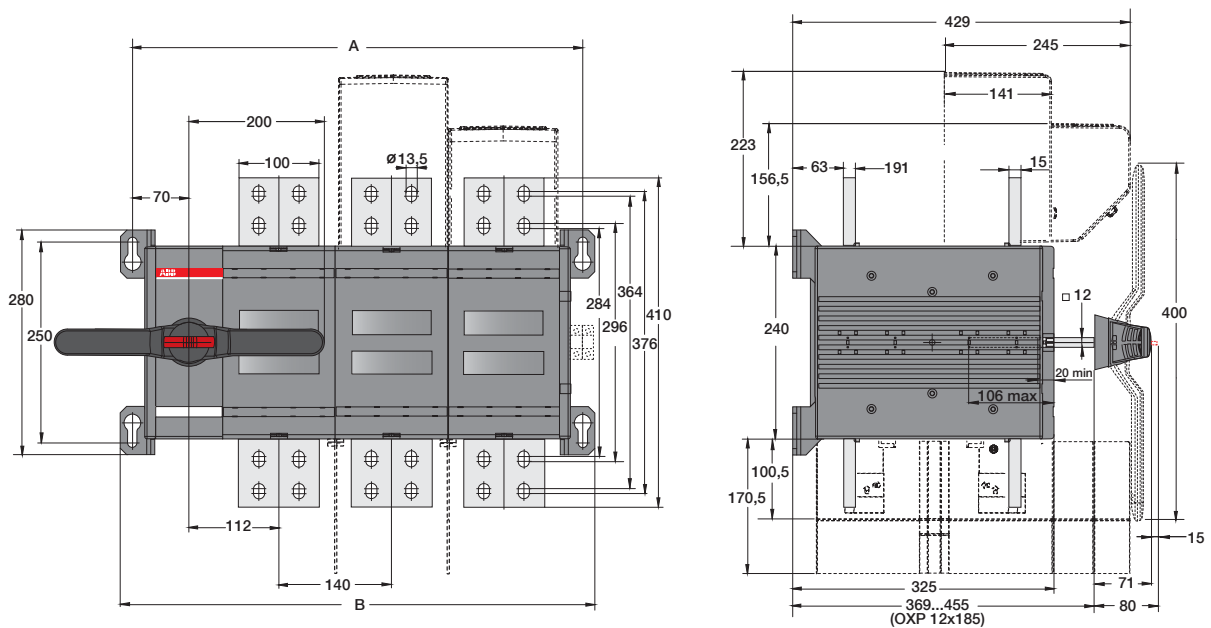
### OT2000...2500E03/04C with direct mount handle



M00236/OT2500E-CK B/ES

OT2500-CK		
[mm]	E03	E04
A	126	126
A1	230	230
A2	508	634
B	538	664

### OT3200E03/04CP



M00435/OT3200E02-04C B/ES

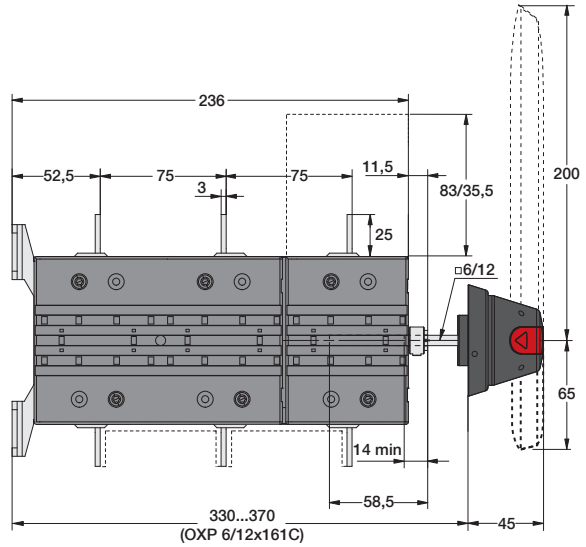
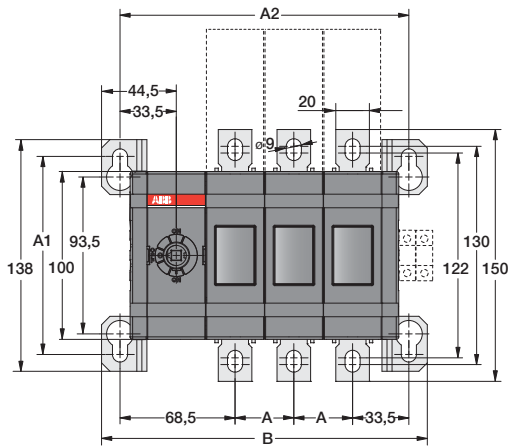
OT3200_C		
[mm]	E03	E04
A	560	700
B	590	730

# Dimension drawings

## Manual bypass switches

### OT160...250E03/04Y

[mm]

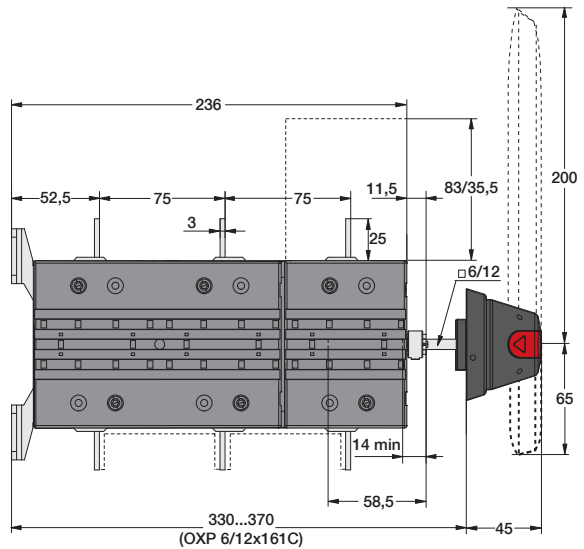
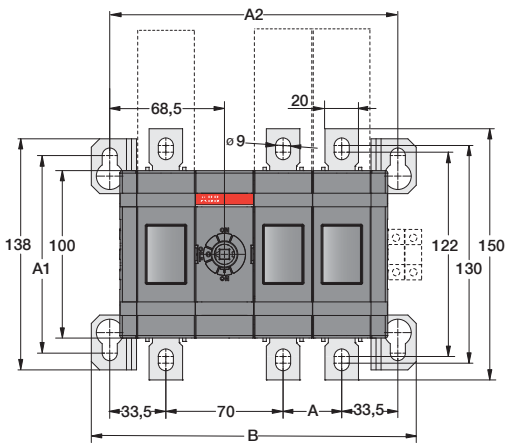


OT160...250_Y		
	E03	E04
A	35	35
A1	118	118
A2	172	207
B	194	229

M00405/OT160-250E02-04Y A

### OT160...250E12/13/22Y

[mm]



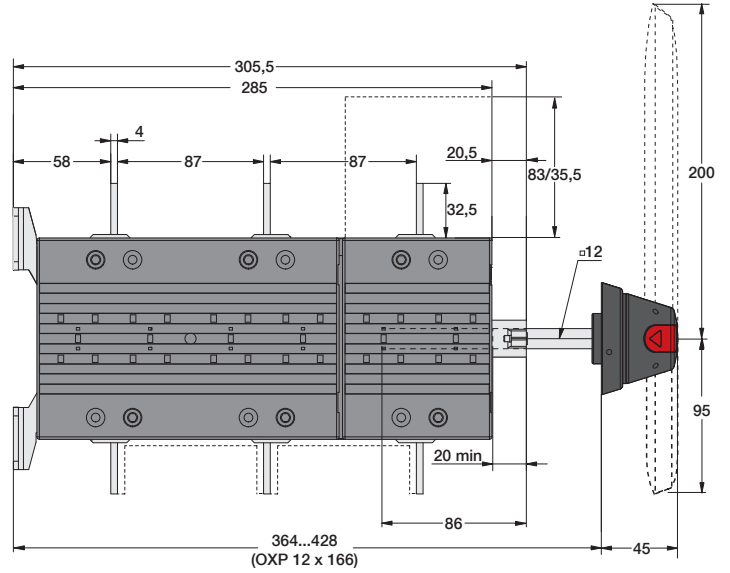
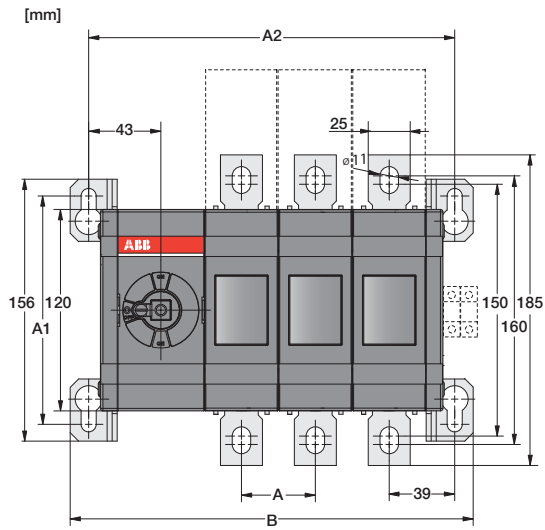
OT160...250E_Y			
	E12	E13	E22
A	35	35	35
A1	118	118	118
A2	172	207	207
B	194	229	229

M00406/OT160-250E12-22Y A

# Dimension drawings

## Manual bypass switches

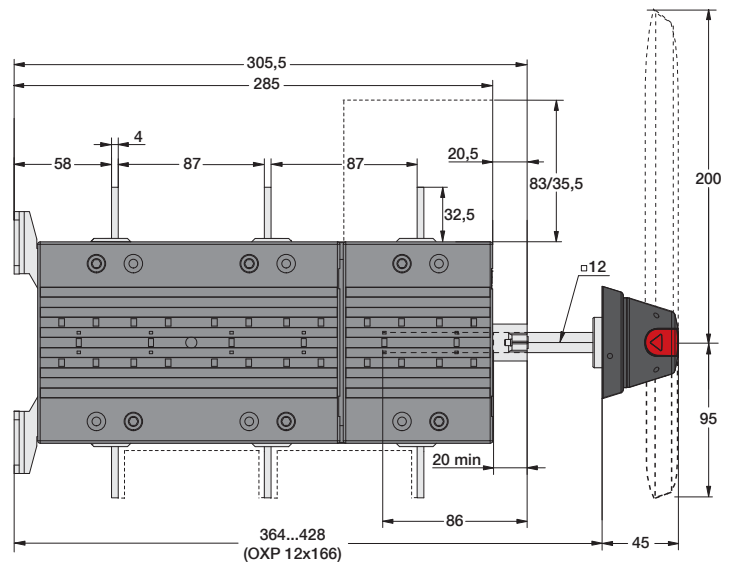
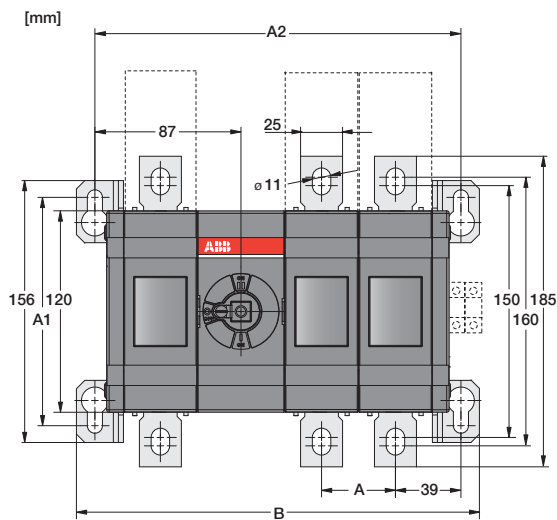
### OT315...400E03/04Y



OT315...400E_Y		
	E03	E04
A	44	44
A1	136	136
A2	218	262
B	240	284

M00-09/OT315-400E02-04Y B/E

### OT315...400E12/13/22Y



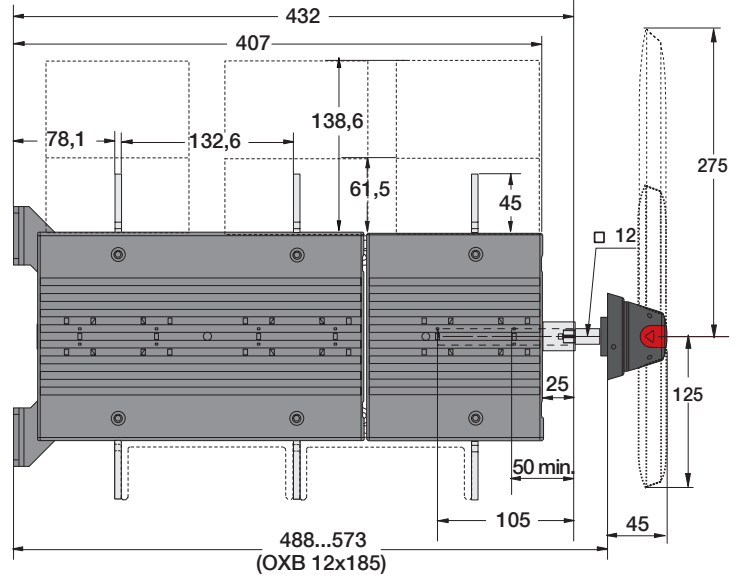
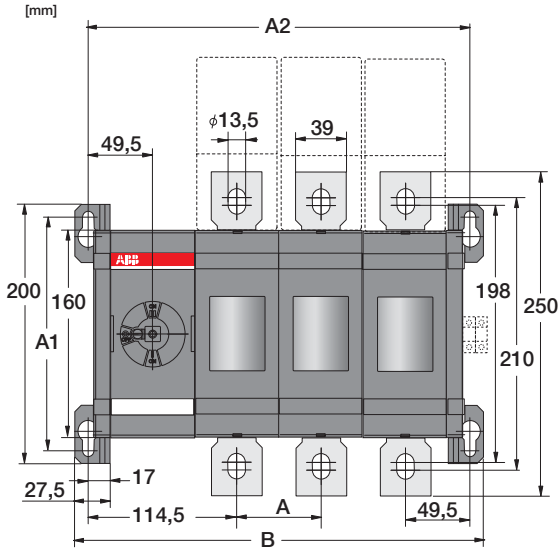
OT315...400E_Y			
	E12	E13	E22
A	44	44	44
A1	136	136	136
A2	218	262	262
B	240	284	284

M00-10/OT315-400E12-22Y B

# Dimension drawings

## Manual bypass switches

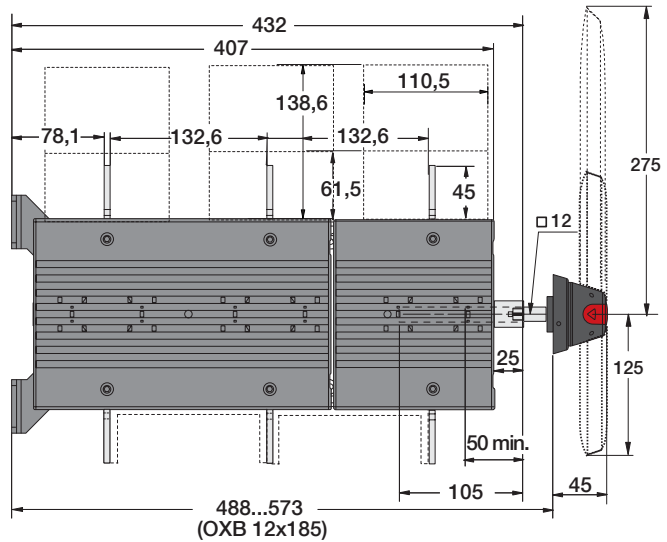
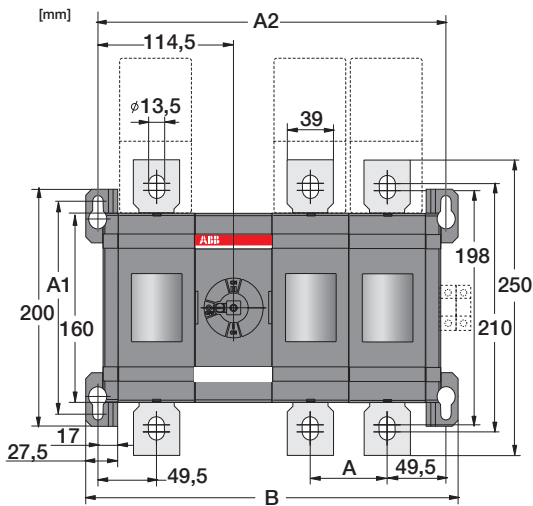
### OT630...800E03/04Y



OT630...800E Y		
	E03	E04
A	65	65
A1	180	180
A2	294	359
B	315	380

MOC0397/OT630-800E02-04Y B./ES

### OT630...800E12/13/22Y



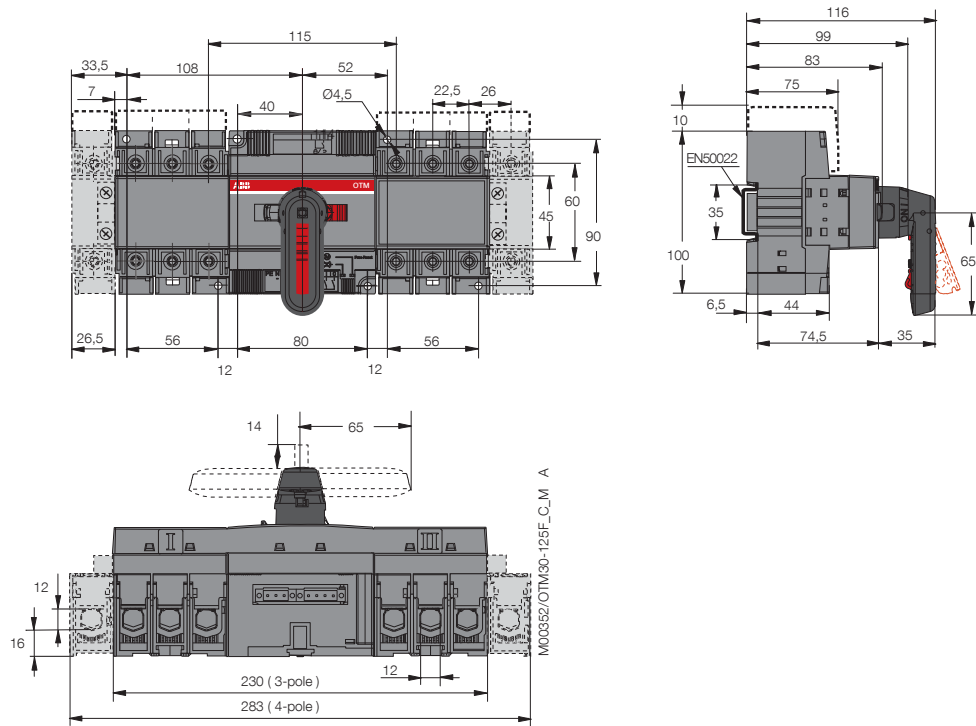
OT630...800E Y			
	E12	E13	E22
A	65	65	65
A1	180	180	180
A2	294	359	359
B	315	380	380

MOC0398/OT630-800E12-22Y B

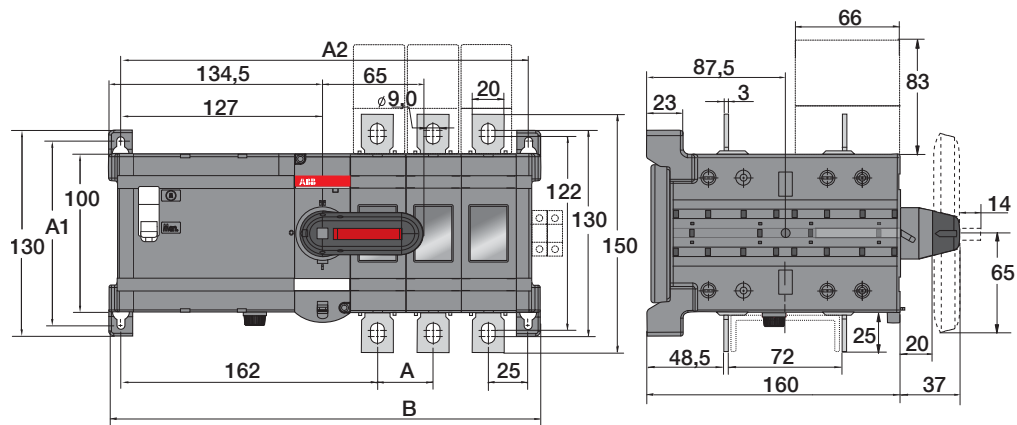
# Dimension drawings

## Motorized change-over switches

### OTM40...125F3/4\_CM



### OTM160...250E2/3/4CM



#### OTM160-250\_C\_M

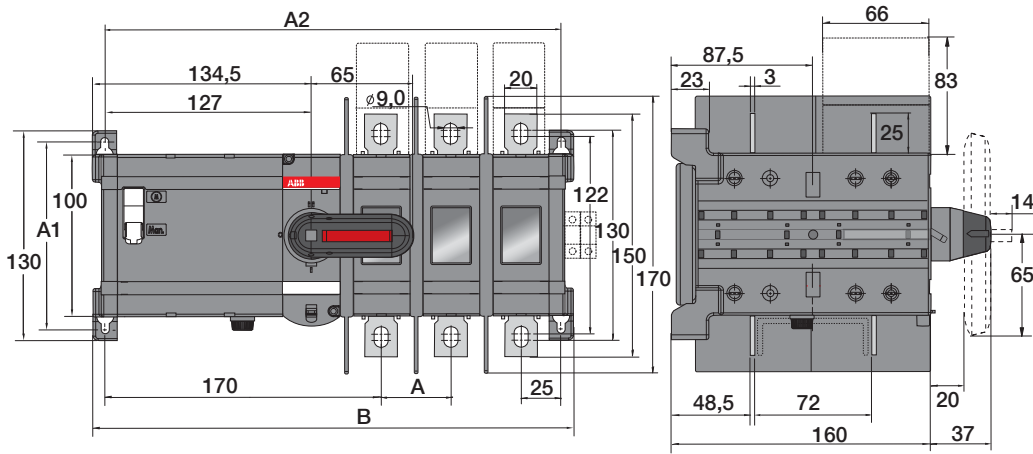
[mm]	E2	E3	E4
A	35	35	35
A1	116	116	116
A2	223	258	293
B	238	273	308

M00111 / OTM160-250E\_C\_M\_E

# Dimension drawings

## Motorized change-over switches

### OTM160...250E2/3/4WCM

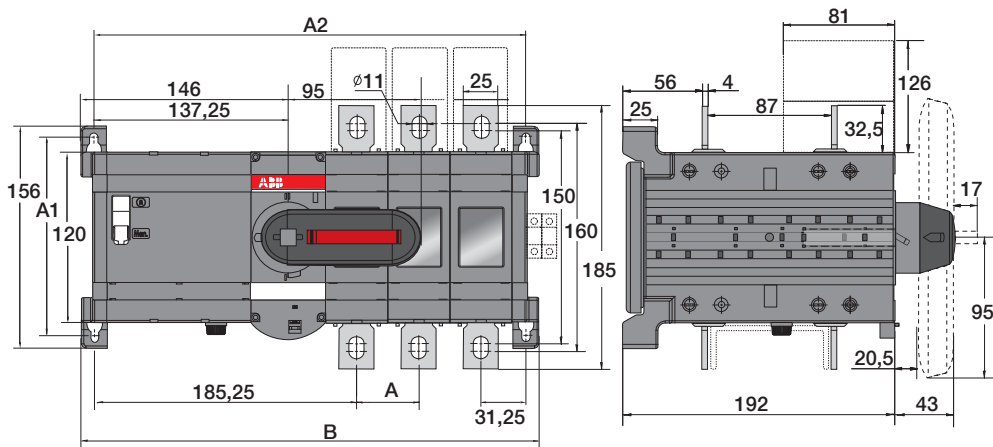


OTM160-250\_WCM

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

M00115 / OTM160-250E\_WCM\_E

### OTM315...400E2/3/4CM



OTM315-400\_C\_M

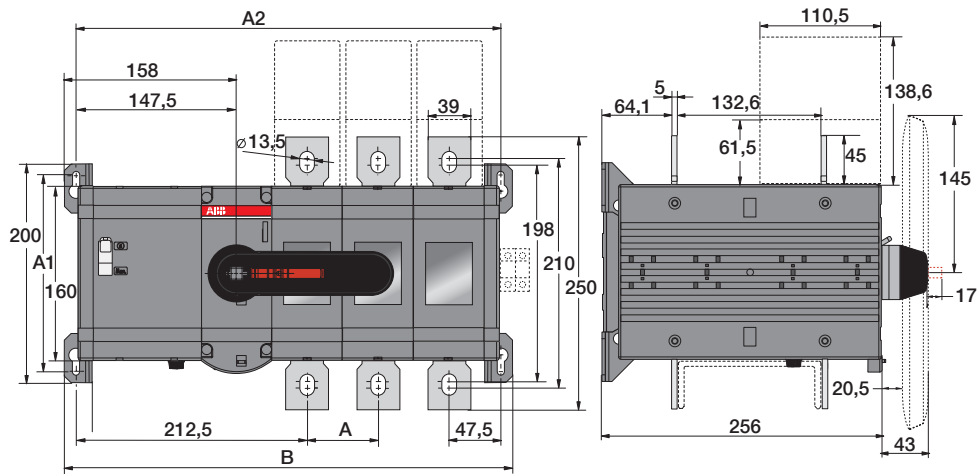
[mm]	E2	E3	E4
A	44	44	44
A1	142	142	142
A2	261	305	349
B	280	323	367

M00113 / OTM315-400E\_C\_M\_F

# Dimension drawings

## Motorized change-over switches

### OTM630...800E2/3/4CM

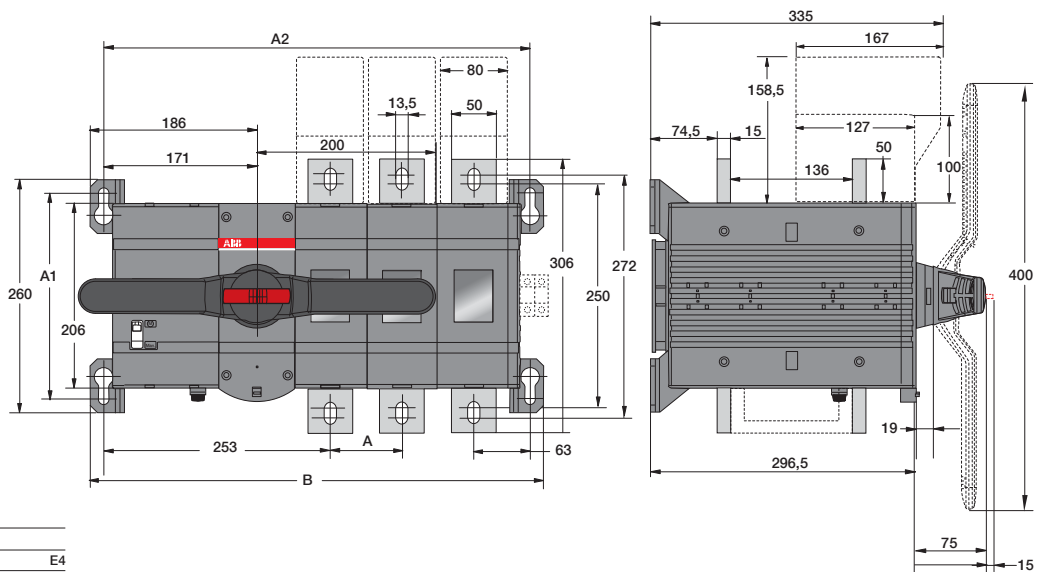


OTM630-800E\_C\_M

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

M00140/OTM630-800E02-04C\_M C

### OTM1000...1250E2/3/4CM



OTM1000-1250\_C\_M

[mm]	E2	E3	E4
A	80	80	80
A1	230	230	230
A2	296,5	476,5	556,5
B	426,5	506,5	586,5

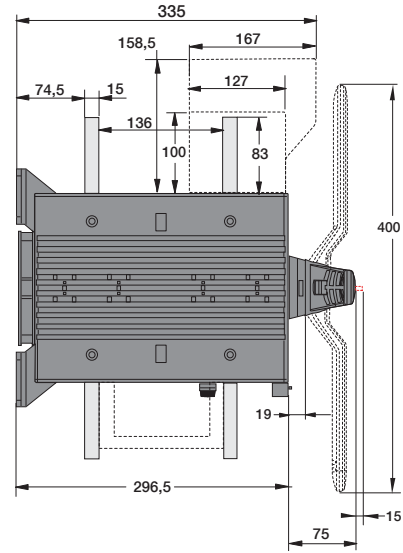
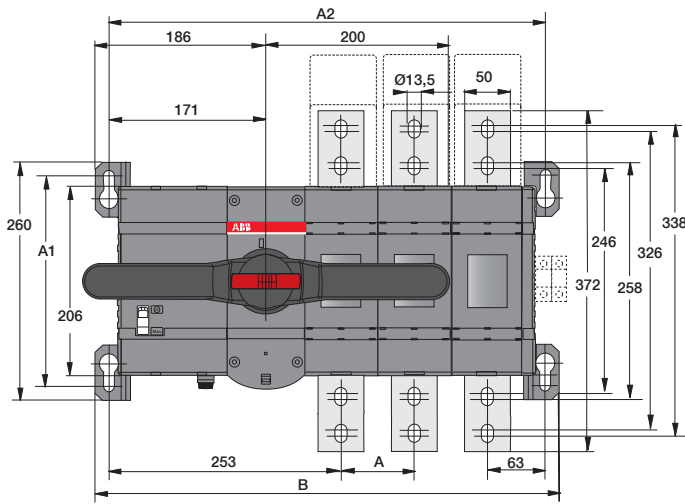
M00256/OTM1000-1250E\_C\_M C



# Dimension drawings

## Motorized change-over switches

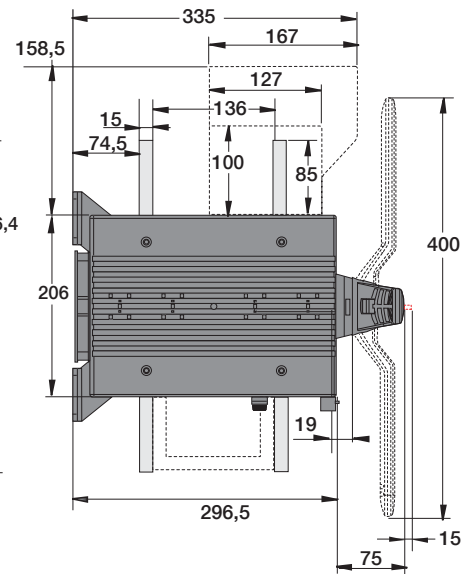
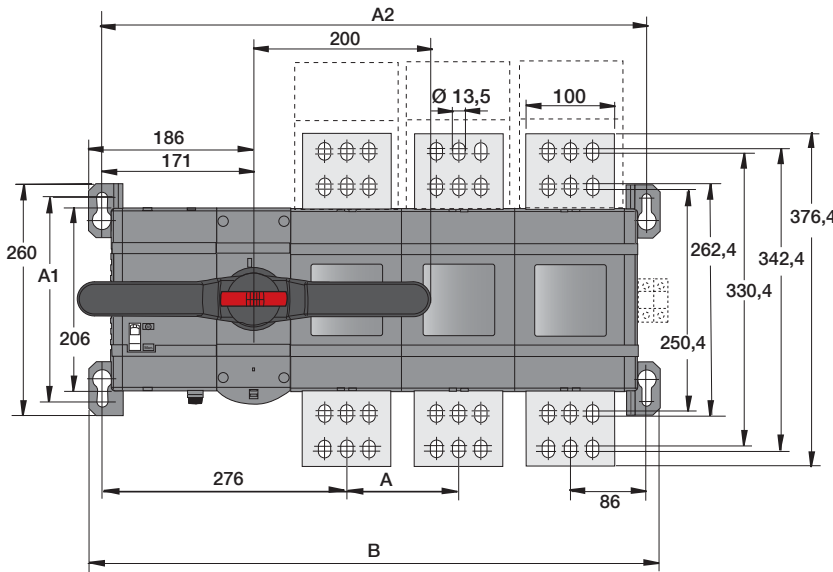
### OTM1600E2/3/4CM



OTM1600_C_M			
[mm]	E2	E3	E4
A	80	80	80
A1	230	230	230
A2	396,6	476,5	556,5
B	426,5	506,5	586,5

M00259/OTM1600E\_C\_M C

### OTM2000...2500E3/4CM

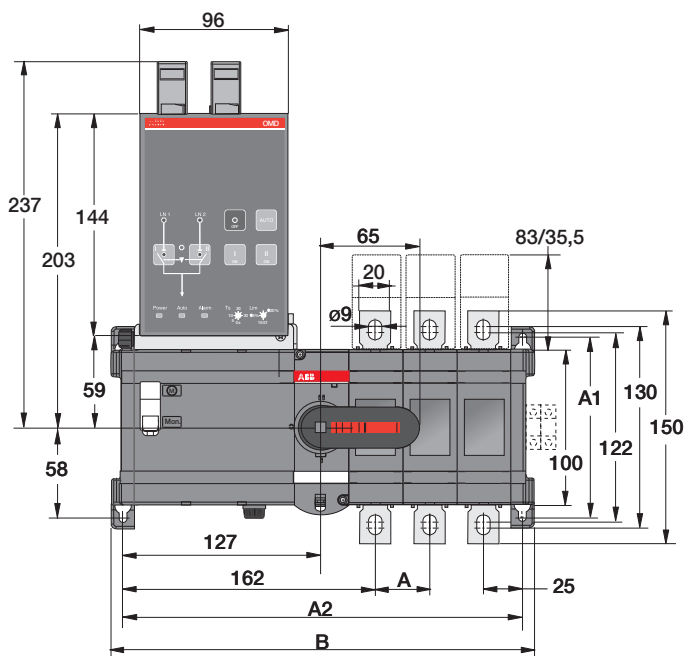
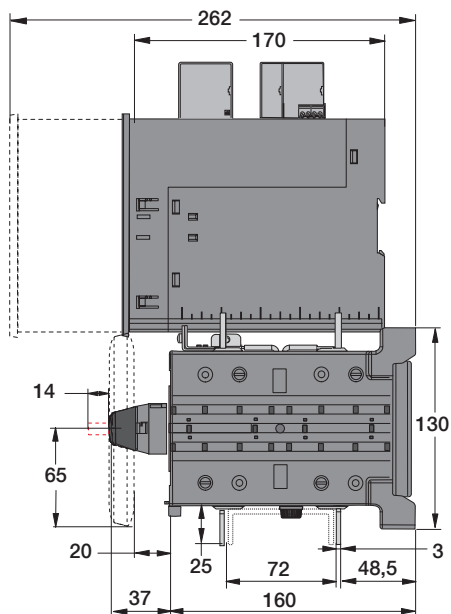


OTM2000-2500_C_M			
[mm]	E2	E3	E4
A	126	126	126
A1	230	230	230
A2	488,5	614,5	740,5
B	518,5	644,5	770,5

M00259/OTM2000-2500E\_C\_M C

# Dimension drawings Automatic transfer switches

## OTM160...250E\_C\_2D\_, OTM160...250E\_C\_3D\_

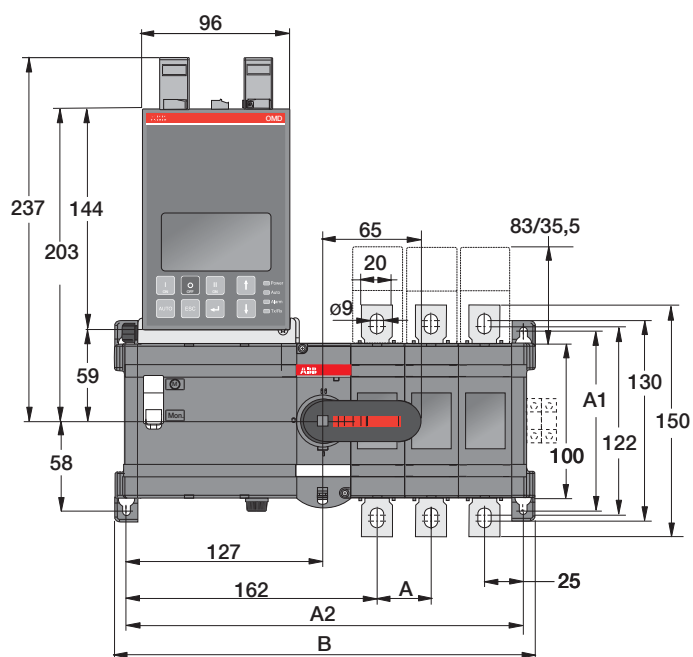
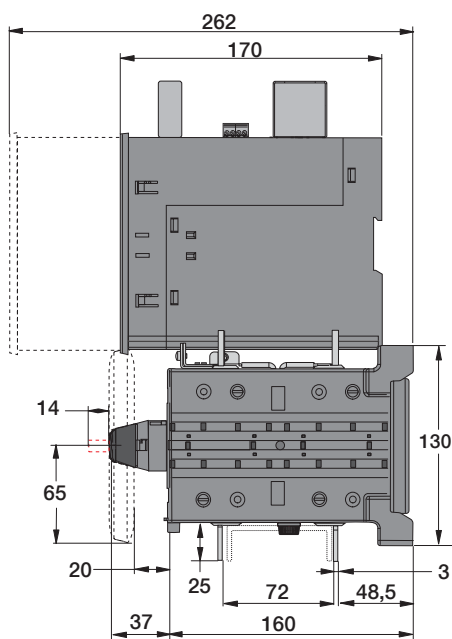


### OTM160-250\_C\_D\_

[mm]	E3	E4
A	35	35
A1	116	116
A2	257	292
B	272	307

13/OTM160-250E\_C\_2D\_ C

## OTM160...250E\_C\_8D\_



### OTM160-250\_C\_D\_

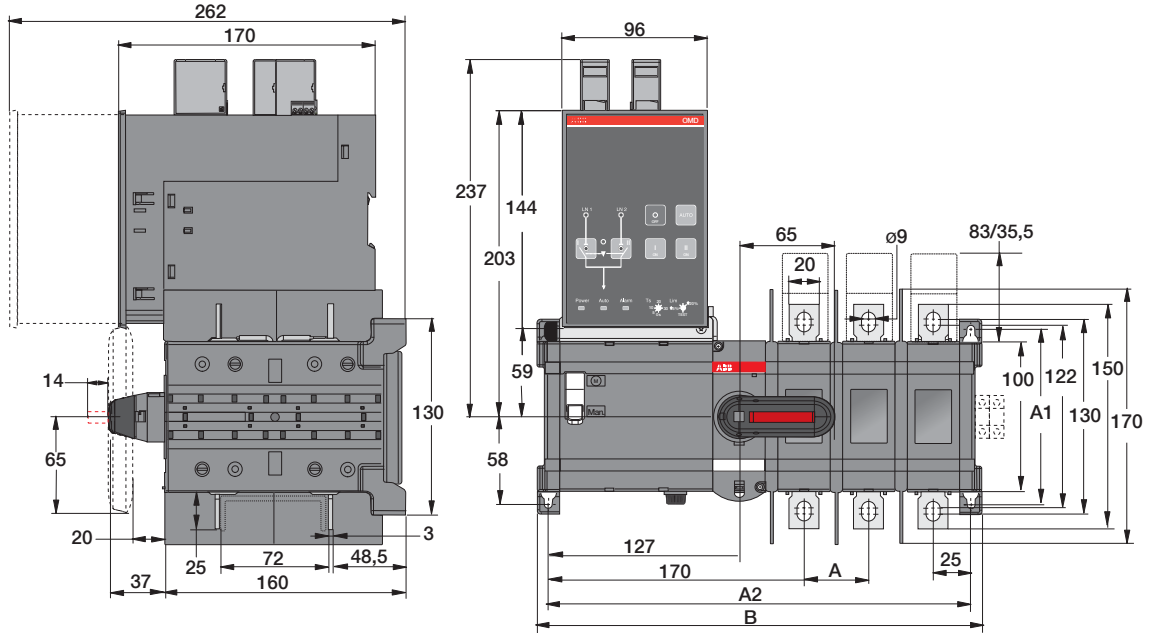
[mm]	E3	E4
A	35	35
A1	116	116
A2	257	292
B	272	307

M00184/OTM160-250E\_C\_8D\_ C

# Dimension drawings

## Automatic transfer switches

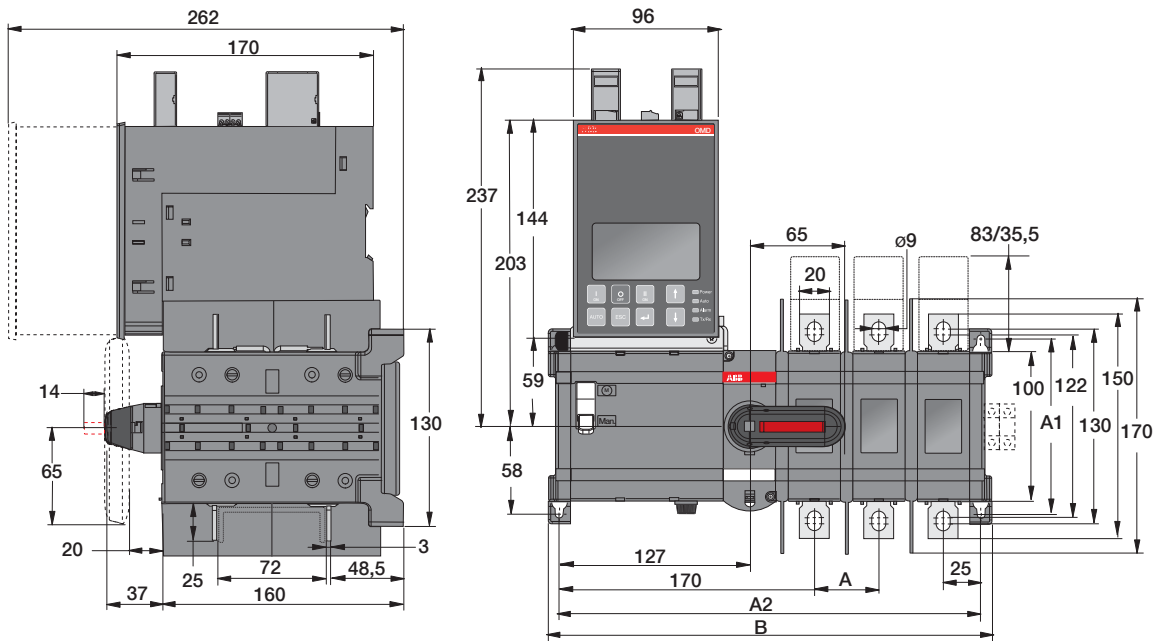
OTM160...250E\_WC\_2D\_, OTM160...250E\_WC\_3D\_



OTM160-250_WC_D_		
[mm]	E3	E4
A	43	43
A1	116	116
A2	281	324
B	296	339

M00186/OTM160-250E\_WC\_2D\_ C

OTM160...250E\_WC\_8D\_



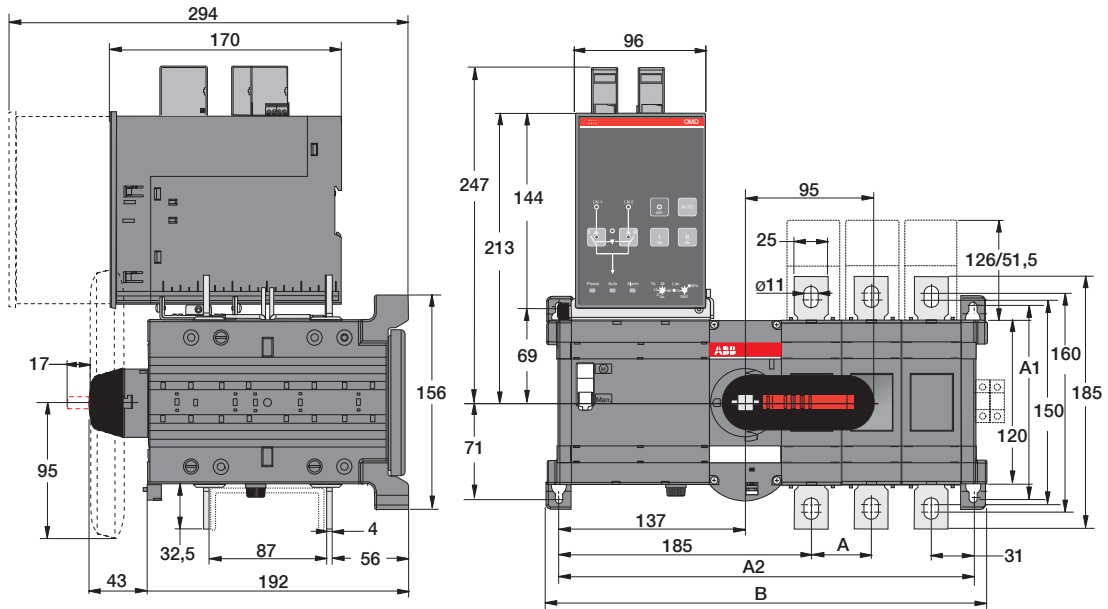
OTM160-250_WC_D_		
[mm]	E3	E4
A	43	43
A1	116	116
A2	281	324
B	296	339

M00187/OTM160-250E\_WC\_8D\_ C

# Dimension drawings

## Automatic transfer switches

### OTM315...400E\_C\_2D\_, OTM315...400E\_C\_3D

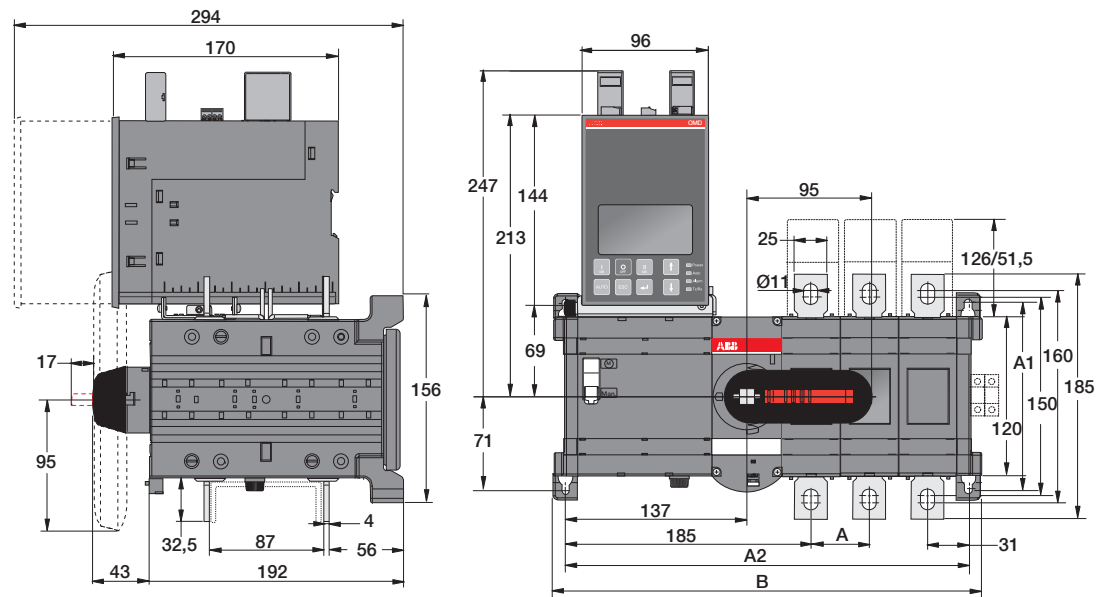


OTM315-400\_C.D.

[mm]	E3	E4
A	44	44
A1	142	142
A2	304,5	348,5
B	323	367

M00192/ OTM315-400E\_C\_2D\_ C

### OTM315...400E\_C\_8D\_



OTM315-400\_C.D.

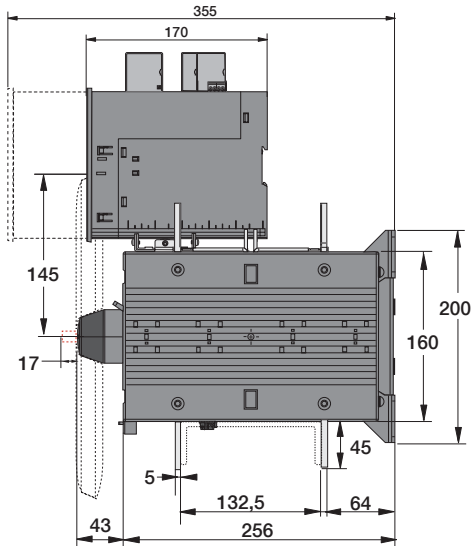
[mm]	E3	E4
A	44	44
A1	142	142
A2	304,5	348,5
B	323	367

M00193/ OTM315-400E\_C\_8D\_ C

# Dimension drawings

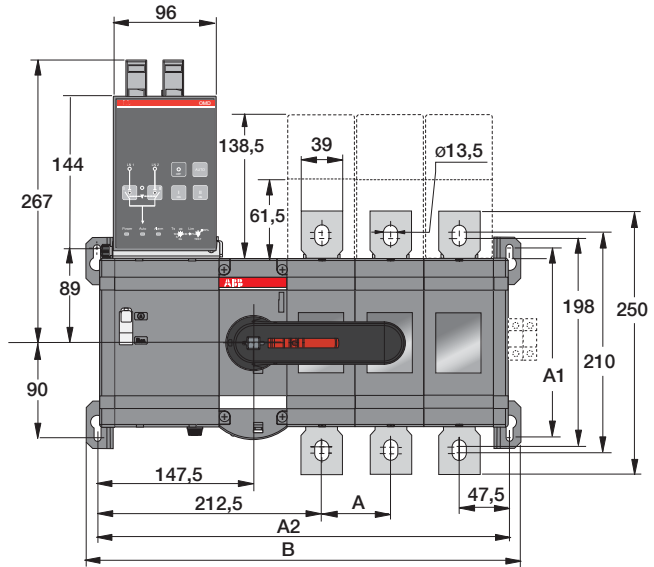
## Automatic transfer switches

### OTM630...800E\_C\_2D\_, OTM630...800E\_C\_3D\_

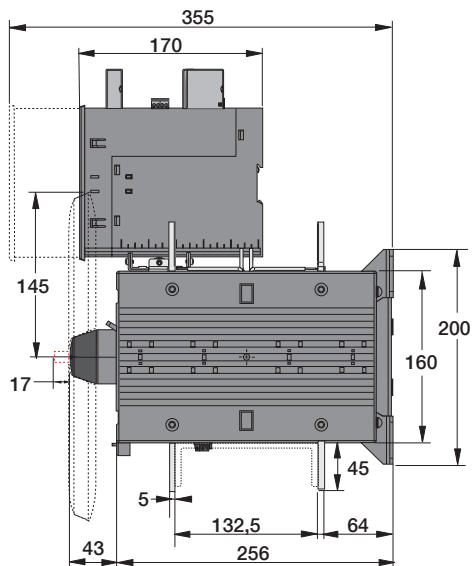


OTM630-800\_C\_D\_

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

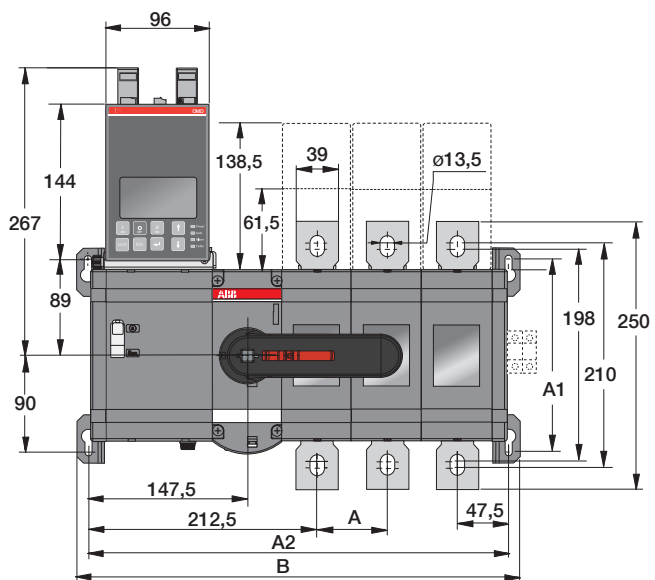


### OTM630...800E\_C\_8D\_



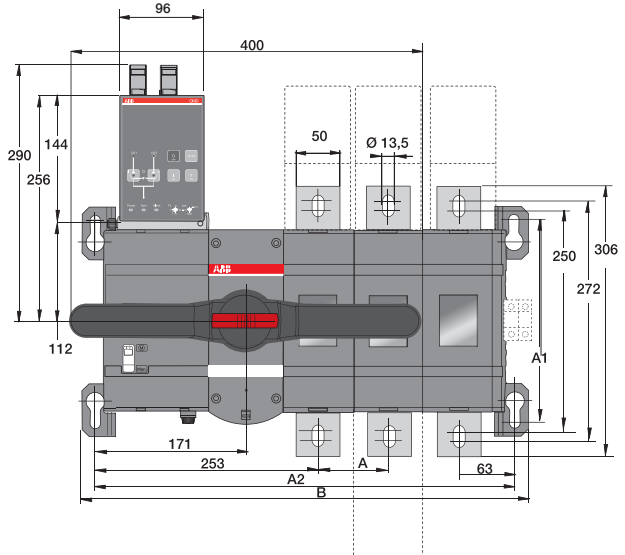
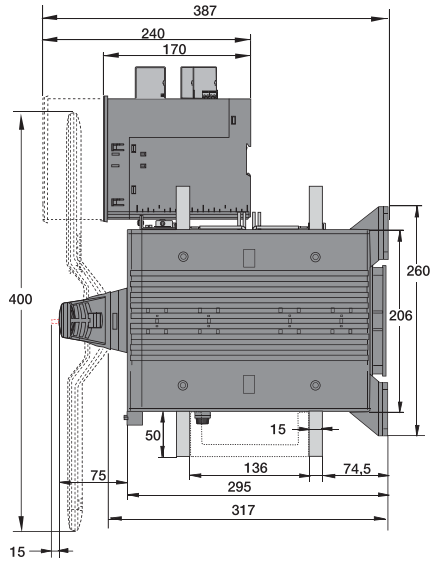
OTM630-800\_C\_D\_

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



# Dimension drawings Automatic transfer switches

## OTM1000...1250E\_C2D\_, OTM1000...1250E\_C3D\_

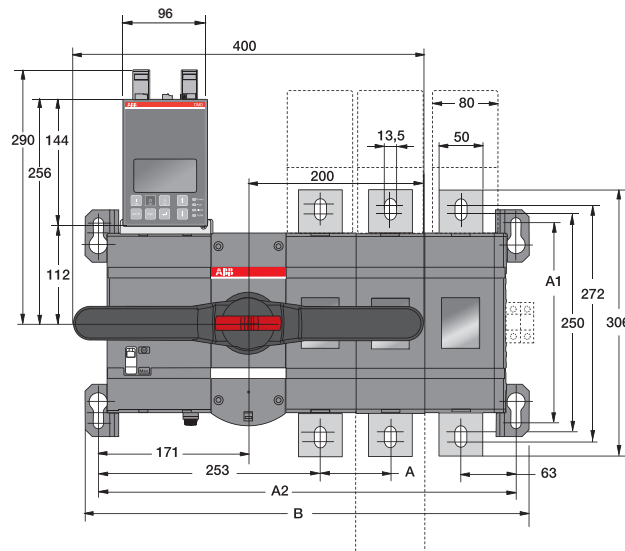
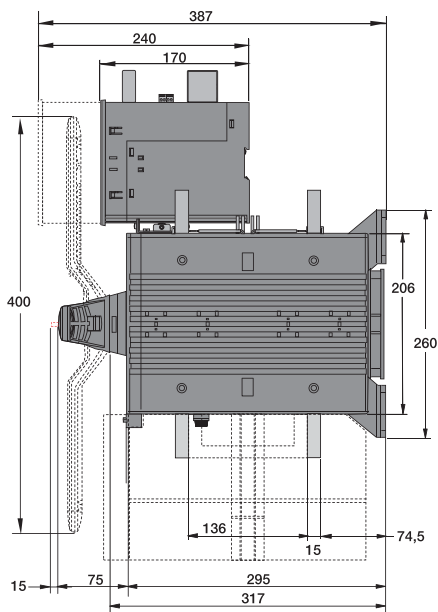


### OTM1000-1250E\_C\_D

[mm]	E2	E3	E4
A	80	80	80
A1	230	230	230
A2	396	476	556
B	426	506	586

MOC062/OTM1000...1250E2\_4C2 B

## OTM1000...1250E\_C\_8D



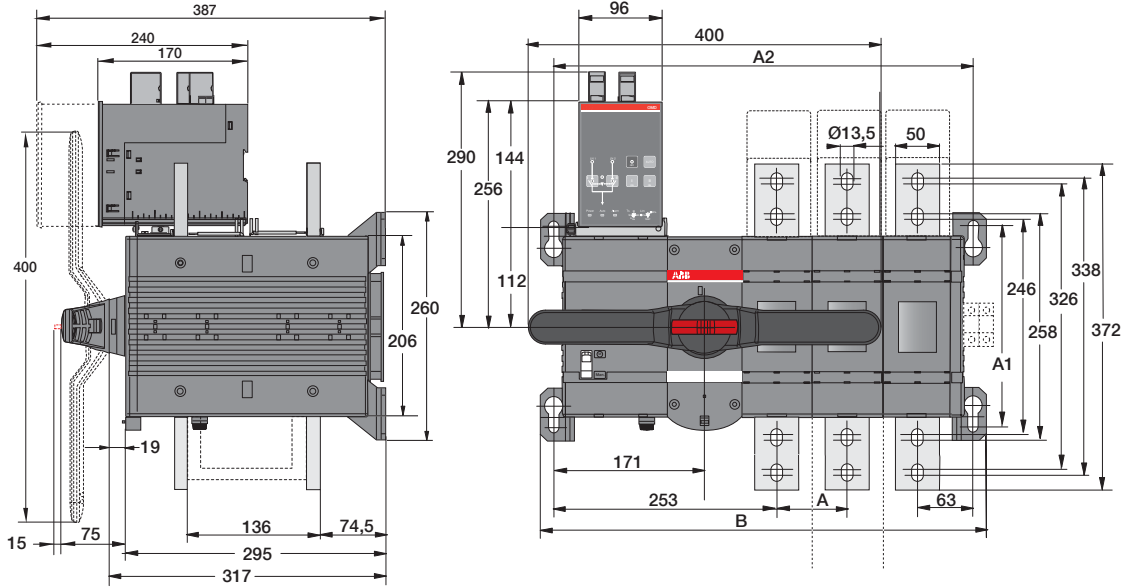
### OTM1000-1250E\_C\_D

[mm]	E2	E3	E4
A	80	80	80
A1	230	230	230
A2	396	476	556
B	426	506	586

MOC064/OTM1000...1250E2\_4C8 B

# Dimension drawings Automatic transfer switches

## OTM1600E\_C2D\_, OTM1600E\_C3D\_

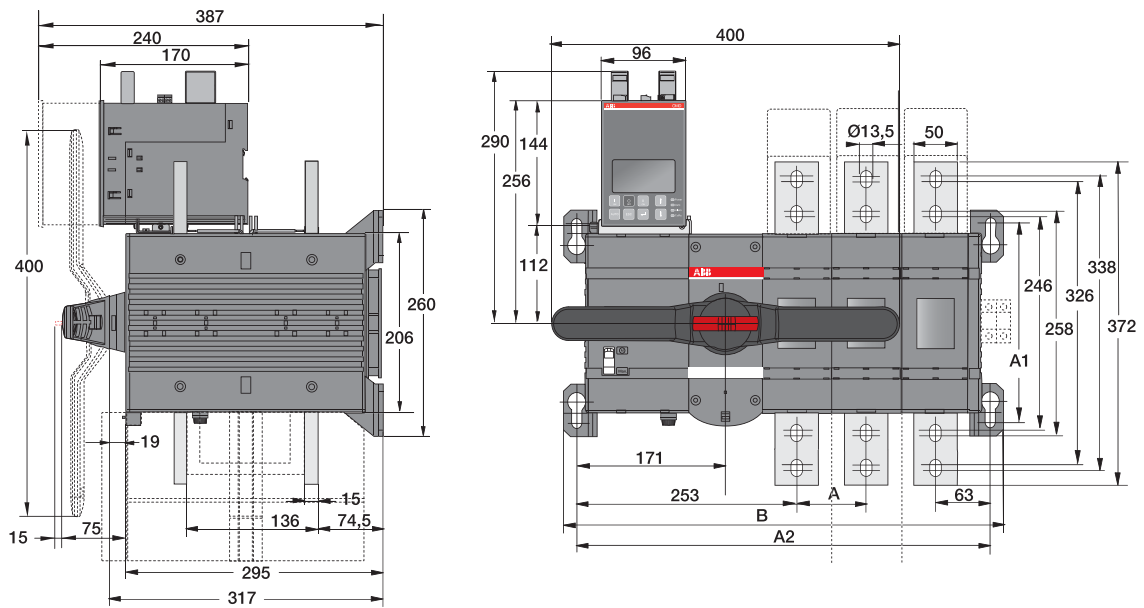


### OTM1600\_C\_D\_

[mm]	E2	E3	E4
A	80	80	80
A1	230	230	230
A2	396	476	556
B	426	506	586

M00268/OTM1600E2-C2D\_ C

## OTM1600E\_C8D\_



### OTM1600E\_C\_D

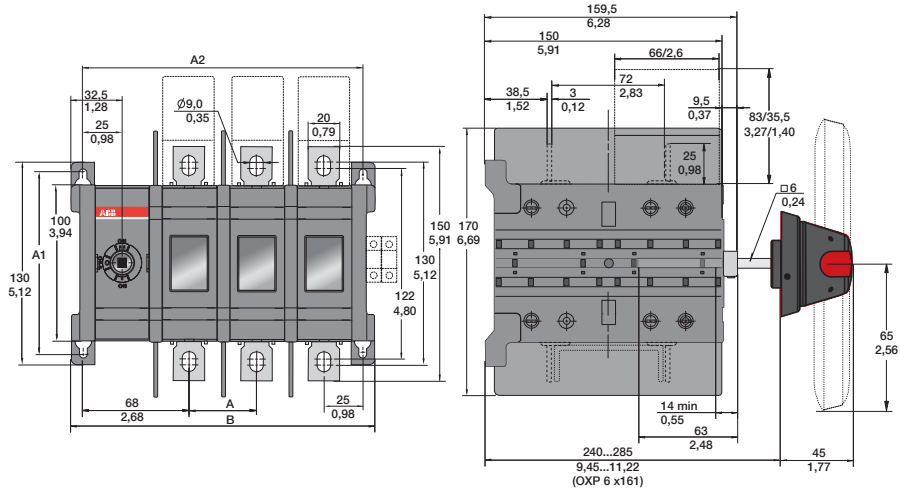
[mm]	E2	E3	E4
A	80	80	80
A1	230	230	230
A2	396	476	556
B	426	506	586

M00269/OTM1600E2-C8 B

# Dimension drawings

## Manual change-over switches, UL/CSA -types

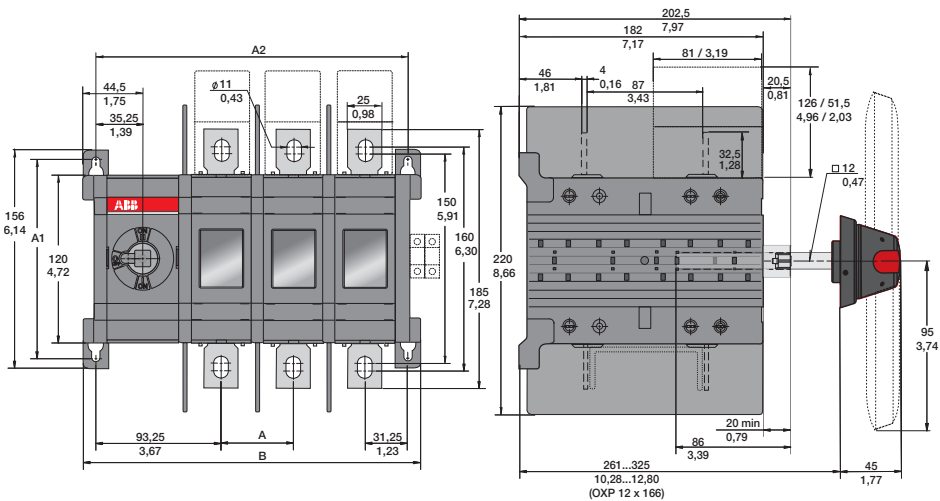
### OT200U03/04CP



OT200_C		
[mm/in]	U03	U04
A	43/1,69	43/1,69
A1	116/4,57	116/4,57
A2	179/7,05	222/8,74
B	19/0,74	23/0,91

C000002 / OT200U02-04\_C\_ C/ES

### OT400U03/04CP



OT400_C		
[mm/in]	U03	U04
A	54/2,13	54/2,13
A1	142/5,59	142/5,59
A2	232,5/9,15	286,5/11,28
B	251/9,88	305/12,01

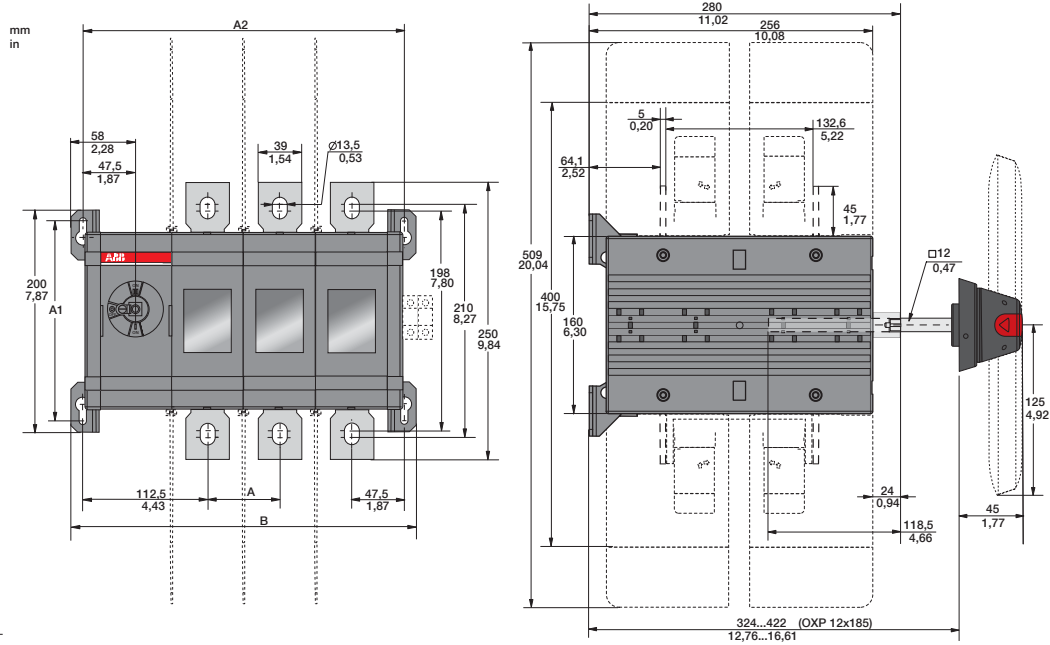
C000009 / OT400U02-04\_C\_ C/ES



# Dimension drawings

## Manual change-over switches, UL/CSA -types

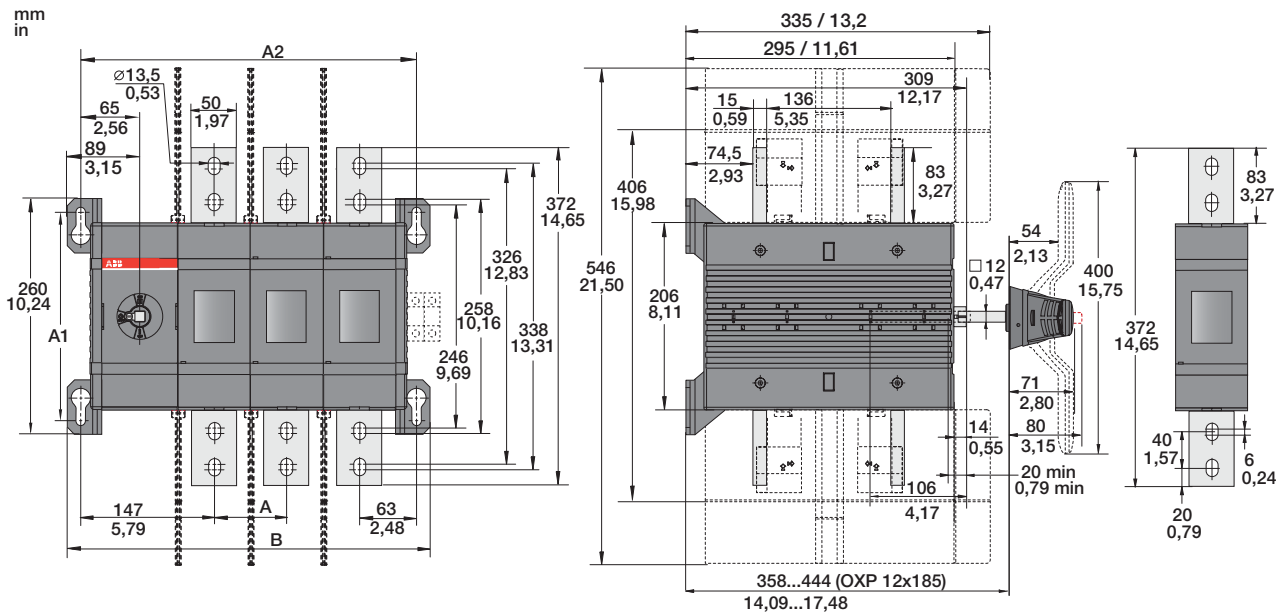
### OT600U03/04CP



M00087/OT600U02-04C\_ C /ES

OT600_C_	
[mm/in]	U03 U04
A	65/2,56 65/2,56
A1	180/7,09 180/7,09
A2	290/11,42 355/13,98
B	311/12,24 376/14,80

### OT800U03/04CP

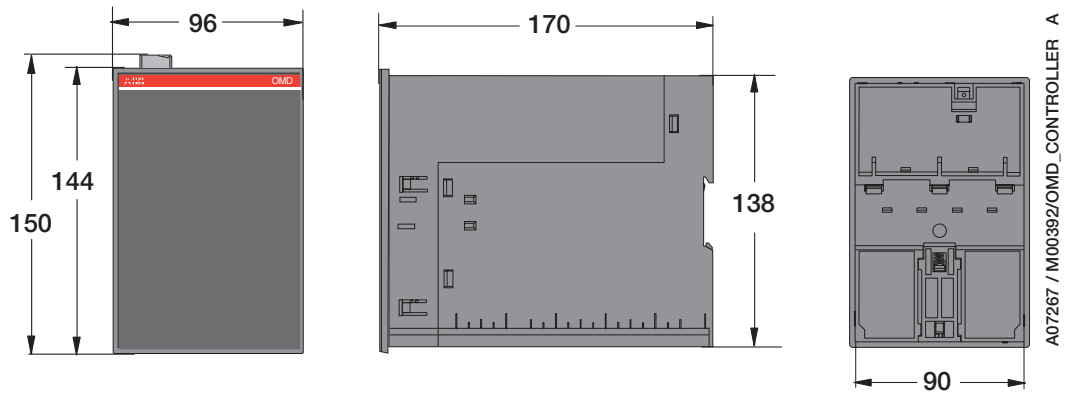


M00156/OT800-1200U\_C-1 C /ES

OT800_C_	
[mm]	U03 U04
A	80/3,15 80/3,15
A1	230/9,06 230/9,06
A2	370/14,56 450/17,72
B	400/15,75 480/18,90

# Dimension drawings Automatic control units

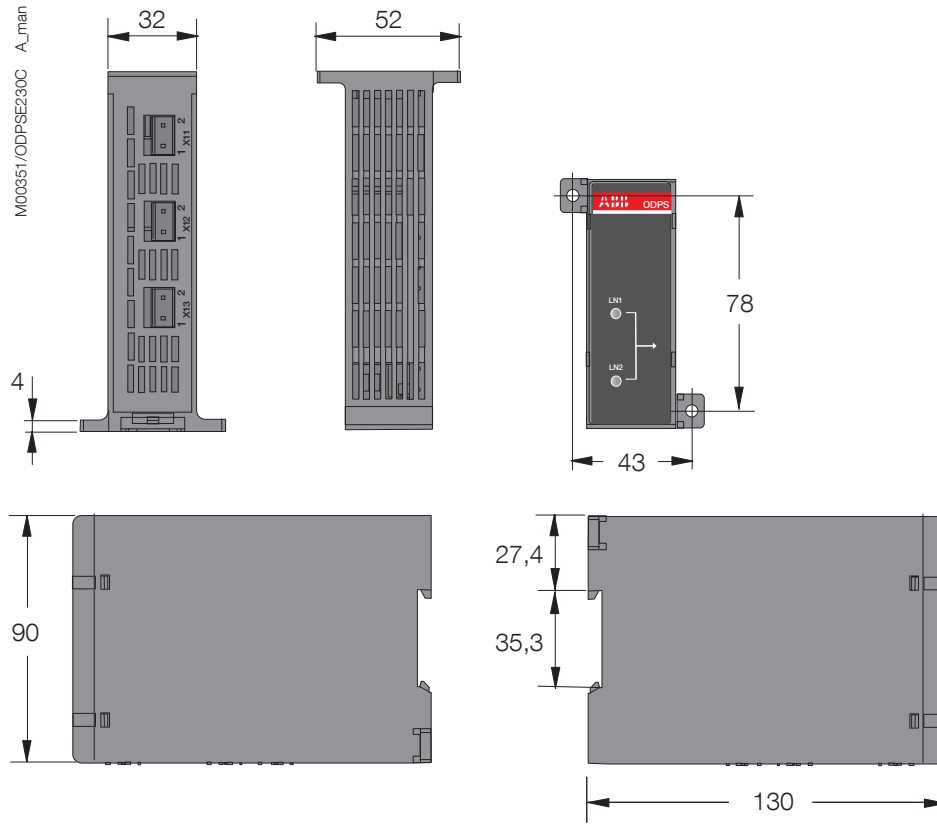
OMD200/300/800



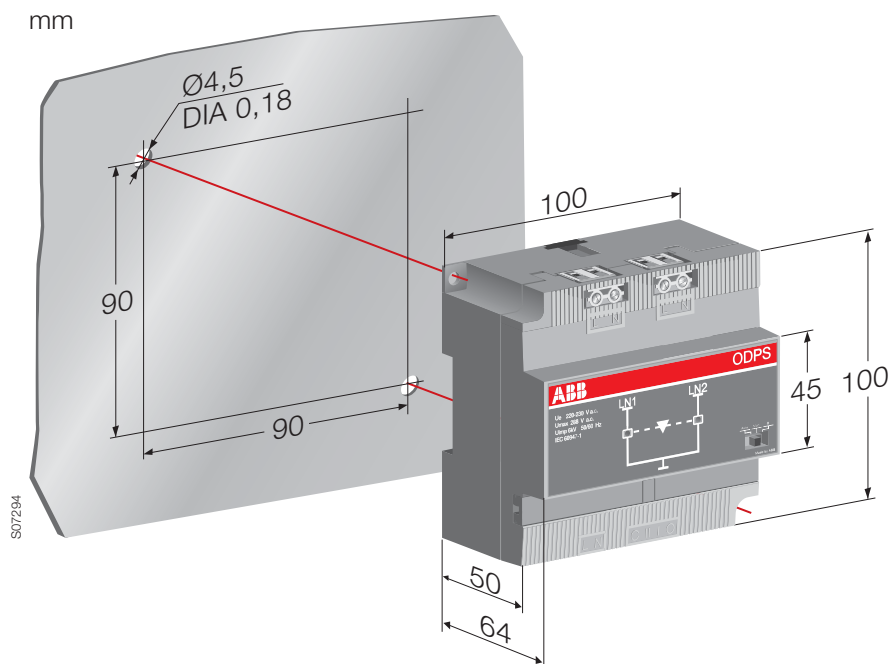
# Dimension drawings

## Dual power sources

### ODPSE230C

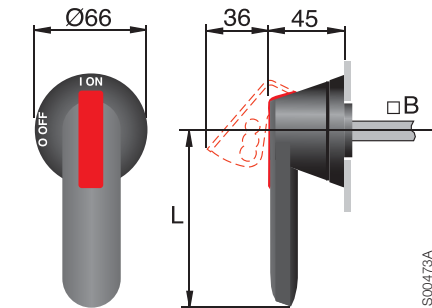


### ODPS230

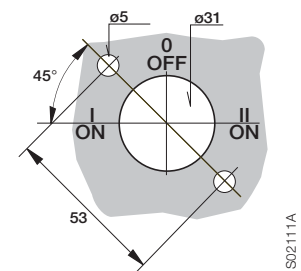
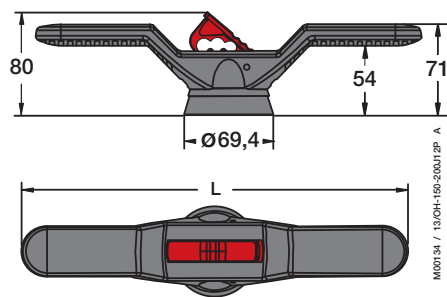
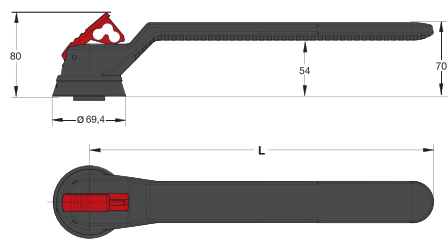
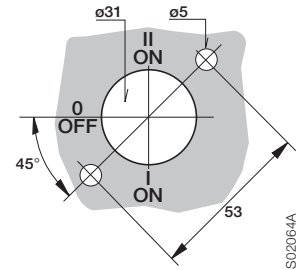


# Dimension drawings Handles

## Plastic handles



Handle type	Handle length L [mm]	Shaft B [mm]
OH_45J6E_	45	6
OH_65J6E_	65	6
OH_95J12E_	95	12
OH_125J12E_	125	12
OH_145J12E_	145	12
OH_175J12E_	175	12
OH_200J12E_	200	12
OH_275J12E_	275	12

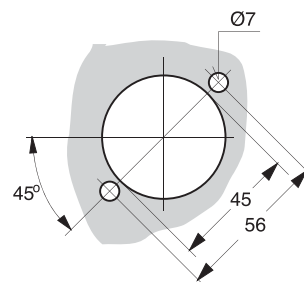
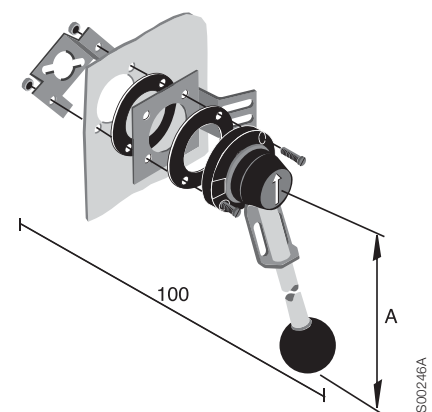


Handle type	L [mm]
OH_274J12	274

Handle type	L [mm]
OHBS150J12P	300
OHBS200J12P	400

Door drilling for OH\_ handles

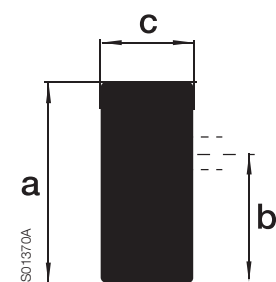
## Metallic handles



Door drilling for YASDA:

YASDA 21 (A=220)  
YASDA 6 (A=320)

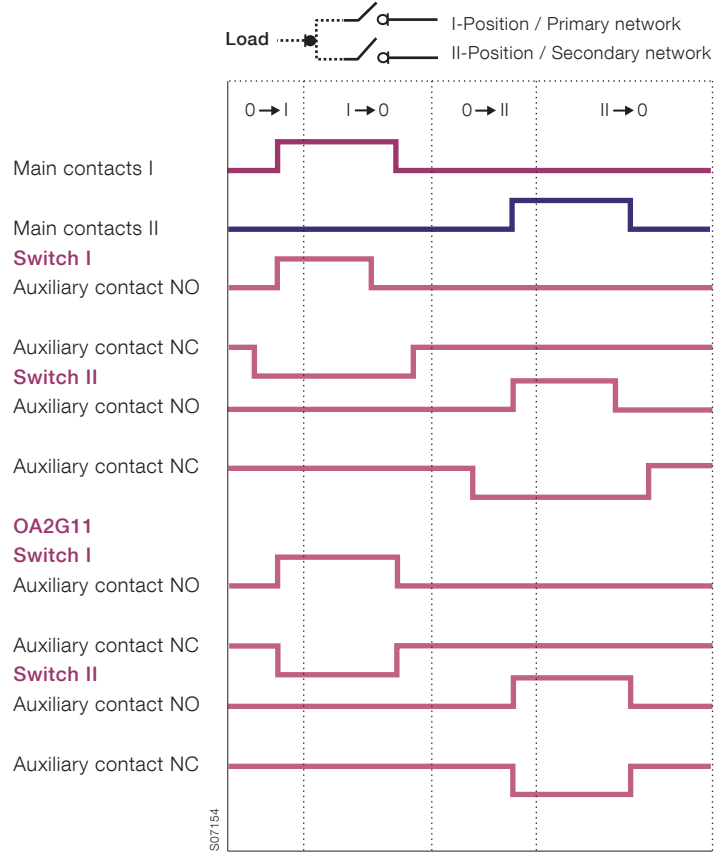
## Handle knobs



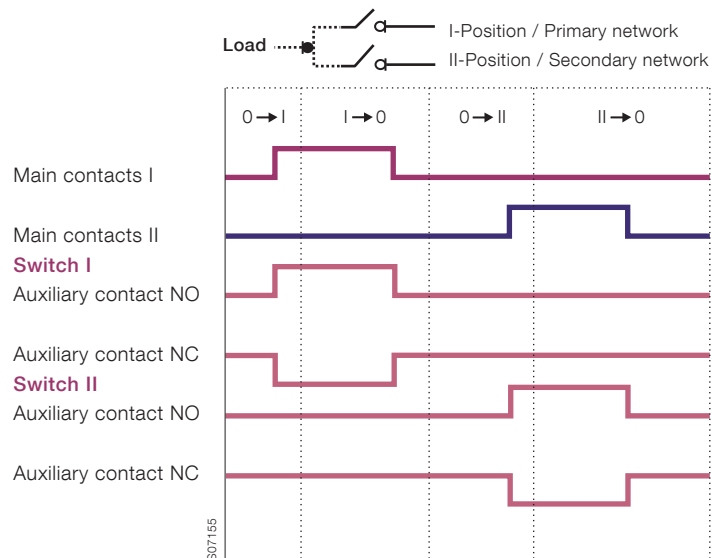
	a	b	c
OHBS2, OHRS2	40	25	13
OHBS3, OHRS3	39	23	18
OHBS9, OHRS9	72	55	16
OHBS11, OHRS11	57.5	34.5	20
OHBS12, OHRS12	37	22.5	19

# Contact functions Diagrams

## Contact functions for OT16...125\_C

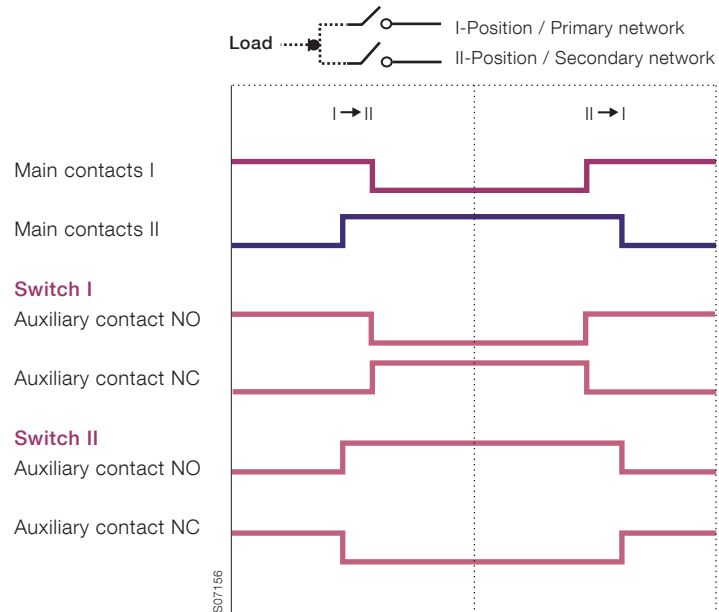


## Contact functions for OT\_160... 3200\_C



# Contact functions Diagrams

## Contact functions for OT160...800\_CL (closed transition types)



# Index

Type	Order number	Description	Page
0A1G01	1SCA022353R4890	Auxiliary contact block	53
0A1G10	1SCA022353R4970	Auxiliary contact block	53
0A1G10AU	1SCA022436R7910	Auxiliary contact block	53
0A2G11	1SCA022379R8100	Auxiliary contact block	53
0A3G01	1SCA022456R7410	Auxiliary contact block	53
0A3G01AU	1SCA022819R5260	Auxiliary contact block	53
0A7G10	1SCA022673R1140	Auxiliary contact block	53
0A8G01	1SCA022744R2240	Auxiliary contact block	53
ODPS230	1SCA122946R1001	Dual power source including ATS functionality	65
ODPSE230C	1SCA116892R1001	Dual power source	65
OESAZW1	1SCA022064R3710	Change-over conversion kit	59
OETLZW11	1SCA022078R0030	Change-over conversion kit	59
OETLZW12	1SCA022078R0200	Change-over conversion kit	59
OETLZW13	1SCA022078R0460	By-pass conversion kit	59
OETLZW16	1SCA022093R2070	Interlocking device for locks	64
OETLZW16	1SCA022093R2070	Interlocking device for locks	64
OETLZW5	1SCA022052R3900	Interlocking device for locks	64
OHB125J12E011	1SCA022589R3340	Pistol type handle	48
OHB125J12E311	1SCA022615R1730	Pistol type handle	48
OHB145J12E65	1SCA112063R1001	Pistol type handle	49
OHB145J12E69	1SCA112066R1001	Pistol type handle	48
OHB200J12PE011	1SCA022873R4230	Pistol type handle	48
OHB200J12PE311	1SCA104685R1001	Pistol type handle	48
OHB200J12PE65	1SCA112078R1001	Pistol type handle	49
OHB274J12E011	1SCA122306R1001	Pistol type handle	48
OHB45J6E011	1SCA022594R7110	Pistol type handle	48
OHB45J6E311	1SCA022817R2130	Pistol type handle	48
OHB65D6CM	1SCA022807R9430	Handle, direct mounting	50
OHB65J12E011	1SCA123656R1001	Pistol type handle	48
OHB65J12E311	1SCA126257R1001	Pistol type handle	48
OHB65J6E011	1SCA022383R2480	Pistol type handle	48
OHB65J6E311	1SCA022662R4730	Pistol type handle	48
OHB65J6E65	1SCA112050R1001	Pistol type handle	49
OHB65J6E69	1SCA112052R1001	Pistol type handle	48
OHB95J12E011	1SCA022621R0760	Pistol type handle	48
OHB95J12E311	1SCA022779R2140	Pistol type handle	48
OHB95J12E65	1SCA112056R1001	Pistol type handle	49
OHB95J12E69	1SCA112058R1001	Pistol type handle	48
OHBS11	1SCA109092R1001	Handle knob	47
OHBS11/1	1SCA109093R1001	Handle knob	47
OHBS12	1SCA108252R1001	Handle knob	47
OHBS12/1	1SCA109094R1001	Handle knob	47
OHBS2	1SCA109089R1001	Handle knob	47
OHBS2/1	1SCA109090R1001	Handle knob	47
OHBS2AJE011	1SCA105220R1001	Selector handle	48
OHBS3	1SCA108320R1001	Handle knob	47
OHBS3/1	1SCA108319R1001	Handle knob	47
OHBS9	1SCA108665R1001	Handle knob	47
OHBS9/1	1SCA108689R1001	Handle knob	47
OHBZX200	1SCA125960R1001	Handle extension for bypass switches	49

Type	Order number	Description	Page
OHBZX275	1SCA125963R1001	Handle extension for bypass switches	49
OHRS12	1SCA108253R1001	Handle knob	47
OHRS12/1	1SCA109097R1001	Handle knob	47
OHRS2	1SCA108598R1001	Handle knob	47
OHRS2/1	1SCA108599R1001	Handle knob	47
OHRS3	1SCA108667R1001	Handle knob	47
OHRS3/1	1SCA108688R1001	Handle knob	47
OHRS9	1SCA108666R1001	Handle knob	47
OHRS9/1	1SCA108690R1001	Handle knob	47
OHY125J12E011	1SCA022615R1650	Pistol type handle	48
OHY200J12PE011	1SCA104686R1001	Pistol type handle	48
OHY45J6E011	1SCA022817R2210	Pistol type handle	48
OHY45J6E311	1SCA022817R2300	Pistol type handle	48
OHY65J6E011	1SCA022779R1840	Pistol type handle	48
OHY95J12E011	1SCA022621R0920	Pistol type handle	48
OHYS2AJE011	1SCA105301R1001	Selector handle	48
OMD200E480C-A1	1SCA123789R1001	Automatic control unit	63
OMD300E480C-A1	1SCA123790R1001	Automatic control unit	63
OMD800E480C-A1	1SCA123791R1001	Automatic control unit	63
OMZB18	1SCA120153R1001	Voltage sensing connector	64
OMZB28	1SCA120154R1001	Voltage sensing connector	64
OMZB38	1SCA120155R1001	Voltage sensing connector	64
OMZB48	1SCA120156R1001	Voltage sensing connector	64
OMZC003	1SCA121324R1001	Parallel connection kit	61
OMZC004	1SCA121325R1001	Parallel connection kit	61
OMZC03	1SCA117037R1001	Parallel connection kit	61
OMZC04	1SCA117038R1001	Parallel connection kit	61
OMZC2	1SCA101001R1001	Cover plate	63
OMZD1	1SCA022787R5190	Panel fastener	63
OT1000E03CLP	1SCA117221R1001	Manual change-over switch	41
OT1000E03CP	1SCA022872R1680	Manual change-over switch	26
OT1000E04CLP	1SCA117224R1001	Manual change-over switch	41
OT1000E04CP	1SCA022872R1500	Manual change-over switch	26
OT1000E12CLP	1SCA117608R1001	Manual change-over switch	41
OT1000E12CP	1SCA103287R1001	Manual change-over switch	26
OT1000E13CLP	1SCA117677R1001	Manual change-over switch	41
OT1000E13CP	1SCA103291R1001	Manual change-over switch	26
OT1000E22CP	1SCA103289R1001	Manual change-over switch	26
OT100F3C	1SCA105008R1001	Manual change-over switch	23
OT100F4C	1SCA105019R1001	Manual change-over switch	23
OT1250E03CLP	1SCA117222R1001	Manual change-over switch	41
OT1250E03CP	1SCA022872R0790	Manual change-over switch	26
OT1250E04CLP	1SCA117225R1001	Manual change-over switch	41
OT1250E04CP	1SCA022872R1250	Manual change-over switch	26
OT1250E12CLP	1SCA117610R1001	Manual change-over switch	41
OT1250E12CP	1SCA103308R1001	Manual change-over switch	26
OT1250E13CLP	1SCA117678R1001	Manual change-over switch	41
OT1250E13CP	1SCA103313R1001	Manual change-over switch	26
OT1250E22CP	1SCA103311R1001	Manual change-over switch	26
OT125F3C	1SCA105037R1001	Manual change-over switch	23
OT125F4C	1SCA105054R1001	Manual change-over switch	23

Type	Order number	Description	Page	Type	Order number	Description	Page
OT1600E03CLP	1SCA117223R1001	Manual change-over switch	41	OT200E04YP	1SCA123557R1001	Manual by-pass switch	28
OT1600E03CP	1SCA022872R1840	Manual change-over switch	26	OT200E12CFP	1SCA108535R1001	Manual change-over switch	27
OT1600E04CLP	1SCA117226R1001	Manual change-over switch	41	OT200E12CLP	1SCA108537R1001	Manual change-over switch	40
OT1600E04CP	1SCA022872R2310	Manual change-over switch	26	OT200E12CP	1SCA022776R8510	Manual change-over switch	24
OT1600E12CLP	1SCA117611R1001	Manual change-over switch	41	OT200E12YP	1SCA123564R1001	Manual by-pass switch	28
OT1600E12CP	1SCA103293R1001	Manual change-over switch	26	OT200E13CFP	1SCA108543R1001	Manual change-over switch	27
OT1600E13CLP	1SCA117615R1001	Manual change-over switch	41	OT200E13CLP	1SCA108548R1001	Manual change-over switch	40
OT1600E13CP	1SCA103306R1001	Manual change-over switch	26	OT200E13CP	1SCA022777R0250	Manual change-over switch	24
OT1600E22CP	1SCA103303R1001	Manual change-over switch	26	OT200E13YP	1SCA123570R1001	Manual by-pass switch	28
OT160E03CFP	1SCA106086R1001	Manual change-over switch	27	OT200E22YP	1SCA123576R1001	Manual by-pass switch	28
OT160E03CLP	1SCA108468R1001	Manual change-over switch	40	OT200E33CP	1SCA118541R1001	Manual change-over switch	24
OT160E03CP	1SCA022772R6510	Manual change-over switch	24	OT200E33WCP	1SCA118607R1001	Manual change-over switch	24
OT160E03WCFP	1SCA108484R1001	Manual change-over switch	27	OT200U03CP	1SCA022771R5910	Manual change-over switch	42
OT160E03WCLP	1SCA108486R1001	Manual change-over switch	40	OT200U04CP	1SCA022771R6210	Manual change-over switch	42
OT160E03WCP	1SCA022772R8210	Manual change-over switch	24	OT2500E03CLP	1SCA117249R1001	Manual change-over switch	41
OT160E03YP	1SCA123551R1001	Manual by-pass switch	28	OT2500E03CP	1SCA105615R1001	Manual change-over switch	26
OT160E04CFP	1SCA108489R1001	Manual change-over switch	27	OT2500E04CLP	1SCA117252R1001	Manual change-over switch	41
OT160E04CLP	1SCA108491R1001	Manual change-over switch	40	OT2500E04CP	1SCA103906R1001	Manual change-over switch	26
OT160E04CP	1SCA022775R9440	Manual change-over switch	24	OT2500E12CLP	1SCA117619R1001	Manual change-over switch	41
OT160E04WCFP	1SCA108492R1001	Manual change-over switch	27	OT2500E12CP	1SCA103891R1001	Manual change-over switch	26
OT160E04WCLP	1SCA108494R1001	Manual change-over switch	40	OT2500E13CLP	1SCA117622R1001	Manual change-over switch	41
OT160E04WCP	1SCA022775R0220	Manual change-over switch	24	OT2500E13CP	1SCA103895R1001	Manual change-over switch	26
OT160E04YP	1SCA123556R1001	Manual by-pass switch	28	OT2500E22CP	1SCA103902R1001	Manual change-over switch	26
OT160E12CFP	1SCA108496R1001	Manual change-over switch	27	OT250E03CFP	1SCA108591R1001	Manual change-over switch	27
OT160E12CLP	1SCA108498R1001	Manual change-over switch	40	OT250E03CLP	1SCA108593R1001	Manual change-over switch	40
OT160E12CP	1SCA022776R9080	Manual change-over switch	24	OT250E03CP	1SCA022771R3450	Manual change-over switch	24
OT160E12YP	1SCA123563R1001	Manual by-pass switch	28	OT250E03WCFP	1SCA107577R1001	Manual change-over switch	27
OT160E13CFP	1SCA108502R1001	Manual change-over switch	27	OT250E03WCLP	1SCA107576R1001	Manual change-over switch	40
OT160E13CLP	1SCA108504R1001	Manual change-over switch	40	OT250E03WCP	1SCA022772R8300	Manual change-over switch	24
OT160E13CP	1SCA022777R0170	Manual change-over switch	24	OT250E03YP	1SCA123553R1001	Manual by-pass switch	28
OT160E13YP	1SCA123569R1001	Manual by-pass switch	28	OT250E04CFP	1SCA108600R1001	Manual change-over switch	27
OT160E22YP	1SCA123575R1001	Manual by-pass switch	28	OT250E04CLP	1SCA108605R1001	Manual change-over switch	40
OT160E33CP	1SCA118537R1001	Manual change-over switch	24	OT250E04CP	1SCA022775R4640	Manual change-over switch	24
OT160E33WCP	1SCA118603R1001	Manual change-over switch	24	OT250E04WCFP	1SCA108606R1001	Manual change-over switch	27
OT16F3C	1SCA104816R1001	Manual change-over switch	23	OT250E04WCLP	1SCA108607R1001	Manual change-over switch	40
OT16F4C	1SCA104831R1001	Manual change-over switch	23	OT250E04WCP	1SCA022775R0810	Manual change-over switch	24
OT2000E03CLP	1SCA117250R1001	Manual change-over switch	41	OT250E04YP	1SCA123558R1001	Manual by-pass switch	28
OT2000E03CP	1SCA103908R1001	Manual change-over switch	26	OT250E12CFP	1SCA108609R1001	Manual change-over switch	27
OT2000E04CLP	1SCA117251R1001	Manual change-over switch	41	OT250E12CLP	1SCA108611R1001	Manual change-over switch	40
OT2000E04CP	1SCA103912R1001	Manual change-over switch	26	OT250E12CP	1SCA022776R9320	Manual change-over switch	24
OT2000E12CLP	1SCA117617R1001	Manual change-over switch	41	OT250E12YP	1SCA123565R1001	Manual by-pass switch	28
OT2000E12CP	1SCA103915R1001	Manual change-over switch	26	OT250E13CFP	1SCA108615R1001	Manual change-over switch	27
OT2000E13CLP	1SCA117620R1001	Manual change-over switch	41	OT250E13CLP	1SCA108618R1001	Manual change-over switch	40
OT2000E13CP	1SCA103918R1001	Manual change-over switch	26	OT250E13CP	1SCA022777R0330	Manual change-over switch	24
OT2000E22CP	1SCA103953R1001	Manual change-over switch	26	OT250E13YP	1SCA123571R1001	Manual by-pass switch	28
OT200E03CFP	1SCA108520R1001	Manual change-over switch	27	OT250E22YP	1SCA123577R1001	Manual by-pass switch	28
OT200E03CLP	1SCA108522R1001	Manual change-over switch	40	OT250E33CP	1SCA118551R1001	Manual change-over switch	24
OT200E03CP	1SCA022771R7520	Manual change-over switch	24	OT250E33WCP	1SCA118608R1001	Manual change-over switch	24
OT200E03WCFP	1SCA107578R1001	Manual change-over switch	27	OT25F3C	1SCA104863R1001	Manual change-over switch	23
OT200E03WCLP	1SCA108525R1001	Manual change-over switch	40	OT25F4C	1SCA104877R1001	Manual change-over switch	23
OT200E03WCP	1SCA022772R8720	Manual change-over switch	24	OT315E03CFP	1SCA108629R1001	Manual change-over switch	27
OT200E03YP	1SCA123552R1001	Manual by-pass switch	28	OT315E03CLP	1SCA108630R1001	Manual change-over switch	40
OT200E04CFP	1SCA108528R1001	Manual change-over switch	27	OT315E03CP	1SCA022772R6780	Manual change-over switch	25
OT200E04CLP	1SCA108530R1001	Manual change-over switch	40	OT315E03YP	1SCA123581R1001	Manual by-pass switch	28
OT200E04CP	1SCA022771R7280	Manual change-over switch	24	OT315E04CFP	1SCA114535R1001	Manual change-over switch	27
OT200E04WCFP	1SCA108531R1001	Manual change-over switch	27	OT315E04CLP	1SCA106404R1001	Manual change-over switch	40
OT200E04WCLP	1SCA108532R1001	Manual change-over switch	40	OT315E04CP	1SCA022775R7150	Manual change-over switch	25
OT200E04WCP	1SCA022775R0650	Manual change-over switch	24	OT315E04YP	1SCA123583R1001	Manual by-pass switch	28



Type	Order number	Description	Page
OT315E12CFP	1SCA108633R1001	Manual change-over switch	27
OT315E12CLP	1SCA106419R1001	Manual change-over switch	40
OT315E12CP	1SCA022776R9910	Manual change-over switch	25
OT315E12YP	1SCA123585R1001	Manual by-pass switch	28
OT315E13CFP	1SCA106436R1001	Manual change-over switch	27
OT315E13CLP	1SCA106443R1001	Manual change-over switch	40
OT315E13CP	1SCA022777R0410	Manual change-over switch	25
OT315E13YP	1SCA123588R1001	Manual by-pass switch	28
OT315E22YP	1SCA123586R1001	Manual by-pass switch	28
OT315E33CP	1SCA118635R1001	Manual change-over switch	25
OT3200E03CP	1SCA129156R1001	Manual change-over switch	26
OT3200E04CP	1SCA129158R1001	Manual change-over switch	26
OT400E03CFP	1SCA106360R1001	Manual change-over switch	27
OT400E03CLP	1SCA108641R1001	Manual change-over switch	40
OT400E03CP	1SCA022771R8500	Manual change-over switch	25
OT400E03YP	1SCA123582R1001	Manual by-pass switch	28
OT400E04CFP	1SCA108650R1001	Manual change-over switch	27
OT400E04CLP	1SCA106405R1001	Manual change-over switch	40
OT400E04CP	1SCA022771R8680	Manual change-over switch	25
OT400E04YP	1SCA124026R1001	Manual by-pass switch	28
OT400E12CFP	1SCA108652R1001	Manual change-over switch	27
OT400E12CLP	1SCA106423R1001	Manual change-over switch	40
OT400E12CP	1SCA022776R9590	Manual change-over switch	25
OT400E12YP	1SCA123584R1001	Manual by-pass switch	28
OT400E13CFP	1SCA106441R1001	Manual change-over switch	27
OT400E13CLP	1SCA106447R1001	Manual change-over switch	40
OT400E13CP	1SCA022777R0500	Manual change-over switch	25
OT400E13YP	1SCA123589R1001	Manual by-pass switch	28
OT400E22YP	1SCA123587R1001	Manual by-pass switch	28
OT400E33CP	1SCA118629R1001	Manual change-over switch	25
OT400U03CP	1SCA022771R2810	Manual change-over switch	42
OT400U04CP	1SCA022771R2300	Manual change-over switch	42
OT40F3C	1SCA104913R1001	Manual change-over switch	23
OT40F4C	1SCA104934R1001	Manual change-over switch	23
OT600U03CP	1SCA022785R5320	Manual change-over switch	42
OT600U04CP	1SCA022785R5410	Manual change-over switch	42
OT630E03CFP	1SCA106915R1001	Manual change-over switch	27
OT630E03CLP	1SCA106917R1001	Manual change-over switch	41
OT630E03CP	1SCA022785R6050	Manual change-over switch	25
OT630E03YP	1SCA123590R1001	Manual by-pass switch	28
OT630E04CFP	1SCA108753R1001	Manual change-over switch	27
OT630E04CLP	1SCA106947R1001	Manual change-over switch	41
OT630E04CP	1SCA022785R6130	Manual change-over switch	25
OT630E04YP	1SCA123592R1001	Manual by-pass switch	28
OT630E12CFP	1SCA106963R1001	Manual change-over switch	27
OT630E12CLP	1SCA106968R1001	Manual change-over switch	41
OT630E12CP	1SCA022785R8690	Manual change-over switch	25
OT630E12YP	1SCA123594R1001	Manual by-pass switch	28
OT630E13CFP	1SCA106988R1001	Manual change-over switch	27
OT630E13CLP	1SCA106981R1001	Manual change-over switch	41
OT630E13CP	1SCA022785R9070	Manual change-over switch	25
OT630E13YP	1SCA123599R1001	Manual by-pass switch	28
OT630E22YP	1SCA123597R1001	Manual by-pass switch	28
OT630E33CP	1SCA118652R1001	Manual change-over switch	25
OT63F3C	1SCA105338R1001	Manual change-over switch	23
OT63F4C	1SCA105369R1001	Manual change-over switch	23
OT800E03CFP	1SCA106916R1001	Manual change-over switch	27
OT800E03CLP	1SCA106928R1001	Manual change-over switch	41

Type	Order number	Description	Page
OT800E03CP	1SCA022785R6300	Manual change-over switch	25
OT800E03YP	1SCA123591R1001	Manual by-pass switch	28
OT800E04CFP	1SCA106945R1001	Manual change-over switch	27
OT800E04CLP	1SCA106952R1001	Manual change-over switch	41
OT800E04CP	1SCA022785R6210	Manual change-over switch	25
OT800E04YP	1SCA123593R1001	Manual by-pass switch	28
OT800E12CFP	1SCA106966R1001	Manual change-over switch	27
OT800E12CLP	1SCA106973R1001	Manual change-over switch	41
OT800E12CP	1SCA022785R8850	Manual change-over switch	25
OT800E12YP	1SCA123595R1001	Manual by-pass switch	28
OT800E13CFP	1SCA106983R1001	Manual change-over switch	27
OT800E13CLP	1SCA106976R1001	Manual change-over switch	41
OT800E13CP	1SCA022785R9230	Manual change-over switch	25
OT800E13YP	1SCA123598R1001	Manual by-pass switch	28
OT800E22YP	1SCA123596R1001	Manual by-pass switch	28
OT800E33CP	1SCA118649R1001	Manual change-over switch	25
OT800U03CP	1SCA104031R1001	Manual change-over switch	42
OT800U04CP	1SCA104036R1001	Manual change-over switch	42
OT80F3C	1SCA105402R1001	Manual change-over switch	23
OT80F4C	1SCA105418R1001	Manual change-over switch	23
OTB1600/6C	1SCA104661R1001	Phase separator	56
OTB4000/6C	1SCA129264R1001	Phase separator	56
OTB800/6C	1SCA107272R1001	Phase separator	56
OTM1000E2CM230V	1SCA121279R1001	Motorized change-over switch	31
OTM1000E3C8D230C	1SCA112868R1001	Automatic transfer switch	39
OTM1000E3CM110V	1SCA113653R1001	Motorized change-over switch	32
OTM1000E3CM230C	1SCA112677R1001	Motorized change-over switch	31
OTM1000E3CM24D	1SCA113672R1001	Motorized change-over switch	34
OTM1000E3CM48D	1SCA113663R1001	Motorized change-over switch	33
OTM1000E4C2D230C	1SCA112858R1001	Automatic transfer switch	38
OTM1000E4C3D230C	1SCA112852R1001	Automatic transfer switch	38
OTM1000E4C8D230C	1SCA112861R1001	Automatic transfer switch	39
OTM1000E4CM110V	1SCA113656R1001	Motorized change-over switch	32
OTM1000E4CM230C	1SCA112703R1001	Motorized change-over switch	31
OTM1000E4CM24D	1SCA113675R1001	Motorized change-over switch	34
OTM1000E4CM48D	1SCA113666R1001	Motorized change-over switch	33
OTM100F3CMA230V	1SCA120071R1001	Motorized change-over switch	29
OTM100F3CMA24D	1SCA124058R1001	Motorized change-over switch	29
OTM100F4CMA230V	1SCA120098R1001	Motorized change-over switch	29
OTM100F4CMA24D	1SCA124066R1001	Motorized change-over switch	29
OTM1250E2CM230V	1SCA121293R1001	Motorized change-over switch	31
OTM1250E3C8D230C	1SCA112862R1001	Automatic transfer switch	39
OTM1250E3CM110V	1SCA113652R1001	Motorized change-over switch	32
OTM1250E3CM230C	1SCA112676R1001	Motorized change-over switch	31
OTM1250E3CM24D	1SCA113671R1001	Motorized change-over switch	34
OTM1250E3CM48D	1SCA113662R1001	Motorized change-over switch	33
OTM1250E4C2D230C	1SCA112857R1001	Automatic transfer switch	38
OTM1250E4C3D230C	1SCA112851R1001	Automatic transfer switch	38
OTM1250E4C8D230C	1SCA112864R1001	Automatic transfer switch	39
OTM1250E4CM110V	1SCA113655R1001	Motorized change-over switch	32
OTM1250E4CM230C	1SCA112702R1001	Motorized change-over switch	31
OTM1250E4CM24D	1SCA113674R1001	Motorized change-over switch	34
OTM1250E4CM48D	1SCA113665R1001	Motorized change-over switch	33
OTM125F3CMA230V	1SCA120070R1001	Motorized change-over switch	29
OTM125F3CMA24D	1SCA124057R1001	Motorized change-over switch	29
OTM125F4CMA230V	1SCA120097R1001	Motorized change-over switch	29
OTM125F4CMA24D	1SCA124065R1001	Motorized change-over switch	29
OTM1600E2CM230V	1SCA121280R1001	Motorized change-over switch	31

Type	Order number	Description	Page
OTM1600E3C8D230C	1SCA112866R1001	Automatic transfer switch	39
OTM1600E3CM110V	1SCA113654R1001	Motorized change-over switch	32
OTM1600E3CM230C	1SCA112678R1001	Motorized change-over switch	31
OTM1600E3CM24D	1SCA113673R1001	Motorized change-over switch	34
OTM1600E3CM48D	1SCA113664R1001	Motorized change-over switch	33
OTM1600E4C2D230C	1SCA112854R1001	Automatic transfer switch	38
OTM1600E4C3D230C	1SCA112848R1001	Automatic transfer switch	38
OTM1600E4C8D230C	1SCA112867R1001	Automatic transfer switch	39
OTM1600E4CM110V	1SCA113657R1001	Motorized change-over switch	32
OTM1600E4CM230C	1SCA112704R1001	Motorized change-over switch	31
OTM1600E4CM24D	1SCA113676R1001	Motorized change-over switch	34
OTM1600E4CM48D	1SCA113667R1001	Motorized change-over switch	33
OTM160E2CM230V	1SCA121216R1001	Motorized change-over switch	30
OTM160E2WCM230V	1SCA121218R1001	Motorized change-over switch	30
OTM160E3C8D230C	1SCA101017R1001	Automatic transfer switch	39
OTM160E3CM110V	1SCA022845R8530	Motorized change-over switch	32
OTM160E3CM230C	1SCA022845R8610	Motorized change-over switch	30
OTM160E3CM24D	1SCA022845R8110	Motorized change-over switch	34
OTM160E3CM48D	1SCA022845R8450	Motorized change-over switch	33
OTM160E3WC8D230C	1SCA101036R1001	Automatic transfer switch	39
OTM160E3WCM110V	1SCA022846R3450	Motorized change-over switch	32
OTM160E3WCM230C	1SCA022846R4000	Motorized change-over switch	30
OTM160E3WCM24D	1SCA022846R3290	Motorized change-over switch	34
OTM160E3WCM48D	1SCA022846R3370	Motorized change-over switch	33
OTM160E4C2D230C	1SCA106230R1001	Automatic transfer switch	38
OTM160E4C3D230C	1SCA106305R1001	Automatic transfer switch	38
OTM160E4C8D230C	1SCA101020R1001	Automatic transfer switch	39
OTM160E4CM110V	1SCA022846R1080	Motorized change-over switch	32
OTM160E4CM230C	1SCA022848R1510	Motorized change-over switch	30
OTM160E4CM24D	1SCA022846R0860	Motorized change-over switch	34
OTM160E4CM48D	1SCA022846R0940	Motorized change-over switch	33
OTM160E4WC2D230C	1SCA101033R1001	Automatic transfer switch	38
OTM160E4WC3D230C	1SCA106306R1001	Automatic transfer switch	38
OTM160E4WC8D230C	1SCA101039R1001	Automatic transfer switch	39
OTM160E4WCM110V	1SCA022846R7360	Motorized change-over switch	32
OTM160E4WCM230C	1SCA022846R7440	Motorized change-over switch	30
OTM160E4WCM24D	1SCA022846R7100	Motorized change-over switch	34
OTM160E4WCM48D	1SCA022846R7280	Motorized change-over switch	33
OTM2000E2CM230V	1SCA121289R1001	Motorized change-over switch	31
OTM2000E3CM110V	1SCA113683R1001	Motorized change-over switch	32
OTM2000E3CM230C	1SCA112709R1001	Motorized change-over switch	31
OTM2000E3CM24D	1SCA113695R1001	Motorized change-over switch	34
OTM2000E3CM48D	1SCA113689R1001	Motorized change-over switch	33
OTM2000E4CM110V	1SCA113685R1001	Motorized change-over switch	32
OTM2000E4CM230C	1SCA112712R1001	Motorized change-over switch	31
OTM2000E4CM24D	1SCA113697R1001	Motorized change-over switch	34
OTM2000E4CM48D	1SCA113691R1001	Motorized change-over switch	33
OTM200E2CM230V	1SCA121209R1001	Motorized change-over switch	30
OTM200E2WCM230V	1SCA121294R1001	Motorized change-over switch	30
OTM200E3C8D230C	1SCA101018R1001	Automatic transfer switch	39
OTM200E3CM110V	1SCA022845R8880	Motorized change-over switch	32
OTM200E3CM230C	1SCA022845R8960	Motorized change-over switch	30
OTM200E3CM24D	1SCA022845R8290	Motorized change-over switch	34
OTM200E3CM48D	1SCA022845R8700	Motorized change-over switch	33
OTM200E3WC8D230C	1SCA101037R1001	Automatic transfer switch	39
OTM200E3WCM110V	1SCA022846R3880	Motorized change-over switch	32
OTM200E3WCM230C	1SCA022846R3960	Motorized change-over switch	30
OTM200E3WCM24D	1SCA022846R3610	Motorized change-over switch	34

Type	Order number	Description	Page
OTM200E3WCM48D	1SCA022846R3700	Motorized change-over switch	33
OTM200E4C2D230C	1SCA106671R1001	Automatic transfer switch	38
OTM200E4C3D230C	1SCA106309R1001	Automatic transfer switch	38
OTM200E4C8D230C	1SCA101021R1001	Automatic transfer switch	39
OTM200E4CM110V	1SCA022846R1410	Motorized change-over switch	32
OTM200E4CM230C	1SCA022846R1590	Motorized change-over switch	30
OTM200E4CM24D	1SCA022846R1240	Motorized change-over switch	34
OTM200E4CM48D	1SCA022846R1320	Motorized change-over switch	33
OTM200E4WC2D230C	1SCA101034R1001	Automatic transfer switch	38
OTM200E4WC3D230C	1SCA106310R1001	Automatic transfer switch	38
OTM200E4WC8D230C	1SCA101040R1001	Automatic transfer switch	39
OTM200E4WCM110V	1SCA022846R7790	Motorized change-over switch	32
OTM200E4WCM230C	1SCA022846R7870	Motorized change-over switch	30
OTM200E4WCM24D	1SCA022846R7520	Motorized change-over switch	34
OTM200E4WCM48D	1SCA022846R7610	Motorized change-over switch	33
OTM2500E2CM230V	1SCA121291R1001	Motorized change-over switch	31
OTM2500E3CM110V	1SCA113684R1001	Motorized change-over switch	32
OTM2500E3CM230C	1SCA112710R1001	Motorized change-over switch	31
OTM2500E3CM24D	1SCA113696R1001	Motorized change-over switch	34
OTM2500E3CM48D	1SCA113690R1001	Motorized change-over switch	33
OTM2500E4CM110V	1SCA113686R1001	Motorized change-over switch	32
OTM2500E4CM230C	1SCA112713R1001	Motorized change-over switch	31
OTM2500E4CM24D	1SCA113698R1001	Motorized change-over switch	34
OTM2500E4CM48D	1SCA113692R1001	Motorized change-over switch	33
OTM250E2CM230V	1SCA121211R1001	Motorized change-over switch	30
OTM250E2WCM230V	1SCA121220R1001	Motorized change-over switch	30
OTM250E3C8D230C	1SCA101019R1001	Automatic transfer switch	39
OTM250E3CM110V	1SCA022845R9180	Motorized change-over switch	32
OTM250E3CM230C	1SCA022845R9260	Motorized change-over switch	30
OTM250E3CM24D	1SCA022845R8370	Motorized change-over switch	34
OTM250E3CM48D	1SCA022845R9000	Motorized change-over switch	33
OTM250E3WC8D230C	1SCA101038R1001	Automatic transfer switch	39
OTM250E3WCM110V	1SCA022846R4690	Motorized change-over switch	32
OTM250E3WCM230C	1SCA022846R4770	Motorized change-over switch	30
OTM250E3WCM24D	1SCA022846R4420	Motorized change-over switch	34
OTM250E3WCM48D	1SCA022846R4510	Motorized change-over switch	33
OTM250E4C2D230C	1SCA101016R1001	Automatic transfer switch	38
OTM250E4C3D230C	1SCA106313R1001	Automatic transfer switch	38
OTM250E4C8D230C	1SCA101022R1001	Automatic transfer switch	39
OTM250E4CM110V	1SCA022846R1830	Motorized change-over switch	32
OTM250E4CM230C	1SCA022846R1910	Motorized change-over switch	30
OTM250E4CM24D	1SCA022846R1670	Motorized change-over switch	34
OTM250E4CM48D	1SCA022846R1750	Motorized change-over switch	33
OTM250E4WC2D230C	1SCA101035R1001	Automatic transfer switch	38
OTM250E4WC3D230C	1SCA106314R1001	Automatic transfer switch	38
OTM250E4WC8D230C	1SCA101041R1001	Automatic transfer switch	39
OTM250E4WCM110V	1SCA022846R8170	Motorized change-over switch	32
OTM250E4WCM230C	1SCA022846R8250	Motorized change-over switch	30
OTM250E4WCM24D	1SCA022846R7950	Motorized change-over switch	34
OTM250E4WCM48D	1SCA022846R8090	Motorized change-over switch	33
OTM315E2CM230V	1SCA121221R1001	Motorized change-over switch	30
OTM315E3C8D230C	1SCA101062R1001	Automatic transfer switch	39
OTM315E3CM110V	1SCA022847R1120	Motorized change-over switch	32
OTM315E3CM230C	1SCA022847R1210	Motorized change-over switch	30
OTM315E3CM24D	1SCA022847R0910	Motorized change-over switch	34
OTM315E3CM48D	1SCA022847R1040	Motorized change-over switch	33
OTM315E4C2D230C	1SCA101059R1001	Automatic transfer switch	38
OTM315E4C3D230C	1SCA106317R1001	Automatic transfer switch	38

Type	Order number	Description	Page
OTM315E4C8D230C	1SCA101063R1001	Automatic transfer switch	39
OTM315E4CM110V	1SCA022847R2790	Motorized change-over switch	32
OTM315E4CM230C	1SCA022847R2870	Motorized change-over switch	30
OTM315E4CM24D	1SCA022847R2520	Motorized change-over switch	34
OTM315E4CM48D	1SCA022847R2610	Motorized change-over switch	33
OTM400E2CM230V	1SCA121226R1001	Motorized change-over switch	30
OTM400E3C8D230C	1SCA101061R1001	Automatic transfer switch	39
OTM400E3CM110V	1SCA022847R1550	Motorized change-over switch	32
OTM400E3CM230C	1SCA022847R1630	Motorized change-over switch	30
OTM400E3CM24D	1SCA022847R1390	Motorized change-over switch	34
OTM400E3CM48D	1SCA022847R1470	Motorized change-over switch	33
OTM400E4C2D230C	1SCA101060R1001	Automatic transfer switch	38
OTM400E4C3D230C	1SCA106318R1001	Automatic transfer switch	38
OTM400E4C8D230C	1SCA101064R1001	Automatic transfer switch	39
OTM400E4CM110V	1SCA022847R3170	Motorized change-over switch	32
OTM400E4CM230C	1SCA022847R3250	Motorized change-over switch	30
OTM400E4CM24D	1SCA022847R2950	Motorized change-over switch	34
OTM400E4CM48D	1SCA022847R3090	Motorized change-over switch	33
OTM40F3CMA230V	1SCA120096R1001	Motorized change-over switch	29
OTM40F3CMA24D	1SCA124061R1001	Motorized change-over switch	29
OTM40F4CMA230V	1SCA120102R1001	Motorized change-over switch	29
OTM40F4CMA24D	1SCA124063R1001	Motorized change-over switch	29
OTM630E2CM230V	1SCA121268R1001	Motorized change-over switch	31
OTM630E3C8D230C	1SCA108452R1001	Automatic transfer switch	39
OTM630E3CM110V	1SCA022873R1050	Motorized change-over switch	32
OTM630E3CM230C	1SCA103567R1001	Motorized change-over switch	31
OTM630E3CM24D	1SCA022873R1210	Motorized change-over switch	34
OTM630E3CM48D	1SCA022873R1300	Motorized change-over switch	33
OTM630E4C2D230C	1SCA108434R1001	Automatic transfer switch	38
OTM630E4C3D230C	1SCA108726R1001	Automatic transfer switch	38
OTM630E4C8D230C	1SCA108453R1001	Automatic transfer switch	39
OTM630E4CM110V	1SCA022873R1810	Motorized change-over switch	32
OTM630E4CM230C	1SCA022873R1990	Motorized change-over switch	31
OTM630E4CM24D	1SCA022873R2020	Motorized change-over switch	34
OTM630E4CM48D	1SCA022873R2110	Motorized change-over switch	33
OTM63F3CMA230V	1SCA120095R1001	Motorized change-over switch	29
OTM63F3CMA24D	1SCA124060R1001	Motorized change-over switch	29
OTM63F4CMA230V	1SCA120101R1001	Motorized change-over switch	29
OTM63F4CMA24D	1SCA124064R1001	Motorized change-over switch	29
OTM800E2CM230V	1SCA121270R1001	Motorized change-over switch	31
OTM800E3C8D230C	1SCA108454R1001	Automatic transfer switch	39
OTM800E3CM110V	1SCA022872R5750	Motorized change-over switch	32
OTM800E3CM230C	1SCA103570R1001	Motorized change-over switch	31
OTM800E3CM24D	1SCA022872R5910	Motorized change-over switch	34
OTM800E3CM48D	1SCA022872R6050	Motorized change-over switch	33
OTM800E4C2D230C	1SCA108439R1001	Automatic transfer switch	38
OTM800E4C3D230C	1SCA108728R1001	Automatic transfer switch	38
OTM800E4C8D230C	1SCA108455R1001	Automatic transfer switch	39
OTM800E4CM110V	1SCA022872R8260	Motorized change-over switch	32
OTM800E4CM230C	1SCA022872R8340	Motorized change-over switch	31
OTM800E4CM24D	1SCA022872R8420	Motorized change-over switch	34
OTM800E4CM48D	1SCA022872R8510	Motorized change-over switch	33
OTM80F3CMA230V	1SCA120093R1001	Motorized change-over switch	29
OTM80F3CMA24D	1SCA124059R1001	Motorized change-over switch	29
OTM80F4CMA230V	1SCA120100R1001	Motorized change-over switch	29
OTM80F4CMA24D	1SCA124062R1001	Motorized change-over switch	29
OTPS125FP	1SCA105099R1001	Fourth pole	54
OTPS40FPN1	1SCA105001R1001	Fourth pole	54

Type	Order number	Description	Page
OTPS40FPN2	1SCA105000R1001	Fourth pole	54
OTPS60FP	1SCA111009R1001	Fourth pole	54
OTPS80FP	1SCA105461R1001	Fourth pole	54
OTS125T3	1SCA022379R9680	Terminal shroud	55
OTS125T3	1SCA022379R9680	Terminal shroud	55
OTS1600G1L/3	1SCA022871R9510	Terminal shroud	55
OTS1600G1L/4	1SCA022871R9780	Terminal shroud	55
OTS1600G1S/3	1SCA022871R9600	Terminal shroud	55
OTS1600G1S/4	1SCA022871R9860	Terminal shroud	55
OTS2500G1L/3	1SCA107261R1001	Terminal shroud	55
OTS2500G1L/4	1SCA107262R1001	Terminal shroud	55
OTS2500G1S/3	1SCA107260R1001	Terminal shroud	55
OTS2500G1S/4	1SCA107271R1001	Terminal shroud	55
OTS250G1L/3	1SCA022731R8150	Terminal shroud	55
OTS250G1L/4	1SCA022731R8230	Terminal shroud	55
OTS250G1S/3	1SCA022731R8310	Terminal shroud	55
OTS250G1S/4	1SCA022731R8400	Terminal shroud	55
OTS4000G1L/3	1SCA129042R1001	Terminal shroud	55
OTS4000G1L/4	1SCA129043R1001	Terminal shroud	55
OTS4000G1S/3	1SCA129044R1001	Terminal shroud	55
OTS4000G1S/4	1SCA129045R1001	Terminal shroud	55
OTS400G1L/3	1SCA022736R8840	Terminal shroud	55
OTS400G1L/4	1SCA022736R9490	Terminal shroud	55
OTS400G1S/3	1SCA022736R9060	Terminal shroud	55
OTS400G1S/4	1SCA022736R9650	Terminal shroud	55
OTS40T3	1SCA105317R1001	Terminal shroud	55
OTS63T3	1SCA022353R6750	Terminal shroud	55
OTS800G1L/3	1SCA022776R7890	Terminal shroud	55
OTS800G1L/4	1SCA022776R7970	Terminal shroud	55
OTS800G1S/3	1SCA022776R8190	Terminal shroud	55
OTS800G1S/4	1SCA022776R8270	Terminal shroud	55
OTV1000ECK	1SCA107481R1001	Handle, direct mounting	50
OTV1000ECLK	1SCA113152R1001	Handle, direct mounting	50
OTV1000ECMK	1SCA111301R1001	Handle, direct mounting	50
OTV250ECK	1SCA113141R1001	Handle, direct mounting	50
OTV250ECLK	1SCA022783R0090	Handle, direct mounting	50
OTV250ECLK	1SCA113137R1001	Handle, direct mounting	50
OTV250ECMK	1SCA022804R0570	Handle, direct mounting	50
OTV400ECK	1SCA113147R1001	Handle, direct mounting	50
OTV400ECLK	1SCA022783R0170	Handle, direct mounting	50
OTV400ECLK	1SCA113143R1001	Handle, direct mounting	50
OTV400ECMK	1SCA022843R2900	Handle, direct mounting	50
OTV800ECK	1SCA113151R1001	Handle, direct mounting	50
OTV800ECLK	1SCA022797R2470	Handle, direct mounting	50
OTV800ECLK	1SCA113148R1001	Handle, direct mounting	50
OTV800ECMK	1SCA022804R3410	Handle, direct mounting	50
OTVS0	1SCA117524R1001	Handle and spare fuse storage clip	50
OTVS1	1SCA111413R1001	Handle and spare fuse storage clip	50
OTVS2	1SCA111414R1001	Handle and spare fuse storage clip	50
OTZC13	1SCA022767R6910	Bridging bar	62
OTZC14	1SCA022767R7040	Bridging bar	62
OTZC23	1SCA022767R7120	Bridging bar	62
OTZC24	1SCA022767R7210	Bridging bar	62
OTZC33	1SCA022785R7020	Bridging bar	62
OTZC34	1SCA022785R7110	Bridging bar	62
OTZC43	1SCA022868R0710	Bridging bar	62
OTZC44	1SCA022868R0800	Bridging bar	62
OTZC53	1SCA022868R0980	Bridging bar	62

Type	Order number	Description	Page	Type	Order number	Description	Page
OTZC54	1SCA022868R1010	Bridging bar	62	OZXB4/1	1SCA022194R0890	Terminal clamp	57
OTZC63	1SCA022868R1100	Bridging bar	62	OZXB4/1	1SCA022194R0890	Terminal clamp	58
OTZC64	1SCA022868R1360	Bridging bar	62	OZXB4K	1SCA022199R2850	Terminal shroud for terminal clamps	56
OTZC73	1SCA128843R1001	Bridging bar	62	OZXB5	1SCA022137R2470	Terminal clamp	58
OTZC74	1SCA128844R1001	Bridging bar	62	OZXB5/1	1SCA022194R1010	Terminal clamp	58
OTZR1	1SCA100352R1001	Reversing bar	62	OZXB5K	1SCA022283R8040	Terminal shroud for terminal clamps	56
OTZR2	1SCA104647R1001	Reversing bar	62	OZXB6	1SCA022137R4920	Terminal clamp	58
OTZR3	1SCA100355R1001	Reversing bar	62	OZXB6/1	1SCA022194R1270	Terminal clamp	58
OTZW17	1SCA022387R1620	By-pass conversion kit	59	OZXB7	1SCA022185R0040	Terminal clamp	57
OTZW25	1SCA022778R6920	Change-over conversion kit	59	OZXB7/1	1SCA022194R1430	Terminal clamp	57
OTZW26	1SCA022778R7060	By-pass conversion kit	59	OZXB7L	1SCA022185R7130	Terminal clamp	57
OWC6D125	1SCA104494R1001	Change-over conversion kit	59	OZXB7L	1SCA022185R7130	Terminal clamp	58
OWC6D40	1SCA022865R4550	Change-over conversion kit	59	OZXB7L/1	1SCA022194R1600	Terminal clamp	57
OWC6D80	1SCA022865R4630	Change-over conversion kit	59	OZXB7L/1	1SCA022194R1600	Terminal clamp	58
OXPA12X107	1SCA022029R9750	Shaft	52	OZXB8	1SCA022744R1510	Terminal clamp	57
OXPA12X148	1SCA022658R5570	Shaft	52	OZXB8/1	1SCA022744R1600	Terminal clamp	57
OXPA12X166	1SCA022325R7100	Shaft	52	OZXB9	1SCA022750R3210	Terminal clamp	57
OXPA12X185	1SCA022325R6710	Shaft	52	OZXB9/1	1SCA022750R3300	Terminal clamp	57
OXPA12X250	1SCA022325R6980	Shaft	52	OZXL1	1SCA022439R6770	Terminal clamp	57
OXPA12X280	1SCA022137R5140	Shaft	52	OZXT1	1SCA022469R6310	Terminal clamp	57
OXPA12X325	1SCA022042R5810	Shaft	52	OZXT2	1SCA022620R7200	Terminal clamp	57
OXPA12X395	1SCA022042R5990	Shaft	52	OZXT3	1SCA022639R0720	Terminal clamp	57
OXPA12X465	1SCA022042R6020	Shaft	52	OZXT6	1SCA122537R1001	Terminal clamp	57
OXPA6/12x161C	1SCA111724R1001	Shaft	51	PB100 low	1SDA054970R1	Phase barrier	56
OXPA6X130	1SCA022057R0570	Shaft	51	PB100 low	1SDA054971R1	Phase barrier	56
OXPA6X150	1SCA022295R5600	Shaft	51	PB200 high	1SDA054972R1	Phase barrier	56
OXPA6X161	1SCA022067R1760	Shaft	51	PB200 high	1SDA054973R1	Phase barrier	56
OXPA6X170	1SCA108224R1001	Shaft	51	YASDA21	1SCA022098R9420	Metallic handle	49
OXPA6X210	1SCA022295R6080	Shaft	51	YASDA6	1SCA022071R2890	Metallic handle	49
OXPA6X265	1SCA108225R1001	Shaft	51				
OXPA6X290	1SCA022042R6370	Shaft	51				
OXPA6X360	1SCA022042R6530	Shaft	51				
OXPA6X400	1SCA108226R1001	Shaft	51				
OXPA6X90	1SCA022064R1180	Shaft	51				
OXS6X105	1SCA108043R1001	Shaft	51				
OXS6X120	1SCA101654R1001	Shaft	51				
OXS6X130	1SCA101655R1001	Shaft	51				
OXS6X85	1SCA101647R1001	Shaft	51				
OZXA32	1SCA022683R4110	Parallel connection kit	61				
OZXA33	1SCA022685R0310	Parallel connection kit	61				
OZXA38	1SCA022785R2140	Parallel connection kit	61				
OZXA39	1SCA022790R3820	Parallel connection kit	61				
OZXA40	1SCA022790R3910	Parallel connection kit	61				
OZXA41	1SCA022790R4040	Parallel connection kit	61				
OZXB1L	1SCA022169R2030	Terminal clamp	57				
OZXB1L/1	1SCA022194R0030	Terminal clamp	57				
OZXB2	1SCA022119R7610	Terminal clamp	57				
OZXB2/1	1SCA022194R0200	Terminal clamp	57				
OZXB2K	1SCA022264R0010	Terminal shroud for terminal clamps	56				
OZXB2L	1SCA022158R7750	Terminal clamp	57				
OZXB2L/1	1SCA022194R0460	Terminal clamp	57				
OZXB3	1SCA022136R8100	Terminal clamp	57				
OZXB3	1SCA022136R8100	Terminal clamp	58				
OZXB3/1	1SCA022194R0620	Terminal clamp	57				
OZXB3/1	1SCA022194R0620	Terminal clamp	58				
OZXB3K	1SCA022264R0440	Terminal shroud for terminal clamps	56				
OZXB4	1SCA022137R4760	Terminal clamp	57				
OZXB4	1SCA022137R4760	Terminal clamp	58				