

CATALOG

Motorized change-over switches

IEC 61439 Technical guide

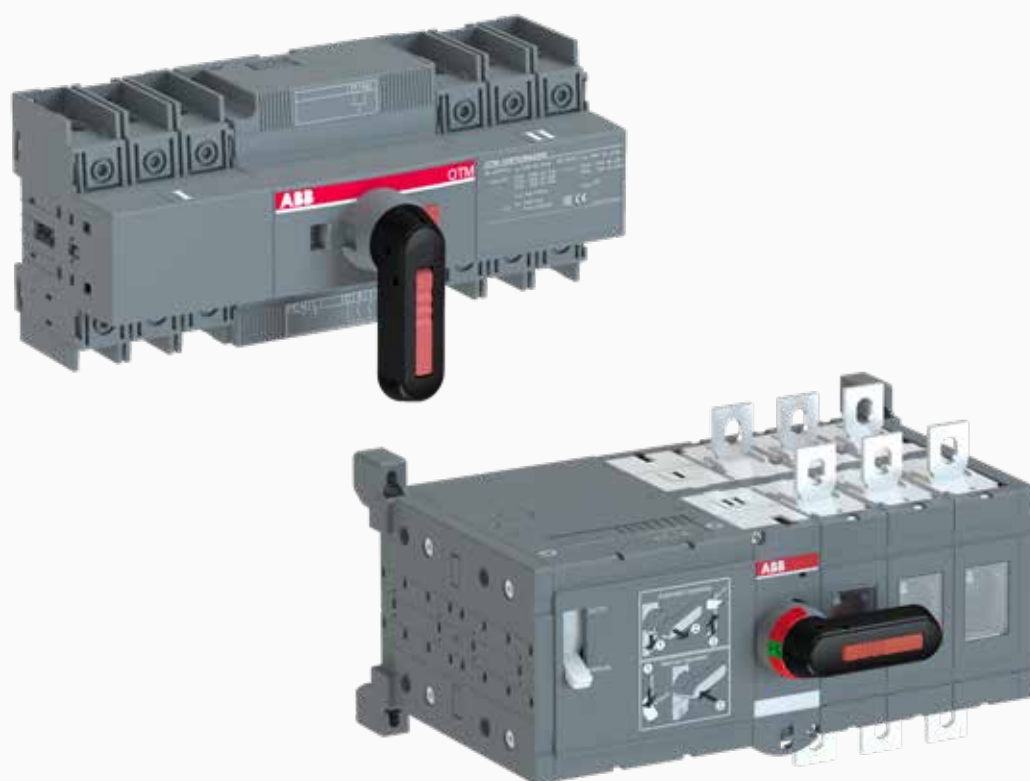




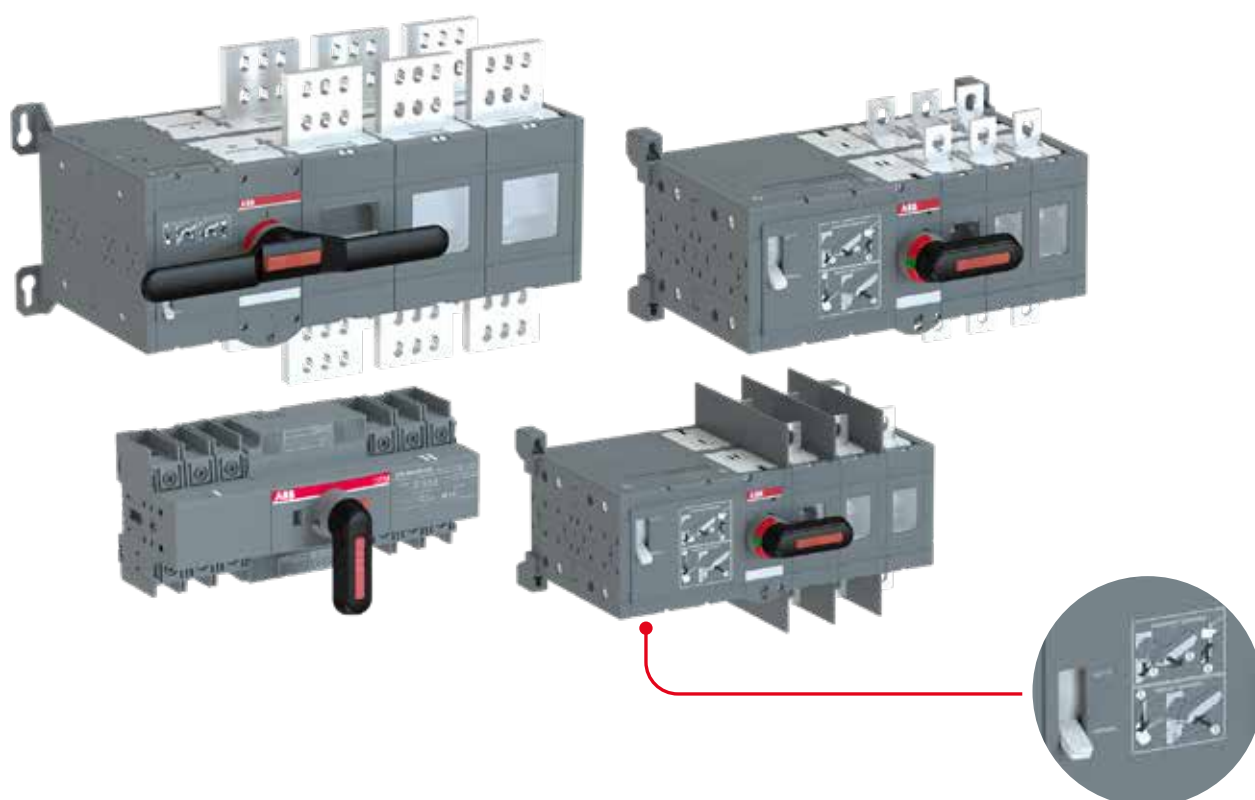
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Motorized change-over switches

Uninterrupted power supply with motorized functionality



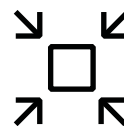
High performance level

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



Safe and reliable

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



Space-saving design

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

Motorized change-over switches

Technical data for OTM16...125_C

Motorized change-over switches

Data according to IEC 60947-3				Switch size				
				OTM40_	OTM63_	OTM80_	OTM100_	OTM125_
Rated insulation voltage and rated operational voltage AC20/DC20	Pollution degree 3	V		800	800	800	800	800
Dielectric strength	50 Hz 1min.	kV		6	6	6	6	6
Rated impulse withstand voltage		kV		8	8	8	8	8
Rated thermal current and rated operational current AC20/DC20	/ ambient 40°C	In open air	A	40	63	80	115	125
	/ ambient 40°C	In enclosure	A	40	63	80	115	125
	/ ambient 60°C	In enclosure	A	32	50	63	80	100
..with minimum conductor cross section		Cu	mm ²	10	16	25	35	50
Rated operational current, AC-21A	up to 500 V	A		40	63	80	100	125
	690 V	A		40	63	80	100	125
Rated operational current, AC-22A	up to 500 V	A		40	63	80	100	125
	690 V	A		40	63	80	100	125
Rated operational current, AC-23A	up to 415 V	A		40	63	80	80	90
	500 V	A		40	60	60	60	70
	690 V	A		40	40	40	40	50
Rated operational current / poles in series, DC-21A	up to 48 V	A		40/1	63/1	80/1	100/1	125/1
	110 V	A		40/2	63/2	80/2	100/2	125/2
	220 V	A		40/4	63/4	80/4	100/4	100/4
Rated operational current / poles in series, DC-22A	up to 48 V	A		40/1	63/1	80/1	100/1	125/1
	110 V	A		40/2	63/2	80/2	100/2	125/2
	220 V	A		40/4	63/4	80/4	80/4	80/4
Rated operational current / poles in series, DC-23A	up to 48 V	A		40/1	63/1	80/1	100/1	125/1
	110 V	A		40/2	63/2	80/2	100/2	125/2
	220 V	A		40/4	63/4	63/4	63/4	63/4
Rated operational power, AC-23A ¹⁾ The kW-ratings are accurate for 3-phase 1500 R.P.M. standard asynchronous motors	230 V	kW		7.5	15	22	22	22
	400 V	kW		18.5	30	37	37	45
	415 V	kW		18.5	30	37	37	45
	500 V	kW		22	37	37	37	45
	690 V	kW		37	37	37	37	45
Rated breaking capacity in category AC-23	up to 415 V	A		320	504	640	640	720
	500 V	A		320	480	480	480	560
	690 V	A		320	320	320	320	400
Rated conditional short-circuit current I_p (r.m.s.) and corresponding max. allowed cut-off current $\hat{I}_c$ (peak) value. The cut-off current $\hat{I}_c$ refers to values listed by fuse manufacturers (single phase test acc. to IEC60269).	I_p (r.m.s.) 50 kA, 415 V Max. OFA_ fuse size	$\hat{I}_c$ (peak) gG/aM	kA A/A	16.5 125/125	16.5 125/125	16.5 125/125	16.5 125/125	16.5 125/125
	I_p (r.m.s.) 18 kA, 690 V Max. OFA_ fuse size	$\hat{I}_c$ (peak) gG	kA A	11 125	11 125	11 125	11 125	11 125
	I_p (r.m.s.) 50 kA, 690 V Max. OFA_ fuse size	$\hat{I}_c$ (peak) gG/aM	kA A/A	10 63/63	10 63/63	10 63/63	10 63/63	10 63/63
Rated short-time withstand current	I_{cw} (r.m.s.)	690 V 1s	kA	2.5	2.5	2.5	2.5	2.5
Rated short-time making capacity ²⁾	I_{cm} (peak)	690 V	kA	3.6	3.6	3.6	3.6	3.6
Power loss / pole	With rated current		W	1.6	2.8	3.5	4.0	6.3
Mechanical endurance	Number of oper. cycles ³⁾	Cycles		10 000	10 000	10 000	10 000	10 000
Cable size	Cu-wire size suitable for terminal clamps	mm ²		2.5-25/2x2.5-16	10-70	10-70	10-70	10-70
		AWG		14-4/2x14-6	8-00	8-00	8-00	8-00
Terminal tightening torque	Counter torque required		Nm	6	6	6	6	6
Operating torque	3-pole switches		Nm	5	5	5	5	5
Weight without accessories	3-pole switch		kg	1.37	1.37	1.37	1.37	1.37
	4-pole switch		kg	1.60	1.60	1.60	1.60	1.60
Data according to IEC 60947-6-1								
Class of equipment				PC	PC	PC	PC	PC
Rated short-time withstand current	I_{cw} (r.m.s.)	690 V 0.1s	kA	5	5	5	5	5
Conditional short-circuit current	I_{cc} (r.m.s.)	415 V	kA	50	50	50	50	50
Corresponding fuse rating	gG/aM fuse	415 V	A	125	125	125	125	125
Rated operational current, AC-31B		up to 415 V	A	40	63	80	100	125
Rated operational current, AC-32B		up to 415 V	A	40	63	80	100	125
Rated operational current, AC-33B		up to 415 V	A	40	63	80	80	80

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

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

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

Motorized change-over switches

Technical data for OTM160...800_C

Motorized change-over switches

				Switch size						
Data according to IEC 60947-3				OT_160_	OT_200_	OT_250_	OT_315_	OT_400_	OT_630_	OT_800_
Rated insulation voltage and rated operational voltage AC20/DC20 ¹⁾	Pollution degree 3 ²⁾	V		1000	1000	1000	1000	1000	1000	1000
Dielectric strength	50 Hz 1min.	kV		10	10	10	10	10	10	10
Rated impulse withstand voltage ³⁾		kV		12	12	12	12	12	12	12
Rated thermal current and rated operational current AC20/DC20	/ ambient 40°C	In open air	A	160	200	250	315	400	630	800
	/ ambient 40°C	In enclosure	A	160	200	250	315	400	630	800
..with minimum conductor cross section	Cu	mm ²		70	95	120	185	240	2x185	2x240
Rated operational current, AC-21A	up to 500 V	A		160	200	250	315	400	630	800
	690 V	A		160	200	250	315	400	630	800
Rated operational current, AC-22A	up to 500 V	A		160	200	250	315	400	630	800
	690 V	A		160	200	250	315	400	630	800
Rated operational current, AC-23A	up to 415 V	A		160	200	250	315	400	630	800
	440 V	A		160	200	250	315	400	630	800
	500 V	A		160	200	250	315	400	630	800
	690 V	A		160	200	250	315	400	630	800
	≤ 110 V	A		160/2	200/2	250/2	315/1 ¹⁾	400/1 ¹⁾	630/1	800/1
Rated operational current / poles in series, DC-21A ⁶⁾	220 V	A		160/2	200/2	250/2	315/2 ²⁾	400/2 ²⁾	630/1	800/1
	440 V	A		160/3	200/3	230/3	315/3	360/3	630/2	720/2
	660 V	A		160/4	200/4	200/4	315/4	315/4	630/4 ³⁾	630/4 ³⁾
	230 V	kW		45	60	75	100	132	200	250
Rated operational power, AC-23A ²⁾ The kW-ratings are accurate for 3-phase 1500 R.P.M. standard asynchronous motors	400 V	kW		90	110	140	160	220	355	450
	415 V	kW		90	110	145	180	230	355	450
	500 V	kW		110	132	170	220	280	400	560
	690 V	kW		160	200	250	315	400	630	800
	up to 415 V	A		1 280	1 600	2 000	2 520	3 200	5 040	6 400
Rated breaking capacity in category AC-23	500 V	A		1 280	1 600	2 000	2 520	3 200	5 040	6 400
	690 V	A		1 280	1 600	2 000	2 520	3 200	5 040	6 400
	690 V 0.15s	kA		15	15	15	31	31	38	38
Rated conditional short-circuit current I _p (r.m.s.) 80 kA, 415 V Max. OFA_ fuse size I _p (r.m.s.) 100 kA, 500 V Max. OFA_ fuse size I _p (r.m.s.) 80 kA, 690 V Max. OFA_ fuse size	I _p (r.m.s.) 80 kA, 415 V	I _c (peak)	kA	40.5	40.5	40.5	59	59	83.5	83.5
	Max. OFA_ fuse size	gG/aM	A/A	355/315	355/315	355/315	500/500	500/500	800/1 000	800/1 000
	I _p (r.m.s.) 100 kA, 500 V	I _c (peak)	kA	40.5	40.5	40.5	61.5	61.5	90	90
Rated short-time withstand current I _{cw} (r.m.s.)	Max. OFA_ fuse size	gG/aM	A	315/315	315/315	315/315	500/450	500/450	800/800	800/800
	I _p (r.m.s.) 80 kA, 690 V	I _c (peak)	kA	40.5	40.5	40.5	59	59	83.5	83.5
	Max. OFA_ fuse size	gG/aM	A	355/315	355/315	355/315	500/500	500/500	800/1 000	800/1 000
Rated short-time making capacity ³⁾	690 V 0.15s	kA		15	15	15	31	31	38	38
	690 V 0.25s	kA		15	15	15	24	24	36	36
	690 V 1s	kA		8	8	8	15	15	20	20
Rated short-time making capacity ³⁾	I _{cm} (peak) ⁴⁾	kA		30	30	30	65	65	80	80
Power loss / pole	With rated current	W		2.4	4	6.5	6.5	10	25	40
Mechanical endurance	Number of oper. cycles ⁵⁾	Cycles		8 000	8 000	8 000	8 000	8 000	5 000	5 000
Terminal bolt size	Metric thread diameter x length	mm		M8x25	M8x25	M8x25	M10x30	M10x30	M12x40	M12x40
Terminal tightening torque	Counter torque required	Nm		15-22	15-22	15-22	30-44	30-44	50-75	50-75
Operating torque	3-pole change-over switches	Nm		7	7	7	16	16	27	27
	4-pole switch	kg		5.7	5.7	5.7	10.2	10.2	17.5	17.5
Weight without accessories	3-pole switch	kg		6.4	6.4	6.4	11.4	11.4	20.4	20.4
Data according to IEC 60947-6-1										
Class of equipment				PC	PC	PC	PC	PC	PC	PC
Rated short-time withstand current	I _{cw} (r.m.s.)	kA		15	15	15	25	25	38	38
Rated operational current, AC-31B	up to 415 V	A		160	200	250	315	400	650	720
Rated operational current, AC-33B	up to 415 V	A		160	200	250	315	400	650	650

¹⁾ Utilization category B

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

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

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

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

⁶⁾ Further ratings on request

Motorized change-over switches

Technical data for OTM1000...3200_C

Motorized change-over switches

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

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

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

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

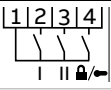
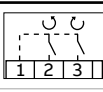
⁴⁾ Operating cycle: O - I - O - II - O

⁵⁾ Category AC-21B, up to 415V

Motorized change-over switches

Motor operator performance data for OTM40...125_C

Motor operator

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

¹⁾ Under nominal conditions

Motorized change-over switches

Motor operator performance data for OTM160...3200_C

Motor operator

Data according to IEC 60947				Switch size					
				160...250	315...400	630...800	1000...1600	2000...3200	
Rated operational voltage U _e	Pollution degree 3	50/60 Hz	V AC					220 - 240	
			V AC/DC					110 - 125	
			V DC					48	
			V DC					24	
Operating voltage range								0,85 - 1,1 x U _e	
Operating time ¹⁾	90° I-O, O-I, O-II, II-O	220-240VAC	s	0.4-1.0	0.4-1.0	0.4-1.0	0.5-1.5	0.5-1.5	
		110-125VAC/DC	s	0.5-1.5	0.5-1.5	0.6-1.2	0.5-1.5	0.5-1.5	
		48VDC	s	0.5-1.5	0.4-1.0	0.6-1.6	0.5-1.5	0.5-1.5	
		24VDC	s	0.4-1.0	0.4-1.0	0.5-1.5	1.0-2.0	1.0-2.0	
Operating transfer time ¹⁾	180° I-O-II, II-O-I	220-240VAC	s	1.0-2.0	0.9-2.0	0.9-2.0	1.5-3.0	1.5-3.0	
		110-125VAC/DC	s	1.1-2.5	1.2-2.6	1.2-3.0	1.5-3.0	1.5-3.0	
		48VDC	s	1.4-2.5	1.0-2.0	1.3-3.0	1.5-3.0	1.5-3.0	
		24VDC	s	1.0-2.0	1.0-2.0	1.1-2.5	2.0-3.5	2.0-3.5	
OFF -time when operating I-II or II-I ¹⁾	180° I-II, II-I	220-240VAC	s	0.4-1.0	0.4-1.0	0.4-1.0	0.5-1.5	0.5-1.5	
		110-125VAC/DC	s	0.4-1.1	0.5-1.5	0.6-1.5	0.5-1.5	0.5-1.5	
		48VDC	s	0.5-1.1	0.4-1.0	0.7-1.6	0.5-1.5	0.5-1.5	
		24VDC	s	0.4-1.0	0.4-1.0	0.5-1.5	0.8-1.7	0.8-1.7	
Nominal current I _n ¹⁾		220-240VAC	A	0.2	0.5	0.7	1.8	1.8	
		110-125VAC/DC	A	0.5	0.6	0.8	3.0	3.0	
		48VDC	A	1.1	2.1	2.6	5.3	5.3	
		24VDC	A	3.3	4.2	4	8.0	8.0	
Current inrush ¹⁾		220-240VAC	A	1.3	2.1	2.8	7.7	7.7	
		110-125VAC/DC	A	2.1	2.5	4.6	13.3	13.3	
		48VDC	A	4.4	8.3	8.4	22.4	22.4	
		24VDC	A	16.8	17.5	22.4	26.6	26.6	
Overload fuse	Type / I _n / Capacity	220-240VAC	mA	T/315/H	T/500/H	T/1 000/H	T/2 000/H	T/2 000/H	
		110-125VAC/DC	mA	T/500/H	T/630/H	T/1 000/H	T/4 000/H	T/4 000/H	
		48VDC	A	T/1,25/H	T/2,5/H	T/2,5/H	T/5/H	T/5/H	
		24VDC	A	T/4,0/H	T/5,0/H	T/5,0/H	T/10/H	T/10/H	
Operating rate	Size		mm	5x20	5x20	5x20	5x20	5x20	
		Cycle 0-I-O-II-O, max. continuous	220-240VAC	cycles/min	1	1	1	0.5	0.5
			110-125VAC/DC	cycles/min	1	1	1	0.5	0.5
			48VDC	cycles/min	1	1	1	0.5	0.5
	24VDC		cycles/min	1	1	1	0.5	0.5	
	Max. short-time, ≤ 10 cycles	220-240VAC	cycles/min	10	10	10	5	5	
		110-125VAC/DC	cycles/min	10	10	10	5	5	
		48VDC	cycles/min	10	10	10	5	5	
24VDC		cycles/min	10	10	10	5	5		
Overvoltage category								III	
Rated impulse withstand voltage U _{imp}			kV					4	
Dielectric strength			50 Hz 1 min.	kV				1.5	
Impulse command			Min. impulse duration	ms				100	
Terminals									
Voltage supply wiring for U _e								PE - N - L	
Cross section			solid/stranded	mm ²				1.5 - 2.5	
Short-circuit protection device			max. MCB	A				C16	
Control terminal (no SELV)								C - II - I - O	
Cross section			solid/stranded	mm ²				1.5 - 2.5	
Maximum cable length				m				100	
State information of locking (no SELV)									
Handle attached or motor operator locked			11-12-14 (C/O)					5A/250V/cosφ=1	
Locking motor operator			23-24 (NO)					5A/250V/cosφ=1	
Short-circuit protection device			Max. MCB	A				C2	
Protection degree								IP20	
Operating temperature				°C				-25...+55	
Transportation and storage temperature				°C				-40...+70	
Max. altitude				m				2 000	

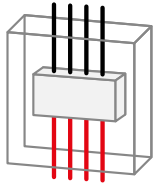
¹⁾ Under nominal conditions

Product integration data in compliance with IEC / EN 61439-1

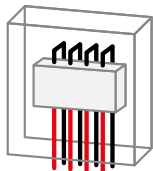
Motorized change-over and automatic transfer switches

Dimensions of the functional unit			Max operational current I _e (A)							
			OT_125_	OT_160_	OT_200_	OT_250_	OT_315_	OT_400_	OT_630_	OT_800_
Height (mm)	Width (mm)	Depth (mm)	Frame R0	Frame R1	Frame R1	Frame R1	Frame R2	Frame R2	Frame R3	Frame R3
350	300	200	125							
355	610	250		160	200	250				
700	600	300					315	400		
800	600	330							630	800
500	500	210	125							
760	600	300		160	200	250	315	400		
1200	600	500							630	720
500	500	210	125							
800	600	300		160	200	250	315	400		
Cable size			mm ²	1 x 70	1 x 95	1 x 120	1 x 185	1 x 240	2 x 185	2 x 240
Cu Busbar			mm ²					2 x 120		
Heat dissipation with rated current			W / pole	6,3	2,4	4	6,5	6,5	10	25
Terminal bolt size			mm		M8 x 25	M8 x 25	M8 x 25	M10 x 30	M10 x 30	M12 x 40
Terminal tightening torque			Nm	6	15-22	15-22	15-22	30-44	30-44	50-75
Min distance to first cable fixing support			mm		150	150	150	150	150	150

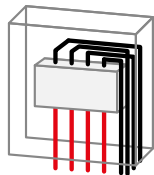
Dimensions of the functional unit			Max operational current I _e (A)				
			OT_1000_	OT_1250_	OT_1600_	OT_2000_	OT_2500_
Height (mm)	Width (mm)	Depth (mm)	Frame R4	Frame R4	Frame R4	Frame R5	Frame R5
1800	1005	775	1000	1250	1600*		
1600	800	600		1250	1600*		
1800	1000	1000				2000	2200
			*bottom in top out ventilation				
Cable size			mm ²	4 x 240	4 x 240	4 x 240	8 x 240
Cu Busbar			mm ²	2 x 300	2 x 400	2 x 500	3 x 500
Heat dissipation with rated current			W / pole	19	29	48	55
Terminal bolt size			mm	M12 x 60	M12 x 60	M12 x 60	M12 x 60
Terminal tightening torque			Nm	50-75	50-75	50-75	50-75
Min distance to first cable fixing support			mm	150	150	150	150



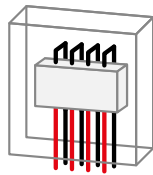
1)



2)



3)



4)



Circuit breaker protected short-circuit withstand*

Subjected to MCCB's short circuit current limiting curves reading precision and data. T stands for coordination possible up to the Max Icu value of the breaker. Values are based on breaker manufacturers published characteristics at the time of the publication.

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ABB

		XT1					XT2					XT3	
Serie	In / Icu	B	C	N	S	H	N	S	H	L	V	N	S
		18 kA	25 kA	36 kA	50 kA	70 kA	36 kA	50 kA	70 kA	120 kA	150 kA	36 kA	50 kA
OTM	160 A	T	T	T	T	50	T	T	50	50	50	T	T
	200 A	T	T	T	T	50	T	T	50	50	50	T	T
	250 A	T	T	T	T	50	T	T	50	50	50	T	T
	315 A	T	T	T	T	T	T	T	T	T	100	T	T
	400 A	T	T	T	T	T	T	T	T	T	100	T	T
	630 A	T	T	T	T	T	T	T	T	T	T	T	T
	800 A	T	T	T	T	T	T	T	T	T	T	T	T
	1000 A	T	T	T	T	T	T	T	T	T	T	T	T
	1250 A	T	T	T	T	T	T	T	T	T	T	T	T
	1600 A	T	T	T	T	T	T	T	T	T	T	T	T
	2000 A	T	T	T	T	T	T	T	T	T	T	T	T
	2500 A	T	T	T	T	T	T	T	T	T	T	T	T
	3200 A	T	T	T	T	T	T	T	T	T	T	T	T

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ABB

		XT4					T5				
Serie	In / Icu	N	S	H	L	V	N	S	H	L	V
		36 kA	50 kA	70 kA	120 kA	150 kA	36 kA	50 kA	70 kA	120 kA	200 kA
OTM	160 A	T	T	50	50	50	T	T	50	50	50
	200 A	T	T	50	50	50	T	T	50	50	50
	250 A	T	T	50	50	50	T	T	50	50	50
	315 A	T	T	T	100	100	T	T	T	100	100
	400 A	T	T	T	100	100	T	T	T	100	100
	630 A	T	T	T	T	T	T	T	T	T	T
	800 A	T	T	T	T	T	T	T	T	T	T
	1000 A	T	T	T	T	T	T	T	T	T	T
	1250 A	T	T	T	T	T	T	T	T	T	T
	1600 A	T	T	T	T	T	T	T	T	T	T
	2000 A	T	T	T	T	T	T	T	T	T	T
	2500 A	T	T	T	T	T	T	T	T	T	T
	3200 A	T	T	T	T	T	T	T	T	T	T

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ABB

		T6				T7				E1.2	E1.2
Serie	In / Icu	N	S	H	L	S	H	L	V	L	L
		36 kA	50 kA	70 kA	100 kA	50 kA	70 kA	120 kA	150 kA	150 kA	150 kA
OTM	160 A	22	22	22	22						
	200 A	22	22	22	22						
	250 A	22	22	22	22						
	315 A	28	28	28	28	30	30	30	30		
	400 A	28	28	28	28	30	30	30	30		
	630 A	T	T	60	60	40	40	40	40		
	800 A	T	T	60	60	40	40	40	40		
	1000 A	T	T	T	T	T	T	100	100	50	50
	1250 A	T	T	T	T	T	T	100	100	50	50
	1600 A	T	T	T	T	T	T	100	100	50	50
	2000 A	T	T	T	T	T	T	100	100	100	100
	2500 A	T	T	T	T	T	T	100	100	100	100
	3200 A	T	T	T	T	T	T	100	100	100	100

Notes

**ABB Oy**

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> Low Voltage Products and Systems

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