

Change-over and transfer switches 16...2500A

Manual operation



OT16F	OT63F	OT100F
OT25F	OT80F	OT125F
OT40F		

I_{th} /A	25	32	40	63	80	115	125
I_R /AC-22A, $\leq 415V$	16	25	40	63	80	100	125
I_R /AC-23A, $\leq 415V$	16	20	23	45	75	80	90

I_{th} /A							
I_R /AC-22A, $\leq 415V$							
I_R /AC-23A, $\leq 415V$							
I_R /AC-21B, $\leq 415V$							

Motor operation



OTM160E_C	OTM160E_WC	OTM315E_C
OTM200E_C	OTM200E_WC	OTM400E_C
OTM250E_C	OTM250E_WC	

I_{th} /A	160	200	250	160	200	250	315	400
I_R /AC-22A, $\leq 415V$	160	200	250	160	200	250	315	400
I_R /AC-23A, $\leq 415V$	160	200	250	160	200	250	315	400
I_R /AC-21B, $\leq 415V$								

Automatic operation



OTM160E_C_D	OTM160E_WC_D
OTM200E_C_D	OTM200E_WC_D
OTM250E_C_D	OTM250E_WC_D

I_{th} /A	160	200	250	160	200	250
I_R /AC-22A, $\leq 415V$	160	200	250	160	200	250
I_R /AC-23A, $\leq 415V$	160	200	250	160	200	250

Accessories

Optional handles

Terminal shrouds

Extended shafts

Connecting accessories

Auxiliary contacts

Locking accessories



OT160E
OT200E
OT250E

OT160E_W
OT200E_W
OT250E_W

OT315E
OT400E

OT630E
OT800E

160 200 250
160 200 250
160 200 250

160 200 250
160 200 250
160 200 250

315 400
315 400
315 400

630 800
630 800
630 800



OT1000E
OT1250E

OT1600E

OT2000E
OT2500E

1000 1250
1000 1250
1000 1250

1600
1600
1250

2000 2500
2000 2500



OTM630E_C
OTM800E_C

OTM1000E_C
OTM1250E_C

OTM1600E_C

OTM2000E_C
OTM2500E_C

630 800
630 800
630 800

1000 1250
1000 1250
1000 1250

1600
1600
1250

2000 2500
2000 2500



OTM315E_C_D
OTM400E_C_D

OTM630E_C_D
OTM800E_C_D

OTM1000E_C_D
OTM1250E_C_D

OTM1600E_C_D

315 400
315 400
315 400

630 800
630 800
630 800

1000 1250
1000 1250
1000 1250

1600
1600
1250

Manual change-over switches

Technical data

Manual change-over switches

Data according to IEC 60947-3

	Switch size		OT16_
Rated insulation voltage and rated operational voltage AC20/DC20	Pollution degree 3	V	750
Dielectric strength	50 Hz 1min.	kV	6
Rated impulse withstand voltage		kV	8
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 ²
Rated operational current, AC-21A	up to 500 V	A	16
	690 V	A	16
Rated operational current, AC-22A	up to 500 V	A	16
	690 V	A	16
Rated operational current, AC-23A	up to 415 V	A	16
	440 V	A	16
	500 V	A	16
	690 V	A	10
Rated operational current / poles in series, DC-21A	up to 48 V ¹⁾	A	16/1
	110 V	A	16/2
	220 V	A	16/3
	440 V	A	16/4
	500 V	A	16/4
Rated operational current / poles in series, DC-22A	up to 48 V ¹⁾	A	16/1
	110 V	A	16/2
	220 V	A	16/3
	440 V	A	10/4
Rated operational current / poles in series, DC-23A	up to 48 V ¹⁾	A	16/1
	110 V	A	16/2
	220 V	A	16/4
	440 V	A	10/4
Rated operational power, AC-23A ²⁾	230 V	kW	3
The kW-ratings are accurate for 3-phase 1500 R.P.M. standard asynchronous motors	400 V	kW	7.5
	415 V	kW	7.5
	500 V	kW	7.5
	690 V	kW	7.5
Rated breaking capacity in category AC-23	up to 415 V	A	128
	500 V	A	128
	690 V	A	80
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.) 100 kA, 500 V Max. OFA_ fuse size	\hat{i}_c (peak) gG/aM	kA A
Rated short-time withstand current	I_{cw} (r.m.s.)	690 V 1s	kA
Rated short-time making capacity ³⁾	I_{cm} (peak)	690 V	kA
Power loss / pole	With rated current		W
Mechanical endurance	Number of oper. cycles ⁴⁾		Cycles
Mechanical endurance / switch	Number of operations		Oper.
Cable size	Cu-wire size suitable for terminal clamps		mm ² 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

¹⁾ Below 48 V, two poles in parallel up to OT80 are recommended particularly in polluted atmosphere.

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

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

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

Data according to UL508 (Listed)

Current		A	16
Horsepower, 3-phase	200 V	HP	3
	208 V	HP	3
	240 V	HP	5
	480 V	HP	10
	600 V	HP	10

Manual change-over switches

Technical data

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

Manual, motorized and automatic transfer switches

Technical data

Manual, motorized and automatic transfer switches

Data according to IEC 60947-3

		Switch size		OT_160_	OT_200_	OT_250_
Rated insulation voltage and rated operational voltage AC20/DC20 ¹⁾		Pollution degree 3	V	1000	1000	1000
Dielectric strength		50 Hz 1min.	kV	10	10	10
Rated impulse withstand voltage			kV	12	12	12
Rated thermal current and rated operational current AC20/DC20	/ ambient 40°C	In open air	A	160	200	250
..with minimum conductor cross section	/ ambient 40°C	In enclosure	A	160	200	250
Rated operational current, AC-21A		Cu	mm ²	70	95	120
Rated operational current, AC-22A		up to 500 V	A	160	200	250
Rated operational current, AC-23A		690 V	A	160	200	250
Rated operational current, AC-23A		up to 415 V	A	160	200	250
Rated operational current / poles in series, DC-21A...23A		440 V	A	160	200	250
		500 V	A	160	200	250
		690 V	A	160	200	250
Rated operational power, AC-23A ³⁾		≤ 110 V	A	160/2	200/2	250/2
The kW-ratings are accurate for 3-phase 1500 R.P.M. standard asynchronous motors		220 V	A	160/2	200/2	250/2
		440 V	A	160/3	200/3	230/3
		660 V	A	160/4	200/4	200/4
Rated operational power, AC-23A ³⁾		230 V	kW	45	60	75
The kW-ratings are accurate for 3-phase 1500 R.P.M. standard asynchronous motors		400 V	kW	90	110	140
		415 V	kW	90	110	145
		500 V	kW	110	132	170
		690 V	kW	160	200	250
Rated breaking capacity in category AC-23		up to 415 V	A	1 280	1 600	2 000
		500 V	A	1 280	1 600	2 000
		690 V	A	1 280	1 600	2 000
Rated conditional short-circuit current I_p (r.m.s.) and cut-off current \hat{i}_c (peak) value.	I_p (r.m.s.) 80 kA, 415 V	\hat{i}_c (peak)	kA	40.5	40.5	40.5
The cut-off current \hat{i}_c refers to values listed by fuse manufacturers (single phase test acc. to IEC60269).	Max. OFA_fuse size	gG/aM	A/A	355/315	355/315	355/315
	I_p (r.m.s.) 100 kA, 500 V	\hat{i}_c (peak)	kA	40.5	40.5	40.5
	Max. OFA_fuse size	gG/aM	A	315/315	315/315	315/315
	I_p (r.m.s.) 80 kA, 690 V	\hat{i}_c (peak)	kA	40.5	40.5	40.5
	Max. OFA_fuse size	gG/aM	A	355/315	355/315	355/315
Rated short-time withstand current	I_{cw} (r.m.s.)	690 V 0.15s	kA	15	15	15
		690 V 0.25s	kA	15	15	15
		690 V 1s	kA	8	8	8
Rated short-time making capacity ⁴⁾	I_{cm} (peak) ⁵⁾	690 V	kA	30	30	30
Power loss / pole	With rated current		W	2.4	4	6.5
Mechanical endurance	Number of oper. cycles ⁶⁾		Cycles	8 000	8 000	8 000
Mechanical endurance / switch	Number of operations		Oper.	16 000	16 000	16 000
Terminal bolt size	Metric thread diameter x length		mm	M8x25	M8x25	M8x25
Terminal tightening torque	Counter torque required		Nm	15-22	15-22	15-22
Operating torque	Typical for 3-pole switches		Nm	7	7	7
Weight without accessories						
Manual change-over switches	3-pole switch		kg	2.5	2.5	2.5
	4-pole switch		kg	3.2	3.2	3.2
Motorized and automatic transfer switches	3-pole switch		kg	5.7	5.7	5.7
	4-pole switch		kg	6.4	6.4	6.4

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	15	15	15
Rated operational current, AC-31B		up to 415 V	A	160	200	250
Rated operational current, AC-33B		up to 415 V	A	160	200	250

¹⁾ Automatic transfer switches, operational voltage max. 415 V AC.

²⁾ Utilization category B

³⁾ These values are given for guidance and may vary acc. to the motor manufacturer.

⁴⁾ Short circuit duration >50ms, without fuse protection

⁵⁾ Max. distance from switch frame to nearest busbar / cable support 150 mm

⁶⁾ Operating cycle: O - I - O - II - O

⁷⁾ Category AC-21B, up to 415V

⁸⁾ For manual change-over switches.

⁹⁾ For motorized and automatic transfer switches.

Manual, motorized and automatic transfer switches

Technical data

OT_315_	OT_400_	OT_630_	OT_800_	OT_1000_	OT_1250_	OT_1600_	OT_2000_	OT_2500_
1000	1000	1000	1000	1 000	1 000	1 000	1 000	1 000
10	10	10	10	10	10	10	10	10
12	12	12	12	12	12	12	12	12
315	400	630	800	1 000	1 250	1 600	2000	2500
315	400	630	800					
185	240	2 x 185	2x240	2 x 300	2 x 400	2 x 500	3 x 500	4 x 500
315	400	630	800	1 000	1 250	1 600	2000 ⁷⁾	2500 ⁷⁾
315	400	630	800	1 000	1 250	1 600		
315	400	630	800	1 000	1 250	1 600		
315	400	630	800	1 000	1 250	1 600		
315	400	630	800	1 000	1 250	1 250		
315	400	630	800	1 000	1 250	1 250		
315	400	630	800	1 000	1 250	1 250		
315	400	630	800	1 000	1 250	1 250		
315/1 ²⁾	400/1 ²⁾	630/1	800/1					
315/2 ²⁾	400/2 ²⁾	630/1	800/1					
315/3	360/3	630/2	720/2					
315/4	315/4	630/4 ²⁾	630/4 ²⁾					
100	132	200	250	315	400	400		
160	220	355	450	560	710	710		
180	230	355	450	560	710	710		
220	280	400	560	710	900	900		
315	400	630	800	1 000	1 200	1 200		
2 520	3 200	5 040	6 400	10 000	10 000	10 000		
2 520	3 200	5 040	6 400	10 000	10 000	10 000		
2 520	3 200	5 040	6 400	10 000	10 000	10 000		
59	59	83.5	83.5	100	100	100		
500/500	500/500	800/1 000	800/1 000	1 250/1 250	1 250/1 250	1 250/1 250		
61.5	61.5	90	90	106	106	106		
500/450	500/450	800/800	800/800	1 250/1 250	1 250/1 250	1 250/1 250		
59	59	83.5	83.5					
500/500	500/500	800/1 000	800/1 000					
31	31	38	38	50	50	50	50	50
24	24	36	36	50	50	50	50	50
15	15	20	20	50	50	50	55	55
65	65	80	80	92	92	92	110	110
6.5	10	25	40	19	29	48	55	85
8 000	8 000	5 000	5 000	3 000	3 000	3 000	2000	2000
16 000	16 000	10 000	10 000	6 000	6 000	6 000	4000	4000
M10x30	M10x30	M12x40	M12x40	M12x60	M12x60	M12x60	M12x60	M12x60
30-44	30-44	50-75	50-75	50-75	50-75	50-75	50-75	50-75
16	16	27	27	78	78	78	78	78
4.7	4.7	12.8	12.8	32.3	32.3	34.8	48	48
5.8	5.8	15.6	15.6	40.2	40.2	43.3	60	60
10.2	10.2	17.5	17.5	42	42	44	56	56
11.4	11.4	20.4	20.4	50	50	52	70	70
PC	PC	PC	PC	PC	PC	PC	PC	PC
25	25	38	38	50	50	50	50	50
315	400	630 ⁸⁾ /650 ⁹⁾	800 ⁸⁾ /720 ⁹⁾	1 000	1 250	1 600	2000 ⁸⁾	2000 ⁸⁾
315	400	630 ⁸⁾ /650 ⁹⁾	800 ⁸⁾ /650 ⁹⁾	1 000	1 000	1 000		

Motorized change-over switches

Technical data, motor operators

Data for motor operator

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		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-0, 0-I, 0-II, II-0	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-0-II, II-0-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 / In / Capacity	220-240VAC	mA	T/315/H	T/500/H	T/1000/H	T/2000/H	T/2000/H	
		110-125VAC/DC	mA	T/500/H	T/630/H	T/1000/H	T/4000/H	T/4000/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-0-II-0 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}					4				
Dielectric strength	50 Hz 1 min.				1,5				
Impulse command	Min. impulse duration				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.fuse size		A			16			
Push-button control (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		MCB type and size				C/2A			
Protection degree						IP20			
Operating temperature			°C			-25...+55			
Transportation and storage temperature			°C			-40...+70			
Max. altitude			m			2000			

¹⁾ Under nominal conditions

Automatic transfer switches

Technical data, power circuit, motor operators

Automatic transfer switches

Technical data

Automatic transfer switch, power circuit	Value
OTM C2D	
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
OTM C3D	
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
OTM C8D	
Rated operational voltage U _e	100 - 415 V AC +/- 20 %
Phase - neutral	57.7 - 240 V AC +/- 20 %
Rated frequency	50 / 60 Hz +/- 10 %
Rated impulse withstand voltage U _{imp}	6 kV
AUX voltage, if voltage 57.7 - 109 V AC	24 V DC - 110 V DC (-10 to 15 %)
Operating temperature	-5...+40°C
Transportation and storage temperature	-40...+70°C
Altitude	Max.2000m

Motor operator, control circuit

Motor operator, control circuit	OTM160...250	OTM315...400	OTM630...800	OTM1000...1600		
Rated operational voltage U [V]	Pollution degree 3	50/60 Hz	220 - 240 V AC			
Operating voltage range	0.8...1.2 x U _e					
Operating times	See the table below					
Nominal current I _n ^{a)}	A	0.2	0.5	0.7	1.8	
Current Inrush ^{a)}	A	1.3	2.1	2.8	7.7	
Overload fuse	Type / I _n / Capacity	mA	T/315/H	T/500/H	T/1000/H	T/2000/H
Operating rate	Size	mm	5x20	5x20	5x20	5x20
	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 _{imp}	kV		4			
Dielectric strength	50 Hz 1 min.		kV		1.5	
Terminals						
Voltage supply wiring for U					PE - N - L	
Cross section	solid/stranded	mm ²	1.5 - 2.5			
Short-circuit protection device	max.fuse size	A	16			
State information of locking (no SELV)						
Cross section	solid/stranded	mm ²	1.5 - 2.5			
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	MCB type and size		C/2A			
Protection degree					IP20	
Operating temperature	°C		-25...+55			
Transportation and storage temperature	°C		-40...+70			
Max. altitude	m		2000			

Operating times

Type	Operating transfer time ^{a)}	Total transfer time ^{a) b)}	OFF-time when operating ^{a)}
	I - II, II - I [s]	I - II, II - I [s]	I - II, II - I [s]
OTM160...250_C2D	2.0 - 4.0	2.0 - 35.0	0.4 - 1.0
OTM160...250_C3D	2.0 - 4.0	2.0 - 35.0	0.4 - 1.0
OTM160...250_C8D	1.5 - 3.0	1.5 - 35.0	0.4 - 1.0
OTM315...400_C2D	2.0 - 5.0	2.0 - 35.0	0.4 - 1.0
OTM315...400_C3D	2.0 - 5.0	2.0 - 35.0	0.4 - 1.0
OTM315...400_C8D	1.5 - 3.0	1.5 - 35.0	0.4 - 1.0
OTM630...800_C2D	2.0 - 5.0	2.0 - 35.0	0.4 - 1.0
OTM630...800_C3D	2.0 - 5.0	2.0 - 35.0	0.4 - 1.0
OTM630...800_C8D	1.5 - 3.0	1.5 - 35.0	0.4 - 1.0
OTM1000...1600_C2D	3.0 - 6.0	3.0 - 36.0	0.6 - 1.5
OTM1000...1600_C3D	3.0 - 6.0	3.0 - 36.0	0.6 - 1.5
OTM1000...1600_C8D	2.5 - 4.0	2.5 - 35.0	0.6 - 1.5

^{a)} Under nominal conditions

^{b)} Ts 0s (Min) - Ts 30s (Max)

UL/CSA manual change-over switches

Technical data

Manual change-over switches

Data according to UL and CSA

		Switch size		OT200U_	OT400U_	OT600U_
Standards				UL98	UL98	UL98
				CSA 22.2#4	CSA 22.2#4	CSA 22.2#4
General use ratings - 1- or 3-phase ratings		V		600	600	600
		A		200	400	600
Horsepower, 3-phase ratings		240V	HP	75	125	200
		480V	HP	150	250	450
		600V	HP	200	350	500
Short-circuit ratings	Required protection	Circuit breaker	kA	14	25	35
		Class J/L fuse	kA	65/100	100	100
		...fuse size	A	400/200	600	800
		Class RK5 fuse	kA			100
		...fuse size	A			600

Data according to IEC 60947-3

Rated insulation voltage and rated operational voltage AC20/DC20	Pollution degree 3	V		1000	1000	1000
Dielectric strength	50 Hz 1min.	kV		10	10	10
Rated impulse withstand voltage		kV		12	12	12
Rated thermal current and rated operational current AC20/DC20	/ ambient 40°C	In open air	A	250	400	800
...with minimum conductor cross section		Cu	mm ²	120	240	2x240
Rated operational current, AC-21A		up to 690 V	A	250	400	800
Rated operational current, AC-22A		up to 500 V	A	250	400	800
		690 V	A	250	400	800
Rated operational current, AC-23A		up to 500 V	A	250	400	800
		690 V	A	250	400	800
Rated conditional short-circuit current I_p (r.m.s.) and corresponding max. allowed cut-off current \hat{i}_c peak value ¹⁾	I_p (r.m.s.) : 100 kA, 500 V	i_c (peak)	kA	40.5	61.5	90
	Max. OFA_ fuse size	gG/aM	A	315/315	500/450	800/800
	I_p (r.m.s.) : 80 kA, 690 V	i_c (peak)	kA	40.5	59	83,5
	Max. OFA_ fuse size	gG/aM	A	355/315	500/500	800/1000
Rated short-time withstand current	I_{sw} (r.m.s.)	690V, 1s	kA	8	15	20
Rated short-circuit making capacity	I_{cm} (peak)	690V	kA	30	65	80
Mechanical endurance	Number of operating cycles ²⁾		Cycles	8000	8000	5000
Mechanical endurance / switch	Number of operations		Oper.	16000	16000	10000
Terminal bolt size	Metric thread diameter x length		mm	M8x25	M10x30	M12x40
Terminal tightening torque	Counter torque required		Nm	15...22	30...44	50...75
Operating torque	3-pole switches		Nm	7	16	27
Weight without accessories	3-pole-switch		kg	2.8	5.0	13.1
	4-pole switch		kg	3.5	6.1	15.9

Data according to IEC 60947-6-1

Rated operational current	AC-31B	up to 415 V	A	250	400	800
	AC-33B	up to 415 V	A	250	400	800

¹⁾ The fuse in single-phase test according to IEC 60269.

²⁾ 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_

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