

Motorized switch-disconnectors OTM 40 to 125 Amperes



With the new range of motorized-switch disconnectors, ABB offers now a full range from 40 to 2500 Amperes. Thanks to the design, OTM40...125 are a good solution for different applications. OTM optimizes installation time and use of space and have a high performance.

Easy installation

- Tunnel terminals ensure a tight and good connection.
- With the snap-on accessories, no extra tools are needed.
- The switch can be mounted in any direction.
 - ▶ Fast and reliable installation always

A compact solution

- OTM has a very small footprint, which minimizes the need for space.
 - ▶ Reduced space means cost savings

High performance

- The motor operator has a wide operation voltage range.
- Tested according to IEC 60947-3
 - ▶ OTM is suitable for many applications

Safe to use

- OTM provides isolation, ensuring a safe maintenance work.
- All-time reliable position indication
- Finger-safe construction that prevents contact with live parts.
- Mechanical and electrical locking options available.
 - ▶ Safe and reliable operation

Technical data

OTM40...125

Motorized switch-disconnectors

Data according to IEC 60947-3			Switch size
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 ²
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 ¹⁾ The kW-ratings are accurate for 3-phase 1500 R.P.M. standard asynchronous motors		230 V 400 V 415 V 500 V 690 V	kW 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.) 18 kA, 690 V Max. OFA fuse size I_p (r.m.s.) 50 kA, 690 V Max. OFA fuse size	\hat{i}_c (peak) gG/aM \hat{i}_c (peak) gG \hat{i}_c (peak) gG/aM	kA A/A kA A kA A/A
Rated short-time withstand current	I_{sw} (r.m.s.)	690 V 1s	kA
Rated short-time making capacity ²⁾	I_{cm} (peak)	690 V	kA
Power loss / pole	With rated current		W
Mechanical endurance	Number of oper. cycles ³⁾		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 kg

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

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

³⁾ Operating cycle: O - I - O

OTM40_	OTM63_	OTM80_	OTM100_	OTM125_
800	800	800	800	800
6	6	6	6	6
8	8	8	8	8
40	63	80	115	125
40	63	80	115	125
32	50	63	80	100
10	16	25	35	50
40	63	80	100	125
40	63	80	100	125
40	63	80	100	125
40	63	80	100	125
40	63	80	80	90
40	60	60	60	70
40	40	40	40	50
40/1	63/1	80/1	100/1	125/1
40/2	63/2	80/2	100/2	125/2
40/4	63/4	80/4	100/4	100/4
40/1	63/1	80/1	100/1	125/1
40/2	63/2	80/2	100/2	125/2
40/4	63/4	80/4	80/4	80/4
40/1	63/1	80/1	100/1	125/1
40/2	63/2	80/2	100/2	125/2
40/4	63/4	63/4	63/4	63/4
7.5	15	22	22	22
18.5	30	37	37	45
18.5	30	37	37	45
22	37	37	37	45
37	37	37	37	45
320	504	640	640	720
320	480	480	480	560
320	320	320	320	400
16.5	16.5	16.5	16.5	16.5
125/125	125/125	125/125	125/125	125/125
11	11	11	11	11
125	125	125	125	125
10	10	10	10	10
63/63	63/63	63/63	63/63	63/63
2.5	2.5	2.5	2.5	2.5
3.6	3.6	3.6	3.6	3.6
1.6	2.8	3.5	4.0	6.3
10 000	10 000	10 000	10 000	10 000
20 000	20 000	20 000	20 000	20 000
2.5-25/2x2.5-16	10-70	10-70	10-70	10-70
14-4/2x14-6	8-00	8-00	8-00	8-00
6	6	6	6	6
2	2	2	2	2
0.89	0.89	0.89	0.89	0.89
1.0	1.0	1.0	1.0	1.0


Technical data, motor operator OTM40...125

Data for motor operator

according to IEC 60947

			Switch size	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-0, 0-I	110...240 V AC/DC 24 V DC	s s	0.5...1.0 0.6...1.3
Operating rate	Cycle 0-I-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				
Cross section		Solid/stranded	mm ²	PE - N - L 1.5 - 2.5
Short-circuit protection device		Max. MCB	A	16
Control terminal for the push -buttons				
Cross section		Solid/stranded	mm ²	C - I - O 1.5...2.5
Maximum cable length			m	100
Terminal for state information				
Also used with the OMD automatic control unit		Solid/stranded Rating	mm ² A	1.5 3 AC-1/250V
Common, voltage supply	11			
Handle attached or motor operator locked	14			
Short-circuit protection device		Max. MCB	A	C2
Operating temperature			°C	-25...+55
Transportation and storage temperature			°C	-40...+70
Max. altitude			m	2 000
Protection degree (front panel)				IP20
Motor operator, control unit			Value	Cabling/Rating
Control terminal for the push-buttons			C10	1,5-2mm ²
Maximum cable length			100m	

¹⁾ Under nominal conditions

Ordering information



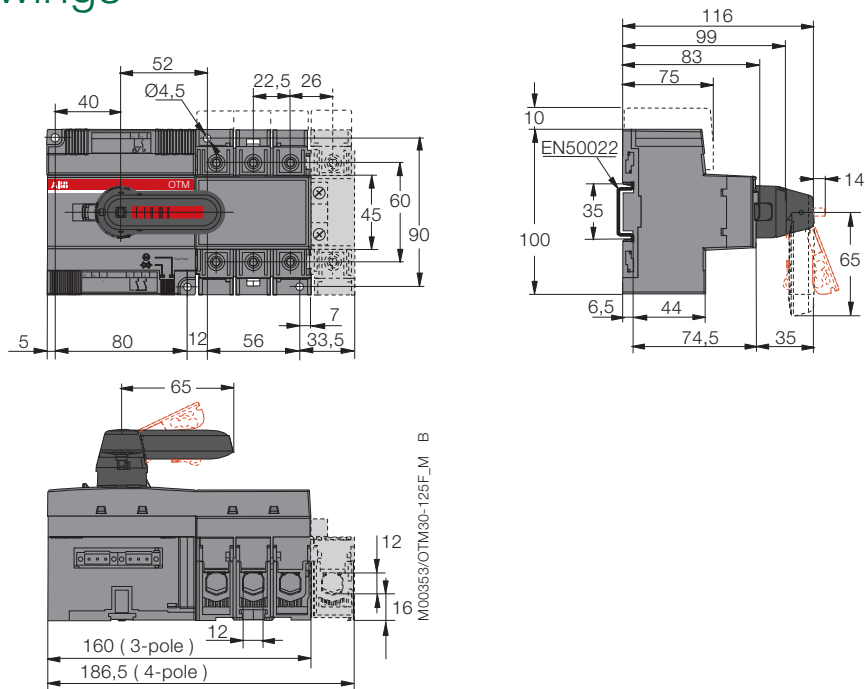
OTM40...125F3M_



OTM40...125F4M_

Type	Order code	Delivery batch [pcs]	Weight/unit [kg]
OTM40F3M230V	1SCA122972R1001	1	1,13
OTM63F3M230V	1SCA122971R1001	1	1,13
OTM80F3M230V	1SCA122970R1001	1	1,13
OTM100F3M230V	1SCA122969R1001	1	1,13
OTM125F3M230V	1SCA122968R1001	1	1,13
OTM40F4M230V	1SCA122977R1001	1	1,24
OTM63F4M230V	1SCA122976R1001	1	1,24
OTM80F4M230V	1SCA122975R1001	1	1,24
OTM100F4M230V	1SCA122974R1001	1	1,24
OTM125F4M230V	1SCA122973R1001	1	1,24

Dimension drawings



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