

# Low Voltage Products

Rotary Type Installation Switches  
16...160 A, 500 V

Brochure OT\_M22GB 03\_01  
1SCC301006C0201



**ABB**

# Rotary Type Installation Switches

## 16 A...160 A

### New features for installation switches

- Higher breaking capacity : AC 23 category A
- Snap on auxiliary contacts and additional poles
- Reliable position indication
- Quick make quick break mechanism
- Comply with new switch disconnecter standards for isolation
- Up to 200A AC 22 with spreader terminals

### Comply with the NEW requirements for main switches

- EN 60947-1,3, IEC 947-1,3
- EN 60204, IEC 204 European Machine Directive
- Rated impulse withstand voltage 8 kV
- Padlockable in OFF-position
- Breaking capacity for mixed and motor loads, AC22 and AC23

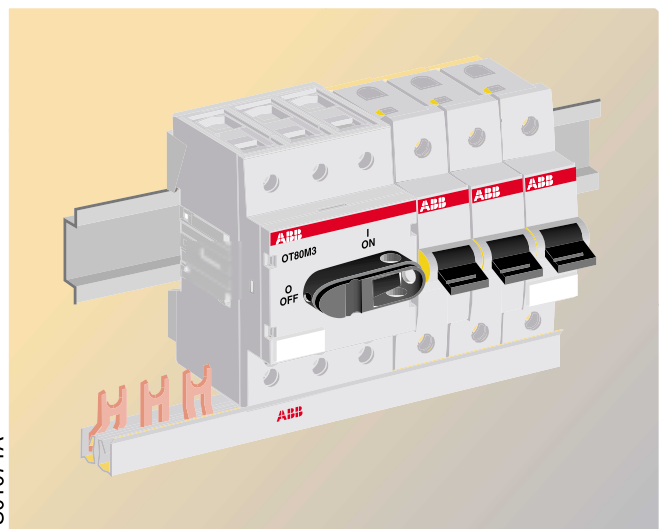
### Easy installation and wiring

- Comb- and rail-busbar installation from 45 A up to 100 A
- Din-rail mounting
- Snap-on label carrier
- Auxiliary contacts and fourth pole can be easily mounted to the three pole switch
- Protected against unintentional touch of live parts
- Terminal clamps are ready open for quick wiring
- Electric or pneumatic screw drivers may be used to wire up the wiring

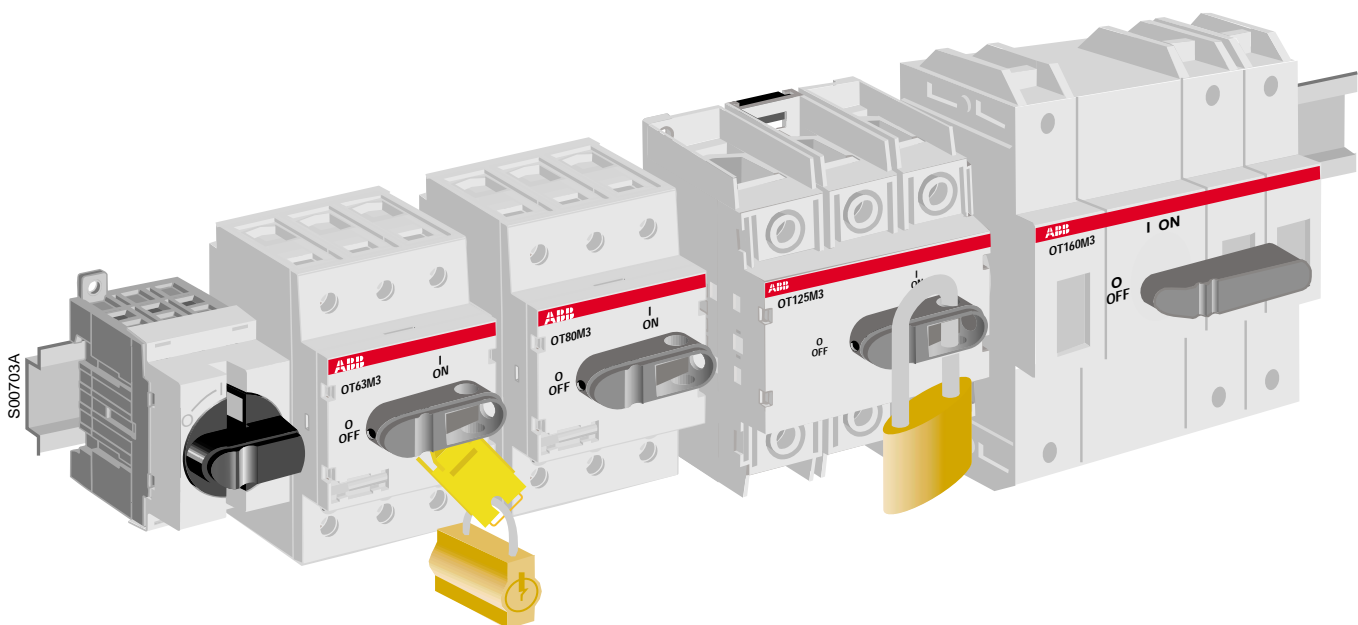


9809CD03

16...40A switches



S01071A



S00703A

From 16 Amps up to 160 Amps

# SwitchLine

## Rotary Type Installation Switches, OT16...160

### Ordering Information

#### Rotary type installation switches, 16 A...160 A

Including a black knob handle and protected terminal clamps, IP 20. Tested acc. to IEC 947-3.

Number of poles/modules	$I_n$ (open) [A]	Cable cross section [mm <sup>2</sup> ]	Operational currents AC21/AC22/AC23 ≤ 415 V [A/A/A]	Type	Order number	Delivery quantity [pcs]	Weight/one pc [kg]
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#### Modular installation switches

Suitable for standard 45 mm opening and for comb and rail busbar mounting. Padlockable in OFF-position with one padlock (bail dia 5 mm).

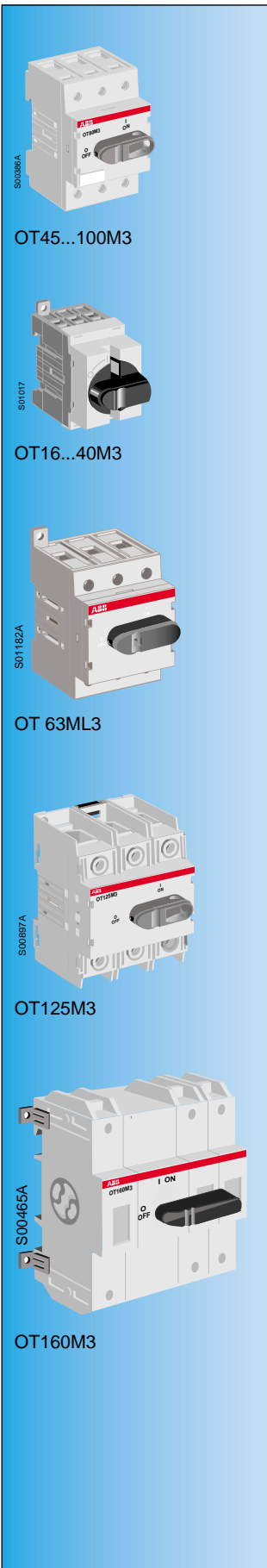
3/3 4/4	45	2.5...50	45/45/30	OT45M3 OT45M4	1SCA022424R1650 1SCA022424R1810	1 1	0.32 0.40
3/3 4/4	63	2.5...50	63/63/38	OT63M3 OT63M4	1SCA022424R2380 1SCA022424R2540	1 1	0.32 0.40
3/3 4/4	80	2.5...50	80/80/45	OT80M3 OT80M4	1SCA022424R2620 1SCA022424R2710	1 1	0.32 0.40
3/3 4/4	100	2.5...50	100/100/55	OT100M3 OT100M4	1SCA022424R2890 1SCA022424R2970	1 1	0.32 0.40

#### Installation switches for 45 mm standard opening

For standard 45 mm opening.

OT16...125M: padlockable in OFF-position with one padlock (bail dia 5 mm)

3/2 4/3	16	0.75...10	16/16/16	OT16M3 OT16M4	1SCA022497R0220 1SCA022497R0730	1 1	0.11 0.14
3/2 4/3	25	0.75...10	25/25/20	OT25M3 OT25M4	1SCA022497R0310 1SCA022497R0650	1 1	0.11 0.14
3/2 4/3	40	0.75...10	40/40/23	OT40M3 OT40M4	1SCA022497R0490 1SCA022497R0570	1 1	0.11 0.14
3 4	80	1.5...35	80/80/75	OT63ML3 OT63ML4	1SCA022530R5770 1SCA022530R6400	1 1	0.27 0.30
3 4	125	10...70	125/125/90	OT125M3 OT125M4	1SCA022429R9140 1SCA022429R9220	1 1	0.4 0.5
3 4	200	10...70	160/160/135	OT160M3 <sup>1)</sup> OT160M4 <sup>1)</sup>	1SCA022317R3260 1SCA022317R3420	1 1	1.0 1.4

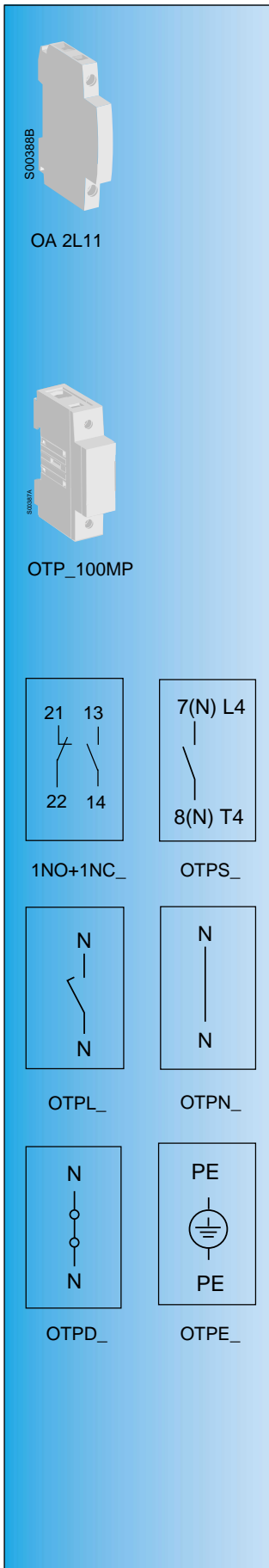


<sup>1)</sup> 380...415 V, AC 21-22B: 200 A when provided with busbar connections OEZXX 6 or 13. Conditional short circuit capacity coordination with back up fuse.

# SwitchLine

## Rotary Type Installation Switches, OT16...160

### Ordering Information, Accessories



#### Auxiliary contact

Simultaneous operation, snap-on mounting to the switch, including a grey cover, IP 20, width 1/2 module.

OT16...125M OT160M  
 - 3-pole switches: max 2 blocks - 3 and 4-pole switches: max 2 blocks  
 - 4-pole switches: max 1 block

Description	Suitable for switches	Type	Order number	Quantity per [pcs]	Weight/one pc [kg]
1NO+1NC	OT16...40M_	OA1L11	1SCA022555R9870	10	0.04
1NO+1NC	OT45...100M_ OT63ML_	OA2L11	1SCA022424R3190	10	0.04
1NO+1NC	OT125M_	OA3L11	1SCA022555R9950	10	0.04
1NO+1NC	OT160M_	OA2G11 <sup>1)</sup>	1SCA022379R8100	10	0.03

#### Fourth pole for OT 45...160M

Snap-on mounting to the 3-pole switches, IP 20.

Suitable for switches	Type	Order number	Recomm. order qty [pcs]	Weight/one pc [kg]
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#### Simultaneous function with the main contacts

OT 45...100M3	OTPS 100MP	1SCA022424R3010	10	0.08
OT 63ML3	OTPS 63MLP	1SCA022530R6580	10	0.08
OT 125M3	OTPS 125MP	1SCA022436R9110	10	0.08
OT 160M3	OTPS 160MP	1SCA022325R7520	1	0.3

#### Late-break and early-make

OT 45...100M3	OTPL 100MP	1SCA022460R9190	10	0.08
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#### Neutral and earth terminals for OT 45...100M3

Snap-on mounting, for 3-pole switches, IP 20.

Suitable for switches	Type	Order number	Recomm. order qty [pcs]	Weight/one pc [kg]
<b>Fixed neutral</b>				
OT 45...100M3	OTPN 100MP	1SCA022460R9270	10	0.08
<b>Detachable neutral</b>				
OT 45...100M3	OTPD 100MP	1SCA022460R9350	10	0.08
<b>Protective earth</b>				
OT 45...100M3	OTPE 100MP	1SCA022472R1010	10	0.08

<sup>1)</sup> A frame OAZX1 needed

# SwitchLine

## Rotary Type Installation Switches, OT16...160

### Ordering Information, Accessories

#### Busbar spreader kit for OT 160M/200A

$I_{th}$  of the combination 200 A. A kit contains three pieces (four pieces for 4-pole switch).

Suitable for switches	Type	Order number	Quantity per package [pcs]	Weight/one pc [kg]
OT 160M3	OEZXX6	1SCA022292R6330	1	0.17
OT 160M4	OEZXX13	1SCA022299R9720	1	0.23

#### Terminal shrouds

Snap-on mounting to the switch, transparent.

Suitable for switches	Type	Order number	Quantity per package [pcs]	Weight/one pc [kg]
OT 45...100M3	OTS 80T3	1SCA022424R3430	10	0.01
OTPS 100MP	OTS 80T1	1SCA022424R3510	10	0.01
OT125M3	OTS 125T3	1SCA022379R9680	10	0.02
OTPS125MP	OTS 125T1	1SCA022379R9760	10	0.01
OT160M_	OTS160T1 <sup>2)</sup>	1SCA022691R2010	10	0.01

#### Padlocking adapter

A padlock with max 3.5 mm bail can be installed.

Suitable for switches	Type	Order number	Quantity per package [pcs]	Weight one pc [kg]
OT45...160	SA 1	1SCA022401R8230	1	0.01

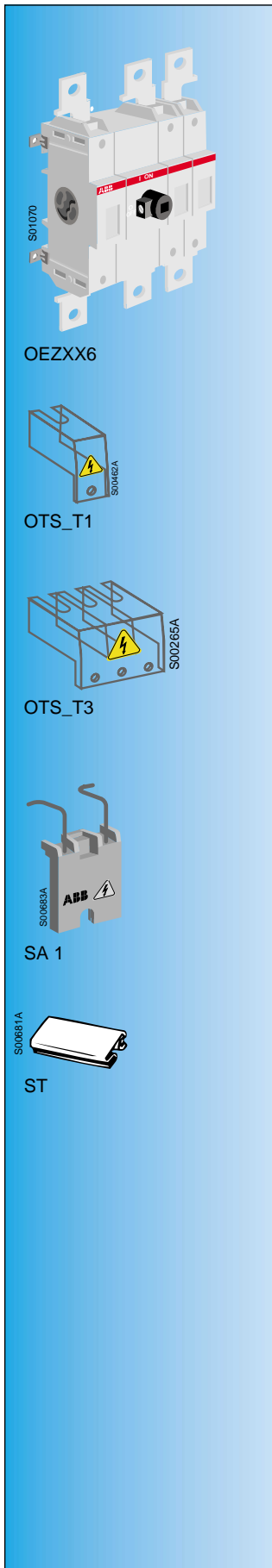
#### Labelling accessories

For OT 45...125.

Description	Type	Order number	Quantity per package [pcs]	Weight/one pc [kg]
Label carrier	ST	1SCA022407R8210	10	0.01
Label	ST-E	1SCA022407R8300	1 <sup>1)</sup>	0.01

<sup>1)</sup> One sheet = 250 labels

<sup>2)</sup> REMARK: Single pole shroud



# SwitchLine

## Rotary Type Installation Switches, OT125...160

### Technical data

#### TECHNICAL DATA ACCORDING TO IEC 947 FOR OT-SWITCH-DISCONNECTORS

All rights for alterations are held without prior notice.				Modular installation switches								
				Switch size	A	45M_	63M_	80M_	100M_	16M_	25M_	40M_
Rated insulation voltage and rated operational voltage AC20/DC20	Pollution degree 3	V	750	750	750	750	750	750	750	750	750	750
Dielectric strength	50 Hz 1min.	kV	6	6	6	6	6	6	6	6	6	6
Rated impulse withstand voltage		kV	8	8	8	8	8	8	8	8	8	8
Rated thermal current and rated operational current AC20/DC20 / ambient 40°C	In open air	A	45	63	80	100	25	32	40	80	125	200
	/ambient 40°C In enclosure	A	45	63	80	100	25	32	40	80	125	160
	/ambient 60°C In enclosure	A	45	63	80	100	25	32	40	63	125	160
...with minimum conductor cross section	Cu	mm <sup>2</sup>	16	25	25	35	4	6	10	25	50	70
Rated operational current, AC-21A	up to 415 V	A	45	63	80	100	16	25	40	63	125	200 <sup>1)</sup>
	500 V	A	45	63	63	80	16	25	40	63	90	160
Rated operational current, AC-22A	up to 415 V	A	45	63	80	100	16	25	40	63	125	160
	500 V	A	45	63	63	80	16	25	40	63	125	160
Rated operational current, AC-23A	up to 415 V	A	30	38	45	55	16	20	23	38	90	135
	500 V	A	30	32	32	32	16	20	23	32	70	125
Rated operational current / poles in series, DC-21A	up to 48 V	A	45/1	63/1	80/1	100/1	16/1	25/1	32/1	63/1	125/1	160/1
	110 V	A	45/2	63/2	80/2	100/2	16/2	25/2	32/2	63/2	125/2	160/1
	220 V	A	45/4	63/4	80/4	100/4	16/3	25/3	32/3	63/4	125/4	160/2
Rated operational current / poles in series, DC-22A	up to 48 V	A	45/1	63/1	80/1	100/1	16/1	25/1	32/1	63/1	125/1	160/1
	110 V	A	45/2	63/2	80/2	100/2	16/2	25/2	32/2	63/2	125/2	160/1
	220 V	A	45/4	45/4	45/4	45/4	16/3	25/3	32/4	45/4	80/4	160/2
Rated conditional short-circuit current r.m.s. and corresponding out-off current of the fuse in single-phase test according IEC269	50 kA/500 V	A	11	11	11	11	6,5	6,5	6,5	11	18	25
IEC269 OFAA-fuse size		A	50	63	80	100 <sup>3)</sup>	25	32	40	63	125	200
Power loss / pole	At rated operational current	W	1,4	2,8	4,0	6,3	0,3	0,6	1,6	2,8	6,3	6,5
Mechanical endurance	Divide by two for operation cycles	Oper.	20 000	20 000	20 000	20 000	20 000	20 000	20 000	20000	20 000	20 000
Weight without accessories	3-pole	kg	0,27	0,27	0,32	0,36	0,11	0,11	0,11	0,27	0,36	1,1
	4-pole	kg	0,35	0,35	0,40	0,5	0,15	0,15	0,15	0,35	0,5	1,3
Cable size	Cu-wire size suitable for terminal clamps	mm <sup>2</sup>	1,5-50 <sup>2)</sup>	1,5-50 <sup>2)</sup>	1,5-50 <sup>2)</sup>	1-50 <sup>2)</sup>	0,75-10	0,75-10	0,75-10	1,5-35	10-70	10-70
Terminal tightening torque	Counter torque required	Nm	2,5	2,5	2,5	2,5	0,8	0,8	0,8	2	6	6
	3-pole switch-disconnector	Nm	1,2	1,2	1,2	2	1	1	1	1,2	2	6

<sup>1)</sup> At 380...415V 200A when provided with busbar connections OEZX6 or 13

<sup>2)</sup> Minimum stranded 2,5mm

<sup>3)</sup> 30kA

#### Coordination Fuse and Switch Disconnector, [kA], (≤ 500V AC)

		Load side								
		OT16M	OT25M	OT40M	OT45M	OT63M	OT80M	OT100M	OT125M	OT160M
Supply side	gG 25A	50	50	50	50	50	50	50	50	50
	gG 32A	30	50	50	50	50	50	50	50	50
	gG 40A	20	30	50	50	50	50	50	50	50
	gG 50A	10	20	30	50	50	50	50	50	50
	gG 63A	6	10	20	50	50	50	50	50	50
	gG 80A		6	10	50	50	50	50	50	50
	gG 100A			6	30	30	30	30	50	50
	gG 125A				16	16	16	16	40	50
	gG 160A				10	10	10	10	30	50
	gG 200A				6	6	6	6	16	50

#### Coordination Circuit-breaker and Switch Disconnector, [kA], (≤ 415V AC)

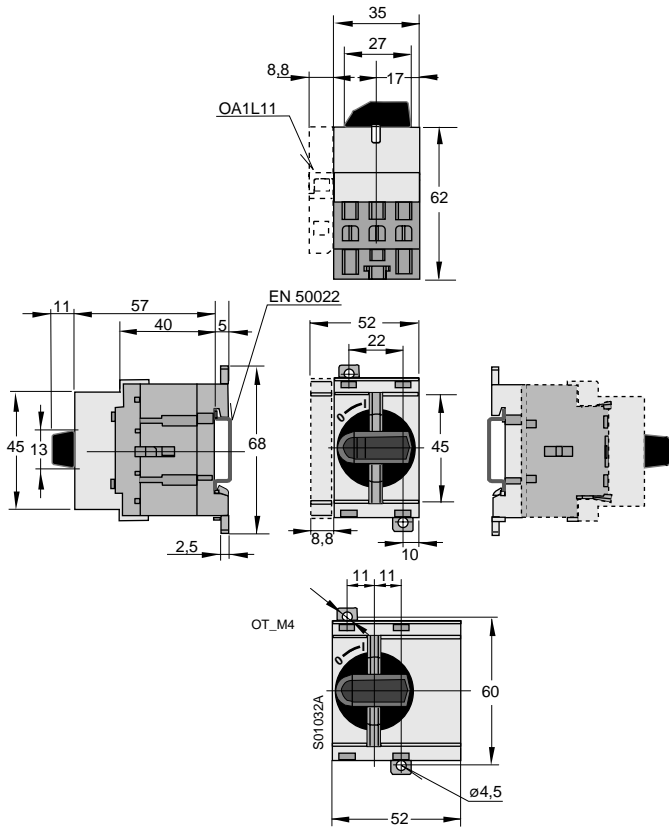
		Load side							
		OT16M	OT25M	OT40M	OT45M	OT63M	OT80M	OT100M	OT125M
Supply side	S240	5	5	5	5	5	5	5	5
	S260	6	6	6	6	6	6	6	6
	S270	10	10	10	10	10	10	10	10
	S280	10	10	10	25	25	25	25	25
	S290	10	10	10	10	10	10	10	10
	S500	6	6	6	25	25	25	25	50
	S700	6	6	6	25	25	25	25	25
	Isomax S1 25A	4	4	4	10	10	10	10	40
	Isomax S1	4	4	4	10	10	10	10	20
	Tmax T1	4	4	4	10	10	10	10	30
	Isomax S2 32A	4	4	4	10	10	10	10	30
	Isomax S2 63A	4	4	4	10	10	10	10	25
	Isomax S2	4	4	4	10	10	10	10	20
	Tmax T2	4	4	4	10	10	10	10	30

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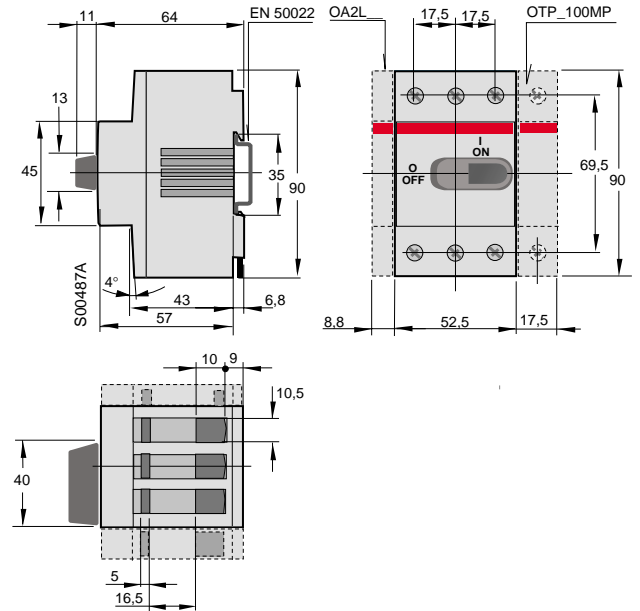
## Rotary Type Installation Switches, OT125...160

### Dimension drawings

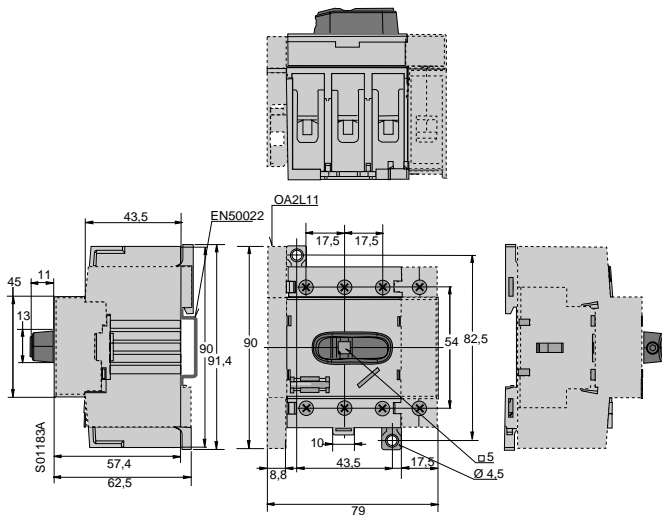
OT 16...40M



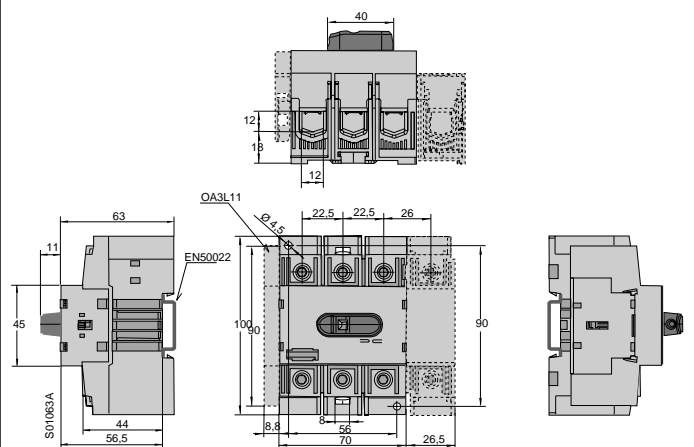
OT 45...100M



OT 63 ML



OT 125 M

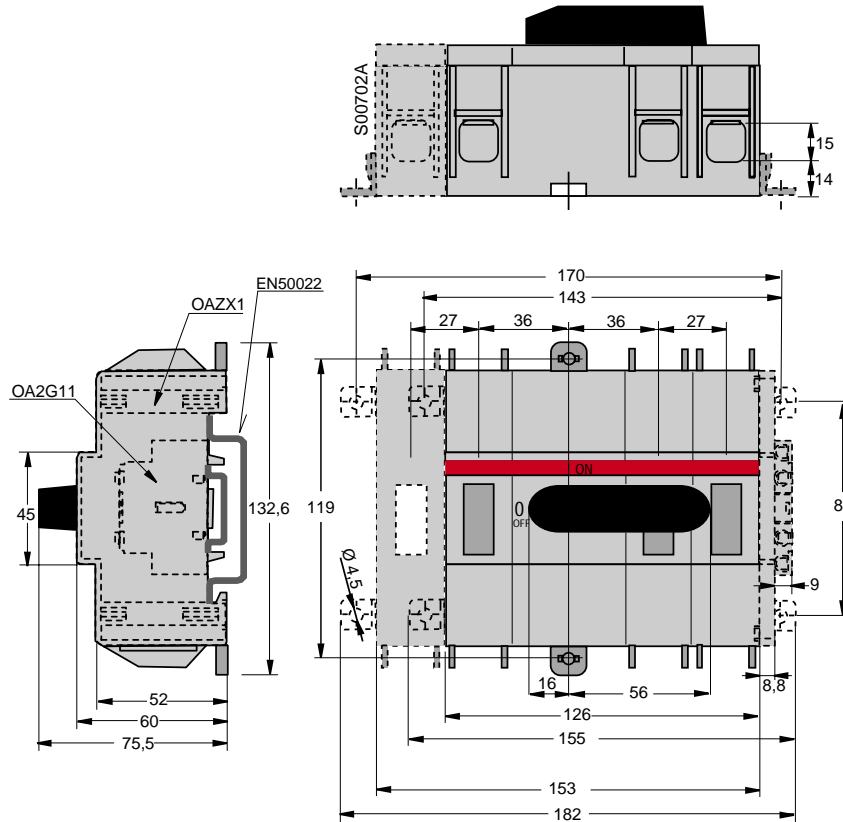


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## Rotary Type Installation Switches, OT16...100

### Dimension drawings

Rotary type installation switches OT160M, OT160M3 + OEZXX6



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The technical data and dimensions are valid at the time of printing. We reserve the right to subsequent alternations.



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