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PowerLine

Technical Data

Switch Fuses OESA

Technical Data According to IEC 60947 for OESA Switch-Disconnecter-Fuses

			OESA_PL						
Switch size			A	200	250	315	400	630	800
Rated insulation voltage	Pollution degr. 3		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			kV	12	12	12	12	12	12
Rated thermal current in ambient 40 °C / max. fuse power dissipation ¹⁾	In open air In enclosure In enclosure with solid links		A / W A / W	200/22 200/22	250/32 250/23, 230/27	315/32 315/32	400/45 400/34, 360/37	630/60 600/45, 570/50	800/65 720/55
...with minimum cable cross section		Cu	A mm ²	280 95	315 120	400 185	450 240	700 2x185	910 2x240
Rated operational voltage AC-20 and DC-20			V	1 000	1 000	1 000	1 000	1 000	1 000
Rated operational current, AC-21A		up to 500 V	A	200	250	315	400	630	800
		690 V	A	200	250	315	400	630	800
Rated operational current, AC-22A		up to 500 V	A	200	250	315	400	630	800
		690 V	A	200	250	315	400	630	800
Rated operational current, AC-23A		up to 500 V	A	200	250	315	400	630	720
		690 V	A	200	250	315	400	630	720
Rated operational current / poles in series DC-21A		48 V	A	200/2	250/2	315/2	400/2	630/2	800/2
		110-220 V	A	200/2	250/2	315/2	400/2	630/2	800/2
		440 V	A	200/2	250/2	315/2	400/2	630/2	800/2
		500-750 V	A	200/3	250/3	315/3	400/3	630/3	800/3
		1000V	A	200/4	250/4	315/4	400/4	630/4	800/4
Rated operational current / poles in series DC-22A		48 V	A	200/2	250/2	315/2	400/2	630/2	800/2
		110-220 V	A	200/2	250/2	315/2	400/2	630/2	800/2
		440 V	A	200/2	250/2	315/2	400/2	630/2	800/2
		500-750 V	A	200/3	250/3	315/3	400/3	630/3	800/3
		1000 V	A	200/4	250/4	315/4	400/4	630/4	800/4
Rated operational current / poles in series DC-23A		48 V	A	200/2	250/2	315/2	400/2	630/2	800/2
		110-220 V	A	200/2	250/2	315/2	400/2	630/2	800/2
		440 V	A	200/2	250/2	315/2	400/2	630/2	800/2
		500-750 V	A	200/3	250/3	315/3	400/3	630/3	800/3
		1000 V	A	-	-	-	-	630/4	800/4
Rated operational power, AC-23 ²⁾	The kW-ratings are accurate for three-phase 1500 R.P.M. standard asynchronous motors.	230 V 400 V 415 V 500 V 690 V	kW kW kW kW kW	57 100 110 140 180	70 132 140 170 230	90 160 180 220 290	110 210 230 280 330	180 315 340 400 540	200 350 380 470 600
Rated breaking capacity in category AC-23		up to 500 V	A	2000	2000	3200	3200	5760	5760
		690 V	A	2000	2000	3200	3200	5760	5760
Rated breaking capacity / poles in series in category DC-23		up to 220 V	A	1000/2	1000/2	1600/2	1600/2	3200/2	3200/2
		440 V	A	1000/2	1000/2	1600/2	1600/2	3200/2	3200/2
		500-750 V	A	1000/3	1000/3	1600/3	1600/3	3200/3	3200/3
		1000 V	A	-	-	-	-	3200/4	3200/4
Rated conditional short-circuit current r.m.s. and corresponding max. allowed cut-off current, peak value.	The cut-off currents refer to single phase fuse tests. Fuse select. tables on req.	80 kA, 415 V 100 kA, 500 V 50 kA, 690 V	kA kA kA	40 40 35	40 40 35	40 40 35	40 40 35	75 75 60	75 75 60
Rated short-time withstand current, 1s.	R.M.S. -value		kA	8	8	10	10	16	16
Rated capacitor power	The capacitor rating of the switch-fuse is limit. by the fuse link.	400 V 415 V 690 V	kVAr kVAr kVAr	90 100 160	105 115 190	145 160 250	180 200 325	250 270 450	310 340 550
Power loss / pole	With rated current, without fuse.		W	5	11	13	30	55	77
Mechanical endurance	Divide by two for operation cycles		Oper.	16 000	16 000	16 000	16 000	10 000	10 000
Fuse types, IEC 269-2	DIN 43620			-	0-1	-	0-2	3	3
	BS 88 - size / distance of fuse-link bolts		mm	B1-B2 M8/111	B1-B3 ³⁾ M8/111	B1-B3 M8/111	B1-B4 M8/111	C1-C2 M10/133, 184	C1-C3 M10/133, 184
Weight without accessories	3-pole switch fuses 4-pole switch fuses		kg kg	6.9 7.9	6.9 7.9	7.3 8.3	7.8 8.8	15.5 19.0	17.0 21.0
Terminal bolt size	diameter x length		mm	M10x40	M10x40	M10x40	M10x40	M12x40	M12x40
Terminal tightening torque	Counter torque required		Nm	30...44	30...44	30...44	30...44	50...75	50...75
Fuse-links bolts tightening torque	Typical for 3-pole switch fuses		Nm	15	15	15	15	40	40
Operating torque			Nm	22	22	22	22	28	28

¹⁾ Ambient temperature 60 °C: derating 20%. Mounting on "ceiling": derating 10%.
Mounting on wall, horizontal fuses: derating 8%.

³⁾ Maximum fuse body diameter ∅ 55 mm .

²⁾ Some fuse links limit these figures further. Starting current characteristics must be considered separately

PowerLine

Ordering Information

Switch Fuses OESA_PL, 200...800 A



DIN-pattern

250A and 400A switches include terminal bolt kit, black, IP 65, OHB125J12 handle with I-O/ON-OFF - indication and shaft OXP12X250, length 250 mm. 630A and 800A switches include terminal bolt kit, black, IP 65, OHB145J12 handle with I-O/ON-OFF - indication and shaft OXP12X250, length 250 mm.

Switch fuses without handle and shaft, please complete the type number with code: -2 .

Example: OESA 630 D3PL-2 = delivery without handle and shaft.

Number of poles	Rated operat. voltage AC 23 / [V]	I _{th} (open) [A]	Rated operat. current/ Rated operat. power in category AC 23 A, [A/kW]	Type	Order number	Weight
						[kg]
3			230V 400V 415V 500V 690V	OESA250D3PL	1SCA022208R6160	7.3
4 ¹⁾	690	250	250/ 250/ 250/ 250 /250/	OESA250D4PL	1SCA022227R4590	8.2
3				OESA400D3PL	1SCA022258R2220	8.3
4 ¹⁾	690	400	400/ 400/ 400/ 400/ 400/	OESA400D4PL	1SCA022226R9590	9.4
3				OESA630D3PL	1SCA022282R2210	16.0
4 ¹⁾	690	630	630/ 630/ 630/ 630/ 630/	OESA630D4PL	1SCA022282R2800	21.0
3				OESA800D3PL	1SCA022282R2630	18.0
4 ¹⁾	690	800	800/ 800/ 800/ 720/ 720/	OESA800D4PL	1SCA022282R2470	24.0

BS-pattern

OESA 200...400 include terminal bolt kit, IP 20 -fuse cover, black, IP 65, OHB125J12 handle with I-O/ON-OFF -indication and shaft OXP12X250, length 250 mm.

OESA 630...800 include terminal bolt kit, IP 20 - fuse cover, black, IP 65, OHB145J12 handle with I-O/ON-OFF -indication and shaft OXP12X250, length 250 mm.

Switch fuses without handle and shaft, please complete the type number with code: -2 .

Example: OESA 630 B3PL1-2 = delivery without handle and shaft.

Number of poles	Rated operational voltage AC23 [V]	I _{th} (open) [A]	Rated operational current / rated operational power in category AC23A , IEC 947 [A/kW]	Type	Order number	Weight
						[kg]
3	690	200	200/ 200/ 200/ 200/ 200/	OESA200B3PL1	1SCA022274R8130	7.1
4 ²⁾			57 100 110 140 180	OESA200B4PL1	1SCA022274R9370	8.2
3	690	315	315/ 315/ 315/ 315/ 315/	OESA315B3PL1	1SCA022279R7420	7.9
4 ²⁾			90 100 100 220 290	OESA315B4PL1	1SCA022279R7260	8.9
3	690	400	400/ 400/ 400/ 400/ 400/	OESA400B3PL1	1SCA022260R8470	8.3
4 ²⁾			110 210 230 280 330	OESA400B4PL1	1SCA022261R0610	9.4
3	690	630	630/ 630/ 630/ 630/ 630/	OESA630B3PL1	1SCA022289R9000	16.0
4 ²⁾			180 315 340 400 540	OESA630B4PL1	1SCA022289R9690	21.0
3	690	800	800/ 800/ 800/ 720/ 720/	OESA800B3PL1	1SCA022289R5190	18.0
4 ²⁾			200 350 380 470 600	OESA800B4PL1	1SCA022289R5510	24.0

¹⁾ Switched neutral

²⁾ The fourth pole is provided with a solid link which can be replaced by a fuse link.

PowerLine

Ordering Information

Switch Fuses OESA_PL, Accessories

Optional handles, front operated

Colour	Handle length [mm]	Shaft diam. [mm]	Suitable for switch sizes	Type	Order number	Weight [kg]
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Plastic handles, IP 65, Indication 1-0 / ON-OFF

Padlockable with 3 padlocks in OFF- position, door interlock in ON- position (defeatable), door drilling Ø53 mm. The shaft has to be ordered separately.

Black	125	12	OESA 200...400	OHB 125J12	1SCA022381R1560	0,2
Black	145	12	OESA 200...800	OHB 145J12	1SCA022381R2110	0,2
Black	175	12	OESA 200...800	OHB 175J12	1SCA022381R2450	0,2





Extended shafts

Shaft diameter 12 mm. A package includes 10 pieces.

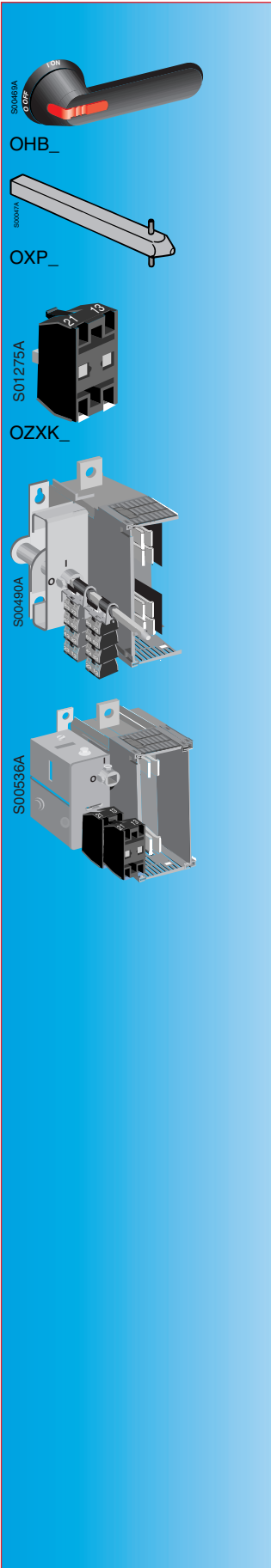
Shaft length [mm]	H [mm]	For switch sizes	Type	Order number	Weight [kg]
250	230...340	OESA 200...400	OXP12x250	1SCA022325R6980	0.3
	255...325	OESA 630...800			
395	375...485	OESA 200...400	OXP12x395	1SCA022042R5990	0.5
	400...470	OESA 630...800			
535	515...625	OESA 200...400	OXP12x535	1SCA022042R6110	0.7
	540...610	OESA 630...800			

Auxiliary contact sets, IP 20

Cable cross section min. 0.5 mm², max. 2 x 2.5 mm². Insulation voltage 690 V. Thermal current I_{th} = 10 A. Performance data according IEC 947-5-1 U_e / I_e (AC12): 120V/8A, 240V/6A, 400V/4A, 415V/4A, 480V/3A, 500V/3A, 690V/2A, (DC12): 125V/1.1A, 250V/0.55A, 440V/0.31A, 500V/0.27A, 600V/0.2A.

Auxiliary contact	For switch sizes	Type	Order number	Weight [kg]
	1no+1nc 200...800	OESA OZ XK 1	1SCA022131R8690	0,09
	2no+2nc 200...800	OESA OZ XK 2	1SCA022131R8850	0,12
	4no+4nc 200...800	OESA OZ XK 3 ¹⁾	1SCA022131R9070	0,17
	2no 200...800	OESA OZ XK 4	1SCA022131R9230	0,09

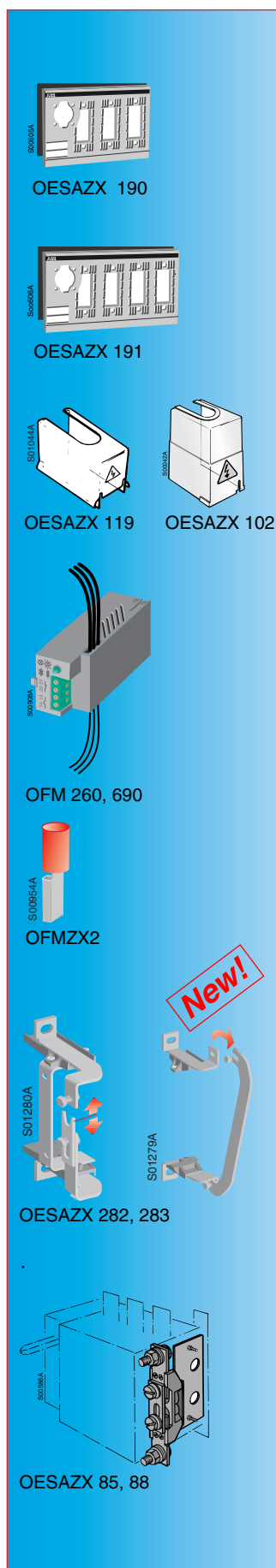
• Door interlocking in ON-position means that the door can't be opened, when the handle is in ON-position. This can be defeated to allow authorized personnel access for inspection. Handles padlockable in all positions are available on request.



PowerLine

Ordering Information

Switch Fuses OESA_PL, Accessories



Fuse covers for OESA_PL

For switch types	Number of poles	Type	Order number	Weight [kg]
OESA 200 B*, 250 D, 250 B*	3	OESAZX 190	1SCA022265R0750	0,16
	4	OESAZX 191	1SCA022265R0910	0,20
OESA 315 B*, 400 D, 400 B*, 315 BM*	3	OESAZX 192	1SCA022265R1130	0,18
	4	OESAZX 193	1SCA022265R1300	0,22
OESA 630 D, 630 B*	3	OESAZX 194	1SCA022265R1560	0,28
	4	OESAZX 195	1SCA022265R1720	0,34
OESA 800 D, 800 B*	3	OESAZX 196	1SCA022265R1990	0,30
	4	OESAZX 197	1SCA022265R2110	0,36

Terminal shrouds

For switch types	Number of poles	Quantity for full protection [pcs]	Type	Order number	Weight [kg]
OESA 200...400	3	6	OESAZX 119	1SCA022103R2450	0,05
	4	8			
OESA 630...800	3	6	OESAZX 102	1SCA022090R6740	0,09
	4	8			

Fuse Monitor

Including the auxiliary contacts 1NO + 1NC. Snap-on fitting on to the switch fuse. See brochure OFM20GB.

Rated voltage [Vac]	Type	Order number	Weight [kg]
100...260	OFM 260	1SCA022459R8560	0.14
380...690	OFM 690	1SCA022459R8480	0.14

Mounting accessories for fuse monitor

Includes 6 pcs crimp terminals.

Suitable for switches size [mm]	Flat terminal	Type	Order number	Weight [kg]
OESA 200...800	6.3 - 0.8	OFMZX 4	1SCA022475R9750	0,02

Neutral links

Detachable, mounting on the top of the switch

The three pole foot print area does not increase. N-terminal distance to L1-terminal = identical to phase-to-phase terminal distance.

I_{th}	Terminal size (WxD) [mm ²]; bolt size	For switch sizes	Type	Order number	Weight [kg]
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For switch sizes OESA 200...400_3PL

400	25x5; M10		OESAZX 282	1SCA022565R5320	0,53
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For switch sizes OESA 630...800_3PL

800	40x6; M12		OESAZX 283	1SCA022565R5410	0,72
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Detachable, mounting on the side of the switch

I_{th}	Max. cable cross section/Cu [mm ²]	For switch sizes	Type	Order number	Packing [pcs]
400	240		OESAZX 85	1SCA022082R3110	1
800	240		OESAZX 88	1SCA022083R2010	1

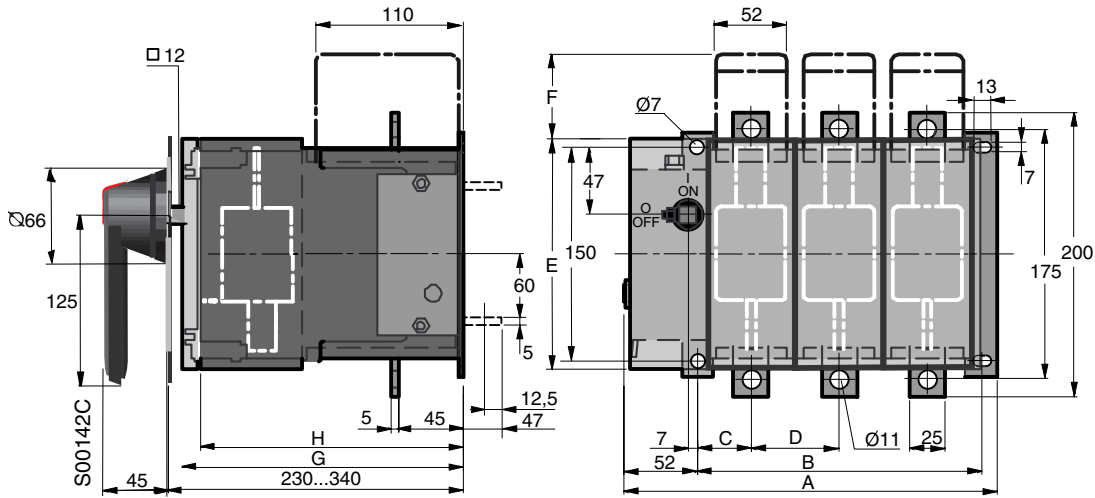
^{*)} BS-type switches include a fuse shroud as standard

PowerLine

Dimension Drawings

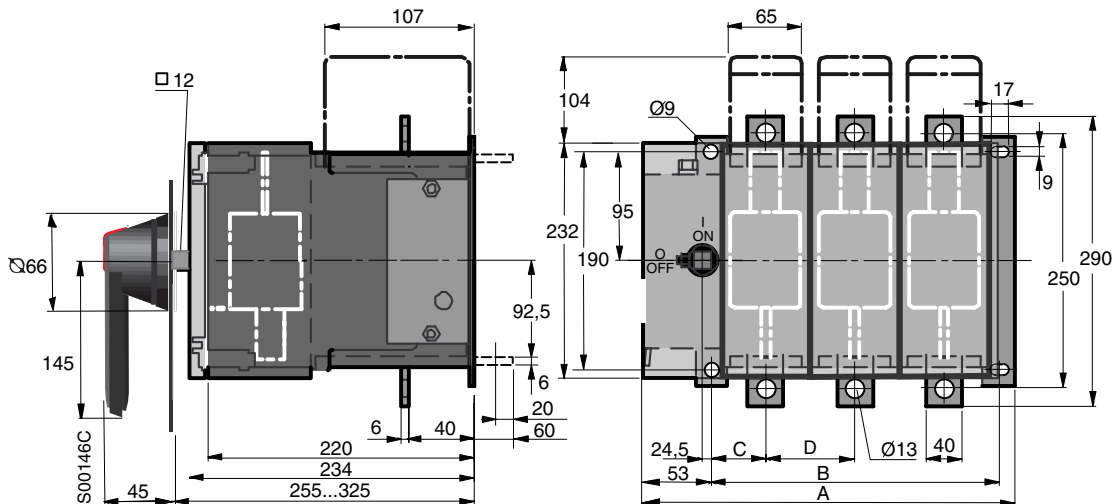
Switch Fuses OESA_PL, 200...800 A

OESA 200...400 A, DIN and BS- pattern



OESA 200...400 PowerLine		A	B	C	D	E	F	G	H
DIN- pattern	BS-pattern								
OESA 250D1PL	OESA 200B1PL	138	74	37	-	162	60	199	185
OESA 250D2PL	OESA 200B2PL	200	136	37	62	162	60	199	185
OESA 250D3PL	OESA 200B3PL, 250B3PL	262	198	37	62	162	60	199	185
OESA 250D4PL	OESA 200B4PL, 250B4PL	324	260	37	62	162	60	199	185
OESA 250DF4PL	-	324	260	37	62	162	60	199	185
OESA 400D1PL	OESA 315B1PL, OESA 400B1PL	146	82	41	-	180	51	206	192
OESA 400D2PL	OESA 315B2PL, OESA 400B2PL	216	152	41	70	180	51	206	192
OESA 400D3PL	OESA 315B3PL, OESA 400B3PL	286	222	41	70	180	51	206	192
OESA 400D4PL	OESA 315B4PL, OESA 400B4PL	356	292	41	70	180	51	206	192
OESA 400DF4PL	-	356	292	41	70	180	51	206	192

OESA 630...800 A, DIN and BS- pattern



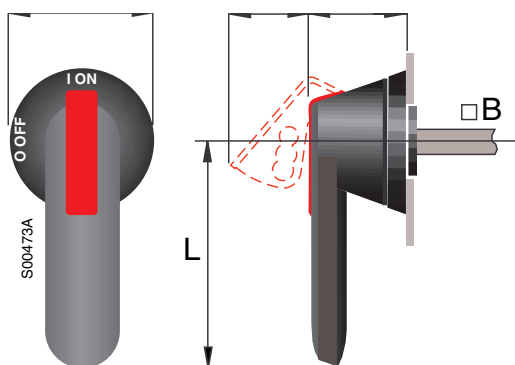
OESA 630...800 PowerLine		A	B	C	D
DIN- pattern	BS-pattern				
OESA 630D1PL	OESA 630B1PL	183	118	59	-
OESA 630D2PL	OESA 630B2PL	263	198	59	80
OESA 630D3PL	OESA 630B3PL	343	278	59	80
OESA 630D4PL	OESA 630B4PL	423	358	59	80
OESA 630DF4PL	-	423	358	59	80
OESA 800D1PL	OESA 800B1PL	193	128	64	-
OESA 800D2PL	OESA 800B2PL	283	218	64	90
OESA 800D3PL	OESA 800B3PL	373	308	64	90
OESA 800D4PL	OESA 800B4PL	463	398	64	90
OESA 800DF4PL	-	463	398	64	90

PowerLine

Dimension Drawings

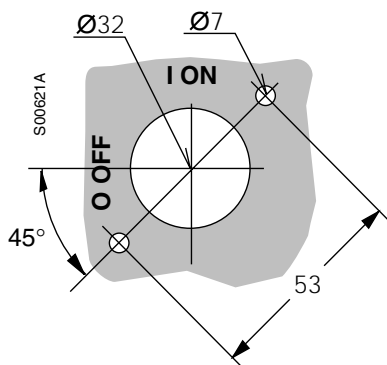
Switch Fuses, Accessories

Plastic handles:

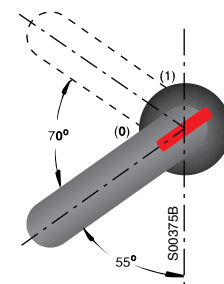
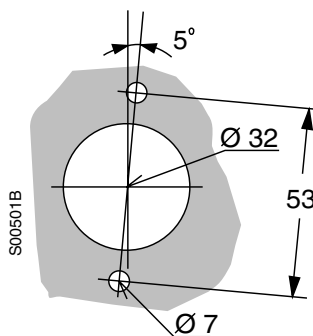


Type	L handle length	B shaft diameter
OH_45J5	45	5
OH_65J5	65	5
OH_45J6	45	6
OH_65J6	65	6
OH_80J6	80	6
OH_125J12	125	12
OH_145J12	145	12
OH_175J12	175	12
OH_275J12	275	12

Door drilling for OH_handles:



Door drilling for plastic handles OH...E002S in side operated switches:



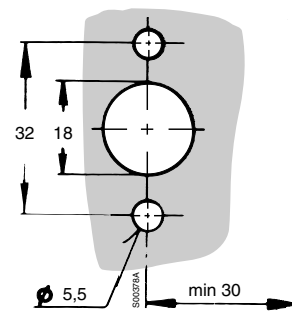
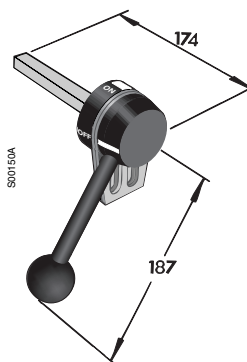
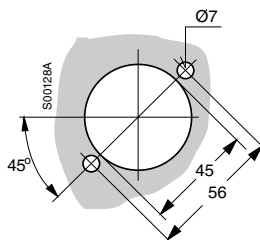
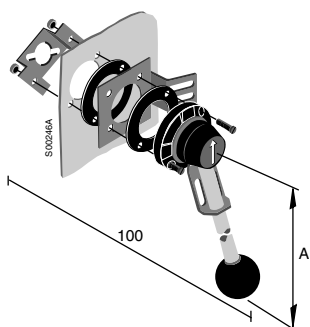
Metallic handles:

YASDA 7, 8 (A=220)

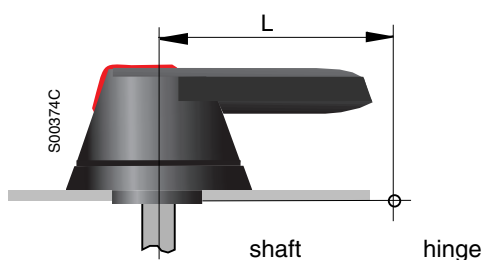
Door drilling for YASDA:

OETLZX 74 (for side-operated switches 200...400 A)

Door drilling for OETLZX 74



Minimum distance L between the hinge and the rotating shaft



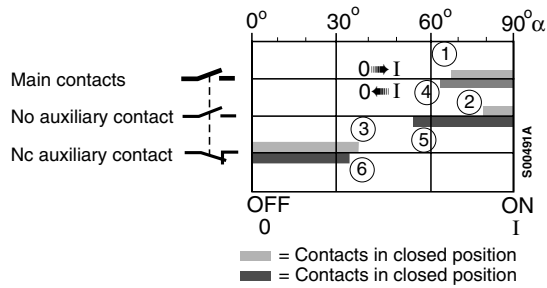
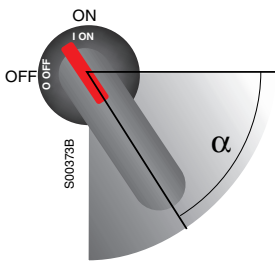
OESA Sizes [A]	L [mm]	Suitable handles
32...63	60	OH_45J_, OH_65J_
32...160	80	OH_80J_
200...400	150	OH_125J12, OH_145J12
200...800	175 275	OH_175J12 OH_275J12
200...800	220	YASDA 7, 8

PowerLine

Contact Functions

Switch Fuses OESA

ON and OFF-functions of auxiliary and main contacts



CLOSING

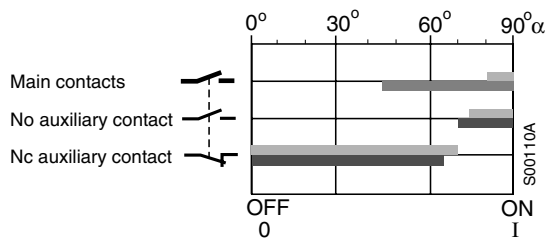
1. Main contacts close
2. No auxiliary contacts close
3. Nc auxiliary contacts open

OPENING

4. Main contacts open
5. No auxiliary contacts open
6. Nc auxiliary contacts close

PowerLine, OESA_PL, 200 A...400 A

ON and OFF-functions of auxiliary and main contacts



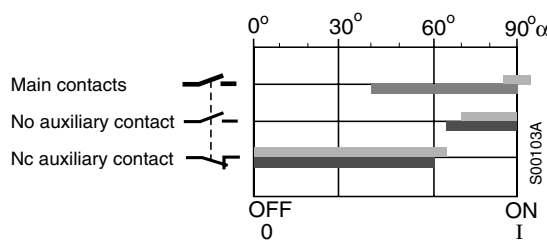
Auxiliary contact

Contact configuration

OZXK 1	1 no - 1 nc
OZXK 2	2 no - 2 nc
OZXK 3	4 no - 4 nc
OZXK 4	2 no
OZXK 5	4 no
OZXK 6	8 no

PowerLine, OESA_PL, 630 A...800 A

ON and OFF-functions of auxiliary and main contacts



Auxiliary contact

Contact configuration

OZXK 1	1 no - 1 nc
OZXK 2	2 no - 2 nc
OZXK 3	4 no - 4 nc
OZXK 4	2 no
OZXK 5	4 no
OZXK 6	8 no

