



# Switch fuses 16...1250

## DIN AC23/400V



OS16FD OS35FD  
7.5 kW 15 kW



OS40FD  
18.5 kW



OS32GD OS63GD  
15 kW 30 kW



OS125GD OS160GD  
55 kW 75 kW



OS200D  
110 kW



OS250D  
140 kW



OS400D OS630D  
220 kW 355 kW

## BS AC23/415V



OS20FB OS32FB  
7.5 kW 15 kW



OS32GB OS63GB  
15 kW 30 kW



OS100GB OS125GB OS160GB  
55 kW 55 kW 75 kW



OS200B  
110 kW



OS250B  
145 kW



OS315B OS400B  
180 kW 230 kW

## NFC AC23/400V



OS25FF OS32FF  
11 kW 15 kW



OS50GF  
22 kW



OS125GF  
55 kW

## UL/CSA 480V 600V



OS30FA  
15 HP  
20 HP



OS60GJ  
30 HP  
50 HP



OS100GJ  
60 HP  
75 HP



OS200J  
150 HP  
200 HP



OS400J  
250 HP  
350 HP



OS600J OS800L  
400 HP 500 HP  
500 HP 600 HP



# Switch fuses OS 16-160

## Technical data

### Technical data according to IEC 60947-3

		Switch size	A	OS Mini 16	OS Mini 20	OS Mini 25
Rated insulation voltage	Pollution degree 3		V	1 000	1 000	1 000
Dielectric strength		50 Hz 1min.	kV	10	10	10
Rated impulse withstand voltage			kV	12	12	12
Rated thermal current in ambient 35 °C and temporarily 40 °C <sup>1)</sup> / max. fuse power dissipation <sup>1)</sup>	In open air		A/W	16/3.5	20/3.5	25/3.5
	In enclosure <sup>2)</sup>		A/W	16/3.5	20/3.5	25/3.5
...with minimum cable cross section	In enclosure with solid links		A	32	32	32
		Cu	mm <sup>2</sup>	2.5	2.5	4
Rated operational voltage AC-20 and DC-20			V	1 000	1 000	1 000
Rated operational current, AC-21A		up to 500 V	A	16	20	25
		690 V	A	16	20	25
Rated operational current, AC-22A		up to 500 V	A	16	20	25
		690 V	A	16	20	25
Rated operational current, AC-23A		up to 500 V	A	16	20	25
		690 V	A	16	20	25
Rated operational current / poles in series DC-21A		48 V	A	16/2	20/2	25/2
		110-220 V	A	16/2	20/2	25/2
		440 V	A	16/4	20/4	25/4
Rated operational current / poles in series DC-22A		48 V	A	16/2	20/2	25/2
		110-220 V	A	16/2	20/2	25/2
		440 V	A	16/4	20/4	25/4
Rated operational current / poles in series DC-23A		48 V	A	16/2	20/2	25/2
		110-220 V	A	16/2	20/2	25/2
		440 V	A	16/4	20/4	25/4
Rated operational power, AC-23 <sup>4)</sup>	The kW-ratings are accurate for three-phase 1500 R.P.M. standard asynchronous motors.	230 V	kW	4	5.5	5.5
		400 V	kW	7.5	7.5	11
		415 V	kW	7.5	7.5	11
		500 V	kW	7.5	11	15
		690 V	kW	11	15	22
Rated breaking capacity in category AC-23		up to 500 V	A	256	256	256
		690 V	A	256	256	256
Rated breaking capacity / poles in series in category DC-23		up to 220 V	A	128/2	128/2	128/2
		440 V	A	128/4	128/4	128/4
Rated conditional short-circuit current I <sub>p</sub> (r.m.s.) and corresponding max. allowed cut-off current I <sub>c</sub>	at prospective SC-current	80 kA, 415 V	kA	9	9	9
	Max. OFA <sub>2</sub> fuse size gG / aM		A			
	at prospective SC-current	100 kA, 500 V	kA	8	8	8
	Max. OFA <sub>2</sub> fuse size gG / aM		A			
The cut-off current I <sub>c</sub> refers to values listed by fuse manufacturers (single phase test acc. to IEC60269).	at prospective SC-current	50 kA, 690 V	kA	7	7	7
	Max. OFA <sub>2</sub> fuse size gG / aM		A			
	at prospective SC-current	80 kA, 690 V	kA	7.5	7.5	7.5
	Max. OFA <sub>2</sub> fuse size gG / aM		A			
Rated short-time withstand current, 1 s.	r.m.s. -value		kA	1	1	1
Rated capacitor power when no initial charge on the capacitor	The capacitor rating of the switch-fuse is limited by the fuse link.	400 V	kVAr	5	10	12.5
		415 V	kVAr	5	10	12
		690 V	kVAr	8	15	20
Power loss / pole	With rated current, without fuse		W	0.8	1.3	1.3
Mechanical endurance	Divide by two for operation cycles		Oper.	20 000	20 000	20 000
Fuse types, IEC 60269-2-1	DIN 43620, Neozed DIN49522 NFC 63210, 63211 BS 88-2, -6 -size / distance of fuse-link bolts			D 01		10x38
			mm mm		A1 M4/44.5	
Weight without accessories	3-pole switch fuses 4-pole switch fuses		kg	0.7	0.7	0.7
		Cu	kg	0.9	0.9	0.9
Built-in terminal size			mm <sup>2</sup>	0.75...10	0.75...10	0.75...10
Terminal bolt size (included)	Metric thread diameter x length		mm			
Terminal tightening torque	Counter torque required		Nm	2	2	2
Fuse-links bolts tightening torque			Nm		2	
Operating torque	Typical for 3-pole switch fuses		Nm	3	3	3

\* = Utilization category B

<sup>1)</sup> Ambient temperature 60 °C: derating 20%

Mounting on "ceiling": derating 10%,

<sup>2)</sup> OS160G: Mounting on wall, horizontal fuses: derating 5%

<sup>3)</sup> Max. fuse body diam. 32 mm

<sup>4)</sup> Some fuse links limit these figures further. Starting current characteristics must be considered separately

<sup>5)</sup> Acc. to IEC 60947-1, § 6.1.1

<sup>6)</sup> Max. fuse body diam. 22 mm



# Switch fuses OS 16-160

## Technical data

OS Mini 32	OS Mini 35	OS Mini 40	OS 32G	OS 50G	OS 63G	OS 100G	OS 125G	OS 160G
1 000 10 12	1 000 10 12	1 000 10 12	1 000 10	1 000 10	1 000 10	1 000 10	1 000 10	1 000 10
32/3.5 32/3.5 32 6	35/4 35/4 35 10	40/4.5 40/4.5 40 10	32/7.5 32/7.5 6	50/7.5 50/7.5 10	63/7.5 63/7.5 16	100/12 100/12 50	125/12 125/12 50	160/12 160/12 70
1 000 32 32 32 32 32 32	1 000 35 35 35 35 35	1 000 40 40 40 40 40	1 000 32 32 32 32 32	1 000 50 50 50 50 50	1 000 63 63 63 63 63	1 000 100 100 100 100 100	1 000 125 125 125 125 125	1 000 160 160 160 160 160
32/2 32/2 32/4	32/2 32/2 32/4	32/2 32/2 32/4	32/2 32/2* 32/4*	50/2 50/2* 50/4*	63/2 63/2* 50/4*	100/2 100/2* 100/4*	125/2 125/2* 125/4*	160/2 125/2* 125/4*
32/2 32/2 32/4	32/2 32/2 32/4	32/2 32/2 32/4	32/2 32/2* 32/2*	50/2 50/2* 50/2*	63/2 63/2* 63/2*	100/2 100/2* 100/2*	125/2 125/2* 125/2*	160/2 125/2* 125/2*
32/2 32/2 32/4	32/2 32/2 32/4	32/2 32/2 32/4	32/2 32/2* 32/2*	50/2 50/2* 50/2*	63/2 63/2* 63/2*	100/2 100/2* 100/2*	125/2 125/2* 125/2*	160/2 125/2* 125/2*
7.5 15 15 18.5 22	7.5 15 15 22 30	11 18.5 18.5 22 30	7.5 15 15 18.5 22	11 22 22 30 37	18.5 30 30 37 55	30 55 55 75 90	37 55 55 75 110	45 75 75 90 132
256 256	280 280	320 320	504 504	504 504	504 504	1280 1280	1280 1280	1280 1280
128/2 128/4	128/2 128/4	128/2 128/4	252/2	252/2	252/2	640/2	640/2	640/2
9	9	9	13.5 80/63	13.5 80/63	13.5 80/63	23.5 160/160	23.5 160/160	23.5 160/160
8	8	8	12.5 63/63	12.5 63/63	12.5 63/63	25.5 160/160	25.5 160/160	25.5 160/160
7	7	7	9.5 63/63	9.5 63/63	9.5 63/63	17.5 125/160	17.5 125/160	17.5 125/160
7.5	7.5	7.5	11.5 63/63	11.5 63/63	11.5 63/63	20.5 125/160	20.5 125/160	20.5 125/160
1	1	1	2.5	2.5	2.5	5	5	5
15 15 25	15 15 25	15 15 25	15 15 25	20 25 42	25 32 50	40 42 75	50 55 90	60 65 100
2	2.4	3.5	1	2.5	4	4	5	9
20 000	20 000	20 000	20 000	20 000	20 000	20 000	20 000	20 000
14x51 A1, A2, F1 M4/44.5 (A1) M4/73 (A2)	D 02	000	000	14x51	000	A2-A4 <sup>3)</sup> M5/73, M8/94	000, 00 22x58 A2-A4 <sup>3)</sup> M5/73, M8/94	000, 00 A2-A4 <sup>3)</sup> M5/73, M8/94
0.7 0.9 0.75...10	0.7 0.9 0.75...10	0.8 1.0 0.75...10	1.1 1.3 2.5...25	1.1 1.3 2.5...25	1.1 1.3 2.5...25	1.4 1.8	1.4 1.8	1.4 1.8
2	2	2	4	4	4	M8x25	M8x25	M8x25
2 3	3	3	3.5 5	5	3.5 5	M5:3.5 M8:5 7	M5:3.5 M8:5 7	M5:3.5 M8:5 7

### Placing options of the operating mechanism



At the end of the switch fuse  
OS\_03 or 04

Between the poles  
OS\_12 or 22

Side operated types  
OS\_30 or 40  
OS\_03 or 04



# Switch fuses OS 200-1250

## Technical data

### Technical data according to IEC 60947-3

			A	OS 200
			Switch size	
Rated insulation voltage and rated operational voltage AC-20 and DC-20 Dielectric strength Rated impulse withstand voltage	Pollution degree 3	50 Hz 1min.	V	1000
			kV	10
			kV	12
Rated thermal current in ambient 35 °C and temporarily in 40 °C <sup>5)</sup> / max. fuse power dissipation ...with minimum cable cross section	In open air	Cu	A/W	200/17
	In enclosure		A/W mm <sup>2</sup>	200/15 95
Rated thermal current of detachable neutral	In open air / Cu cable or bar cross section	In "N3" types	A/mm <sup>2</sup>	290/120
Derating, mounting on wall horizontal fuses	In open air or ventilated enclosure Totally enclosed		%	0
			%	5
Derating, mounting on 'ceiling'			%	10
Derating at 60 °C	In open air / in enclosure		%	20/20
Rated operational current AC-21A		≤ 500 V	A	200
		690 V	A	200
Rated operational current AC-22A		≤ 415 V	A	200
		500 V	A	200
		690 V	A	200
Rated operational current AC-23A		≤ 415 V	A	200
		500 V	A	200
		690 V	A	200
Rated operational current / poles in series DC-21A, DC-22A and DC-23A		≤ 220 V	A	200/1
		440 V	A	200/2
		660 V	A	200/3
		750 V	A	180/4
		880 V	A	180/4
Rated operational power AC-23 <sup>1)</sup>		230 V	kW	60
		400 V	kW	110
		415 V	kW	110
		500 V	kW	132
		690 V	kW	200
Rated breaking capacity AC-23		≤ 500 V	A	1600
		690 V	A	1600
Rated conditional short-circuit current I <sub>p</sub> (r.m.s.) and corresponding max. allowed cut-off current I <sub>c</sub>	I <sub>p</sub> (r.m.s.) Max. OFA <sub>2</sub> fuse size gG/aM	80 kA, 415 V	kA	35
			A	250/200
	I <sub>p</sub> (r.m.s.) Max. OFA <sub>2</sub> fuse size gG/aM	100 kA, 500 V	kA	37.5
			A	250/200
The cut-off current I <sub>c</sub> refers to values listed by fuse manufacturers (single phase test acc. to IEC60269)	I <sub>p</sub> (r.m.s.) Max. OFA <sub>2</sub> fuse size gG/aM	80 kA, 690 V	kA	25
			A	160/
	I <sub>p</sub> (r.m.s.) Max. BS fuse size gG/gM	50 kA, 415 V	kA	28
			A	200/200M315
Rated short-time withstand current, 1s.	r.m.s. -value Max. distance from switch frame to nearest busbar/cable support		kA	8
			mm	150
Rated capacitor power when no initial charge of the capacitor	The capacitor ratings of the switch-fuses are limited by the fuse links	400 V	kVAr	90
		415 V	kVAr	100
		500 V	kVAr	120
		690 V	kVAr	160
Power loss / pole	With rated current, without fuse		W	8
Mechanical endurance	Divide by two for operation cycles		Oper.	20 000
Fuse types, IEC 60269-2	Sec. I, DIN 43620			0
	Sec. IA, NFC 0-3 Ref.A, 4a Ref.B Sec. II, BS 88			B1-B2
	Size / distance of fuse-link bolts		mm	M6/111
Weight without accessories	3-pole switch fuses		kg	2.6
Terminal bolt size (included)	Metric thread diameter x length		mm	M8x25
Terminal tightening torque	Counter torque required		Nm	15-22
Fuse-links bolts tightening torque			Nm	4
Operating torque	Typical for 3-pole switch fuses		Nm	7

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

<sup>2)</sup> Max fuse body dia 52 mm.

<sup>3)</sup> Max fuse body dia 62 mm.

<sup>4)</sup> Category B

<sup>5)</sup> Acc. to IEC 60957-2, § 6.1.1.

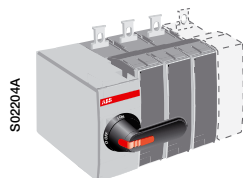


# Switch fuses OS 200-1250

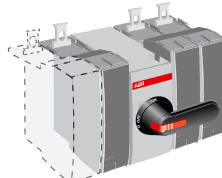
## Technical data

OS 250_	OS 315_	OS 400_	OS 630_	OS 800_	OS 1250_
1000 10 12	1000 10 12	1000 10 12	1000 10 12	1000 10 12	1000 10 12
250/23 250/20 120	315/32 315/32 185	400/45 400/30 240	630/60 570/50 2 x 185	800/65 720/55 2 x 240	1250/110 1000/85 2 x 400
290/120	450/240	450/240	900/2 X 240	900/2 x 240	1250/2 x 400
0 5	0 5	4 8	0 5	4 8	4 8
10	10	10	10	10	10
20/20	20/20	20/20	20/20	20/20	20/20
250 250	315 315	400 400	630 630	800 800	1250 <sup>4)</sup> 1250 <sup>4)</sup>
250 250 250	315 315 315	400 400 400	630 630 630	800 800 800	1250 1250 <sup>4)</sup> 1250 <sup>4)</sup>
250 250 250	315 315 315	400 400 400	630 630 630	800 800 800	1000 1000 <sup>4)</sup> 1000 <sup>4)</sup>
250/1 250/2 250/3 230/4 230/4	315/2 315/3 <sup>4)</sup> 315/4 <sup>4)</sup> 315/4 <sup>4)</sup>	400/2 400/3 <sup>4)</sup> 400/4 <sup>4)</sup> 400/4 <sup>4)</sup>	630/1 <sup>4)</sup> 630/2 <sup>4)</sup> 630/3 <sup>4)</sup> 630/4 <sup>4)</sup> 630/4 <sup>4)</sup>	800/1 <sup>4)</sup> 800/2 <sup>4)</sup> 720/3 <sup>4)</sup> 720/4 <sup>4)</sup> 720/4 <sup>4)</sup>	
75 140 145 170 250	100 160 180 220 315	132 220 230 280 400	200 355 355 450 630	250 450 450 560 710	315 560 560 710 1000
2000 2000	3200 3200	3200 3200	6400 6400	6400 6400	8000 8000
40.5 355/315		59 500/500	77 800/800	77 800/800	89 1250/1250
37.5 250/250		63.5 500/500	83 800/800	83 800/800	105 1250/-
32.5 200/250		46 315/400	55 -/630	55 -/630	88 1000/1000
28 250/200M315	44 400/400M500	44 400/400M500			
28 250/200M250	48 400/400M450	48 400/400M450	55	55	109 1250/-
8 150	14 150	14 150	18 150	18 150	40 150
105 115 135 190	145 160 175 250	180 200 215 325	250 270 300 450	310 340 375 550	440 460 550 750
13	19	30	46	75	75
20 000	16 000	16 000	10 000	10 000	6000
0-1 1 B1-B3 <sup>2)</sup> M8/111	B1-B4 <sup>3)</sup> M8/111	0-2 2 B1-B4 <sup>3)</sup> M8/111	3 3 C1-C2 M10/133, 184	3 3 C1-C3 M10/133, 184	4, 4 a 4 a D1 2xM12/149
3.1	5.7	5.7	11.5	11.5	29
M10x30 30-44 5 7	M10x30 30-44 20 19	M10x30 30-44 20 19	M12x40 50-75 M10:30 M12:40 38	M12x40 50-75 M10:30 M12:40 38	M12x50 50-75 M12:40 65

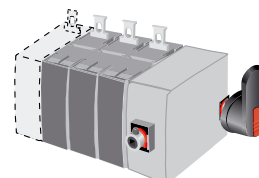
### Placing options of the operating mechanism



At the end of the switch fuse  
OS\_03 or 04



Between the poles  
OS\_12 or 22



Side operated types  
OS\_30 or 40  
OS\_03 or 04



# Fusible disconnect switches OS 30-800

## Technical data

Switch size	A	OS Mini 30	OS 60G
Approvals	3 pole 4 pole	UL 98/CSA/IEC UL 98/CSA/IEC	UL 98/CSA/IEC UL 98/CSA/IEC

### Technical data according to UL/CSA

General purpose amp rating	pf= 0.7...0.8	-40° to 40 °C	A V	30 600	60 600
Max. operating voltage					
Max. horsepower rating / motor FLA current	pf= 0.4...0.5 Three phase	240 V	HP/A	7.5/22.0	15/42.0
		480 V	HP/A	15/21.0	30/40.0
	Single phase	600 V	HP/A	20/22.0	50/52.0
		120 V	HP/A	2/24.0	
		240 V	HP/A	3/17.0	
Short circuit rating with fuse			kA	200	100
		UL fuse size	A	30	60
		UL fuse type		J/CC	J
		CSA fuse type		C	
Min. electrical endurance	pf= 0.75...0.8	operation cycles		6000	6000
Mechanical endurance		operation		20 000	20 000
Terminal lug kits				Integral	Integral
Wire range			AWG	#18-8	#14-4
Torque	Wire tightening		lb.in.	17	30
	Lug mounting		lb.in.	N/A	N/A

### Technical data according to IEC 60947-3

Rated insulation voltage	Pollution degree 3		V	1 000	1 000
Dielectric strength		50 Hz 1 min.	kV	10	10
			kV	12	
Rated impulse withstand voltage					
Rated thermal current in ambient 40 °C / max. fuse power dissipation <sup>1)</sup>	In open air		A/W	32/3.5	63/7.5
	In enclosure <sup>2)</sup>		A/W	32/3.5	63/7.5
...with minimum cable cross section		Cu	mm <sup>2</sup>	6	16
Rated operational current, AC-23A		up to 500 V	A	32	63
		690 V	A	32	63
Rated operational power, AC-23 <sup>3)</sup>	The kW-ratings are accurate for three-phase 1500 R.P.M. standard asynchronous motors.	230 V	kW	7.5	18.5
		400 V	kW	15	30
		415 V	kW	15	30
		500 V	kW	18.5	37
		690 V	kW	22	55
Rated breaking capacity in category AC-23		up to 500 V	A	256	504
		690 V	A	256	504
Rated short-time withstand current, 1 s	r.m.s. -value		kA	1	2.5
Power loss / pole	With rated current, without fuse		W	2	4
Weight without accessories	3-pole switch fuses		kg	0.7	1.3
	4-pole switch fuses		kg	0.9	1.6
Built-in terminal size		Cu	mm <sup>2</sup>	0.75...10	2.5...25
Terminal bolt size (included)	Metric thread diameter x length		mm		
Fuse-links bolts tightening torque			Nm	2	3.5

<sup>1)</sup> = Utilization category B

<sup>1)</sup> Ambient temperature 60 °C: derating 20%

<sup>2)</sup> Mounting on "ceiling": derating 10%. Mounting on wall, horizontal fuses: derating 8%

<sup>3)</sup> Some fuse links limit these figures further. Starting current characteristics must be considered separately.



# Fusible disconnect switches OS 30-800

## Technical data

OS 100G	OS 200	OS 400	OS 600	OS 800	OS 1200
UL 98/CSA/IEC UL 98/CSA/IEC	UL 98/CSA/IEC UL 98/CSA/IEC	UL 98/CSA/IEC UL 98/CSA/IEC	UL 98/CSA/IEC UL 98/CSA/IEC	UL 98/CSA/IEC UL 98/CSA/IEC	UL 98/CSA/IEC UL 98/CSA/IEC
100 600	200 600	400 600	600 600	800 600	1200 600
30/80.0 60/77.0 75/77.0	60/154.0 125/156.0 150/144.0	125.0/312.0 250.0/302.0 350.0/336.0	200/480.0 400/477.0 500/472.0	250/602.0 500/590.0 500/472.0	
100 100 J	200 200 J	200 400 J	200 600 J	200 800 L	200 1200 L
6000 20 000	6000 16 000	1000 12 000	1000 4000	500 3000	500 2000
OZXA-24 #14-2/0	OZXA-200 #4-300MCM	OZXA-400 #2-600MCM	OZXA-800 (2)#2-600MCM	OZXA-800 (2)#2-600MCM	OZXA-1200 (4)#2-600MCM
120 50	275	375	500 480	500 480	500 480
1 000 10	1 000 10 12	1 000 10 12	1 000 10 12	1 000 10 12	1000 10 12
160/12 160/10, 135/12	200/17 200/15	400/45 400/30	630/60 570/50	800/65 720/55	1250/110 1000/85
70 160 160	95 200 200	240 400 400	2x185 630 630	2x240 800 800	2x400 1000 *) 1000 *)
45 75 75 90 132	60 110 110 132 200	132 220 230 280 400	200 355 355 450 630	250 450 450 560 710	315 *) 560 *) 560 *) 710 *) 1000 *)
1280 1280	1600 1600	3200 3200	6400 6400	6400 6400	8000 8000
5 9 1.5 1.8	8 8 2.6	14 30 5.7	20 46 11.5	20 75 11.5	75 29
M6x20 M5:3.5 M8:5	M8x25 4	M10x30 20	M12x40 40	M12x40 40	M12x50 40