

DISCONNECT SWITCHES - OPEN TYPE

MAIN SWITCH

Handle/front plate colour: black/silver = bl/si

EMERGENCY-OFF SWITCHES

Handle/front plate colour: red/yellow = rd/ye
lockout handle for 2 padlocks



Standard front plates

Design

FB 9229

FB 9229

FB 9229

FB 9229

FB 9229

Contact arrangements	Handle/ front plate Colour	Capacity AC3 at 400V kW	Rated uninter- rupted current I _{th} A	Switching angle degree	Contact chambers number	Series	Front mounting with 4-hole fixing Type	Order no.	
3pole	rd/ye	for 2 padlocks							
		5,5	20	90	3	104	A 104/6.0200-EV	MZ 10 041	
		5,5	20	90	3	105	A 105/6.0200-EV	MZ 12 041	
	bl/si	7,5	32	90	2	151	A 151/6.0200-EV	MZ 17 041	
		5,5	20	90	3	104	A 104/6.0200-EVS	MZ 10 042	
		5,5	20	90	3	105	A 105/6.0200-EVS	MZ 12 042	
	4pole 1 contact priority	rd/ye	7,5	32	90	2	151	A 151/6.0200-EVS	MZ 17 042
			5,5	20	90	3	104	A 104/22.0200-EV	MZ 10 043
			5,5	20	90	3	105	A 105/22.0200-EV	MZ 12 043
bl/si		7,5	32	90	2	151	A 151/22.0200-EV	MZ 17 043	
		5,5	20	90	3	104	A 104/22.0200-EVS	MZ 10 044	
		5,5	20	90	3	105	A 105/22.0200-EVS	MZ 12 044	
6pole		rd/ye	7,5	32	90	2	151	A 151/22.0200-EVS	MZ 17 044
			5,5	20	90	4	104	A 104/10.0200-EV	MZ 10 047
			5,5	20	90	4	105	A 105/10.0200-EV	MZ 12 047
	bl/si	7,5	32	90	3	151	A 151/10.0200-EV	MZ 17 047	
		5,5	20	90	4	104	A 104/10.0200-EVS	MZ 10 048	
		5,5	20	90	4	105	A 105/10.0200-EVS	MZ 12 048	
	3pole	rd/ye	for 3 padlocks						
			7,5	32	90	2	151	A 151/6.1550	MZ 17 085
			11	40	90	2	251	A 251/6.1850	MZ 19 085
18,5			63	90	2	451	A 451/6.1850	MZ 21 085	
37			80	90	2	656	A 656/6.1150	MZ 25 085	
45			125	90	2	756	A 756/6.1150	MZ 27 085	
5,5			20	90	3	104	A 104/6.1551	MZ 10 086	
5,5			20	90	3	105	A 105/6.1551	MZ 12 086	
7,5			32	90	2	151	A 151/6.1551	MZ 17 086	
bl/gr		11	40	90	2	251	A 251/6.1851	MZ 19 086	
		18,5	63	90	2	451	A 451/6.1851	MZ 21 086	
		37	80	90	2	656	A 656/6.1151	MZ 25 086	
rd/ye		45	125	90	2	756	A 756/6.1151	MZ 27 086	
		5,5	20	90	4	104	A 104/216.1550	MZ 10 117	
		5,5	20	90	4	105	A 105/216.1550	MZ 12 117	
		7,5	32	90	3	151	A 151/216.1550	MZ 17 117	
		11	40	90	3	251	A 251/216.1850	MZ 19 117	
		18,5	63	90	3	451	A 451/216.1850	MZ 21 117	
	37	80	90	3	656	A 656/216.1150	MZ 25 117		
	45	125	90	3	756	A 756/216.1150	MZ 27 117		
	3pole + 1 NC + 1 NO	bl/gr	5,5	20	90	4	104	A 104/216.1551	MZ 10 118
5,5			20	90	4	105	A 105/216.1551	MZ 12 118	
7,5			32	90	3	151	A 151/216.1551	MZ 17 118	
bl/gr		11	40	90	3	251	A 251/216.1851	MZ 19 118	
		18,5	63	90	3	451	A 451/216.1851	MZ 21 118	
		37	80	90	3	656	A 656/216.1151	MZ 25 118	
bl/gr		45	125	90	3	756	A 756/216.1151	MZ 27 118	



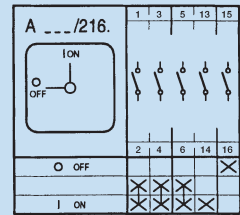
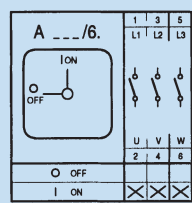
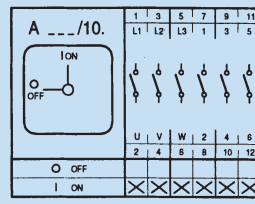
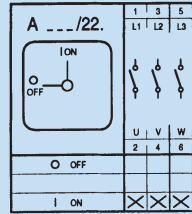
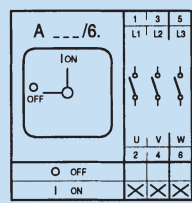
Base mounting with screw fixing		Central mounting Ø 22,5 mm and Ø 30,5 mm	
Type	Order no.	Type	Order no.

A 104/6.0288-EV	MZ 10 053	A 104/6.0260-EV	MZ 10 065
A 105/6.0288-EV	MZ 12 053	A 105/6.0260-EV	MZ 12 065
A 151/6.0288-EV	MZ 17 053	A 151/6.0260-EV	MZ 17 065
A 104/6.0288-EVS	MZ 10 054	A 104/6.0260-EVS	MZ 10 066
A 105/6.0288-EVS	MZ 12 054	A 105/6.0260-EVS	MZ 12 066
A 151/6.0288-EVS	MZ 17 054	A 151/6.0260-EVS	MZ 17 066
A 104/22.0288-EV	MZ 10 055	A 104/22.0260-EV	MZ 10 067
A 105/22.0288-EV	MZ 12 055	A 105/22.0260-EV	MZ 12 067
A 151/22.0288-EV	MZ 17 055	A 151/22.0260-EV	MZ 17 067
A 104/22.0288-EVS	MZ 10 056	A 104/22.0260-EVS	MZ 10 068
A 105/22.0288-EVS	MZ 12 056	A 105/22.0260-EVS	MZ 12 068
A 151/22.0288-EVS	MZ 17 056	A 151/22.0260-EVS	MZ 17 068
A 104/10.0288-EV	MZ 10 059	A 104/10.0260-EV	MZ 10 071
A 105/10.0288-EV	MZ 12 059	A 105/10.0260-EV	MZ 12 071
A 151/10.0288-EV	MZ 17 059	A 151/10.0260-EV	MZ 17 071
A 104/10.0288-EVS	MZ 10 060	A 104/10.0260-EVS	MZ 10 072
A 105/10.0288-EVS	MZ 12 060	A 105/10.0260-EVS	MZ 12 072
A 151/10.0288-EVS	MZ 17 060	A 151/10.0260-EVS	MZ 17 072
A 104/6.1580	MZ 10 097	A 104/6.1560	MZ 10 109
A 105/6.1580	MZ 12 097	A 105/6.1560	MZ 12 109
A 151/6.1580	MZ 17 097	A 151/6.1560	MZ 17 109
A 251/6.1880	MZ 19 097	A 251/6.1560	MZ 19 109
A 451/6.1880	MZ 21 097	A 451/6.1560	MZ 21 109
A 656/6.1880	MZ 25 097		
A 756/6.1880	MZ 27 097		
A 104/6.1581	MZ 10 098	A 104/6.1561	MZ 10 110
A 105/6.1581	MZ 12 098	A 105/6.1561	MZ 12 110
A 151/6.1581	MZ 17 098	A 151/6.1561	MZ 17 110
A 251/6.1881	MZ 19 098	A 251/6.1561	MZ 19 110
A 451/6.1881	MZ 21 098	A 451/6.1561	MZ 21 110
A 656/6.1881	MZ 25 098		
A 756/6.1881	MZ 27 098		
A 104/216.1580	MZ 10 119	A 104/216.1560	MZ 10 145
A 105/216.1580	MZ 12 119	A 105/216.1560	MZ 12 145
A 151/216.1580	MZ 17 119	A 151/216.1560	MZ 17 145
A 251/216.1880	MZ 19 119	A 251/216.1560	MZ 19 145
A 451/216.1880	MZ 21 119	A 451/216.1560	MZ 21 145
A 656/216.1880	MZ 25 119		
A 756/216.1880	MZ 27 119		
A 104/216.1581	MZ 10 144	A 104/216.1561	MZ 10 146
A 105/216.1581	MZ 12 144	A 105/216.1561	MZ 12 146
A 151/216.1581	MZ 17 144	A 151/216.1561	MZ 17 146
A 251/216.1881	MZ 19 144	A 251/216.1561	MZ 19 146
A 451/216.1881	MZ 21 144	A 451/216.1561	MZ 21 146
A 656/216.1881	MZ 25 144		
A 756/216.1881	MZ 27 144		

Dimensions illustration/Dimensions see page 47-49

Contact diagram

x Contact closed
 x Contact closed without interruption



DISCONNECT SWITCHES - OPEN TYPE

MAIN SWITCH

Handle/front plate colour: black/grey = bl/gr

EMERGENCY-OFF SWITCHES

Handle/front plate colour: red/yellow = rd/ye
lockout handle for 3 padlocks



IP 55

Standard front plates

Design

FB 9229

FB 9229

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Contact arrangements	Handle/ front plate Colour	Capacity AC3 at 400V kW	Rated uninter- rupted current I _{th} A	Switching angle degree	Contact chambers number	Series	Front mounting with 4-hole fixing																																																																																																																																																																																																																																																												
							Type	Order no.																																																																																																																																																																																																																																																											
4pole 1 contact priority	rd/ye	5,5	20	90	3	104	A 104/22.1550	MZ 10 087																																																																																																																																																																																																																																																											
		5,5	20	90	3	105	A 105/22.1550	MZ 12 087																																																																																																																																																																																																																																																											
		7,5	32	90	2	151	A 151/22.1550	MZ 17 087																																																																																																																																																																																																																																																											
		11	40	90	2	251	A 251/22.1850	MZ 19 087																																																																																																																																																																																																																																																											
		18,5	63	90	2	451	A 451/22.1850	MZ 21 087																																																																																																																																																																																																																																																											
		37	80	90	2	656	A 656/22.1150	MZ 25 087																																																																																																																																																																																																																																																											
	45	125	90	2	756	A 756/22.1150	MZ 27 087	bl/gr	5,5	20	90	3	104	A 104/22.1551	MZ 10 088	5,5	20	90	3	105	A 105/22.1551	MZ 12 088	7,5	32	90	2	151	A 151/22.1551	MZ 17 088	11	40	90	2	251	A 251/22.1851	MZ 19 088	18,5	63	90	2	451	A 451/22.1851	MZ 21 088	37	80	90	2	656	A 656/22.1151	MZ 25 088	45	125	90	2	756	A 756/22.1151	MZ 27 088	6pole	rd/ye	5,5	20	90	4	104	A 104/10.1550	MZ 10 091	5,5	20	90	4	105	A 105/10.1550	MZ 12 091	7,5	32	90	3	151	A 151/10.1550	MZ 17 091	11	40	90	3	251	A 251/10.1850	MZ 19 091	18,5	63	90	3	451	A 451/10.1850	MZ 21 091	37	80	90	3	656	A 656/10.1150	MZ 25 091	45	125	90	3	756	A 756/10.1150	MZ 27 091	bl/gr	5,5	20	90	4	104	A 104/10.1551	MZ 10 092	5,5	20	90	4	105	A 105/10.1551	MZ 12 092	7,5	32	90	3	151	A 151/10.1551	MZ 17 092	11	40	90	3	251	A 251/10.1851	MZ 19 092	18,5	63	90	3	451	A 451/10.1851	MZ 21 092	37	80	90	3	656	A 656/10.1151	MZ 25 092	45	125	90	3	756	A 756/10.1151	MZ 27 092	6pole + 1 NC + 1 NO	rd/ye	5,5	20	90	5	104	A 104/219.1550	MZ 10 147	5,5	20	90	5	105	A 105/219.1550	MZ 12 147	7,5	32	90	4	151	A 151/219.1550	MZ 17 147	11	40	90	4	251	A 251/219.1850	MZ 19 147	18,5	63	90	4	451	A 451/219.1850	MZ 21 147	37	80	90	4	656	A 656/219.1150	MZ 25 147	45	125	90	4	756	A 756/219.1150	MZ 27 147	bl/gr	5,5	20	90	5	104	A 104/219.1551	MZ 10 148	5,5	20	90	5	105	A 105/219.1551	MZ 12 148	7,5	32	90	4	151	A 151/219.1551	MZ 17 148	11	40	90	4	251	A 251/219.1851	MZ 19 148	18,5	63	90	4	451	A 451/219.1851	MZ 21 148	37	80	90	4	656	A 656/219.1151	MZ 25 148	45	125	90	4	756	A 756/219.1151	MZ 27 148
	bl/gr	5,5	20	90	3	104	A 104/22.1551		MZ 10 088																																																																																																																																																																																																																																																										
		5,5	20	90	3	105	A 105/22.1551		MZ 12 088																																																																																																																																																																																																																																																										
		7,5	32	90	2	151	A 151/22.1551		MZ 17 088																																																																																																																																																																																																																																																										
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		37	80	90	2	656	A 656/22.1151	MZ 25 088																																																																																																																																																																																																																																																											
	45	125	90	2	756	A 756/22.1151	MZ 27 088	6pole	rd/ye	5,5	20	90	4	104	A 104/10.1550	MZ 10 091	5,5	20	90	4	105	A 105/10.1550	MZ 12 091	7,5	32	90	3	151	A 151/10.1550	MZ 17 091	11	40	90	3	251	A 251/10.1850	MZ 19 091	18,5	63	90	3	451	A 451/10.1850	MZ 21 091	37	80	90	3	656	A 656/10.1150	MZ 25 091	45	125	90	3	756	A 756/10.1150		MZ 27 091	bl/gr	5,5	20	90	4	104	A 104/10.1551	MZ 10 092	5,5	20	90	4	105	A 105/10.1551	MZ 12 092	7,5	32	90	3	151	A 151/10.1551	MZ 17 092	11	40	90	3	251	A 251/10.1851	MZ 19 092	18,5	63	90	3	451	A 451/10.1851	MZ 21 092	37	80	90	3	656	A 656/10.1151	MZ 25 092	45	125	90	3	756	A 756/10.1151	MZ 27 092	6pole + 1 NC + 1 NO	rd/ye	5,5	20	90	5	104	A 104/219.1550	MZ 10 147	5,5	20	90	5	105	A 105/219.1550	MZ 12 147	7,5	32	90	4	151	A 151/219.1550	MZ 17 147	11	40	90	4	251	A 251/219.1850	MZ 19 147	18,5	63	90	4	451	A 451/219.1850	MZ 21 147	37	80	90	4	656	A 656/219.1150	MZ 25 147	45	125	90	4	756		A 756/219.1150	MZ 27 147	bl/gr	5,5	20	90	5	104	A 104/219.1551	MZ 10 148	5,5	20	90	5	105	A 105/219.1551	MZ 12 148	7,5	32	90	4	151	A 151/219.1551	MZ 17 148	11	40	90	4	251	A 251/219.1851	MZ 19 148	18,5	63	90	4	451	A 451/219.1851	MZ 21 148	37	80	90	4	656	A 656/219.1151	MZ 25 148	45	125	90	4	756	A 756/219.1151	MZ 27 148																																																
6pole	rd/ye	5,5	20	90	4	104	A 104/10.1550			MZ 10 091																																																																																																																																																																																																																																																									
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	45	125	90	3	756	A 756/10.1150	MZ 27 091		bl/gr	5,5	20	90	4	104	A 104/10.1551	MZ 10 092	5,5	20	90	4	105	A 105/10.1551	MZ 12 092	7,5	32	90	3	151	A 151/10.1551	MZ 17 092	11	40	90	3	251	A 251/10.1851	MZ 19 092	18,5	63	90	3	451	A 451/10.1851	MZ 21 092	37	80	90	3	656	A 656/10.1151	MZ 25 092	45	125	90	3	756	A 756/10.1151	MZ 27 092	6pole + 1 NC + 1 NO	rd/ye	5,5	20	90	5	104	A 104/219.1550	MZ 10 147	5,5	20	90	5	105	A 105/219.1550	MZ 12 147	7,5	32	90	4	151	A 151/219.1550	MZ 17 147	11	40	90	4	251	A 251/219.1850	MZ 19 147	18,5	63	90	4	451	A 451/219.1850	MZ 21 147	37	80	90	4	656	A 656/219.1150	MZ 25 147	45	125	90	4	756	A 756/219.1150	MZ 27 147		bl/gr	5,5	20	90	5	104	A 104/219.1551	MZ 10 148	5,5	20	90	5	105	A 105/219.1551	MZ 12 148	7,5	32	90	4	151	A 151/219.1551	MZ 17 148	11	40	90	4	251	A 251/219.1851	MZ 19 148	18,5	63	90	4	451	A 451/219.1851	MZ 21 148	37	80	90	4	656	A 656/219.1151	MZ 25 148	45	125	90	4	756	A 756/219.1151	MZ 27 148																																																																																																			
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	45	125	90	3	756	A 756/10.1151	MZ 27 092	6pole + 1 NC + 1 NO	rd/ye	5,5	20	90	5	104	A 104/219.1550	MZ 10 147	5,5	20	90	5	105	A 105/219.1550	MZ 12 147	7,5	32	90	4	151	A 151/219.1550	MZ 17 147	11	40	90	4	251	A 251/219.1850	MZ 19 147	18,5	63	90	4	451	A 451/219.1850	MZ 21 147	37	80	90	4	656	A 656/219.1150	MZ 25 147	45	125	90	4	756	A 756/219.1150	MZ 27 147		bl/gr	5,5	20	90	5	104	A 104/219.1551	MZ 10 148	5,5	20	90	5	105	A 105/219.1551	MZ 12 148	7,5	32	90	4	151	A 151/219.1551	MZ 17 148	11	40	90	4	251	A 251/219.1851	MZ 19 148	18,5	63	90	4	451	A 451/219.1851	MZ 21 148	37	80	90	4	656	A 656/219.1151	MZ 25 148	45	125	90	4	756	A 756/219.1151	MZ 27 148																																																																																																																																																						
6pole + 1 NC + 1 NO	rd/ye	5,5	20	90	5	104	A 104/219.1550			MZ 10 147																																																																																																																																																																																																																																																									
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		18,5	63	90	4	451	A 451/219.1850			MZ 21 147																																																																																																																																																																																																																																																									
		37	80	90	4	656	A 656/219.1150		MZ 25 147																																																																																																																																																																																																																																																										
	45	125	90	4	756	A 756/219.1150	MZ 27 147		bl/gr	5,5	20	90	5	104	A 104/219.1551	MZ 10 148	5,5	20	90	5	105	A 105/219.1551	MZ 12 148	7,5	32	90	4	151	A 151/219.1551	MZ 17 148	11	40	90	4	251	A 251/219.1851	MZ 19 148	18,5	63	90	4	451	A 451/219.1851	MZ 21 148	37	80	90	4	656	A 656/219.1151	MZ 25 148	45	125	90	4	756	A 756/219.1151	MZ 27 148																																																																																																																																																																																																									
	bl/gr	5,5	20	90	5	104	A 104/219.1551			MZ 10 148																																																																																																																																																																																																																																																									
		5,5	20	90	5	105	A 105/219.1551			MZ 12 148																																																																																																																																																																																																																																																									
		7,5	32	90	4	151	A 151/219.1551			MZ 17 148																																																																																																																																																																																																																																																									
		11	40	90	4	251	A 251/219.1851			MZ 19 148																																																																																																																																																																																																																																																									
		18,5	63	90	4	451	A 451/219.1851			MZ 21 148																																																																																																																																																																																																																																																									
		37	80	90	4	656	A 656/219.1151		MZ 25 148																																																																																																																																																																																																																																																										
	45	125	90	4	756	A 756/219.1151	MZ 27 148																																																																																																																																																																																																																																																												



IP 55

IP 65

Base mounting with screw fixing

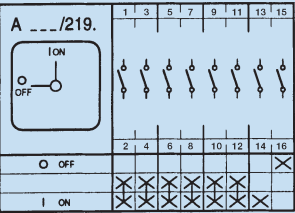
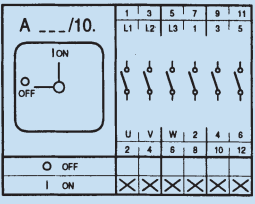
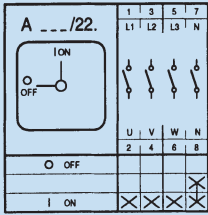
**Central mounting
Ø 22,5 mm and Ø 30,5 mm**

Type	Order no.	Type	Order no.
A 104/22.1580	MZ 10 099	A 104/22.1560	MZ 10 111
A 105/22.1580	MZ 12 099	A 105/22.1560	MZ 12 111
A 151/22.1580	MZ 17 099	A 151/22.1560	MZ 17 111
A 251/22.1880	MZ 19 099	A 251/22.1560	MZ 19 111
A 451/22.1880	MZ 21 099	A 451/22.1560	MZ 21 111
A 656/22.1880	MZ 25 099		
A 756/22.1880	MZ 27 099		
A 104/22.1581	MZ 10 100	A 104/22.1561	MZ 10 112
A 105/22.1581	MZ 12 100	A 105/22.1561	MZ 12 112
A 151/22.1581	MZ 17 100	A 151/22.1561	MZ 17 112
A 251/22.1881	MZ 19 100	A 251/22.1561	MZ 19 112
A 451/22.1881	MZ 21 100	A 451/22.1561	MZ 21 112
A 656/22.1881	MZ 25 100		
A 756/22.1881	MZ 27 100		
A 104/10.1580	MZ 10 103	A 104/10.1560	MZ 10 115
A 105/10.1580	MZ 12 103	A 105/10.1560	MZ 12 115
A 151/10.1580	MZ 17 103	A 151/10.1560	MZ 17 115
A 251/10.1880	MZ 19 103	A 251/10.1560	MZ 19 115
A 451/10.1880	MZ 21 103	A 451/10.1560	MZ 21 115
A 656/10.1880	MZ 25 103		
A 756/10.1880	MZ 27 103		
A 104/10.1581	MZ 10 104	A 104/10.1561	MZ 10 116
A 105/10.1581	MZ 12 104	A 105/10.1561	MZ 12 116
A 151/10.1581	MZ 17 104	A 151/10.1561	MZ 17 116
A 251/10.1881	MZ 19 104	A 251/10.1561	MZ 19 116
A 451/10.1881	MZ 21 104	A 451/10.1561	MZ 21 116
A 656/10.1881	MZ 25 104		
A 756/10.1881	MZ 27 104		
A 104/219.1580	MZ 10 149	A 104/219.1560	MZ 10 175
A 105/219.1580	MZ 12 149	A 105/219.1560	MZ 12 175
A 151/219.1580	MZ 17 149	A 151/219.1560	MZ 17 175
A 251/219.1880	MZ 19 149	A 251/219.1560	MZ 19 175
A 451/219.1880	MZ 21 149	A 451/219.1560	MZ 21 175
A 656/219.1880	MZ 25 149		
A 756/219.1880	MZ 27 149		
A 104/219.1581	MZ 10 174	A 104/219.1561	MZ 10 176
A 105/219.1581	MZ 12 174	A 105/219.1561	MZ 12 176
A 151/219.1581	MZ 17 174	A 151/219.1561	MZ 17 176
A 251/219.1881	MZ 19 174	A 251/219.1561	MZ 19 176
A 451/219.1881	MZ 21 174	A 451/219.1561	MZ 21 176
A 656/219.1881	MZ 25 174		
A 756/219.1881	MZ 27 174		

Dimensions illustration/Dimensions see page 47-49

Contact diagram

x Contact closed
 x Contact closed without interruption



CHANGE-OVER SWITCHES WITH 0-POSITION

Handle/front plate colour: black/silver = bl/si

REVERSING SWITCHES

Handle/front plate colour: black/silver = bl/si



IP 55

Standard front plates

Design

FB 6002

FB 6002

FB 6002

FB 6002

FB 6002

FB 6002

Contact arrangements	Handle/ front plate Colour	Capacity AC3 at 400V kW	Rated uninter- rupted current I_{th} A	Switching angle degree	Contact chambers number	Series	Front mounting with 4-hole fixing Type	Order no.
3pole	bl/si	Change-over switches						
		2,2	10	60	3	107	Z 107/3.0150	MZ 15 122
		5,5	20	60	4	104	Z 104/3.0200	MZ 10 122
		5,5	20	60	4	105	Z 105/3.0200	MZ 12 122
		7,5	32	60	3	151	Z 151/3.0200	MZ 17 122
		11	40	60	3	251	Z 251/3.0400	MZ 19 122
		18,5	63	60	3	451	Z 451/3.0400	MZ 21 122
		37	80	60	3	656	Z 656/3.0600	MZ 25 122
		45	125	60	3	756	Z 756/3.0600	MZ 27 122
		2,2	10	60	4	107	Z 107/12.0150	MZ 15 123
		5,5	20	60	5	104	Z 104/12.0200	MZ 10 123
		5,5	20	60	5	105	Z 105/12.0200	MZ 12 123
		7,5	32	60	4	151	Z 151/12.0200	MZ 17 123
		11	40	60	4	251	Z 251/12.0400	MZ 19 123
		18,5	63	60	4	451	Z 451/12.0400	MZ 21 123
37	80	60	4	656	Z 656/12.0600	MZ 25 123		
45	125	60	4	756	Z 756/12.0600	MZ 27 123		
6pole	bl/si	Change-over switches						
		2,2	10	60	6	107	Z 107/26.0150	MZ 15 125
		5,5	20	60	7	104	Z 104/26.0200	MZ 10 125
		5,5	20	60	7	105	Z 105/26.0200	MZ 12 125
		7,5	32	60	6	151	Z 151/26.0200	MZ 17 125
		11	40	60	6	251	Z 251/26.0400	MZ 19 125
		18,5	63	60	6	451	Z 451/26.0400	MZ 21 125
		37	80	60	6	656	Z 656/26.0600	MZ 25 125
		45	125	60	6	756	Z 756/26.0600	MZ 27 125
		5,5	20	60	9	104	Z 104/24.0200	MZ 10 127
		5,5	20	60	9	105	Z 105/24.0200	MZ 12 127
		7,5	32	60	8	151	Z 151/24.0200	MZ 17 127
		11	40	60	8	251	Z 251/24.0400	MZ 19 127
		18,5	63	60	8	451	Z 451/24.0400	MZ 21 127
		37	80	60	8	656	Z 656/24.0600	MZ 25 127
45	125	60	8	756	Z 756/24.0600	MZ 27 127		
2pole	bl/si	Reversing switches						
		5,5	20	60	3	104	W 104/2.0200	MZ 10 190
		5,5	20	60	3	105	W 105/2.0200	MZ 12 190
		7,5	32	60	2	151	W 151/2.0200	MZ 17 190
		11	40	60	2	251	W 251/2.0400	MZ 19 190
		18,5	63	60	2	451	W 451/2.0400	MZ 21 190
		37	80	60	2	656	W 656/2.0600	MZ 25 190
		45	125	60	2	756	W 756/2.0600	MZ 27 190
		5,5	20	60	4	104	W 104/3.0200	MZ 10 191
		5,5	20	60	4	105	W 105/3.0200	MZ 12 191
		7,5	32	60	3	151	W 151/3.0200	MZ 17 191
		11	40	60	3	251	W 251/3.0400	MZ 19 191
		18,5	63	60	3	451	W 451/3.0400	MZ 21 191
		37	80	60	3	656	W 656/3.0600	MZ 25 191
		45	125	60	3	756	W 756/3.0600	MZ 27 191
3pole	bl/si	Reversing switches						
		5,5	20	60	4	104	W 104/3.0200	MZ 10 191
		5,5	20	60	4	105	W 105/3.0200	MZ 12 191
		7,5	32	60	3	151	W 151/3.0200	MZ 17 191
		11	40	60	3	251	W 251/3.0400	MZ 19 191
		18,5	63	60	3	451	W 451/3.0400	MZ 21 191
		37	80	60	3	656	W 656/3.0600	MZ 25 191
		45	125	60	3	756	W 756/3.0600	MZ 27 191



IP 54

IP 65

Base mounting with screw fixing

Central mounting Ø 22,5 mm and Ø 30,5 mm

Type	Order no.	Type	Order no.
Z 104/3.0202	MZ 10 130	Z 107/3.0160	MZ 15 138
Z 105/3.0202	MZ 12 130	Z 104/3.0260	MZ 10 138
Z 151/3.0202	MZ 17 130	Z 105/3.0260	MZ 12 138
Z 251/3.0402	MZ 19 130	Z 151/3.0260	MZ 17 138
Z 451/3.0402	MZ 21 130	Z 251/3.0260	MZ 19 138
Z 656/3.0602	MZ 25 130		
Z 756/3.0602	MZ 27 130		
Z 104/12.0202	MZ 10 131	Z 107/12.0160	MZ 15 139
Z 105/12.0202	MZ 12 131	Z 104/12.0260	MZ 10 139
Z 151/12.0202	MZ 17 131	Z 105/12.0260	MZ 12 139
Z 251/12.0402	MZ 19 131	Z 151/12.0260	MZ 17 139
Z 451/12.0402	MZ 21 131	Z 251/12.0260	MZ 19 139
Z 656/12.0602	MZ 25 131		
Z 756/12.0602	MZ 27 131		
Z 104/26.0202	MZ 10 133	Z 107/26.0160	MZ 15 141
Z 105/26.0202	MZ 12 133	Z 104/26.0260	MZ 10 141
Z 151/26.0202	MZ 17 133	Z 105/26.0260	MZ 12 141
Z 251/26.0402	MZ 19 133	Z 151/26.0260	MZ 17 141
Z 451/26.0402	MZ 21 133	Z 251/26.0260	MZ 19 141
Z 656/26.0602	MZ 25 133		
Z 756/26.0602	MZ 27 133		
Z 104/24.0202	MZ 10 135	Z 104/24.0260	MZ 10 143
Z 105/24.0202	MZ 12 135	Z 105/24.0260	MZ 12 143
Z 151/24.0202	MZ 17 135	Z 151/24.0260	MZ 17 143
Z 251/24.0402	MZ 19 135	Z 251/24.0260	MZ 19 143
Z 451/24.0402	MZ 21 135		
Z 656/24.0602	MZ 25 135		
Z 756/24.0602	MZ 27 135		
W 104/2.0202	MZ 10 195	W 104/2.0260	MZ 10 200
W 105/2.0202	MZ 12 195	W 105/2.0260	MZ 12 200
W 151/2.0202	MZ 17 195	W 151/2.0260	MZ 17 200
W 251/2.0402	MZ 19 195	W 251/2.0260	MZ 19 200
W 451/2.0402	MZ 21 195		
W 656/2.0602	MZ 25 195		
W 756/2.0602	MZ 27 195		
W 104/3.0202	MZ 10 196	W 104/3.0260	MZ 10 201
W 105/3.0202	MZ 12 196	W 105/3.0260	MZ 12 201
W 151/3.0202	MZ 17 196	W 151/3.0260	MZ 17 201
W 251/3.0402	MZ 19 196	W 251/3.0260	MZ 19 201
W 451/3.0402	MZ 21 196		
W 656/3.0602	MZ 25 196		
W 756/3.0602	MZ 27 196		

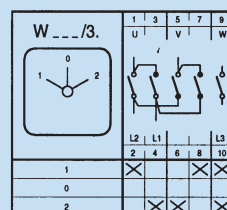
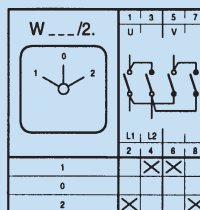
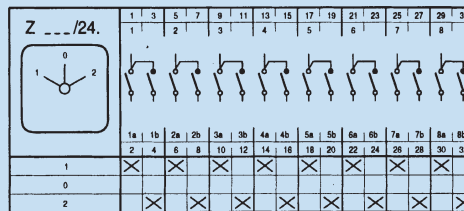
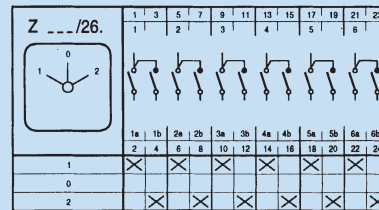
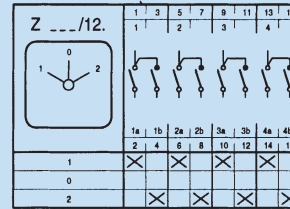
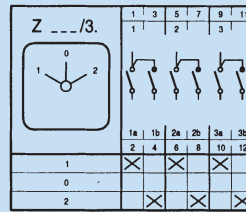
Dimensions illustration/Dimensions see page 47-49

Contact diagram

x Contact closed

x Contact closed

x without interruption



Attention: switch diagrams and terminal markings for series 107 can be different to the displayed diagrams

STAR-DELTA SWITCHES

Handle/front plate colour: black/silver = bl/si

MULTI-SPEED SWITCHES

Handle/front plate colour: black/silver = bl/si

VOLTMETER SELECTOR SWITCHES AMMETER SELECTOR SWITCHES

Handle/front plate colour: black/silver = bl/si



IP 55

Standard front plates
Design
<p>FB 6003</p>
<p>FB 4002</p>
<p>FB 1032</p>
<p>FB 1032</p>
<p>FB 6012</p>
<p>FB 6002</p>
<p>FB 3004</p>
<p>FB 9003</p>

Contact arrangements	Handle/ front plate Colour	Capacity AC3 at 400V kW	Rated uninter- rupted current I _{th} A	Switching angle degree	Contact chambers number	Series	Front mounting with 4-hole fixing		
							Type	Order no.	
standard	bl/si	Star-delta switches							
		5,5	20	60	5	104	S 104/1.0200	MZ 10 250	
		5,5	20	60	5	105	S 105/1.0200	MZ 12 250	
		7,5	32	60	4	151	S 151/1.0200	MZ 17 250	
		11	40	60	4	251	S 251/1.0400	MZ 19 250	
		18,5	63	60	4	451	S 451/1.0400	MZ 21 250	
		37	80	60	4	656	S 656/1.0600	MZ 25 250	
	45	125	60	4	756	S 756/1.0600	MZ 27 250		
	2 reversing	bl/si	5,5	20	45	6	105	S 104/3.0200	MZ 10 254
			5,5	20	45	6	104	S 105/3.0200	MZ 12 254
			7,5	32	45	5	151	S 151/3.0200	MZ 17 254
			11	40	45	5	251	S 251/3.0400	MZ 19 254
			18,5	63	45	5	451	S 451/3.0400	MZ 21 254
			37	80	45	5	656	S 656/3.0600	MZ 25 254
45			125	45	5	756	S 756/3.0600	MZ 27 254	
2 reversing with contact	bl/si	5,5	20	45/90	7	105	S 104/16.0200	MZ 10 255	
		5,5	20	45/90	7	104	S 105/16.0200	MZ 12 255	
		7,5	32	45/90	6	151	S 151/16.0200	MZ 17 255	
		11	40	45/90	6	251	S 251/16.0400	MZ 19 255	
		18,5	63	45/90	6	451	S 451/16.0400	MZ 21 255	
		37	80	45/90	6	656	S 656/16.0600	MZ 25 255	
		45	125	45/90	6	756	S 756/16.0600	MZ 27 255	
2 reversing for individually compensated motors	bl/si	5,5	20	45/90	6	105	S 104/27.0200	MZ 10 256	
		5,5	20	45/90	6	104	S 105/27.0200	MZ 12 256	
		7,5	32	45/90	5	151	S 151/27.0200	MZ 17 256	
		11	40	45/90	5	251	S 251/27.0400	MZ 19 256	
		18,5	63	45/90	5	451	S 451/27.0400	MZ 21 256	
		37	80	45/90	5	656	S 656/27.0600	MZ 25 256	
		45	125	45/90	5	756	S 756/27.0600	MZ 27 256	
2-speed switches tapped windings	bl/si	Multi-speed switches							
		5,5	20	60	5	104	P 104/1.0200	MZ 10 210	
		5,5	20	60	5	105	P 105/1.0200	MZ 12 210	
		7,5	32	60	4	151	P 151/1.0200	MZ 17 210	
		11	40	60	4	251	P 251/1.0400	MZ 19 210	
		18,5	63	60	4	451	P 451/1.0400	MZ 21 210	
		37	80	60	4	656	P 656/1.0600	MZ 25 210	
	45	125	60	4	756	P 756/1.0600	MZ 27 210		
	2-speed switches 2 separate windings	bl/si	5,5	20	60	4	104	P 104/48.0200	MZ 10 215
			5,5	20	60	4	105	P 105/48.0200	MZ 12 215
			7,5	32	60	3	151	P 151/48.0200	MZ 17 215
			11	40	60	3	251	P 251/48.0400	MZ 19 215
			18,5	63	60	3	451	P 451/48.0400	MZ 21 215
			37	80	60	3	656	P 656/48.0600	MZ 25 215
45			125	60	3	756	P 756/48.0600	MZ 27 215	
3 line voltages 3 phases to N	bl/si	Voltmeter selector switches							
		2,2	20	30	3	107	V 107/49.0150	MZ 15 283	
		5,5	20	30	4	104	V 104/49.0200	MZ 10 283	
		5,5	20	30	4	105	V 105/49.0200	MZ 12 283	
1pole 3 transformer circuits	bl/si	Ammeter selector switches							
		2,2	10	90	3	107	V 107/147.0150	MZ 15 301	
		5,5	20	90	4	104	V 104/147.0200	MZ 10 301	
		5,5	20	90	4	105	V 105/147.0200	MZ 12 301	



IP 54

IP 65

Base mounting with screw fixing

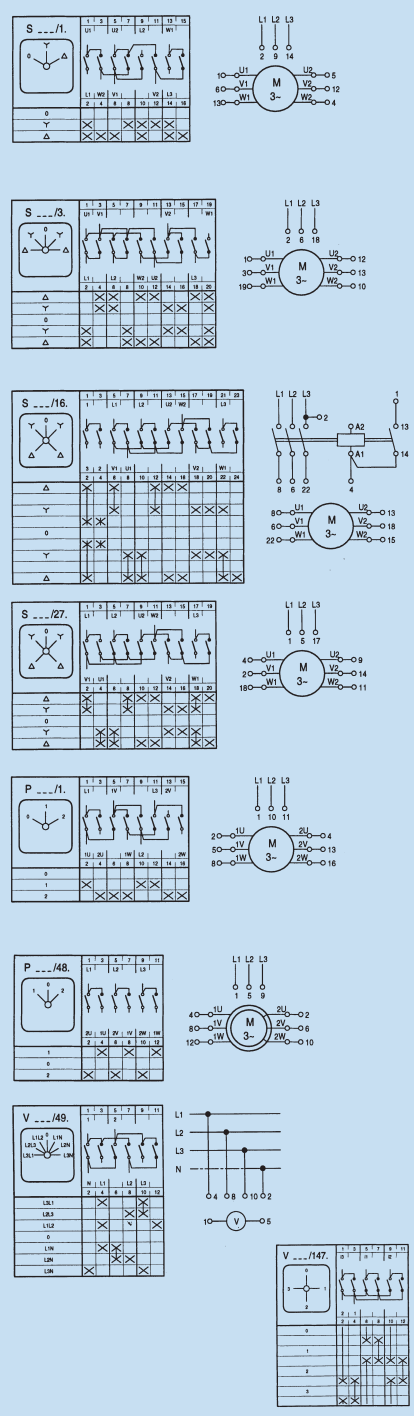
Central mounting with central fixing
Ø 22,5 mm und Ø 30,5 mm

Type	Order no.	Type	Order no.
S 104/1.0202	MZ 10 257	S 104/1.0260	MZ 10 264
S 105/1.0202	MZ 12 257	S 105/1.0260	MZ 12 264
S 151/1.0202	MZ 17 257	S 151/1.0260	MZ 17 264
S 251/1.0402	MZ 19 257	S 251/1.0260	MZ 19 264
S 451/1.0402	MZ 21 257		
S 656/1.0602	MZ 25 257		
S 756/1.0602	MZ 27 257		
S 104/3.0202	MZ 10 261	S 104/3.0260	MZ 10 268
S 105/3.0202	MZ 12 261	S 105/3.0260	MZ 12 268
S 151/3.0202	MZ 17 261	S 151/3.0260	MZ 17 268
S 251/3.0402	MZ 19 261	S 251/3.0260	MZ 19 268
S 451/3.0402	MZ 21 261		
S 656/3.0602	MZ 25 261		
S 756/3.0602	MZ 27 261		
S 104/16.0202	MZ 10 262	S 104/16.0260	MZ 10 269
S 105/16.0202	MZ 12 262	S 105/16.0260	MZ 12 269
S 151/16.0202	MZ 17 262	S 151/16.0260	MZ 17 269
S 251/16.0402	MZ 19 262	S 251/16.0260	MZ 19 269
S 451/16.0402	MZ 21 262		
S 656/16.0602	MZ 25 262		
S 756/16.0602	MZ 27 262		
S 104/27.0202	MZ 10 263	S 104/27.0260	MZ 10 270
S 105/27.0202	MZ 12 263	S 105/27.0260	MZ 12 270
S 151/27.0202	MZ 17 263	S 151/27.0260	MZ 17 270
S 251/27.0402	MZ 19 263	S 251/27.0260	MZ 19 270
S 451/27.0402	MZ 21 263		
S 656/27.0602	MZ 25 263		
S 756/27.0602	MZ 27 263		
P 104/1.0202	MZ 10 222	P 104/1.0260	MZ 10 234
P 105/1.0202	MZ 12 222	P 105/1.0260	MZ 12 234
P 151/1.0202	MZ 17 222	P 151/1.0260	MZ 17 234
P 251/1.0402	MZ 19 222	P 251/1.0260	MZ 19 234
P 451/1.0402	MZ 21 222		
P 656/1.0602	MZ 25 222		
P 756/1.0602	MZ 27 222		
P 104/48.0202	MZ 10 227	P 104/48.0260	MZ 10 239
P 105/48.0202	MZ 12 227	P 105/48.0260	MZ 12 239
P 151/48.0202	MZ 17 227	P 151/48.0260	MZ 17 239
P 251/48.0402	MZ 19 227	P 251/48.0260	MZ 19 239
P 451/48.0402	MZ 21 227		
P 656/48.0602	MZ 25 227		
P 756/48.0602	MZ 27 227		
V 104/49.0202	MZ 10 290	V 107/49.0160	MZ 15 297
V 105/49.0202	MZ 12 290	V 104/49.0260	MZ 10 297
		V 105/49.0260	MZ 12 297
V 104/147.0202	MZ 10 309	V 107/147.0160	MZ 15 317
V 105/147.0202	MZ 12 309	V 104/147.0260	MZ 10 317
		V 105/147.0260	MZ 12 317

Dimensions illustration/Dimensions see page 47-49

Contact diagram

x Contact closed
x Contact closed without interruption



Attention: switch diagrams and terminal markings for series 107 can be different to the displayed diagrams

ON-OFF SWITCHES

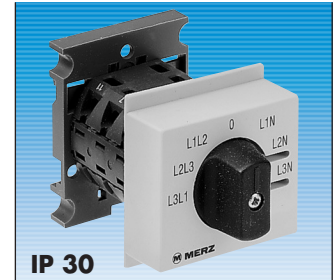
Handle/front plate colour: black/grey = bl/gr

EMERGENCY-OFF SWITCHES

Handle/front plate colour: red/yellow = rd/ye

VOLTMETER SELECTOR SWITCHES AMMETER SELECTOR SWITCHES

Handle/front plate colour: black/grey = bl/gr



IP 30

Standard front plates

Design

FB 9229

FB 9229

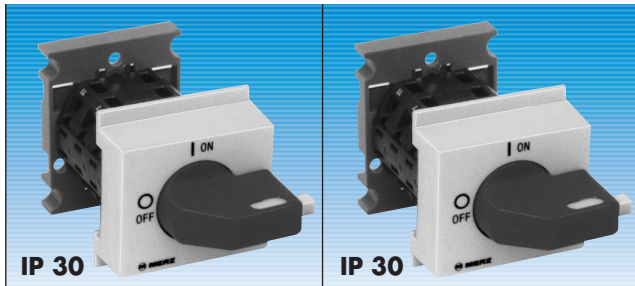
FB 9229

FB 9229

FB 3004

FB 9003

Contact arrangements	Handle/ front plate Colour	Capacity AC3 at 400V kW	Rated uninter- rupted current I _{th} A	Switching angle degree	Contact chambers number	Series	Distribution board mounting with snap on fixing	
							Type	Order no.
1pole	bl/gr	5,5	20	90	2	104	A 104/62.9121	MZ 10 550
		5,5	20	90	2	105	A 105/62.9121	MZ 12 550
	rd/ye	5,5	20	90	2	104		
		5,5	20	90	2	105		
2pole	bl/gr	5,5	20	90	2	104	A 104/50.9121	MZ 10 551
		5,5	20	90	2	105	A 105/50.9121	MZ 12 551
	rd/ye	5,5	20	90	2	104		
		5,5	20	90	2	105		
3pole	bl/gr	5,5	20	90	3	104	A 104/6.9121	MZ 10 552
		5,5	20	90	3	105	A 105/6.9121	MZ 12 552
	rd/ye	5,5	20	90	3	104		
		5,5	20	90	3	105		
4pole 1 contact priority	bl/gr	5,5	20	90	3	104	A 104/22.9121	MZ 10 553
		5,5	20	90	3	105	A 105/22.9121	MZ 12 553
3 line voltages 3 phases to N	bl/gr	5,5	20	30	3	104	V 104/49.9121	MZ 10 565
		5,5	20	30	4	105	V 105/49.9121	MZ 12 565
1pole 3 transformer circuits	bl/gr	5,5	20	90	3	104	V 104/147.9121	MZ 10 566
		5,5	20	90	4	105	V 105/147.9121	MZ 12 566



IP 30

IP 30

Emergency-off switches with lockout handle for 2 padlocks for distribution board mounting with snap on fixing

Main switches lockout with handle for 2 padlocks for distribution board mounting with snap on fixing

Type	Order no.	Type	Order no.
A 104/62.9121-EV	MZ 10 554	A 104/62.9121-EVS	MZ 10 558
A 105/62.9121-EV	MZ 12 554	A 105/62.9121-EVS	MZ 12 558
A 104/50.9121-EV	MZ 10 555	A 104/50.9121-EVS	MZ 10 559
A 105/50.9121-EV	MZ 12 555	A 105/50.9121-EVS	MZ 12 559
A 104/6.9121-EV	MZ 10 556	A 104/6.9121-EVS	MZ 10 560
A 105/6.9121-EV	MZ 12 556	A 105/6.9121-EVS	MZ 12 560
A 104/22.9121-EV	MZ 10 557	A 104/22.9121-EVS	MZ 10 561
A 105/22.9121-EV	MZ 12 557	A 105/22.9121-EVS	MZ 12 561

Dimensions illustration/Dimensions see page 49

Contact diagram

x Contact closed
 x Contact closed without interruption

