

# DISCONNECT SWITCHES WITH UNDER VOLTAGE RELEASE - OPEN TYPES

Switches with **Under Voltages Release**

## ON-OFF SWITCHES

Handle/front plate colour: black/grey = bl/gr  
or \*black/silver = bl/si

## EMERGENCY-OFF SWITCHES

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



**IP 54**



### Standard front plates

#### Design



FB 6493



FB 6493



FB 6493



FB 6493



FB 6493

Contact arrangements	Handle/ front plate Colour	Capacity AC3 at 400 V kW	Rated operational current I <sub>e</sub> AC 21 A	Switching angle degree	Contact chambers number	Series	Front mounting with 2-hole fixing	
							Type	Order no.
2pole USPA 230V AC	bl/si*	7,5	25	60	1	151	A 151/1002.0401-U230/N-S	<b>MZ 23 001</b>
	bl/si*	11	32	60	1	251	A 251/1002.0401-U230/N-S	<b>MZ 23 002</b>
	bl/gr	18,5	50	60	1	451	A 451/1002.0401-U230/N-S	<b>MZ 23 003</b>
	rd/ye	7,5	25	60	1	151		
	rd/ye	11	32	60	1	251		
	rd/ye	18,5	50	60	1	451		
3pole USPA 230V AC	bl/si*	7,5	25	60	2	151	A 151/1008.0401-U230/N-S	<b>MZ 23 007</b>
	bl/si*	11	32	60	2	251	A 251/1008.0401-U230/N-S	<b>MZ 23 008</b>
	bl/gr	18,5	50	60	2	451	A 451/1008.0401-U230/N-S	<b>MZ 23 009</b>
	rd/ye	7,5	25	60	2	151		
	rd/ye	11	32	60	2	251		
	rd/ye	18,5	50	60	2	451		
3pole USPA 400V AC	bl/si*	7,5	25	60	2	151	A 151/1008.0401-U400/2S	<b>MZ 23 010</b>
	bl/si*	11	32	60	2	251	A 251/1008.0401-U400/2S	<b>MZ 23 011</b>
	bl/gr	18,5	50	60	2	451	A 451/1008.0401-U400/2S	<b>MZ 23 012</b>
	rd/ye	7,5	25	60	2	151		
	rd/ye	11	32	60	2	251		
	rd/ye	18,5	50	60	2	451		
4pole USPA 230V AC	bl/si*	7,5	25	60	2	151	A 151/1004.0401-U230/N-S	<b>MZ 23 013</b>
	bl/si*	11	32	60	2	251	A 251/1004.0401-U230/N-S	<b>MZ 23 014</b>
	bl/gr	18,5	50	60	2	451	A 451/1004.0401-U230/N-S	<b>MZ 23 015</b>
	rd/ye	7,5	25	60	2	151		
	rd/ye	11	32	60	2	251		
	rd/ye	18,5	50	60	2	451		
4pole USPA 400V AC	bl/si*	7,5	25	60	2	151	A 151/1004.0401-U400/2S	<b>MZ 23 016</b>
	bl/si*	11	32	60	2	251	A 251/1004.0401-U400/2S	<b>MZ 23 017</b>
	bl/gr	18,5	50	60	2	451	A 451/1004.0401-U400/2S	<b>MZ 23 018</b>
	rd/ye	7,5	25	60	2	151		
	rd/ye	11	32	60	2	251		
	rd/ye	18,5	50	60	2	451		

IP 54		IP 55	
Front mounting with 2-hole fixing, padlockable for 3 padlocks		Base mounting with screw fixing, padlockable for 3 padlocks	
Type	Order no.	Type	Order no.
A 151/1002.1505-U230/N-S	<b>MZ 23 022</b>	A 151/1002.1581-U230/N-S	<b>MZ 23 058</b>
A 251/1002.1505-U230/N-S	<b>MZ 23 023</b>	A 251/1002.1581-U230/N-S	<b>MZ 23 059</b>
A 451/1002.1505-U230/N-S	<b>MZ 23 024</b>	A 451/1002.1581-U230/N-S	<b>MZ 23 060</b>
A 151/1002.1504-U230/N-S	<b>MZ 23 019</b>	A 151/1002.1580-U230/N-S	<b>MZ 23 055</b>
A 251/1002.1504-U230/N-S	<b>MZ 23 020</b>	A 251/1002.1580-U230/N-S	<b>MZ 23 056</b>
A 451/1002.1504-U230/N-S	<b>MZ 23 021</b>	A 451/1002.1580-U230/N-S	<b>MZ 23 057</b>
A 151/1008.1505-U230/N-S	<b>MZ 23 034</b>	A 151/1008.1581-U230/N-S	<b>MZ 23 070</b>
A 251/1008.1505-U230/N-S	<b>MZ 23 035</b>	A 251/1008.1581-U230/N-S	<b>MZ 23 071</b>
A 451/1008.1505-U230/N-S	<b>MZ 23 036</b>	A 451/1008.1581-U230/N-S	<b>MZ 23 072</b>
A 151/1008.1504-U230/N-S	<b>MZ 23 031</b>	A 151/1008.1580-U230/N-S	<b>MZ 23 067</b>
A 251/1008.1504-U230/N-S	<b>MZ 23 032</b>	A 251/1008.1580-U230/N-S	<b>MZ 23 068</b>
A 451/1008.1504-U230/N-S	<b>MZ 23 033</b>	A 451/1008.1580-U230/N-S	<b>MZ 23 069</b>
A 151/1008.1505-U400/2S	<b>MZ 23 040</b>	A 151/1008.1581-U400/2S	<b>MZ 23 076</b>
A 251/1008.1505-U400/2S	<b>MZ 23 041</b>	A 251/1008.1581-U400/2S	<b>MZ 23 077</b>
A 451/1008.1505-U400/2S	<b>MZ 23 042</b>	A 451/1008.1581-U400/2S	<b>MZ 23 078</b>
A 151/1008.1504-U400/2S	<b>MZ 23 037</b>	A 151/1008.1580-U400/2S	<b>MZ 23 073</b>
A 251/1008.1504-U400/2S	<b>MZ 23 038</b>	A 251/1008.1580-U400/2S	<b>MZ 23 074</b>
A 451/1008.1504-U400/2S	<b>MZ 23 039</b>	A 451/1008.1580-U400/2S	<b>MZ 23 075</b>
A 151/1004.1505-U230/N-S	<b>MZ 23 046</b>	A 151/1004.1581-U230/N-S	<b>MZ 23 082</b>
A 251/1004.1505-U230/N-S	<b>MZ 23 047</b>	A 251/1004.1581-U230/N-S	<b>MZ 23 083</b>
A 451/1004.1505-U230/N-S	<b>MZ 23 048</b>	A 451/1004.1581-U230/N-S	<b>MZ 23 084</b>
A 151/1004.1504-U230/N-S	<b>MZ 23 043</b>	A 151/1004.1580-U230/N-S	<b>MZ 23 079</b>
A 251/1004.1504-U230/N-S	<b>MZ 23 044</b>	A 251/1004.1580-U230/N-S	<b>MZ 23 080</b>
A 451/1004.1504-U230/N-S	<b>MZ 23 045</b>	A 451/1004.1580-U230/N-S	<b>MZ 23 081</b>
A 151/1004.1505-U400/2S	<b>MZ 23 052</b>	A 151/1004.1581-U400/2S	<b>MZ 23 088</b>
A 251/1004.1505-U400/2S	<b>MZ 23 053</b>	A 251/1004.1581-U400/2S	<b>MZ 23 089</b>
A 451/1004.1505-U400/2S	<b>MZ 23 054</b>	A 451/1004.1581-U400/2S	<b>MZ 23 090</b>
A 151/1004.1504-U400/2S	<b>MZ 23 049</b>	A 151/1004.1580-U400/2S	<b>MZ 23 085</b>
A 251/1004.1504-U400/2S	<b>MZ 23 050</b>	A 251/1004.1580-U400/2S	<b>MZ 23 086</b>
A 451/1004.1504-U400/2S	<b>MZ 23 051</b>	A 451/1004.1580-U400/2S	<b>MZ 23 087</b>

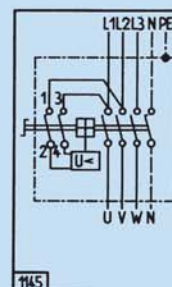
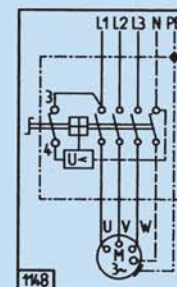
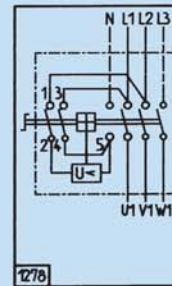
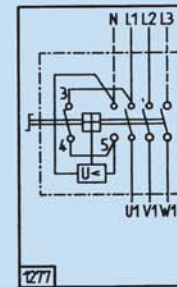
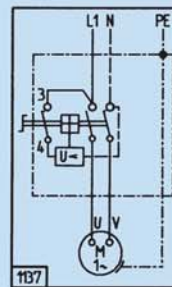
Under voltage release with DC-drive and supply voltage 230V AC/DC on request.

## Product information

The regulations DIN VDE 0113 part 1 and EN 60204 part 1, paragraph 7.5. require an under voltage protection. This prevents an automatic restart after mains failure or voltage drop below a set level. An unintended restart can cause damage to the machinery or to persons. In the event of a mains failure the under voltage trips a mechanism which switches the main switch to off. The trip-free nature of the mechanism ensures that the main switch can not be turned on in the absence of coil voltage even when the switch actuator is operated.

### Dimensions illustration/Dimensions see page 48

#### Contact diagram



# DISCONNECT SWITCHES WITH UNDER VOLTAGE RELEASE IN PLASTIC ENCLOSURE

Switches with **Under Voltages Release**

## ON-OFF SWITCHES

Handle/front plate colour: black/grey

## EMERGENCY-OFF SWITCHES

Handle/front plate colour: red/yellow



IP 65

On-Off switch in plastic enclosure with handle black/silver

Type Order no.

### Standard front plates

Design



FB 6493



FB 6493



FB 6493



FB 6493



FB 6493

Contact arrangements	Capacity AC3 at 400V kW	Rated operational current $I_b$ AC 21 A	Switching angle degree	Series	On-Off switch in plastic enclosure with handle black/silver	
					Type	Order no.
2pole USPA 230V	7,5	25	60	151 / I2H...	A 151/1002.I2H0400-U230/N-S	<b>MZ 23 300</b>
	11	32	60	251 / I2H...	A 251/1002.I2H0400-U230/N-S	<b>MZ 23 301</b>
	18,5	50	60	451 / I3H...	A 451/1002.I3H0400-U230/N-S	<b>MZ 23 302</b>
3pole USPA 230V	7,5	25	60	151 / I2H...	A 151/1008.I2H0400-U230/N-S	<b>MZ 23 303</b>
	11	32	60	251 / I2H...	A 251/1008.I2H0400-U230/N-S	<b>MZ 23 304</b>
	18,5	50	60	451 / I3H...	A 451/1008.I3H0400-U230/N-S	<b>MZ 23 305</b>
3pole USPA 400V	7,5	25	60	151 / I2H...	A 151/1008.I2H0400-U400/2S	<b>MZ 23 309</b>
	11	32	60	251 / I2H...	A 251/1008.I2H0400-U400/2S	<b>MZ 23 310</b>
	18,5	50	60	451 / I3H...	A 451/1008.I3H0400-U400/2S	<b>MZ 23 311</b>
4pole USPA 230V	7,5	25	60	151 / I2H...	A 151/1004.I2H0400-U230/N-S	<b>MZ 23 306</b>
	11	32	60	251 / I2H...	A 251/1004.I2H0400-U230/N-S	<b>MZ 23 307</b>
	18,5	50	60	451 / I3H...	A 451/1004.I3H0400-U230/N-S	<b>MZ 23 308</b>
4pole USPA 400V	7,5	25	60	151 / I2H...	A 151/1004.I2H0400-U400/2S	<b>MZ 23 312</b>
	11	32	60	251 / I2H...	A 251/1004.I2H0400-U400/2S	<b>MZ 23 313</b>
	18,5	50	60	451 / I3H...	A 451/1004.I3H0400-U400/2S	<b>MZ 23 314</b>



**IP 65**

Emergency-Off switch in plastic enclosure red/yellow, padlockable for 3 padlocks

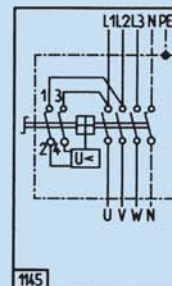
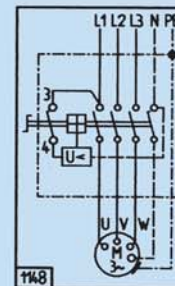
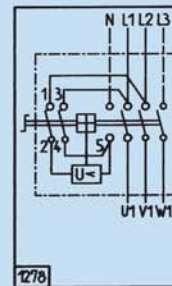
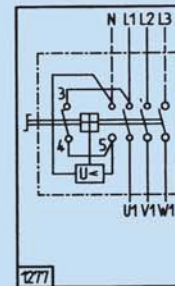
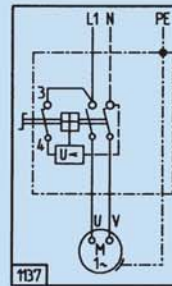
**IP 65**

Emergency-Off switch in plastic enclosure black/grey, padlockable for 3 padlocks

Type	Order no.	Type	Order no.
A 151/1002.I2H1850-U230/N-S	<b>MZ 23 315</b>	A 151/1002.I2H1851-U230/N-S	<b>MZ 23 330</b>
A 251/1002.I2H1850-U230/N-S	<b>MZ 23 316</b>	A 251/1002.I2H1851-U230/N-S	<b>MZ 23 331</b>
A 451/1002.I3H1850-U230/N-S	<b>MZ 23 317</b>	A 451/1002.I3H1851-U230/N-S	<b>MZ 23 332</b>
A 151/1008.I2H1850-U230/N-S	<b>MZ 23 318</b>	A 151/1008.I2H1851-U230/N-S	<b>MZ 23 333</b>
A 251/1008.I2H1850-U230/N-S	<b>MZ 23 319</b>	A 251/1008.I2H1851-U230/N-S	<b>MZ 23 334</b>
A 451/1008.I3H1850-U230/N-S	<b>MZ 23 320</b>	A 451/1008.I3H1851-U230/N-S	<b>MZ 23 335</b>
A 151/1008.I2H1850-U400/2S	<b>MZ 23 324</b>	A 151/1008.I2H1851-U400/2S	<b>MZ 23 339</b>
A 251/1008.I2H1850-U400/2S	<b>MZ 23 325</b>	A 251/1008.I2H1851-U400/2S	<b>MZ 23 340</b>
A 451/1008.I3H1850-U400/2S	<b>MZ 23 326</b>	A 451/1008.I3H1851-U400/2S	<b>MZ 23 341</b>
A 151/1004.I2H1850-U230/N-S	<b>MZ 23 321</b>	A 151/1004.I2H1851-U230/N-S	<b>MZ 23 336</b>
A 251/1004.I2H1850-U230/N-S	<b>MZ 23 322</b>	A 251/1004.I2H1851-U230/N-S	<b>MZ 23 337</b>
A 451/1004.I3H1850-U230/N-S	<b>MZ 23 323</b>	A 451/1004.I3H1851-U230/N-S	<b>MZ 23 338</b>
A 151/1004.I2H1850-U400/2S	<b>MZ 23 327</b>	A 151/1004.I2H1851-U400/2S	<b>MZ 23 342</b>
A 251/1004.I2H1850-U400/2S	<b>MZ 23 328</b>	A 251/1004.I2H1851-U400/2S	<b>MZ 23 343</b>
A 451/1004.I3H1850-U400/2S	<b>MZ 23 329</b>	A 451/1004.I3H1851-U400/2S	<b>MZ 23 344</b>

**Dimensions illustration/Dimensions see page 46**

**Contact diagram**



Under voltage release with DC-drive and supply voltage 230V AC/DC on request.