

### Miniature Circuit Breakers mMCMDC for direct current application

CCCENT



# **Description**

- High-quality miniature circuit breakers for commercial and household applications
- Contact position indicator red green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Comprehensive range of accessories suitable for subsequent installation
- Rated currents up to 50 A
- Tripping characteristic C
- Rated breaking capacity 10 kA according to IEC/EN 60947-2
- Up to 250 V DC per pole

# **Protective Devices**



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Rated current	Туре	Article No.	Units per
I <sub>n</sub> (A)	Designation		package

# 10 kA. Characteristic C

G65212



10 KA, Characteristic	G .		
1-pole			
1	mMCMDC-C1/1	168552	12/120
2	mMCMDC-C2/1	129624	12/120
4	mMCMDC-C4/1	129625	12/120
6	mMCMDC-C6/1	129626	12/120
10	mMCMDC-C10/1	129627	12/120
13	mMCMDC-C13/1	129628	12/120
16	mMCMDC-C16/1	129629	12/120
20	mMCMDC-C20/1	129630	12/120
25	mMCMDC-C25/1	129631	12/120
32	mMCMDC-C32/1	129632	12/120
40	mMCMDC-C40/1	129633	12/120
50	mMCMDC-C50/1	129634	12/120

G6601



2-pole			
1	mMCMDC-C1/2	168553	1/60
2	mMCMDC-C2/2	129635	1/60
3	mMCMDC-C3/2	168564	1/60
4	mMCMDC-C4/2	129636	1/60
6	mMCMDC-C6/2	129637	1/60
10	mMCMDC-C10/2	129638	1/60
13	mMCMDC-C13/2	129639	1/60
16	mMCMDC-C16/2	129640	1/60
20	mMCMDC-C20/2	129641	1/60
25	mMCMDC-C25/2	129642	1/60
32	mMCMDC-C32/2	129643	1/60
40	mMCMDC-C40/2	129644	1/60
50	mMCMDC-C50/2	129645	1/60



# Miniature Circuit Breakers mMCMDC for direct current application - Technical Data

# **Specifications | Miniature Circuit Breakers mMCMDC**

### **Description**

- High selectivity between MCB and back-up fuse due to low let-through energy
- · Compatible with standard busbar
- Twin-purpose terminal (lift/open-mouthed) above and below
- · Busbar positioning optionally above or below
- Meets the requirements of insulation co-ordination, distance between contacts  $\geq$  4 mm, for secure isolation
- Rated breaking capacity 10 kA according to IEC/EN 60947
- Rated voltage to 250 V (per pole),  $\tau$  = 4 ms
- Take into account polarity!

Accessories:		
Auxiliary switch for subsequent installation	ZP-IHK	286052
	ZP-WHK	286053
Tripping signal switch for subsequent installation	ZP-NHK	248437
Remote control and automatic switching device	Z-FW/LP	248296
Shunt trip release	ZP-ASA/	248438, 248439
Undervoltage release	Z-USA/	248288-248291
Compact enclosure	KLV-TC-2	276240
	KLV-TC-4	276241
Additional terminal 35 mm <sup>2</sup>	Z-HA-EK/35	263960
Switching interlock	Z-IS/SPE-1TE	274418

		mMCMDC
Electrical	,	
Design according to		IEC/EN 60947-2
Current test marks as printed onto the device		
Rated voltage DC		1-2 A types: 220 V (per pole)
		3-50 A types: 250 V (per pole)
Rated frequency		50/60 Hz
Rated breaking capacity according to IEC/EN 60947-2		10 kA
Characteristic		С
Back-up fuse		max. 100 A gL
Selectivity class		3
Rated impulse withstand voltage	U <sub>imp</sub>	4 kV (1.2/50 μs)
Endurance		
electrical components		≥ 4,000 switching operations
mechanical components		≥ 20,000 switching operations
Line voltage connection		at will (above/below)
Mechanical		
Frame size		45 mm
Device height		80 mm
Device width		17.5 mm per pole (1MU)
Mounting		quick fastening with 3 lock-in positions on DIN rail IEC/EN 60715
Degree of protection		IP20
Upper and lower terminals		open mouthed/lift terminals
Terminal protection		finger and hand touch safe, DGUV VS3, EN 50274
Terminal capacity		1-25 mm <sup>2</sup>
Terminal torque		2-2.4 Nm
Busbar thickness		0.8 - 2 mm
Mounting		independent of position

# **Protective Devices**



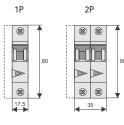
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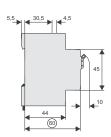
#### **Connection diagrams**





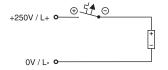
#### **Dimensions (mm)**

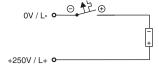




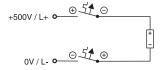
#### **Connection examples**

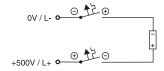
#### Connection example at 250 V=, 1-pole



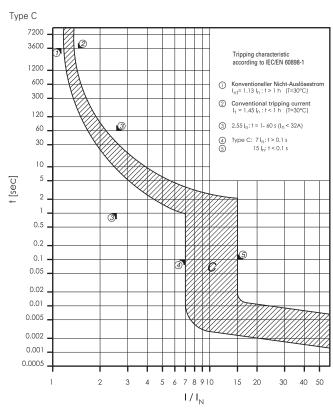


#### Connection example at 500 V=, 2-pole





### Tripping characteristic mMCMDC



### **Let-through Energy mMCMDC**

Type C, 250 V d.c.,  $\tau$  = 5 ms (according to IEC/EN 60947-2)

