

# Protective Devices Miniature Circuit Breakers PLS6-DC for direct current application



Catalog



*Powering Business Worldwide*

SG45311



## Description

- High-quality miniature circuit breakers for DC-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 can be mounted subsequently
- 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

### Miniature Circuit Breakers PLS6-DC for direct current application (MW)

SG45311



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>10 kA, Characteristic C</b>			
<b>1-pole</b>			
1	PLS6-C1-DC	243115	12/120
2	PLS6-C2-DC	243116	12/120
3	PLS6-C3-DC	243117	12/120
4	PLS6-C4-DC	243118	12/120
6	PLS6-C6-DC	243119	12/120
10	PLS6-C10-DC	243120	12/120
13	PLS6-C13-DC	243121	12/120
16	PLS6-C16-DC	243122	12/120
20	PLS6-C20-DC	243123	12/120
25	PLS6-C25-DC	243124	12/120
32	PLS6-C32-DC	243125	12/120
40	PLS6-C40-DC	243126	12/120
50	PLS6-C50-DC	243127	12/120

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<b>2-pole</b>			
1	PLS6-C1/2-DC	243128	1/60
2	PLS6-C2/2-DC	243129	1/60
3	PLS6-C3/2-DC	243130	1/60
4	PLS6-C4/2-DC	243131	1/60
6	PLS6-C6/2-DC	243132	1/60
10	PLS6-C10/2-DC	243133	1/60
13	PLS6-C13/2-DC	243134	1/60
16	PLS6-C16/2-DC	243135	1/60
20	PLS6-C20/2-DC	243136	1/60
25	PLS6-C25/2-DC	243137	1/60
32	PLS6-C32/2-DC	243138	1/60
40	PLS6-C40/2-DC	243139	1/60
50	PLS6-C50/2-DC	243140	1/60

**Specifications | Miniature Circuit Breakers PLS6-DC**

**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:**

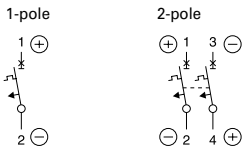
Auxiliary switch for subsequent installation	ZP-IHK	286052
	ZP-WHK	286053
Tripping signal switch for subsequent installation	ZP-NHK	248437
Remote control and automatic switching device	Z-FW/LP	248296
Shunt trip release	ZP-ASA/..	248438, 248439
Undervoltage release	Z-USA/..	248288-248291
Additional terminal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

**Technical Data**

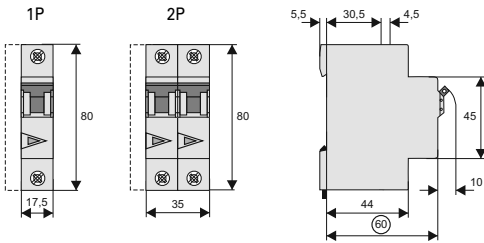
		PLS6-DC
<b>Electrical</b>		
Design according to		IEC/EN 60947-2
Current test marks as printed onto the device		
Rated voltage DC		1-2 A types: 220 V (per pole) 3-50 A types: 250 V (per pole)
Rated frequency		50/60 Hz
Rated breaking capacity according to IEC/EN 60947-2		10 kA
Characteristic		C
Back-up fuse		max. 100 A gL
Selectivity class		3
Rated impulse withstand voltage	$U_{imp}$	4 kV (1.2/50 $\mu$ s)
Endurance		
electrical components		$\geq 4,000$ switching operations
mechanical components		$\geq 20,000$ switching operations
Line voltage connection		at will (above/below)
<b>Mechanical</b>		
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

Note: not for PV string protection!

### Connection diagrams

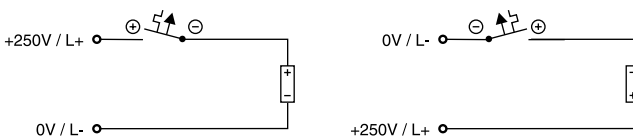


### Dimensions (mm)

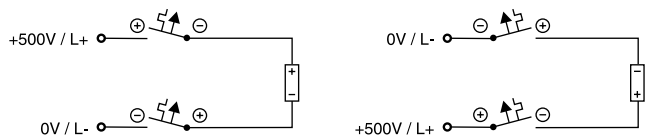


### Connection examples

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

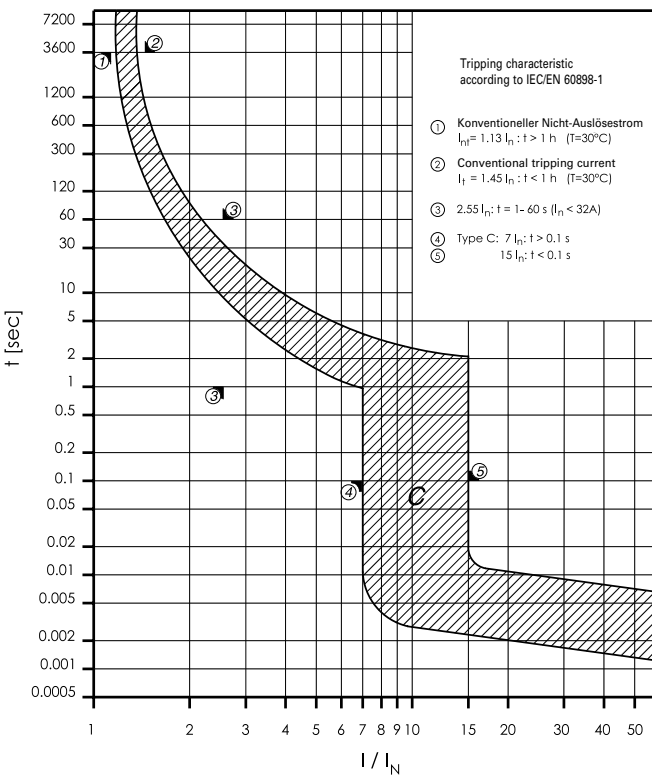


#### Connection example at 500 V=, 2-pole



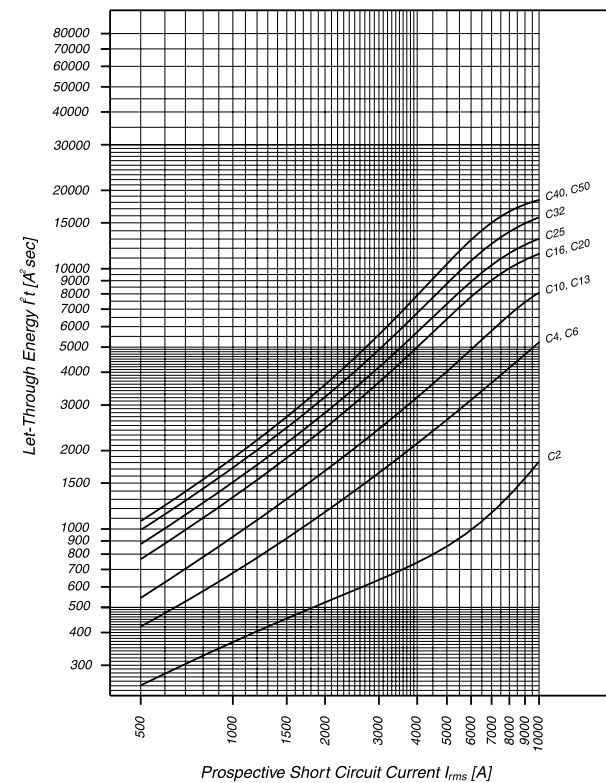
### Tripping characteristic PLS6-DC

Type C



### Let-through Energy PLS6-DC

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



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