

## TECHNICAL SPECIFICATION

### Miniature circuit breakers (MCB) DP1N (1P+E)



#### Functions:

- protection of the electrical circuits from overload or short circuits of the outer circuit
- it can be used as a device for commutation and control of electrical circuits
- it breaks simultaneously the lead and the neutral conductor as the heat protection is only at the lead conductor

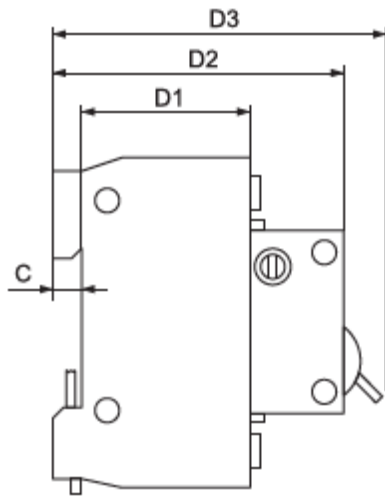
## Technical data

- Rated voltage: 230 ; 50/60Hz
- Breaking capacity (cycle O-CO) in accordance with standard EN 60 898-1: 4500A
- Rated breaking capacity  $I_{cs}=50\% I_{cu}$
- Isolating voltage  $\geq 2000V$
- Electrical wear resistance (number of cycles):  $\geq 4000$
- Mechanical (number of cycles)  $\geq 4000$
- Class of current limiting: 3
- IP code: IP $>20$
- Tripping curve: C – the maximum current release breaks between 5 and  $10I_n$ ; used to protect main power supply
- Plastic box – not keeping the burning material nylon PA66, UV rays wear resistance
- Cables and conventional consumers
- Heat resistance of internal non-electrical components  $850^{\circ}C / 10s$
- Box permittivity strength:  $> 18MV/m$
- Abnormal heating wear resistance and fire of the outer parts:  $960^{\circ}C/3s$
- Tightening moment: 1.33Nm
- Power supply (conducting)
  - power supply busbar DP1N
  - flexible or rigid conductor
- Maximum current release containing
  - copper coil – composition: pure copper T2 type
  - resistance: from 0.6 to 180m
  - welding effort:  $<150\ 000\ N/mm$
  - bimetal plate – composition: 5J158 to TB180 depending on the current
  - magnetic core – composition coldly draw-plated metal wire (1Gr18Ni9)
  - contact head of the moveable contact – composition silver graphite CAg(5)
  - static contact – composition: pure copper T2Y2
  - composition of the contact head: silver graphite CAg(5)

## Mounting

- Vertical
- DIN - rail
- Ambient temperature  $-5^{\circ}\text{C}$  to  $+65^{\circ}\text{C} \pm 2^{\circ}\text{C}$
- Joining terminal: flat (tunnel) screw terminal

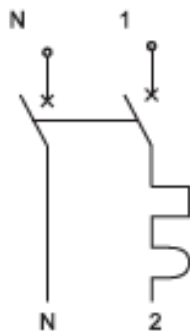
## Dimensions



Dimensions (mm)

C	D1	D2	D3
5	40	65	72

## Schemes



## Products

- Circuit breakers DP1N (1P+N) – SIGMA design

Type	Rated current In(A)	Breaking capacity (kA)	Recommended section of the conductor(g/mm <sup>2</sup> )	Packing / box (pcs)	Catalogue number Curve C
DP1N / 6	6	4.5	1.0	12 / 240	41006
DP1N / 10	10	4.5	1.5	12 / 240	41010
DP1N / 16	16	4.5	2.5	12 / 240	41016
DP1N / 20	20	4.5	2.5	12 / 240	41020
DP1N / 25	25	4.5	4.0	12 / 240	41025
DP1N / 32	32	4.5	6.0	12 / 240	41032

## Standarts

EN60898-1:2003

EN60947-2:2006

