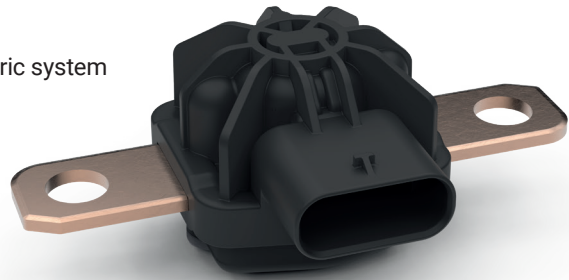


# CIRCUIT BREAKER 60-SIWAP

## Pyrotechnic circuit breaker for low-voltage applications

- Prevents fires caused by short circuits and protects the electric system
- Provides irreversible secure separation over full current range
- Low internal resistance
- High insulation resistance after activation
- Lightweight design at small formfactor
- Waterproof housing in accordance with IPx4K



### Key functional parameters

Separation capacity (voltage   current   inductance)	60 V   2 kA   15 $\mu$ H (higher/alternative values on request)
Separation time	< 2 ms (typically < 1 ms)
Operating temperature	-40 °C to +120 °C*
Ambient temperature	-40 °C to +85 °C
Product lifetime	15 years**
Qualification	in accordance with LV 123 and LV 124
Weight	~ 50 g
Interface	Waterproof in accordance with IP67 and IPx9K

\*for a limited time interval

\*\*operating hours depending on temperature collective & activation energy

### HV connection (busbar)

Busbar - igniter - insulation resistance	> 50 M $\Omega$ (before and after activation)
Busbar resistance	$\leq$ 90 $\mu\Omega$ (before activation) > 50 M $\Omega$ (after activation)
Busbar material	copper, copper + Ni/Sn plating (alternatives on request)
Busbar cross-section area	16 mm x 2 mm
Intended type of connection	screwing (M8)
Distance between screw holes	64 mm

### LV connection (igniter)

Terminal type	Pin type (2 pins), gold-coated
Interface	4 pins (2 pins igniter, 2 pins signal line)
Pyrotechnics	GTMS igniter (TS 70116 (LV 16) & USCAR-28), maximum pyrotechnic mass 48 mg
Igniter resistance	2.1 $\Omega$ $\pm$ 0.4 $\Omega$ (TS 70116 (LV 16)) 2.0 $\Omega$ $\pm$ 0.3 $\Omega$ (USCAR28)
Igniter parameter "No fire"	$\leq$ 0.4 A $\leq$ 5 A for $\leq$ 4 $\mu$ s
Igniter parameter "All fire"	1.75 A to 40 A for 0.5 ms $\geq$ 1.2 A for $\leq$ 2 ms

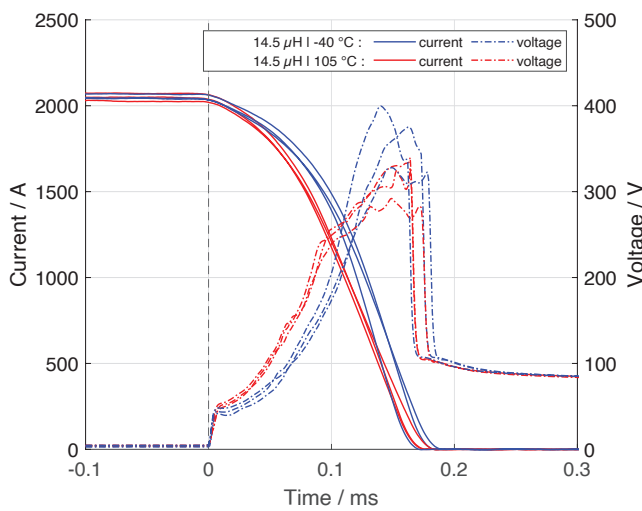
### Current carrying capacity\*

Ambient temperature	Current	Duration
+85 °C	250 A	continuous

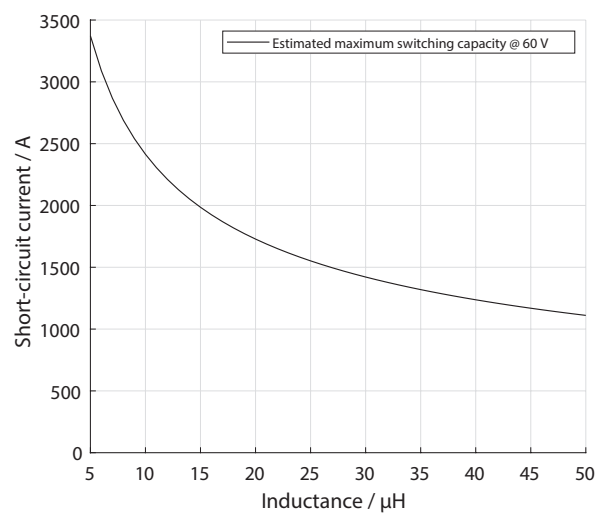
\*depending on cooling, convection, cross-section, contact surface etc. (thermal model upon request)

### Typical curves

Typical current and voltage curves

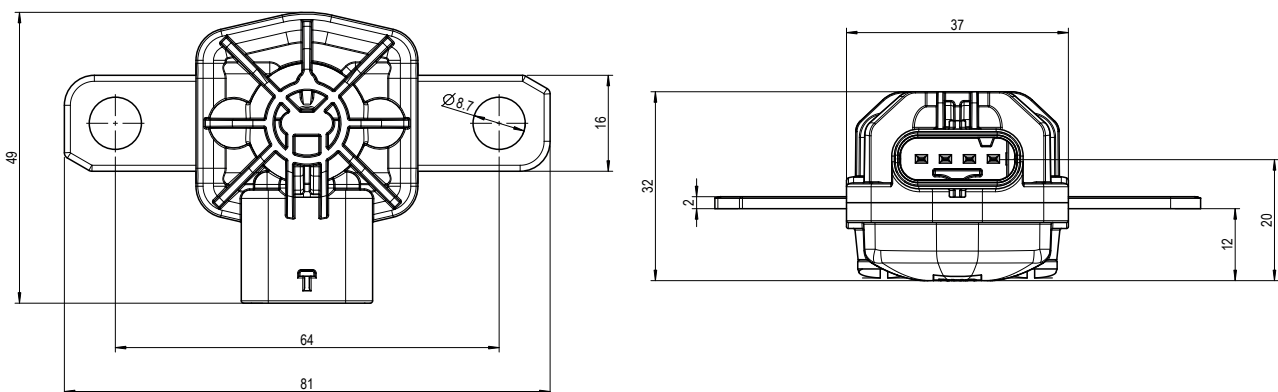


Estimated maximum switching capacity



### Outline dimensions\*

\*in mm



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