

CIRCUIT CLOSER 1000

Pyrotechnic circuit closer for high-voltage applications in electric vehicles.
Closing switch for a secure and permanent electrical connection activated by a trigger signal.

- Provides irreversible secure connection
- · High insulation resistance before activation
- · Low internal resistance after activation
- · Lightweight design at small formfactor
- No emissions
- Operating Voltage 1000 VDC



Key functional parameters

Continuous & peak current after activation	500 A for 0,5 s + 4 kA for 5 ms (superimposed) (higher/alternate values on request)
Operating voltage	1000 VDC
Switching time	<1 ms
Operating (or operational?) temperature	−40 °C to +95 °C
Ambient temperature	−40 °C to +85 °C
Storage temperature	+5 °C to +40 °C
Product lifetime	15 years*
Qualification	in accordance with LV 123 and LV 124
Weight	20 g

^{*}operating hours depending on temperature collective & activation energy

HV connection (busbar)

Busbar - igniter - insulation resistance	> 100 MΩ (before and after activation)
Busbar resistance	< 10 m Ω (after activation) > 100 M Ω (before activation)
Busbar material	copper + Ni/Sn plating (alternatives on request)
Intended type of connection	FastOn mating receptacle: 6.35x0.5 mm (PN: 63442-1)

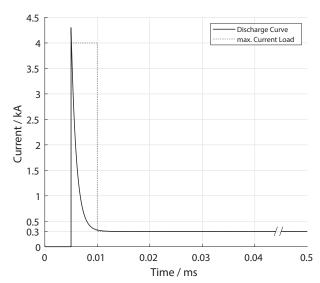
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LV connection (igniter)

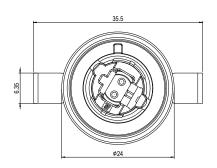
Terminal type	Pin type (2 pins), gold-coated
11 mm Squib-Interface (unsealed)	AK-1/AK-2 following ISO 19072-1 commonly used: AK-1 Code A
Pyrotechnics	GTMS igniter (LV16 & USCAR-28), maximum pyrotechnic mass 43 mg
Igniter resistance	2.1 Ω ± 0.4 Ω
Igniter parameter "No fire"	≤ 0.4 A ≤ 5 A for ≤ 4 µs
Igniter parameter "All fire"	1.75 A to 40 A for 0.5 ms ≥ 1.2 A for ≤ 2 ms

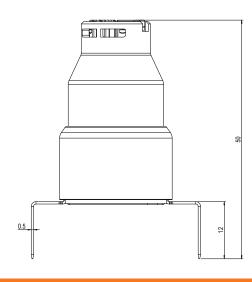
Typical current carrying curve



Outline dimensions*

*in mm





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