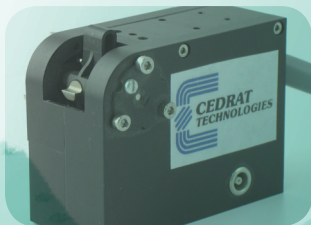


Piezo Electric Circuit Breaker PCB400M



Description

This circuit breaker PCB400M displays a short response time thanks to the integration of a piezoelectric release mechanism piloted with an appropriate electronic driver in order to allow a power cut at zero point. It means that over mains current can be cut off inside its half oscillation while conventional circuit breakers generally cut the electric current after 2 or 3 oscillations at least. The advantage of a powercut at zero point is that no arc over is generated.

Performance

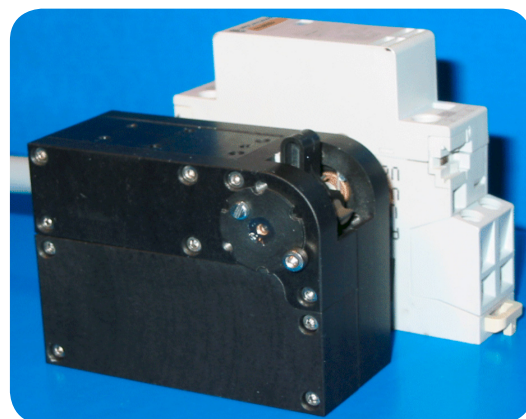
The performances of this piezo circuit breaker are summarised in the following table, here below. Note that these performances can be adapted to new technical specifications.

References	Unit	PCB400M
<i>Notes</i>		
<i>Technological baseline</i>		<i>APA400M</i>
Length	mm	65
Width	mm	30
Height	mm	50%
Mass	grams	125
Voltage supply	V	100
Delay for release start	ms	0.5
3 mm stroke time	ms	2.5
End stroke time	ms	4.5
End stroke distance	mm	7.7

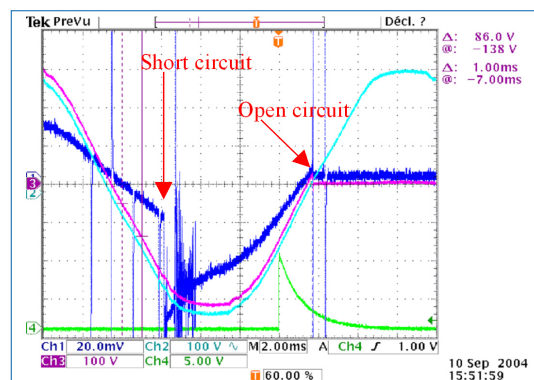
Applications

Thanks to the lack of arc over, the PCB400M can be used in harsh environment where the lifetime of the contact parts is critical and could also allow the use of electric breaker in explosive environment.

This technology is protected by patents from Norbert Beyrard France company.



Piezoelectric circuit breaker compared to a conventional one.



*Oscilloscope display during an over current.
CH1: Dark blue, current in the circuit breaker (calibre 20A/V)
CH2: Light blue, voltage up from the circuit breaker
CH3: Purple, voltage down to the circuit breaker
CH4: Green, release order of the circuit breaker.*