



Product specification

The **DCSA3-R12H46P48** is an integrated structure composed of a piezoelectric ceramic stack, a flexible hinge support structure, and a housing structure. It can achieve a displacement of up to 48.0 μm . The electrodes are led out through a coaxial shielded cable, and the moving cap end, fixed base, and connector can be customized.



DCSA3-R12H46P48

Performance Parameters

Drive Voltage Range	0~150 V	Capacitance	4.2 μF \pm 15%
Displacement (Free Stroke) at 150 V	48.0 μm \pm 15%	Dissipation Factor	<5.0%
Hysteresis	<15%	Connection Cable	RG-178
Tensile Force	200 N	Blocking Force at 150 V	800N
Curie Temperature	230 $^{\circ}\text{C}$	Operating Temperature	-25 ~ 130 $^{\circ}\text{C}$
Product Size	Outer Diameter: 12.0 \pm 0.03mm	Customizable	Connection cable, housing, connector, etc.
	H: 46.0 \pm 0.3mm		

- All specifications are quoted at 25 $^{\circ}\text{C}$, unless otherwise stated.
- The displacement may vary slightly for different loads, and the maximum displacement occurs when used with the recommended load.

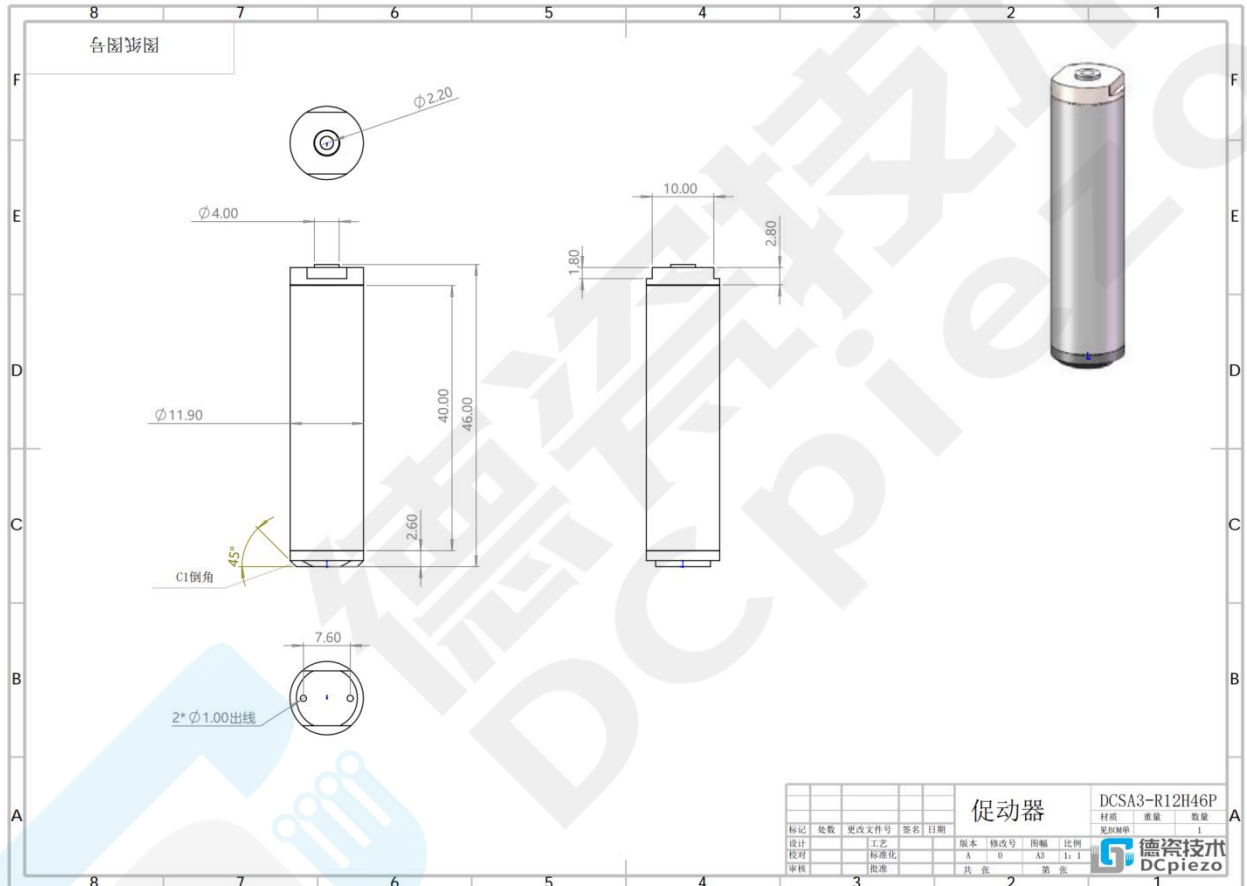
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Performance Curve

(The performance curve is based on actual measurements. The performance curve for customized products will be updated after production is completed.)

- These temperature rises were measured after applying a sine-wave drive voltage ranging from 0 to 150V at the specified frequency for 10 minutes.

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Matters Needing Attention

- 1.The piezoelectric actuator contains a piezoelectric stack inside, and the electrodes of the piezoelectric stack are led out through a coaxial shielded cable. The connector is a LEMO connector.
- 2.The piezoelectric ceramic actuator should be stored in vacuum packaging, and the discharge resistor should remain connected during storage.
- 3.Do not immerse the piezoelectric stack in organic solvents or expose it to flammable gases or liquids.
- 4.Do not disassemble the piezoelectric actuator.
- 5.Handle with care to avoid dropping, as the piezoelectric ceramic actuator is prone to breaking.