# D43B
# Intelligent Cable Fault Location System

- **Fully integrates a multi-range DC high-voltage generator, a multi-range high-voltage capacitor, an advanced multiple-pulse arc reflection unit (inductive type), and various signal acquisition functions into a single system;**
- **Motor-driven high-voltage switchgear technology eliminates the risk of errors from manual switching or manual wiring;**
- **Capable of conducting DC withstand voltage, burn-through, and fault breakdown tests up to 40kV;**
- **8kV/16kV/32kV, 3-level (4-level optional) capacitance voltage switching, with 2048 joules of impulse energy output per level;**
- **Safety monitoring and protection for ground voltage and ground resistance.**

# Features and Technical Specifications

●A powerful, advanced portable intelligent fault location system that integrates a multi-level DC high-voltage generator, multi-level high-voltage capacitors, an advanced active multiple-pulse arc reflection unit, and comprehensive signal acquisition functions;

●The patented low-voltage control technology for high-voltage switch assemblies enables motorized switching of multi-level voltages, multi-level capacitor combinations, and multi-level test modes. During testing, all high-voltage wiring changes are automated without manual intervention, completely eliminating the risk of errors from manual switching or manual wiring to ensure safety and reliability.

●Incorporates an advanced active multiple-pulse arc reflection filter, which extends arc stabilization time, makes it easier to detect breakdowns caused by moisture or water ingress faults, and produces clearer waveforms.

●Test Methods: Low-voltage pulse method, advanced active multiple-pulse arc reflection method, impulse current sampling/impulse location, DC current sampling, DC output,DC pulsed output.

● High-voltage power supply supports up to 40kV DC withstand voltage, burn-through, and fault breakdown testing.

● Built-in high-voltage output terminals with high-voltage silicone coaxial cable for simple, safe, and reliable wiring.

● Wide wheels ensure stability, facilitating transport and field operations.

● Multi-range DC high-voltage output:

0–40kV (negative polarity), maximum output current: 76mA;

0–20kV (negative polarity), maximum output current: 152mA;

0–10kV (negative polarity), maximum output current: 304mA;

0–5kV (negative polarity), maximum output current: 608mA (optional)

●Multi-level impulse capacitance:

0–32 kV, 4 μF: Maximum output energy 2048 J

0–16 kV, 16 μF: Maximum output energy 2048 J

0–8 kV, 64 μF: Maximum output energy 2048 J

0–4 kV, 138 μF, maximum output energy 1104 J (optional);

●Built-in Ball Gap Impulse Discharge: Low-voltage controlled solenoid valve air gap, impulse discharge cycle adjustable from 3–12 seconds.

● Sheath testing and sheath fault location: 1:1–1:6S, voltage/current adjustable in steps.

● Protection:

Under any circumstances, pressing the "HV OFF" button activates a dedicated built-in safety mechanism to rapidly and automatically discharge residual charge from the impulse capacitor and the cable under test, ensuring safety.

Zero-voltage position protection: Prevents misoperation, safeguarding personnel and test specimens.

● High-voltage limit: Automatically stops and discharges when exceeding the set maximum voltage;

● Ground voltage and ground resistance safety detection protection;

**GB/T19001-2016/ISO9001:2015**
**Registration No.: 04325Q31412R2S**

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