

ES806 Explosive ESD Test System



(Chamber, Enclosure and Software GUI maybe updated without notice)

1. Description

The ES806 Series Electrostatic Firing/Igniter/Spark Sensitivity Test System is designed for ESD testing of powders, liquids, fuze, and electronic devices, up to 50kV. It evaluates the sensitivity of explosive materials or devices to electrostatic discharge, providing precise and repeatable high-voltage ESD pulses. This system is ideal for industries like oil and gas, electronics, chemical, military, automotive, medical and aerospace that need testing of controlled ESD.

2. Features

- Interchangeable plug-in resistor and capacitor (RC) modules
- Two slots for R and C modules allowing parallel combination
- Integrated door lock and HV monitor for operator safety
- 5-inch IPS touch screen
- R and C modules customization available

3. Applications

- Electro Explosive Device (EED) Testing
- Personnel-borne Electrostatic Discharge (PESD) Testing
- Safety and Compliance Testing
- Quality Control in Manufacturing
- Risk Assessment in Handling and Storage
- Research and Development
- Meet standards: MIL-STD-331C, MIL-STD-331D, MIL-STD-464D, MIL-STD-1751A, MIL-STD-1576, MIL-DTL-23659, GJB 736.11, GJB 5309.1, GJB 5891.27, GJB 8142

4. Specifications

Parameters	ES806-30	ES806-50	Unit	Comments
Output voltage	$\pm 300 \sim \pm 30 \text{ k}$	$\pm 500 \sim \pm 50 \text{ k}$	V	
Min voltage step	10	10	V	
Output voltage precision	Better than $\pm 5 \%$		NA	
Discharge resistance module	0, 20, 500, 5k, 100k		Ω	Plug-in, Selectable, customizable
Discharge capacitance module	100p, 250p, 500p, 1n, 2n, 5n, 10n, 20n, 50n, 100n, 120n, 250n, 500n		F	
Discharge waveform	Customizable based on RC selection			
Pulse repetition time	≥ 0.1		s	
Operation conditions	$-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$, 0 ~ 80% RH			
Dimensions	470 X 450 X 280		mm	
Weight	16	20	kg	
Power Supply	110V/220V AC			

5. Ordering Information

Line	Part # or Option #	Description
ES806 Main Controller		
1.1	ES806-MC-30	0 ~ $\pm 30 \text{ kV}$ Electro-explosive test system main control unit
1.2	ES806-MC-50	0 ~ $\pm 50 \text{ kV}$ Electro-explosive test system main control unit
Discharge R & C Module		
2.2	ES806-R0	0 Ω resistance module for RC network
2.3	ES806-R20	20 Ω resistance module for RC network
2.4	ES806-R500	500 Ω resistance module for RC network
2.5	ES806-R5K	5 k Ω resistance module for RC network
2.6	ES806-R100K	100 k Ω resistance module for RC network
2.7	ES806-C100P-50	100 pF capacitance module for RC network, up to 50kV

2.8	ES806-C250P-50	250 pF capacitance module for RC network, up to 50kV
2.9	ES806-C500P-50	500 pF capacitance module for RC network, up to 50kV
2.10	ES806-C1N-50	1 nF capacitance module for RC network, up to 50kV
2.11	ES806-C2N-30	2 nF capacitance module for RC network, up to 30kV
2.12	ES806-C5N-30	5 nF capacitance module for RC network, up to 30kV
2.13	ES806-C10N-30	10 nF capacitance module for RC network, up to 30kV
2.14	ES806-C20N-30	20 nF capacitance module for RC network, up to 30kV
2.15	ES806-C50N-30	50 nF capacitance module for RC network, up to 30kV
2.16	ES806-C100N-30	100 nF capacitance module for RC network, up to 30kV
2.17	ES806-C120N-30	120 nF capacitance module for RC network, up to 30kV
2.18	ES806-C250N-30	250 nF capacitance module for RC network, up to 30kV
2.19	ES806-C500N-30	500 nF capacitance module for RC network, up to 30kV
Optional Test accessories		
3.1	ES806-TC-S1	ES806 test chamber, stainless steel, Pin-to-plate mode. Can be customized

Customizations are available upon request.