

華儀



EEC-31 and EEC-41



Quality and functionality at the right price.

EEC Huayi is a leading manufacturer of electrical safety compliance testers. With nearly 50 years of experience, EEC Huayi helps manufacturers meet their compliance obligations through cost-effective solutions. The EEC-31 and EEC-41 are multifunctional safety testers at a single-function price. These production-proven designs are guaranteed for one year and supported by an exclusive global distribution network. All units include test lead accessories, calibration certificate, and a 45-day satisfaction guarantee.

CAPABILITIES

EEC-31

EEC-41



AC Hipot



DC Hipot



Insulation Resistance



Ground Continuity



Ground Bond

KEY FEATURES

BENEFITS

Notification Messages	Notifies the operator of test activity, especially in the event of a failure.
Low Limit Parameter Setting	Verifies that the test leads are connected and the test is performed correctly.
Instrument Lockout	Prevents the operator from modifying parameters and causing false failures.
ISO 17025 Calibration	Available for customers who need traceable pre- and post-data calibration certificates on an annual basis.
USB Interface	Preferred by system integrators or anyone needing to record test results.
200GΩ Insulation Resistance Range	Ideal for customers in the component, EV, and battery industry segments.

EEC-31 Safety Tester



The EEC-31 is a 3-in-1 hipot testing solution that is easy-to-use and combines AC hipot, DC hipot, and insulation resistance testing capabilities. It is designed for production line applications across various industries. A rotary knob interface allows quick test program editing, significantly improving operational efficiency. Its compact size helps save valuable production space. An optional USB interface is available for data collection and automated testing needs.

ADVANCED CAPABILITIES

- ✓ 3-in-1 electrical safety tester.
- ✓ Insulation resistance up to 200GΩ.
- ✓ Equipped with an INTERLOCK safety switch for enhanced protection.
- ✓ Compact, durable, easy-to-carry.
- ✓ Compatible with various types of personal protective equipment (PPE) for operational safety.

EEC-31 SPECIFICATIONS

INPUT

Voltage (AC)	100 - 120Vac / 200 - 240Vac±10%
Fuse	3.15A / 250Vac
Frequency	50/60Hz ± 5%

AC WITHSTAND VOLTAGE

Output Rating	3kV/10mA	
Voltage	Range	0 - 3.00kV
	Resolution	0.01kV
	Accuracy	± (1.5% of setting + 5V)

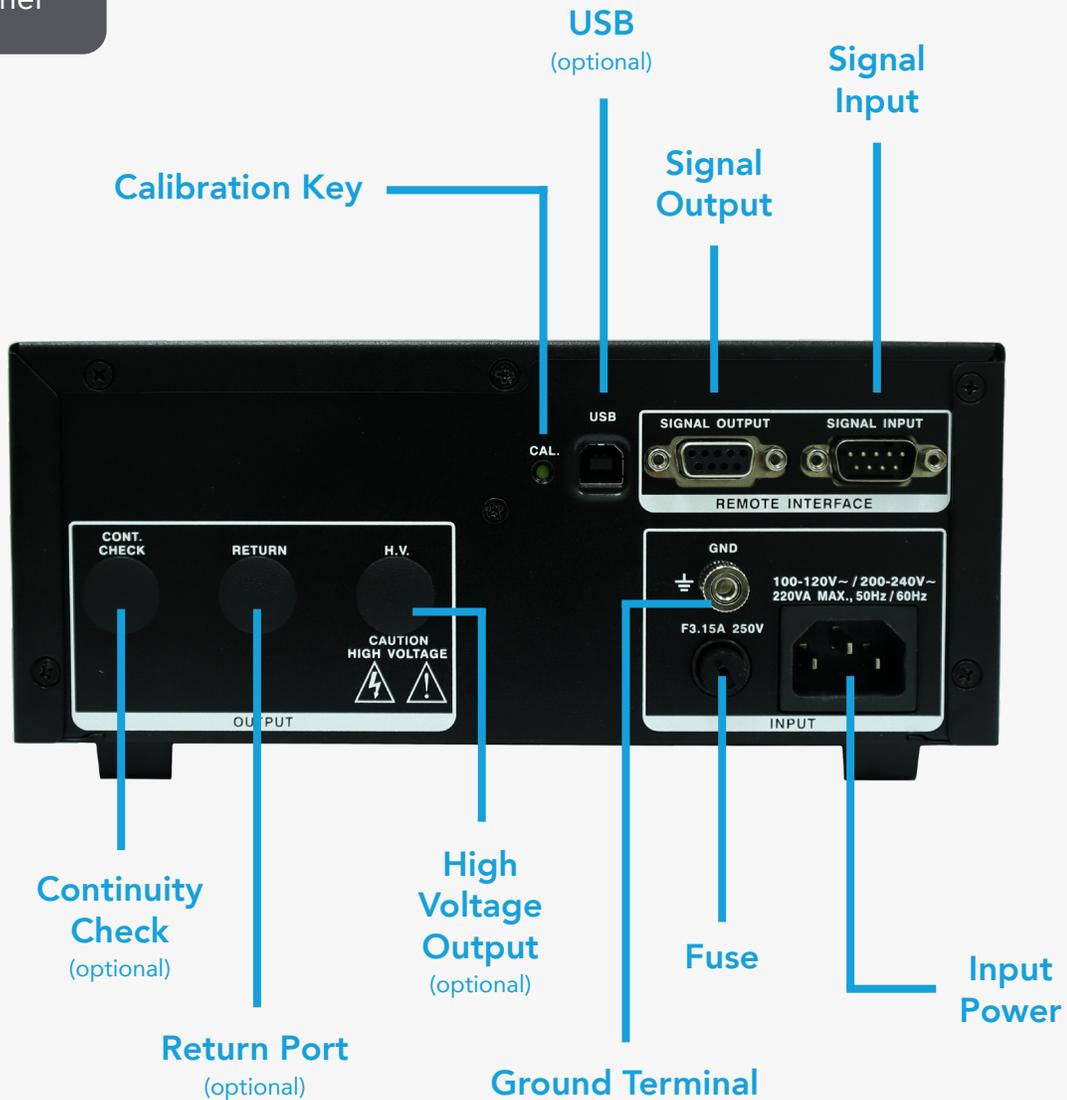
Current	Hi Limit Range	0.10 - 10.00mA
	Lo Limit Range	0.00 - 10.00mA
	Resolution	0.01mA
	Accuracy	± (2% of setting + 2 counts)
Output Frequency	Range	50Hz/60Hz
Ramp Up Time	Range	0.2 - 60.0s
	Resolution	0.1s
	Accuracy	± (0.1% of setting + 0.05 sec)
Dwell Time	Range	0, 0.2 - 60.0 (0=continuous)
	Resolution	0.1s
	Accuracy	± (0.1% of setting + 0.05 sec)
DC WITHSTAND VOLTAGE		
Output Rating		4kV/5mA
Voltage	Range	0 - 4.00kV
	Resolution	0.01kV
	Accuracy	± (1.5% of setting + 5V)
Current	Hi Limit Range	0.02 - 5.00mA
	Lo Limit Range	0.00 - 5.00mA
	Resolution	0.01mA
	Accuracy	± (2% of setting + 2 counts)
Ramp Up Time	Range	0.2 - 60.0s
	Resolution	0.1s
	Accuracy	± (0.1% of setting + 0.05 sec)
Dwell Time	Range	0, 0.2 - 60.0 (0=continuous)
	Resolution	0.1s
	Accuracy	± (0.1% of setting + 0.05 sec)
Discharge Time		< 50ms, < 100ms for capacitor load
Maximum Capacitive Load		0.17µF < 1KV 0.09F < 2KV 0.07µF < 3KV 0.05µF < 4KV
INSULATION RESISTANCE		
Output Rating		4kV/200GΩ
Voltage	Range	0.10 - 4.00kV
	Resolution	0.01kV
	Accuracy	± (1.5% of setting + 5V)
Hi/Lo Limit	Range 1	1 - 999MΩ
	Resolution	1MΩ
	Accuracy	0.10 - 0.49kV ± (7% of setting + 2 counts) ≥0.50kV ± (3% of setting + 2 counts)
	Range 2	1000 - 9999MΩ
	Resolution	1MΩ
	Accuracy	0.10 - 0.49kV ± (20% of setting + 2 counts) ≥0.50kV ± (5% of setting + 2 counts)
	Range 3	10.00 - 99.99GΩ
	Resolution	0.01GΩ
		±(20% of setting + 10 counts)

Hi/Lo Limit	Range 4	100.0 - 200.0GΩ
	Resolution	0.1GΩ
	Accuracy	±(30% of setting + 10 counts)
Ramp Up Time	Range	0.1s or 2s
	Resolution	0.1s
	Accuracy	± (0.1% of setting + 0.05 sec)
Dwell Time	Range	0, 1.0 - 999.9s
	Resolution	0.1s
	Accuracy	± (0.1% of setting + 0.05 sec)

GENERAL

Memory	3
PLC Remote	Input: Test, Reset, Interlock Output: Pass, Fail, Test-in-process
Security	1. Run: Only test, cannot change test parameters and memory locations. 2. Mem: Have test and select memory locations, cannot change test parameters.
Safety	CE
Dimension (W x H x D, mm)	215 x 88.1 x 300
Weight	5.46kg

EEC-31 Back Panel



EEC-41 Safety Tester



The EEC-41 is a 4-in-1 testing solution that integrates AC/DC hipot, insulation resistance, and AC ground bond testing in a single unit. Perfect for a variety of applications and production line configurations, the instrument's simple interface and parameter settings allow even first-time users to get started quickly. In addition to front-panel operation, the EEC-41 supports PLC remote control signals and offers an optional USB interface.

ADVANCED CAPABILITIES

- ✓ 4-in-1 electrical safety tester.
- ✓ 32A AC ground bond test support.
- ✓ Rotary knob control for quick and easy setup.
- ✓ Supports remote control and a USB interface.
- ✓ Compatible with various types of personal protective equipment (PPE) for operational safety.

EEC-41 SPECIFICATIONS

INPUT

Voltage (AC)	100 - 120Vac / 200 - 240Vac±10%
Fuse	15A / 250Vac
Frequency	50/60Hz ± 5%

AC WITHSTAND VOLTAGE

Output Rating	3kV/100.0mA	
Voltage	Range	0 - 3.00kV
	Resolution	0.01kV
	Accuracy	± (1.5% of setting + 5V)

Current	Hi Limit Range	0.10 - 99.99mA 100.0mA
	Lo Limit Range	0.00 - 99.99mA 100.0mA
	Resolution	0.01mA/0.1mA
	Accuracy	± (2% of setting + 6 counts) for 0 - 99.99mA ± (2% of setting + 2 counts) for 100.0mA
Output Frequency	Range	50Hz/60Hz
Ramp Up Time	Range	0.2 - 60.0s
	Resolution	0.1s
	Accuracy	± (0.1% of setting + 0.05 sec)
Dwell Time	Range	0, 0.2 - 60.0 (0=continuous)
	Resolution	0.1s
	Accuracy	± (0.1% of setting + 0.05 sec)

DC WITHSTAND VOLTAGE

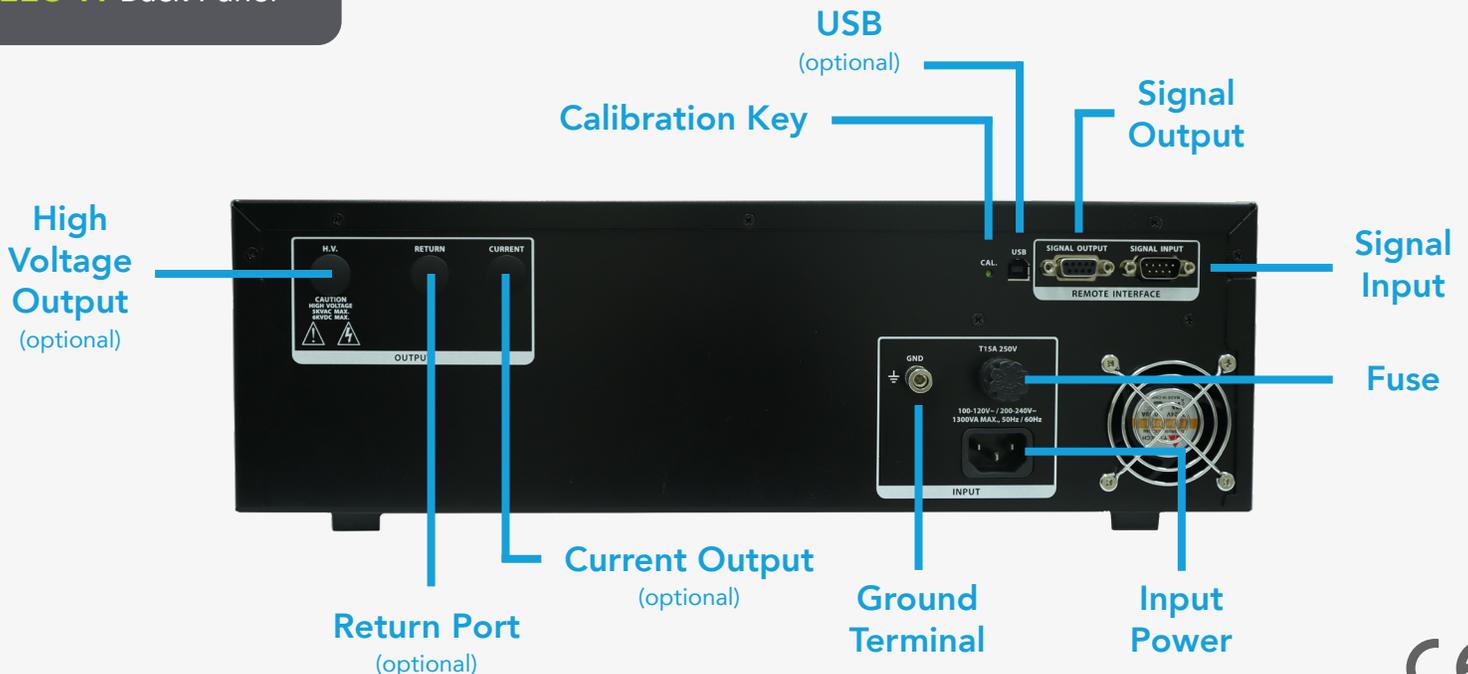
Output Rating		4kV/5mA
Voltage	Range	0 - 4.00kV
	Resolution	0.01kV
	Accuracy	± (1.5% of setting + 5V)
Current	Hi Limit Range	0.02 - 5.00mA
	Lo Limit Range	0.00 - 5.00mA
	Resolution	0.01mA
	Accuracy	± (2% of setting + 2 counts)
Ramp Up Time	Range	0.2 - 60.0s
	Resolution	0.1s
	Accuracy	± (0.1% of setting + 0.05 sec)
Dwell Time	Range	0, 0.2 - 60.0 (0=continuous)
	Resolution	0.1s
	Accuracy	± (0.1% of setting + 0.05 sec)
Discharge Time		< 50ms, < 100ms for capacitor load
Maximum Capacitive Load		0.17µF < 1KV 0.09F < 2KV 0.07µF < 3KV 0.05µF < 4KV

INSULATION RESISTANCE

Output Rating		1kV/1000MΩ
Voltage	Range	0.10 - 1.00kV
	Resolution	0.01kV
	Accuracy	± (1.5% of setting + 5V)
Hi/Lo Limit	Range	1 - 1000MΩ
	Resolution	1MΩ
	Accuracy	0.10 - 0.49kV ± (7% of setting + 2 counts) ≥0.50kV ± (3% of setting + 2 counts)
Ramp Up Time	Range	0.1s or 2s
	Resolution	0.1s
	Accuracy	± (0.1% of setting + 0.05 sec)

Dwell Time	Range	0, 0.5 - 999.9s
	Resolution	0.1s
	Accuracy	± (0.1% of setting + 0.05 sec)
GROUND BOND		
Output Rating		32A/600mΩ/8V
Current	Range	1 - 32.0A
	Resolution	0.0A
	Accuracy	± (2 % of setting + 2 counts)
Offset	Range	0 - 100mΩ
	Resolution	1mΩ
	Accuracy	± (2 % of setting + 2 counts)
Output Frequency	Range	50Hz/60Hz
Ramp Timer		0 - 250mΩ: 0.1s 251 - 300mΩ: 0.2s 301 - 450mΩ: 0.3s > 450mΩ: 0.4s
Dwell Time	Range	0, 0.1 - 120.0s
	Resolution	0.1s
	Accuracy	± (0.1% of setting + 0.05 sec)
GENERAL		
Memory		3
PLC Remote		Input: Test, Reset, Interlock Output: Pass, Fail, Test-in-process
Security		1. Run: Only test, cannot change test parameters and memory locations. 2. Mem: Have test and select memory locations, cannot change test parameters.
Safety		CE
Dimension (W x H x D, mm)		430 × 132 × 400
Weight		24kg

EEC-41 Back Panel



Option	Description	EEC-31	EEC-41
OPT001	5 Memories	✓	✓
OPT002	USB Port	✓	✓
OPT003	Rear Output Kit	✓	✓
OPT004	5KVAC/6KVDC Output	✓	✓
OPT005	3mA Output	✓	-
OPT006	GB 40A Output	-	✓