

# AC and AC/DC High-pot Testers



- **Rapid production line testing to latest UL standards**
- **Extra safety features**
- **Rugged design for ease of portability**

---

## DESCRIPTION

AC and AC/DC High-Pot Testers available from Megger are designed for safety and ease of operation, and readily adapt to development, maintenance or production testing. Three models are available: two ac and one ac/dc. The AC High-Pot Testers feature a front-panel, NEMA 5-15R three-prong output receptacle. Booted, alligator-clip output and return probes are also supplied with all models.

Test voltage is continuously adjustable from zero to full output, with a zero-start interlock. Leakage current trip level may be adjusted from 0.3 to 12 mA by a front-panel knob. Pushbuttons are provided to select one-second or continuous testing, to turn off the high voltage and to reset the instrument. All high-voltage connections are recessed to prevent accidental contact with high voltage.

During testing, high voltage will automatically shut down within 50 ms of arcing or exceeding the preset trip level. Visual and audible alarms alert the operator upon failure.

The instruments also feature an interlock that prevents the high voltage from being applied if the supply ground wire is open or if the hot and neutral wires are interchanged. A Tester Grounded lamp lights to confirm the instrument is connected to a properly grounded power source.

The AC High-Pot Testers will automatically shut down if ground circuit resistance of the test object exceeds 15 ohms at any time during testing. This feature may be bypassed when testing double-insulated devices or when using test probes. The AC/DC High-Pot Tester provides a slide switch to select either ac or dc test voltage. The slide switch safely covers the output jacks not in use.

## APPLICATIONS

These portable instruments are used to test the dielectric strength of electrical insulation and the ground circuit continuity of three-wire appliances and other devices. Biddle High-Pot Testers comply with most existing UL requirements for dielectric withstand testing, including:

- UL 544 – Electric Medical and Dental Equipment
- UL 982 – Motor-Operated Household Food Preparing Machines
- UL 1026 – Electric Household Cooking and Serving Appliances
- UL 1270 – Radio Receivers, Audio Systems, and Accessories

## FEATURES AND BENEFITS

- Ground continuity check of three-wire devices with high-voltage interlock (ac models only)
- Front-panel adjustable leakage current trip from 0.3 to 12 mA
- One-second or continuous testing
- Automatic failure shutdown, with visual and audible alarms
- Recessed high-voltage connections
- Front-panel NEMA 5-15R three-prong receptacle on ac models
- Zero start/reset in event of failure
- Meets UL 120-k $\Omega$  requirement

**SPECIFICATIONS**

| CAT. NO. | Model | Applied Test Voltage     | Adjustable Leakage Current Trip Level | Output Receptacle     | Dimensions                                                   | Weight             |
|----------|-------|--------------------------|---------------------------------------|-----------------------|--------------------------------------------------------------|--------------------|
| 230315   | AC    | 0 to 3 kV                | 0.3 to 12 mA                          | Front-panel NEMA5-15R | (5.6 kg)<br>8 H x 9 W x 8.4 D in.<br>20.6 H X 23 W X 21 D cm | 12.5 lb            |
| 230415   |       | 0 to 4 kV                |                                       |                       |                                                              |                    |
| 230425   | AC/DC | 0 to 4 kV<br>0 to 5 kVdc | AC: 0.3 to 12 mA<br>DC: 0.43 to 17 mA | —                     |                                                              | 13.5lb<br>(6.1 kg) |

**Input**

**Standard:** 120 Vac  $\pm 10\%$ , 1 A, 50/60 Hz

**Optional:** Nominal 230-Vac, 50/60-Hz line is available on all models at no additional charge. To order, add -47 to Cat. No.

**Output**

**Maximum Output Current:** 12.6 mA

**Wave Shape**

**AC Models:** Line

**AC/DC Model:** Maximum ripple 0.4% rms per mA at full voltage

**Accuracy**

**Applied Test Voltage:**  $\pm 2\%$

**Leakage Current:**  $\pm 5\%$

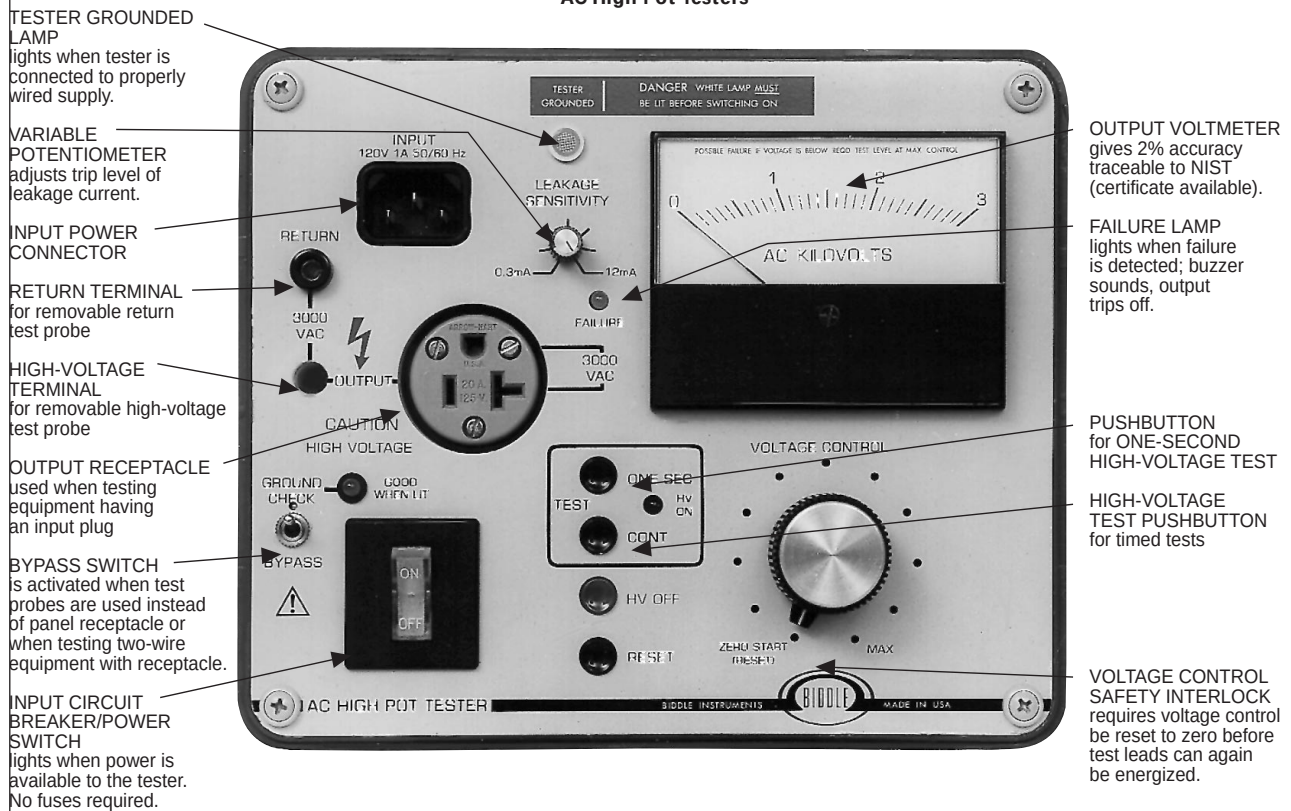


Optional pistol-grip leads

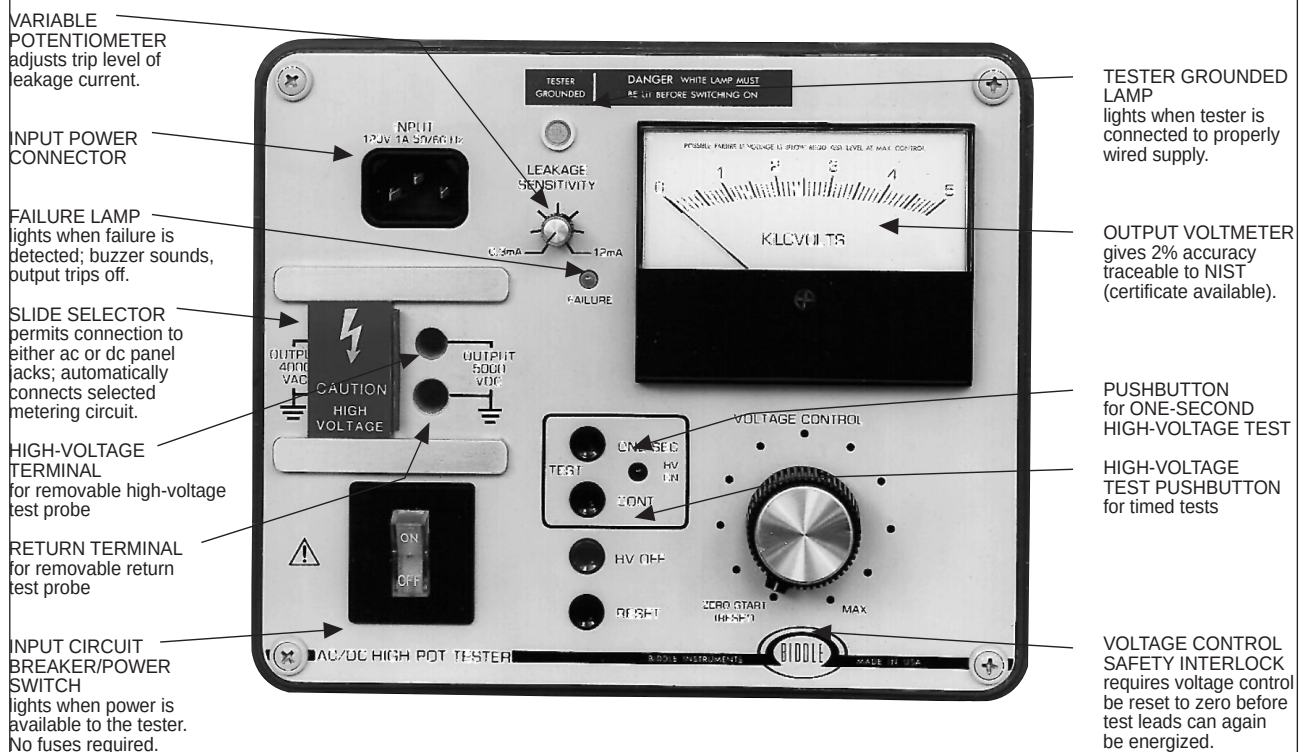


AC High-pot Tester with supplied leads

**AC High Pot Testers**



**AC/DC High Pot Testers**



## ORDERING INFORMATION

| Item                                                                                                                                                                                                                            | Cat. No.  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| AC High-Pot Testers                                                                                                                                                                                                             |           |
| 0 to 3 kV                                                                                                                                                                                                                       | 230315    |
| 0 to 4 kV                                                                                                                                                                                                                       | 230415    |
| AC/DC High-Pot Tester, 0 to 4 kV ac/5 kV dc                                                                                                                                                                                     | 230425    |
| <b>Included Accessories</b>                                                                                                                                                                                                     |           |
| Test probes with alligator clips for ac models, includes one Cat. No. 25507 high-voltage probe and one Cat. No. 25136 return probe, 4 ft [1.2 m]; for ac/dc models, includes one Cat. No. 25149 complete assembly, 4 ft [1.2 m] |           |
| Power cord                                                                                                                                                                                                                      | 17032     |
| Instruction manual for 230315 & 230415                                                                                                                                                                                          | AVTM23-1J |
| Instruction manual for 230425                                                                                                                                                                                                   | AVTM23-4J |
| <b>Optional Accessories</b>                                                                                                                                                                                                     |           |
| Test probes with retractable tips, 4 ft [1.2 m]                                                                                                                                                                                 |           |
| High-voltage probe for ac models only                                                                                                                                                                                           | 230315-2  |
| Return probe for ac models only                                                                                                                                                                                                 | 230315-3  |
| High-voltage and return probe set for ac/dc model only                                                                                                                                                                          | 230425-2  |
| Adapters, for conversion of output receptacles for use with twist-lock plugs                                                                                                                                                    |           |
| NEMA L5-15R twist lock                                                                                                                                                                                                          | 235300-1  |
| NEMA L5-20R twist lock                                                                                                                                                                                                          | 235300-2  |
| NEMA L5-30R twist lock                                                                                                                                                                                                          | 235300-4  |

**UK**  
 Archcliffe Road Dover  
 CT17 9EN England  
 T +44 (0) 1304 502101  
 F +44 (0) 1304 207342

**UNITED STATES**  
 4271 Bronze Way  
 Dallas TX75237-1088 USA  
 T 800 723 2861 (USA only)  
 T +1 214 330 3203  
 F +1 214 337 3038

**OTHER TECHNICAL SALES OFFICES**  
 Valley Forge USA, Toronto CANADA,  
 Mumbai INDIA, Trappes FRANCE,  
 Sydney AUSTRALIA, Madrid SPAIN  
 and the Kingdom of BAHRAIN.

Registered to ISO 9001:2000 Reg no. Q 09290  
 Registered to ISO 14001 Reg no. EMS 61597

**AC\_HIGHPOT\_DS\_en\_V10**

**www.megger.com**  
 Megger is a registered trademark