

D149 Series

AC Dielectric Breakdown Tester

■ The D149 Series of AC Dielectric Breakdown Testers represents a new level of sophistication, flexibility and accuracy in breakdown voltage testing. Each unit is equipped with a PLC-based control system that is internally programmed to perform the ASTM D149 short-time test, step-by-step test and slow rate-of-rise test. This unit can also be easily programmed to perform variations of these test sequences. The voltmeter circuit continually samples each waveform to determine the breakdown voltage with the highest accuracy. The operator can control all test parameters as required. When testing is complete, all relevant parameters (minimum, maximum, mean, and standard deviation) for that series of test samples are automatically calculated. Units are available in 30kV, 50kV, 75kV and 100kV AC for a wide variety of applications.



50kV Unit (pictured above)
Example oil bath & test cell (pictured below)



FEATURES

- ☑ **PLC-based** control and measurement system
- ☑ **Presets**
- ☑ **USB** for data download
- ☑ **Internally programmed** to perform all D149 type tests
- ☑ **Adjustable test parameters** (voltage, time, over current, etc.)
- ☑ **Built in safety cage** with interlock door
- ☑ **Adjustable current overload** (10% ... 110%)
- ☑ **Optional test fixtures** and oil baths
- ☑ **User Friendly Touch Screen**

BENEFITS

- Complete** test solution.
- All metering** performed by fast sensing circuitry.
- Tests performed** with little or no operator intervention.
- Software** designed to calculate all test parameters and print test reports.

APPLICATIONS

- Films, Papers, Tapes, and Fabrics
- Polymeric molding and embedding compounds
- Ceramics, Porcelain, and Mica
- Sleeving, Tubes, Sheets, and Rods
- Varnishes, Coatings, and Insulating fluids.
- Filling Compounds
- Adhesives
- Rubber and Rubber Products

TECHNICAL SPECIFICATIONS

| | | | | |
|-------------------------------------|---|---------------------------------------|--|--|
| Model Number | 730-2D149-^-* | 750-2D149-^-* | 775-5D149-^-B | 7100-5D149-^-B |
| System Output (V) : Tap 1 | 6 - 30kV | 10 - 50kV | 7.5 - 75kV | 10 - 100kV |
| System Output (V) : Tap 2 | 0.6 - 6 kV | 1 - 10kV | 1.5-7.5kV | 2 - 10kV |
| System Output (A) | 67mA | 40mA | 67mA | 50mA |
| Voltage Measurement Accuracy | ±5% of measured value, 0.6-30kV | ±5% of measured value, 1-50kV | ±5% of measured value, 1.5-75kV | ±5% of measured value, 2-100kV |
| Dimensions (NET) | 23 x 72 x 24 in (58 x 183 x 61 cm) | 23 x 72 x 24 in (58 x 183 x 61 cm) | 72 x 72 x 36 in (183 x 183 x 91 cm) | 72 x 72 x 36 in (183 x 183 x 91 cm) |
| Input Frequency | ^ In the model number, designate '5' for 50Hz input or '6' for 60Hz input | | | |
| Input Voltage | * In the model number, designate 'A' for 120 V input or 'B' for 230 V input | | 230 V | |

SYSTEM CONTROLS



OPTIONAL EQUIPMENT & ACCESSORIES

| Part Number | Description | | Max Test Voltage |
|-------------|---|--|--|
| TF-2-# | Electrode, 2 inch diameter | | # In the part number, designate '50' for 30kV or 50kV max voltage or '75' for 75kV or 100kV max voltage. |
| TF-1-# | Electrode, 1 inch diameter | | |
| TF-.50-# | Electrode, 0.5 inch diameter | | |
| TF-.25-# | Electrode, 0.25 inch diameter | | |
| TF-4.25-# | Flat plates, 0.25 inches thick 4.25 inches wide. Square edges, rounded ends to 0.125 inches | | |
| TF-3-# | Opposing Cylinders | Lower Cylinder | Diameter: 3 inches Thickness: 0.6 inches |
| | | Upper Cylinder (Rounded edges, 0.12 inch radius) | Diameter: 1 inch Thickness: 1 inch |
| OB-# | Lucite Oil bath | | |
| TL-D149-# | High Voltage & Ground Test Leads. Used to connect terminations to alternative fixtures. | | N/A |

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