



RADIO INFLUENCE VOLTAGE MEASUREMENT SYSTEM

Application

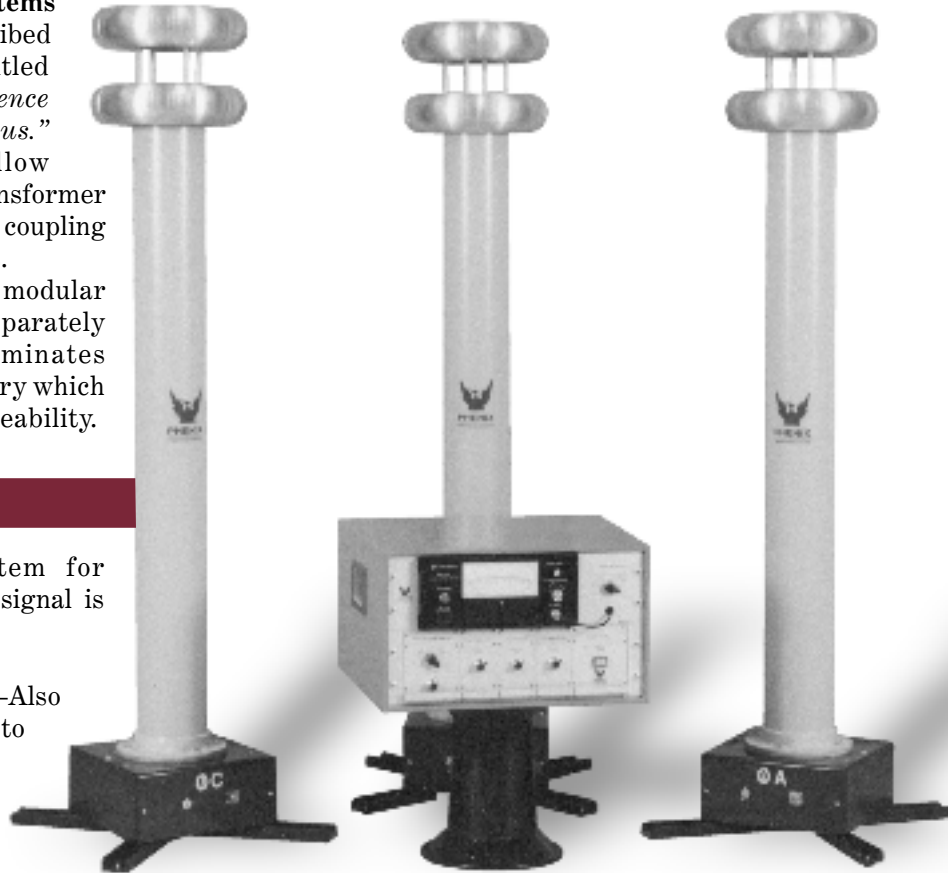
PHENIX Technologies RIV Test Systems are designed to perform RIV testing as described in NEMA Publication no. 107-1987 entitled “*Methods of Measurement Of Radio Influence Voltage (RIV) Of High Voltage Apparatus.*” Phenix Technologies RIV Systems allow measurement to be made directly from transformer bushing capacitance taps or from high voltage coupling capacitors and displayed directly in microvolts.

These systems are designed in a rugged modular configuration. Each function is contained separately in shielded plug-in modules. This eliminates unwanted interference from internal circuitry which may reduce system accuracy and eases serviceability.

Standard Models

RIV-1 System—A single channel system for measuring single source interference. The signal is scaled and directed to an RIV meter.

RIV-3 System (as shown in Photograph)—Also features a single RIV meter with selectability to one of three measurement channels for monitoring three sources of interference such as the bushings of a three-phase Transformer.



Components

RIV Amplifier Module(s)—This is an adjustable gain amplifier. This amplifier allows direct readings from the test object by eliminating the need for correction factors caused by measurement system losses. Note that the RIV-3 System contains three of these modules, one for each channel.

Oscillator/Control Module—This is a high-accuracy, low drift signal generator designed specifically for RIV system calibration. The system is furnished complete with calibration probe.

RIV Meter—The RIV Meter provided measures influence noise in the AM broadcast band at a single fixed frequency. The RIV Meter conforms to ANSI C63.2, ANSI C63.4, and is intended to perform the test covered in NEMA 107-1987, plus other associated tests which are performed on high voltage electrical generation equipment.

NOTE: The RIV Meter will be provided with a measurement frequency of 1.0 MHz. The alternate frequency of 834 kHz is also available upon request.

Technical Specifications*

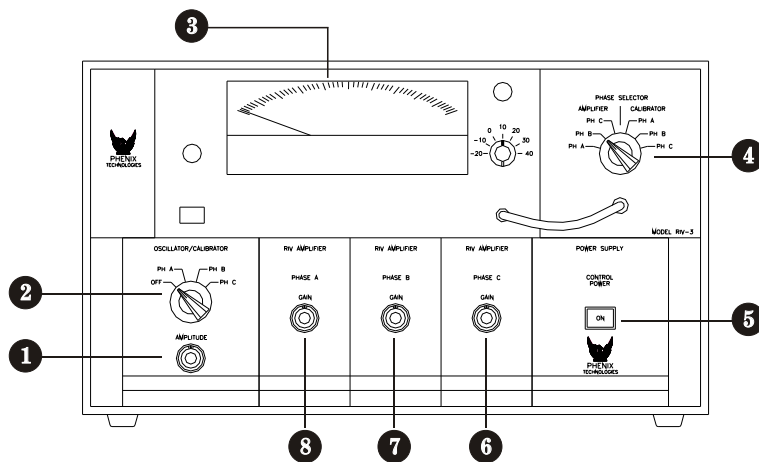
Input Power	120 VAC, 5 A, 1Ø, 60 Hz
(Optional input power)	240 VAC, 2.5 A, 1Ø, 50 Hz
Oscillator	
Frequency	1.0 MHz (834 kHz alternate)
Output	Sinewave
Stability	0.05% over 15 minutes
RIV Amplifier	
	20 dB or more gain with adjustable output of 0-1000 microvolts.

RIV Meter	
Display	Analog, 5" scale
Scale	1-1000 microvolts, 0-60 dB
Range	120 dB (0.1 microvolts to 0.1 volts)
Attenuation	-20, -10, 0, +10, +20, +30, +40 dB
Accuracy	±2 dB

Dimensions	
Size	20" w x 20" d x 12" h (508 mm x 508 mm x 305 mm)
Weight	49 lbs (22.3 kg)

*Specifications subject to change without notice.

Control Panel Layout



1. Oscillator Gain
2. Calibrator Phase Selector
3. RIV Meter
4. Amplifier/Calibrator Phase Selector
5. Control Power
6. Phase C Gain Control
7. Phase B Gain Control
8. Phase A Gain Control

The PHENIX Technologies Product Line

- ▼ High Voltage AC Dielectric Test Sets
- ▼ Resonant Test Sets
- ▼ Variable Frequency Resonant Test Sets
- ▼ DC Hipots and Insulation Test Sets
- ▼ Automatic Insulating Material Testers (D149)
- ▼ Microhmmeters
- ▼ Liquid Dielectric Test Sets
- ▼ Megohmmeters
- ▼ AC/DC Kilovoltmeters
- ▼ Partial Discharge Detector
- ▼ Vacuum/Oil Interrupter Testers
- ▼ Bucket Truck Testers
- ▼ High-Frequency Cable Aging Test Sets
- ▼ Heat Cycling Test Sets
- ▼ Rubber Goods-Protective Equipment Testers
- ▼ Core Loss Testers
- ▼ AC, DC and AC/DC Motor Test Sets
- ▼ Water Brake Dynamometers
- ▼ Transformer Test Sets
- ▼ Frequency Response Analyzer
- ▼ High Current / Circuit Breaker Test Sets
- ▼ Recloser Test Sets
- ▼ DC Power Supplies
- ▼ High Voltage DC Cable Thumpers
- ▼ High Voltage Terminations
- ▼ High Power Column-Type Variable Transformers
- ▼ High Power Thoma-Type Variable Transformers
- ▼ Voltage and Current Stabilizers
- ▼ Impulse Generators/Standard Capacitors/Coupling Capacitors

Your local representative is



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