

**HFRA** 

# FREQUENCY RESPONSE ANALYZER

Standards

IEEE Std C57.124, IEEE Std C57.113, IEEE Std 1434, IEC 60270, IEC 60060, IEEE Std. 400 and NBR 5356



# HFRA

## Description

Frequency Response Analysis (FRA) is a technique employed in the analysis of linear systems. It involves presenting the behavior of the analyzed system across a wide range of frequencies.

Measurement techniques for transformer frequency response can be classified into two main groups, according to the philosophy of obtaining the data. These are: time-domain techniques and frequency-domain techniques, with the latter being the method used in HVEX's solution.

#### Types of measurement:

- Spectral signature analysis;
- Open-circuit measurement;
- Short-circuit measurement;
- Capacitive measurement;
- Inductive measurement.

HVEX's FRA testing system is compacted into a mobile unit equipped with an oscilloscope, amplifier, connection terminals, and a computer with supervisory software.

### **Analysis Software**

HFRA is the software used for the control and analysis of Frequency Response Analysis (FRA) tests. Through HFRA, it is possible to configure test parameters, visualize graphs, register equipment, generate automatic reports, and manage databases for storing and viewing historical data.

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# **Technical Specifications**

Power supply	127 / 220 V / 60 Hz				
	Band width	25 MHz			
Function generator	Output voltage	20 mVpp to 5Vpp			
	Power	500 Wrms per channel in 4 $\Omega$ 290 Wrms per channel in 8 $\Omega$			
	Input sensitivity	775 mV			
Amplifier	Input Impedance	30 kΩ			
	Signal/Noise	> 100 dB			
	Output voltage	42 V RMS / 60 Vp (Parallel connection)			
Software	12 bits				
Operating temperature	Up to 50°C				
Relative humidity	Up to 95% non-condensing				

We provide solutions for improvement of eletrical energy generation, transmission and distribution efficiency, quality and reliability. With a highly specialized and experienced team in research, delvelopment and innovation, HVEX develops tailor-made solutions for brazilian and foreign markets. Wide range of products with solutions focused on signal transduction, measurement, monitoring and protection.

# **HVEX** Boosting the Innovation





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