

KEMA Labs

CESI Group

High Power and High Voltage Testing

Largest High Power and High Voltage
Facilities in US, with global expertise



Your #1 Resource for Electrical Testing



Our Lab offers many testing services including high-power short-circuit testing both AC and DC, high-voltage testing, synthetic testing, thermal testing, impulse testing, and more.

The High Power Lab can generate short circuit values up to 245kV/63kA. The High Voltage Lab complements the High Power Lab with dielectric testing services up to 230kV. Combined, these facilities test virtually any device at the distribution and sub-transmission level in the US power grid.



Type test certificate
GOLD



Report of performance
SILVER



Test report
GREY

Accreditations

- ▶ A2LA - Certificate Number 0553.01
- ▶ ISO 17025
- ▶ UL Third Party Test Data Program (TPTDP)

Test Standards

- ▶ ANSI, IEEE, IEC, ASTM, MIL SPEC, CSA & UL

Lab Capabilities

Short-Circuit Testing

High Voltage: $\leq 245\text{kV}$, $\leq 63\text{kA}$

(Synthetic / In Development)

Medium Voltage: $\leq 72\text{kV}$, $\leq 63\text{kA}$

Low Voltage AC: $\leq 2.4\text{kV}$, $\leq 275\text{kA}$

Low Voltage DC: $\leq 1.6\text{kV}$, $\leq 230\text{kA}$

Load Switching Testing

Medium Voltage: $\leq 38\text{kV}$, $\leq 5\text{kA}$

Capacitor Switching Testing

High Voltage: 72.5kV , 550A (Single Phase)

Medium Voltage: 38kV , $1,260\text{A}$ (Three Phase)

Medium Voltage: 15kV , $2,000\text{A}$ (Three Phase)

Dielectric Testing

Lightning Impulse: 1.4MV

Switching Impulse: 900kV

AC Dry Power Frequency: 600kV , 4000mA

AC Wet Power Frequency: 250kV , 600mA

DC Withstand: 130kV , 10mA

Thermal Testing

Up to 12kAAC , 3f , 60Hz at less than 32V

Up to 8kADC at less than 48V

Test Frequencies

Up to 12kAAC , 3f , 6

Types of Tests Offered

- Short-Circuit Interruptions
- Fault-making Current
- Cable & Line Current Switching
- Capacitor Current Switching
- Synthetic Method (In development)
- Internal Arcing Fault Resistance
- Momentary & Short-Time Withstand
- Audible Sound
- Transformer Short-Circuit
- Transformer Routine Testing (In development)
- Transformer Rectifier Unit Testing
- Electrical Endurance
- Lightning & Switching Impulse
- Power Frequency (Wet & Dry)
- Partial Discharge, Corona, RIV
- Thermal Current
- Rain Test

Types of Equipment Tested

- Switchgear, Panel Boards & Switchboards
- Circuit Breakers
- Load Break Switches
- Fault Interrupters
- Reclosers
- Capacitor Switchers
- Surge Arrestors
- Current Limiting & Cut Out Fuses
- BusDuct / Busways / Cable Ways
- Distribution Transformers
- Transformer Rectifier Units
- Reactors
- Motor Controllers
- Cables & Grounding Assemblies
- Pantographs
- Generator Terminal Enclosures





KEMA Labs

CESI Group

● **Kema-Powertest**

LLC - 4379 County Line
Road Chalfont,
PA 18914, USA

○ **Cesi S.p.A.**

Via Rubattino 54
20134 Milano MI
Italy

○ **Kema B.V.**

Utrechtseweg 310
6812 AR Arnhem
The Netherlands

○ **FGH Engineering & Test GmbH**

Hallenweg 40
68219 Mannheim
Germany

○ **IPH GmbH**

Landsberger Allee 378a
D-12681 Berlin
Germany

○ **Zkušebnictví, a. s.**

Podnikatelská 547 190 11
Prague 9 Běchovice,
Czech Re

KEY CONTACTS

MATTHEW MUTHARD

AREA MANAGER NORTH AMERICA
Email: matthew.muthard@kema.com
Mobile: (610) 390-9939

JOSHUA UNDERWOOD

LAB DIRECTOR
Email: joshua.underwood@kema.com
Mobile: (215) 990-1075

www.kema.com