



Transmission and Distribution Newsletter – Spring 2021

ArcPro™ 4.0 Released with New Features

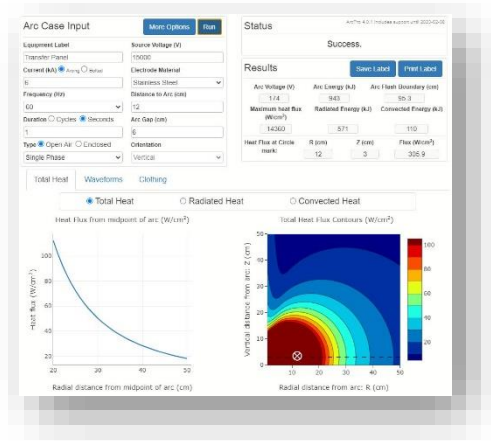
A new release of our ArcPro™ software for arc flash hazard analysis is now available for download!

This state-of-the-art software offers proven value in helping select protective clothing and meet workplace regulations for safety apparel. ArcPro™ 4.0 is the only software endorsed by US OSHA (Occupational Safety and Health Administration) for the calculation of incident heat energy from an electric arc.

Safety is a core value of Kinectrics, and we work hand in hand with engineering and Health and Safety professionals around the world to better protect your most valuable assets – your workforce. New features include 50Hz support and multi-language support.

As the world transitions to a more distributed energy storage environment, with large scale battery systems, the safety hazards posed by DC arcs are more important than ever. ArcPro™ has been specifically re-tooled to address these needs.

Learn more and purchase our software [here](#).



Kinectrics' Virtual World – High Current Lab

Our High Current Lab provides testing and qualification services to manufacturers and utilities in the transmission and distribution industry. The lab performs arc flash rating for an assortment of personal protective equipment (PPE), such as textile materials, eye and face protective products, gloves, garments, harnesses, blast blankets, etc.



The High Current Lab also provides AC and DC short circuit, arcing fault, and continuous current testing on a variety of components including transformers, switchgears, disconnect and ground switches, temporary protective grounds (TPG), overhead line hardware and connectors, and many more.

The highlights of our test capability are as follows:

- 200 MVA short circuit capacity
- Directly fed from grid
- Up to 20 kV single phase test voltage
- Up to 80 kArms and 200 kA peak single phase short circuit current
- Up to 2400 V three phase test voltage
- Up to 50 kArms and 120 kA peak three phase short circuit current

Take a self-guided tour of this lab [here](#) today!

Featured Insight: HTLS Conductor Testing Lab, India



Kinectrics' Conductor Testing Laboratory is an internationally recognized, third-party independent facility in Hyderabad, India aimed at testing High Temperature Low Sag (HTLS) conductors. With the implementation of a variety of advanced test machines, we offer a range of testing services including, ultimate tensile strength, ambient & high temperature stress-strain tests, and coefficient of linear expansion tests.

The facility is future ready, having the capability to test conductors up to 500 kN UTS and 5000 A rated currents, as well as execute high temperature and composite core breaking load tests at 100,000 lbs capacity. The testing lab is equipped with modern amenities and state of the art instruments to offer testing services that are in accordance with global standards.

Our Kinectrics India lab is now ISO/IEC 17025:2017 accredited by NABL, India. We are fully operational and are conducting tests and certifying overhead conductors and accessories according to International and Indian standards since April 2021.

Learn more [here](#).

Case Study: Tower and Conductor Vibration Monitoring



The objective of conductor vibration monitoring is to provide clients with insight into the damping systems suitability and ability to protect against vibration. This is achieved through the recording of field vibration data under various wind conditions and temperatures.

Over time, the cyclic bending of the metal strands caused by vibration results in conductor fatigue and consequently, broken strands and conductors. This, in turn, leads to unexpected power outages and increased maintenance costs.

Kinectrics assists in the selection of typical and worst-case locations for comparison when completing conductor vibration monitoring. Data is then collected for a period of 3 months or greater and then the results are compared to industry guidelines on maximum conductor stresses which are used to prevent fatigue failure.

By performing conductor vibration monitoring, a utility can accurately assess the vibration stresses on the conductor and verify the performance of vibration mitigation devices under real or in-service conditions. The data collected provides our clients with confidence that the conductors will remain safe and reliable for years to come.

Learn more about vibration monitoring and our other Line Asset Management services [here](#).