



# COLLABORATION IN THE D.R. OF CONGO

TRUST BETWEEN CONTRACTOR AND END-USER DEFINES  
A NEW STANDARD IN LOW VOLTAGE CONNECTIVITY

Over the last several years, TE Connectivity (TE) has sold Medium Voltage (MV) cable accessories to customers in the Democratic Republic of Congo (DRC) through a Belgian contractor.

In one particular region, the contractor began observing failures of newly-installed EPKT-R heat shrink terminations. TE and its partners collaborated to thoroughly investigate the failed products. It quickly became clear that the termination failures were caused by faulty installation of the aluminum wire armour connection components that were supplied with the terminations. TE quickly moved to train 10 local jointers and technicians on correct installation methods.

The installation training remedied the failures in Medium Voltage applications significantly increasing the trust and collaboration between partners. Since the conclusion of the training, no failures have been reported in the Medium Voltage network. However, the training proved to be of even further value. The training uncovered a number of additional challenges that were hampering the efficiency and reliability of several Low Voltage applications. TE engineers realized that there was an additional challenge that Low Voltage Heat Shrink Joints (LVHS Joints) could solve.

## The Challenge

The Contractor working for the National Utility had the distinct challenge of connecting a 6-core Low Voltage Aerial Bundle Cable (LV ABC) to a 2-core and a 4-core underground feeder cable. Historically, this connection was made using LVHS Joints that relied upon crimping technology. This approach was problematic because crimp connectors require appropriate compression tooling and dies to connect various conductor cross sections, shapes and materials. This equipment is not always readily available to local installers. Because local installers lacked the appropriate installation technology, incorrect installations were leading to unreliable and sometimes unsafe connections.

### Country:

Democratic Republic of Congo

### Industry:

Energy, Utilities

### Key figures:

- 10 local jointers and local installers trained
- 0 failures since local installer training completed

### Key products:

- LV and MV Joints
- LV Terminations
- LV Insulation Piercing Connectors
- Connectors and Fittings
- Heat Shrink

## The Solution

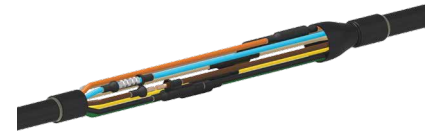
In their close collaboration, TE engineers listened to the Contractor working for the National Utility's unique challenges, proposing that they use LVHS Joints with shear bolt connector technology. These products cover wider cable ranges and do not require special tooling.

Since no crimping tools are required, there is less physical space and less time needed for the installation. Because there are no fragile components in the construction of the tubes, there is increased mechanical protection and extended lifetime and performance of the entire energy infrastructure. This decreased risk of network failure provides greater peace of mind for the Congolese installers.

TE engineers decided to go even one step further to evaluate the local cable constructions. They determined that the best solution would be to develop a customized shear bolt connector product offering. TE created a special kit with customized LVHS Joints that perfectly met the National Utility's needs and local requirements.



LJSM

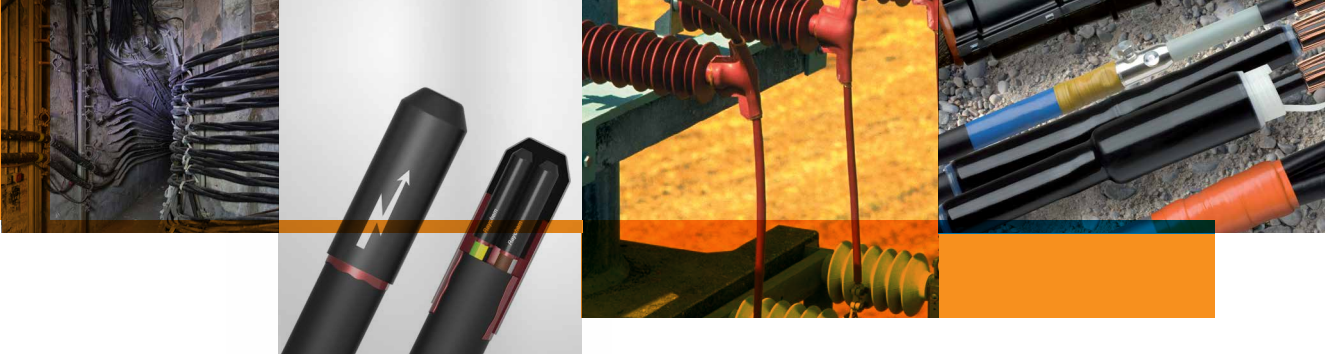


ECKJ



EPKT

## Impacting a Nation



### The Outcome

Today, this customized solution has evolved into the benchmark for LVHS Joints installations in the Congolese region. The ease of installation, ease of obtaining the product and improved safety have changed the way LVHS Joints are installed. The market does not specify crimp connections anymore; they use the shear bolt solution over all other options. This change in approach has shown a consistent improvement in the performance and reliability of networks.

“WE REALLY APPRECIATE TE ENGINEERS TAKING THE TIME TO GO THE EXTRA MILE AND NOT ONLY FINDING THE BEST PRODUCT, BUT TO CUSTOMIZE IT FOR OUR NEEDS. THE FIELD SUPPORT OF THEIR TECHNICAL TEAM WAS SUPERIOR - REALLY EDUCATIONAL - IT MADE THE DIFFERENCE IN STABILIZING AND OPTIMIZING OUR NETWORK PERFORMANCE.”

TE Connectivity (NYSE: TEL) is a \$12 billion global technology leader. Our connectivity and sensor solutions are essential in today's increasingly connected world. We collaborate with engineers to transform their concepts into creations - redefining what's possible using intelligent, efficient and high-performing TE products and solutions proven in harsh environments. Our 72,000 people, including 7,000 design engineers, partner with customers in close to 150 countries across a wide range of industries. We believe EVERY CONNECTION COUNTS - [www.TE.com](http://www.TE.com).

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