# Increase substation step-voltage regulator reliability

The EVER-Tap™ vacuum interrupting voltage regulator is the result of a significant collaboration between two industry leaders: Eaton and Reinhausen Manufacturing. Eaton's long-standing experience with step-voltage regulators and controls combined with Reinhausen's industry-proven RMV-II tap changer resulted in a reliable, efficient and flexible voltage regulating solution for your substation.



### Reliability

Eaton's EVER-Tap voltage regulator utilizes the Reinhausen RMV-II vacuum interrupting tap changer, rated for an industry-leading 1,000,000 operations. Inherent to the vacuum interrupting design, material and gas byproducts from tap changing are removed from the dielectric fluid, providing a clean operating environment, prolonging tap changer contact and coil winding life.



### **Efficiency**

Make phase unbalance an issue of the past and achieve your cost-saving goals by improving your CVR with single-phase voltage regulation in your substation. Don't allow your voltage regulating devices to be overtaxed with the ever-increasing amount of DERs on the system by utilizing the proprietary algorithms in Eaton's Cooper Power™ series CL-7 single- and multi-phase controls, reducing the amount of operations by up to 70% in high PV penetration applications while avoiding voltage violations.



## **Flexibility**

The bank of EVER-Tap voltage regulators with three separate single-phase CL-7 controls or one multi-phase CL-7 control can handle substation applications with power transformers up to 46 mVA, 150 kV BIL.



By utilizing the ever-expanding features of the CL-7 voltage regulator controls, users can monitor and adjust each phase independently or as a three-phase ganged operation, simulating an OLTC transformer. Line drop compensation, load profiles and many other parameters can be set for each individual phase.

With the CL-7 control new analog input card, a variety of inputs can be monitored such as oil temperature, pressure/ vacuum or fan control, providing real-time health status and saving money by avoiding costly site visits.

CL-7 controls offer cybersecurity features meeting the latest standards with two new firmware releases every year. Improved tap position tracking functionality is also provided via proprietary algorithms to ensure the neutral position is being identified accurately, maintaining our focus on the safe operation of single-phase step-voltage regulators. The CL-7 control is available in a single-phase or multi-phase configuration where one controller is used to monitor and operate three separate single-phase stepvoltage regulators, saving time and money on installation and commissioning costs.









For Eaton's Cooper Power series product information, visit Eaton.com/cooperpowerseries

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