First released in 1994, Southwire’s Overhead Conductor Manual has become a go-to resource for many engineers. Created as a design reference, the book consolidates basic information needed to evaluate the design, construction, and uprating of overhead transmission systems. Whether you are an entry level engineer or a seasoned professional, this manual is a useful guide for overhead conductors and line design.

Once again, Southwire engineers have put pen to paper to update this practical desk manual with the most up-to-date industry technologies, standards, and practices.

What’s New in the 3rd Edition

• Information on our innovative C7™ Overhead Conductor
• Information on our new Max Storm™ Overhead Conductor
• A new section on dynamic line ratings
• A detailed outline of the Alcoa Graphic Method
• Recent test data from Southwire’s D.B Cofer Technology Center
• Details on creep correction
• Full color images throughout the manual
• Updated conductor tables, including new tables for C7™ and Max Storm Overhead Conductors

A Sampling of Topics

• Introduction to basic overhead conductor concepts, including overviews of electrical and mechanical characteristics
• Sag and tension concepts and calculations
• Basic installation guidelines
• Thermal ratings of overhead conductors in steady-state and transient conditions
• Mechanical effects of high-temperature operation
• Environmental effects, including radio noise, audible noise, and electrical and magnetic fields
• Design of new transmission lines
• Voltage uprating of existing lines
• Thermal uprating of existing lines

The Overhead Conductor Manual is a guide, or a road map, for use in designing transmission lines. It is not a substitute for good engineering practices. It must be used in conjunction with applicable local, state, and federal codes and design standards, some of which may supersede recommendations in this manual.