

# New features for cable ampacity software

Following clean energy trends and integrating the latest advances in cable thermal rating, the new CYMCAP version 8.2 version includes a new module for submarine cable installations as well as a wide range of enhanced capabilities and new functionalities.

#### Submarine cable installation add-on module

This add-on module supports a new set of submarine cable installations:

- · Cables immersed in water
- · Cables on the seabed
- Cables in the silt (submarine soil)
- J-tubes

# More solutions for cable modeling

- Double-armoured cables for submarine installations
- New parameter to easily identify DC or AC cables when modeling a new cable
- Extended list of available materials supported for jacket and bedding

# Proven, reliable results — CIGRE TB 880 validation

CIGRE WG B1.56 published TB 880 Power Cable Rating Examples for Calculation Tool Verification in September 2022. A document comparing the results and the instructions to reproduce the cases is now available in the Help menu.

# Improved calculations for cables in presence of magnetic materials

Several improvements in the methodology used to compute Eddy currents and hysteresis losses for installations containing magnetic materials.

## **HVDC** cable rating considering electrical stress

CYMCAP power cable rating calculation for HVDC cables is now performed considering the electric field strength in the insulation.

# Graphical User Interface (GUI) enhancements

- Better visualization of results, including ampacity and temperature results summarized in the steady state view after a simulation
- Cables which are directly buried in ducts and pipe-type cables are all supported through the same icon
- Validation of minimum depth for various elements (duct bank, backfill, ducts)
- The Comments section in the "New study/ execution" dialog box now allows up to 200 characters
- Readme file is now available through the Help menu.
- Limitation to run transient simulations with no more than 45 cables was removed.



### Report enhancements

- · Increased efficiency exporting results to Microsoft Excel
- More meaningful information in the electrical parameters and steady state reports, including formulas for installations with dissimilar cables
- Print is now easier with a new general report containing the most relevant information for cables and installation in a vertical format

### Multiple casings add-on module enhancements

- Improved differentiation between casings on the seabed and those that are installed in the silt (submarine soil)
- Metallic casings with magnetic properties are now supported
- More cable configurations including multiple cables per phase are now supported with this add-on module

### Detailed cable impedance add-on module enhancements

 Impedance calculation for three core cables (non-magnetic) is now supported

### SOUTHWIRE cable library

CYMCAP software now contains a library with almost 500 cables. This library was provided directly from SOUTHWIRE and is available with the default database included with the installation.

Users can learn more about CYMCAP 8.2 by downloading the Readme document and the reference manual available at my.cyme.com/downloads/software.

A license upgrade is required to run this version. Collect the C2V file from the license manager and send it to the support email cymesupport@eaton.com.

For more information on CYMCAP software, or for a web demo, please contact us at **cymeinfo@eaton.com**.



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