HydroComp, Inc.

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DC Motor Component for NavCad® 2021

New electric drive motor feature for Propulsion simulation

Development for HydroComp NavCad 2021 offers new features across the range of applications. One specific highlight is NavCad's new DC motor feature.

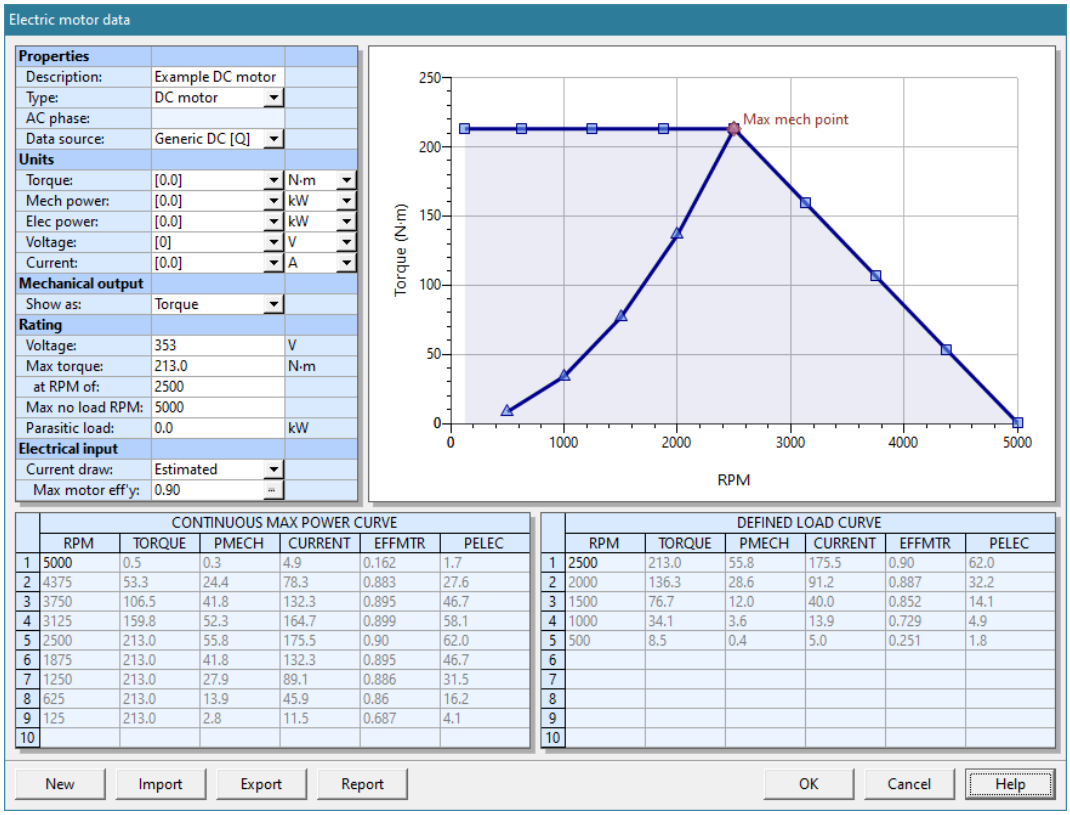
New DC electric motor Drive option

A major update for NavCad is the new support for electric motors as the prime mover of NavCad's *Drive* component. The first electric motor type to be released is for DC motors, with particular development for easy user definition of standard motor curve formats.

This includes the popular "constant torque" and "constant torque-constant power" styles of permanent magnet synchronous motors (PMSM) found in UVs and other submersibles. Custom data entry is also supported for specific manufacturer-supplied power curves.

A new proprietary model for partial load efficiency and current draw was developed to provide engineers and designers with a critical missing piece when conducting trade-off studies, evaluation and validation of trial data, or calculations of operational battery budget. Full propulsion system DC motor metrics can then be predicted, including current draw, mechanical-to-electrical efficiency, and electrical input power.

AC motor support is in development and scheduled for release in early 2022.



About HydroComp NavCad

For additional information, click to: www.hydrocompinc.com/solutions/navcad

About HydroComp

Since 1984, HydroComp has been a leader in providing hydrodynamic software and services for resistance and propulsion prediction, propeller sizing and design, and forensic performance analysis. Through its unique array of software packages and services, HydroComp now serves over 1200 naval architectural design firms, shipyards, yacht owners, ship operators, propeller designers, universities and militaries around the globe.

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