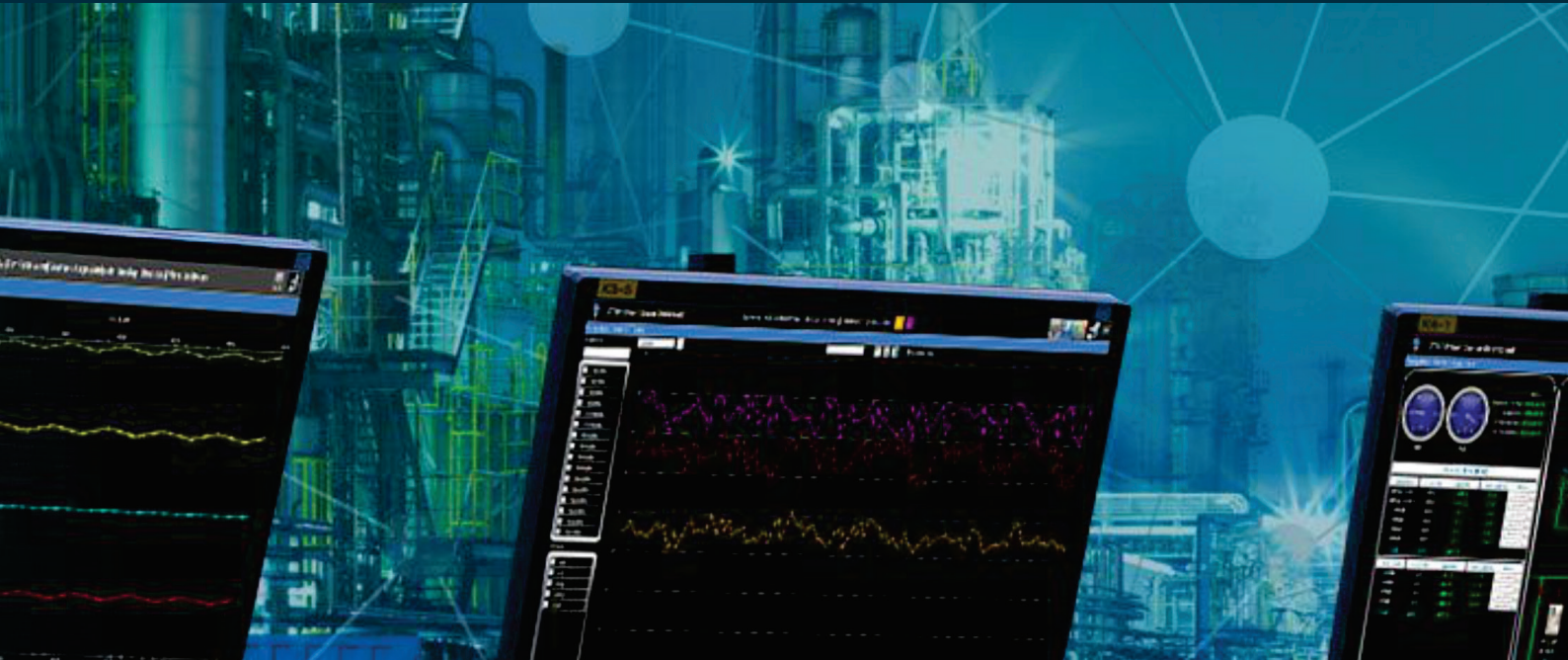


K-POWER

DYNAMIC LOAD COMPENSATION (DLC)



KONGSBERG



The Dynamic Load Compensations (DLC) function is an intelligent add-on feature to the K-Power Power Management System (PMS) that can manage both conventional marine power plants for merchant vessels, and complex power generation systems for offshore vessels with K-Pos systems.

FEATURES

The DLC function uses the thrusters to compensate for large load variations in drilling system or large cranes during DP operations to prevent large variations in total generator load and frequency. The DLC system will continuously measure the variations of the dynamic load from heavy consumers such as draw work or crane.

Compensation for the measured variations is done by utilizing a special thruster allocation algorithm in the K-Pos system. The fast and dynamic load control function in PMS will utilize the power limitation function within the drives to achieve a quick compensation of load variations.

DLC links load control and station-keeping control together in order to minimize the load variations. By reducing frequency and voltage variations, the number of running engines can be lowered without the risk of blackout.

DLC typically utilize the thrusters to compensate for other dynamic consumers (Drilling, Crane etc.).

The RPM setpoint from DP towards the drive during the compensation phase are not moved, therefore the propeller RPM will only be slightly reduced.

FUNCTIONS

The objective of the dynamic load compensation function is to reduce the frequency and voltage variations in the power plant and reduce the number of running engines, without the risk of blackout or synchronization problems.

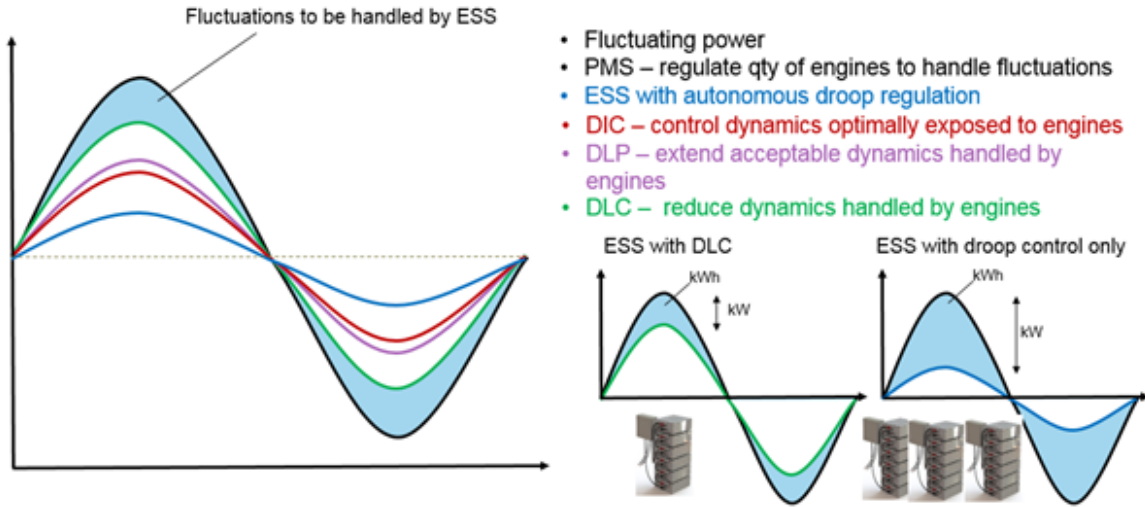
The DLC system will continuously measure the variations of the dynamic load from heavy consumers such as draw work or crane. Compensation for the measured variations is done by utilizing a special thruster allocation algorithm in the DP system. The fast dynamic load control function in PMS will utilize the power limitation function within the drives to achieve this quick compensation of load variations.

TECHNICAL SPECIFICATIONS

Requirements

K-Chief 700 PMS and K-Pos.

This figure shows load fluctuations handled by DLC combined with Energy Storage System (ESS) control.



Specifications subject to change without any further notice.