

Completely Integrated Solutions
for Vessels

SISHIP^{CIS} Boost

More thrust or more light?
Always having energy where
and when it is needed at the
moment

Your Success is Our Goal

SIEMENS

Industrial Solutions and Services

The SISHIP^{CIS} Boost system boosts the propeller performance of the main drive, or, if necessary, enhances the available electrical power of the on board network. SISHIP^{CIS} Boost drives ensure the controlled energy flow in the performance range from 2 – 4 MW (generator side) and 2–10 MW (motor side) under all operating conditions – also without transition. The advantage: significant energy and cost savings.

SISHIP^{CIS} Boost – economical energy management

The operating conditions on board ships constantly change: wind and weather, heavy seas, mission schedules and safety requirements, such as maintaining the maneuverability, influence which energy needs of the propeller drive and the on board network are currently required. In order to keep operating and fuel costs as low as possible, it is recommended to allot energy only to those areas where it is needed at the moment. This is achieved with a system that is capable of automatically, flexibly and economically controlling the energy flow on board.

SISHIP^{CIS} Boost – Our solution in detail

SISHIP^{CIS} Boost is ideally suited for both power-take-off operation in the on board network, as well as for power-take-in operation to support the propeller drive.

More profitability through power-take-off operation

In the power-take-off mode, the SISHIP^{CIS} Boost system serves as the sole energy supplier for the on board network in the broad rpm range of the main engine. It is also possible to easily operate other diesel generator rates at the same time.

Six good reasons for SISHIP^{CIS} Boost

- Reduction of operating costs through needs-oriented activation and deactivation of the energy flow
- Reduction of the fuel consumption through economical energy distribution
- Low maintenance expenditures, virtually no downtime
- Fast service through worldwide availability of standardized components
- Optimal system configuration resulting from decades of experience with energy-technical components for commercial shipbuilding
- Possibility to enhance the drive performance as part of ship modification measures at a later point in time



As a result, the main engine operates far more economically with SISHIP^{CIS} Boost, because it feeds additional energy into the on board network. Thus, maintenance of the diesel aggregates which are normally utilized for the energy supply of the on board network is virtually eliminated.

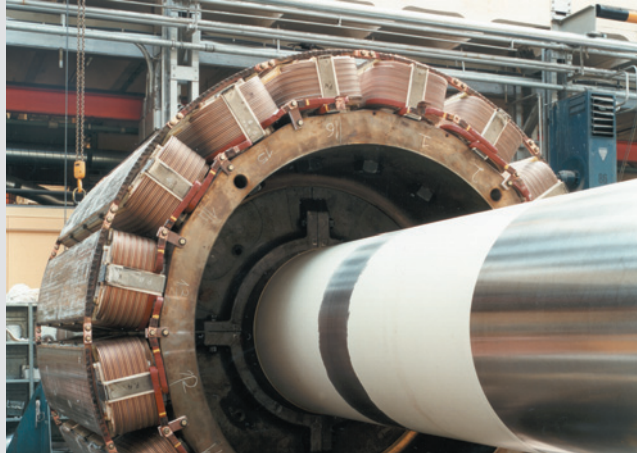
Energy from the on board network for the propulsion

In the power-take-in operation mode, electrical power from the on board network is converted into additional mechanical power for the propeller shaft, if, for example, a higher ship speed is needed to stay on mission schedule. The higher power level required for heavy seas or icy waters is thereby also adequately covered.

The two-stroke main drives, normally operating under considerable strain, achieve a higher level of efficiency with SISHIP^{CIS} Boost, and are subjected to less thermal stress. Through the parallel operation of the electrical motor, the high-performance periods are also shortened. The resulting relief of the main engine leads to reduced maintenance vulnerability and minimizes downtimes.

Take Home in the event of an emergency

If the diesel motor of the main drive should happen to fail, the maneuverability of the ship is nonetheless ensured through the "take home" operation mode of the electrical motor. For particular ship types such as



chemical or product tankers, as well as single-propeller passenger ships, these safety precautions are clearly specified. These are, however, also gaining increasing importance in other areas.

Taking full advantage of energy recovery

Still further opportunities for energy savings are possible through recovery of the exhaust energy. Here the energy is fed back via the motor to the propeller shaft.

The process-coupled boil off gases on board LNG tankers can be converted into electrical energy in the dual-fuel diesel aggregates. This electrical energy can, as in the case of exhaust energy recovery, be fed back to the propeller shaft, thereby increasing the entire level of efficiency.

More possibilities during ship modification

If, as part of the modification measures, the drive performance of a ship requires adaptation to new utilization requirements, this can, in most instances, be realized cost-efficiently with SISHIP^{CIS} Boost. Thanks to its flexible design, the system can almost always be integrated into existing engine rooms with little effort.

SISHIP^{CIS} – Completely Integrated Solutions for Vessels

As a comprehensive industry-specific solution for seagoing vessels, our SISHIP^{CIS} product family integrates all the products and services you need for sustained maximization of your ship's performance.

For each particular task, a solution has been defined that

- **horizontally** improves all of your ship's operations
- **vertically** integrates the ship's information and security management end-to-end, helping to make better-founded decisions
- and, at the same time, is designed for optimal vessel-specific maintenance and comes with assured further development **over the whole life cycle.**

Due to this unique combination of horizontal, vertical and life cycle dimensions, our solutions all carry the genes of an exhaustive and sustained plant productivity in their very core.

For More Efficiency. More Performance. More Power.

Completely Integrated Solutions from Siemens.

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CIS = Completely Integrated Solutions

The information provided in this brochure contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

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