



Press Release

Tuesday, 6. June 2017

Baumüller at the Electric & Hybrid Marine World Expo

Baumüller is exhibiting smart drive and automation solutions for hybrid and fully electric ship propulsion systems at the Electric & Hybrid Marine World Expo in Amsterdam

Baumüller will be exhibiting individual components as well as complete systems for future-proof ship propulsion systems at the international trade fair for electric and hybrid ship drives from June 6-8, 2017 in Amsterdam in hall 12, stand E5050.

With their broad range of electric drive technology, from motors and inverters to control systems, the Nuremberg-based experts for drive and automation solutions offer interesting alternatives to conventional ship propulsion systems. The spectrum of services covers inland vessels, yachts, tugboats, offshore vessels and the like.

The engineering specialists from Baumüller Anlagen-Systemtechnik integrate their experience with drive systems for ship building and the entire mobile drive technology and are interesting partners for shipyards, system integrators and ship owners as well as suppliers of complete systems.

Robust High-Torque Engines for High Demands

Their high-torque motors DST2 are certified by Lloyd's Register and meet the specific requirements for shipping. The water-cooled direct drives are built with the protection class IP 54, are dirt-resistant and run quietly. Thanks to their compact and robust construction, the motors take up little space in the engine room and are well-suited for the rough conditions on the water. The motors can be ordered with optional wing mounts, which means that the feet are positioned diametrically on the outside diameter of the motor and thus make it easier to integrate the unit into the ship design. High torques, good concentricity properties and energy efficiency thanks to a high degree of effectiveness make the high-torque motors ideally suited for demanding applications. Since the full torque is already available from the start in the lower rotational speed range in hybrid ship drives – compared to purely diesel-operated ships – this also significantly improves the maneuverability.

In inland navigation, hybrid drive systems have recently developed into a popular and efficient alternative, not only because of new legal regulations for environmental protection. Numerous advantages make the combination of diesel motor and electric motor particularly attractive for ship navigation. It is possible to save up to 20% fuel, for example, and there are reductions in pollutant emissions, noise and vibrations. Different drive modes, such as purely electrical operation, running only with a diesel motor or a combination of both options give the captain greater flexibility and adaptability to external circumstances.

Product Highlights

BAUDIS IoT is new to the ships sector, which is a system optimization tool that helps to improve the efficiency of drives. The networked system consists of sensors, a BAUDIS IoT box and an easy-to-use software with smart data algorithms. BAUDIS IoT monitors the process data of the ship propulsion system and the ship control system, such as the motor status, power peaks and runtime. The data is collected in the BAUDIS IoT box and passed on to a local server or a cloud server. The performance data is analyzed and visualized there with the BAUDIS IoT software. By using BAUDIS IoT, for example, fleet benchmarks can be set, the ship propulsion system and control system can be optimized and the load cycle can be optimized. The evaluation always occurs with the latest available algorithms. The system is thus continuously made more intelligent and increases performance through self-regulating processes. The system can be used independently of the manufacturer of the motor and automation components and the sensors and therefore can easily be retrofitted and upgraded.

With its high power density, compact and sturdy design and recuperative ability, the drive concept powerMELA® meets all the requirements of the electric mobile drive technology. The compactness is due to the integration of the inverter on the one hand and the compact design of the electric motor on the other. The motor offers a high power density thanks to its innovative direct cooling concept. The drive system thus requires minimum installation space and only weighs around 300 kg with the motor, inverter and transmission. In addition, Baumüller has designed the permanent magnet synchronous motor with deeply buried magnets. The drive is thus particularly robust on the one hand and powerful on the other with high torques beyond the entire speed range. Baumüller offers drive solutions up to several 100 kW for shipbuilding.

Sustainable Drives for Shipping

The right propulsion system for every ship. In the field of shipbuilding, Baumüller offers innovative and optimized technological solutions from hybrid drives, to electric battery-powered drives to hydrogen drives.

Baumüller Anlagen-Systemtechnik GmbH & Co. KG
Electric & Hybrid Marine World Expo, June 6-8, 2017
hall 12, stand E5050 – RAI Amsterdam, the Netherlands

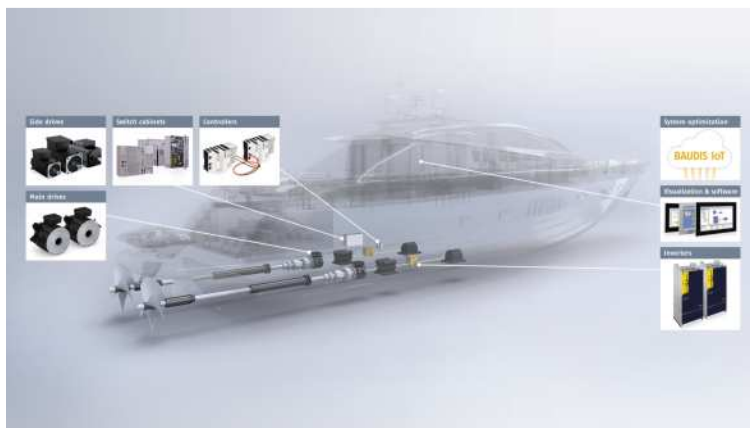


Fig. 1: Baumüller integrates its experiences with drive systems for ship building and the entire mobile drive technology and is an interesting partner for shipyards, system integrators and ship owners as well as a supplier of complete systems

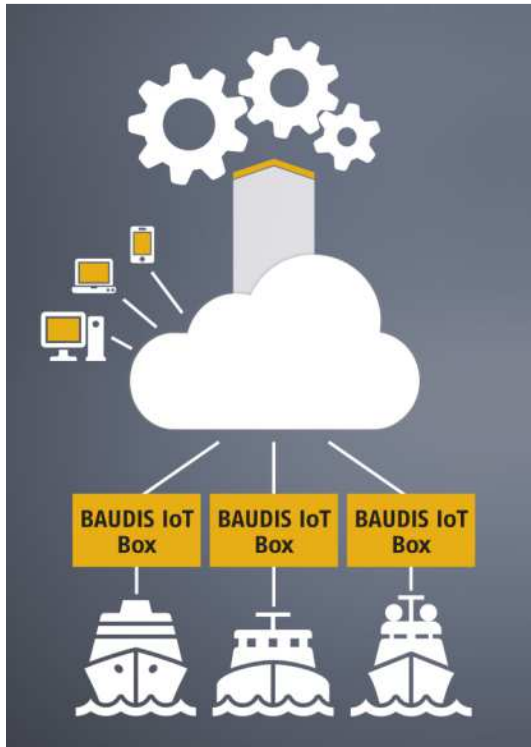


Fig. 2: BAUDIS IoT is new to the ships sector, which is a system optimization tool that helps to improve the efficiency of drives. In addition, using BAUDIS IoT makes it possible to, for example, set fleet benchmarks and optimize load cycles.



Fig. 3: Baumüller features its high-torque motors DST2 specifically with wing mounts that make it much easier to integrate them into the ship design. The high-torque motors are certified by Lloyd's Register and meet the specific requirements for shipping



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Baumüller is one of the leading manufacturers of innovative automation and electric drive systems. At six manufacturing locations and over 40 subsidiaries spread all over the world, 1700 employees plan, develop, produce and install intelligent system solutions for mechanical engineering and E-Mobility; from operation and

visualization tools to Motion Control software as per PLCopen, from software modules to controllers, also including converters, electric drives and the whole service range for ready to use automation solutions. The areas service, installations, fitting, and relocation add to the wide range of Baumüller's services. In the mechanical engineering industry, Baumüller is one of the leading partners for automation solutions worldwide.

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