



BRANDENBURG POLIZEIBOOT WSP6

DIESEL POWER	VOLVO D8 195kW/ 2200 RPM X 1
PHT MODEL	PHT300B203 X 1 ratio 1.7
E-PROPULSION	HESP20/1 20kW E-MACHINE X 1

BRANDENBURG POLICE UPGRADES 12-METER DIESEL PATROL BOAT WSP6 TO ECO-HYBRID WITH ESCO POWER'S PARALLEL HYBRID PROPULSION

The police boat “WSP 6” now boasts an Esco Power Parallel Hybrid Transmission (PHT), model PHT300B203. This system allows the boat to switch between two power sources: eco-friendly and quiet electric propulsion for slow-speed operation, and diesel for high-speed interception.

Following a demonstration of Esco Power’s Parallel Hybrid Solution aboard their demo boat, “The Hybrid,” at the Boat Show on the Rhine in February 2020, the Brandenburg Water Police were impressed by the system’s ease of use, smooth transitions, and enhanced precision in electric mode. This favorable feedback led to the successful hybridization of the “WSP 6” in partnership with Malz Shipyard, with the boat reentering service in 2023.

The boat is equipped with a Volvo D8 engine, a 20 kW electric motor/generator, and a 24 kW battery system. The diesel engine provides up to 195 kW, enabling a top speed of 30 km/h, while the electric mode offers a maximum speed of 6 km/h and 4-5 hours of operation. Additionally, the system allows the battery to recharge while the boat is running on diesel, removing the need for shore power to recharge.

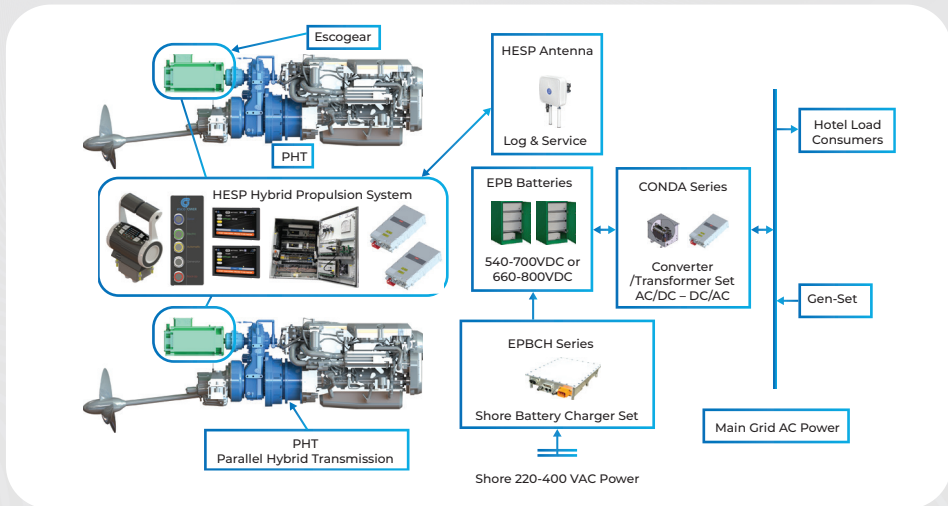
With the boat now spending nearly all of its operational time patrolling rivers and canals at slow speeds on battery power, the Brandenburg Police have significantly reduced their diesel use. This shift not only supports their decarbonization goals but also positions them as leaders in environmentally friendly operations among German water police.

Esco Power’s Hybrid Electric Solution Package (HESP) includes an efficient electric motor, control cabinet, frequency converter, PLC, touchscreen, mode selector, and hybrid lever. It offers multiple operating modes – Diesel, Electric, Automatic, Generator, and Backup – each providing specific benefits.





Esco Power Parallel Hybrid Solution Overview



Parallel Hybrid Solution by Esco Power

PHT	Parallel Hybrid Transmission, to be installed between marine diesel engine and marine gear, brings diesel and electric power on one driveline
HESP	Hybrid Electric Solution Package, Complete hybrid command, control & command system, including E-machines, frequency drives, control & command screens, command station, mode select panel, software with various modes: electric, automatic, generation single and cross-mode, includes commissioning
HESP Antenna	Optional feature to ensure remote access & system updates and service
Escogear	Flexible Coupling to connect PHT secondary output to E-machine
EPB Batteries	Battery system, including BMS with operational voltage matching offered E-machines: 540-700VDC or 660-800VDC, with rack or frame mounting solution, power & communication cables, includes commissioning
EPBCH Series	Battery Shore Charger Set
CONDA Series	Converter/Transformer Set, to install between our EPB Battery System and the vessel grid 230/400VAC, making the batteries system available for on-board consumers as to charge it with Gen-set & shore charger connected to the on-board grid