



Electric Fin Stabilizer



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Features

The Mega-Guard Electric Fin Stabilizer (EFS) provides comfort to the ship by active controlling a portside and starboard side mounted fin in order to reduce rolling of the vessel. Mega-Guard EFS is a full electric system and the fins are driven by a permanent magnet motor with integrated gear. The fins are available for ships ranging 18 to 50 meter and vary in size in between 0,6m² to 2.5m².

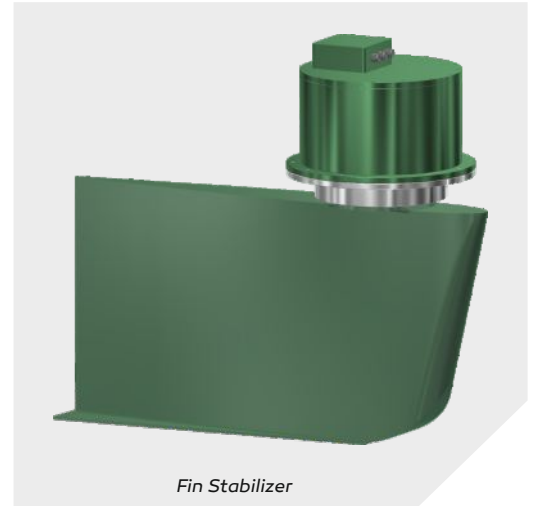
The Electric Fin Stabilizer works at every speed and it includes a zero speed mode and an anchor walk prevention mode. The EFS is operated through a user friendly 5.7" touchscreen for intuitive operation and monitoring. The EFS Operator Panel is available in two versions: with a metal front for commercial ships and with a highly esthetic glass front for mega yachts. Mega-Guard EFS is designed for quiet operation and low power consumption. The Electric Fin Stabilizer is powered from DC bus voltages in between 384VDC and 960VDC.

Highlights

- ▶ electric stabilizer with fins for any speed
- ▶ zero speed and anchor walk prevention included
- ▶ ultra quiet and low power consumption
- ▶ for vessels in between 18 and 50 meter length
- ▶ fin sizes from 0,6 to 2.5m²
- ▶ small inside installation space



EFS Operator Panel



System lay-out and operation

The Mega-Guard EFS system consists of the following items:

- ▶ **2x Fin Stabilizer;**
 - one for portside and
 - one for starboard side
- ▶ **2x High Power Inverter** for driving and position control of the electric motor
- ▶ **HPI Operator Panel** with a 5.7" touchscreen and built-in controller
- ▶ **Roll and pitch sensor** connected to the HPI Operator Panel

The Fin Stabilizer consists of the following parts:

- ▶ Electric Motor with gear
- ▶ Hull Mounting Flange
- ▶ Fin

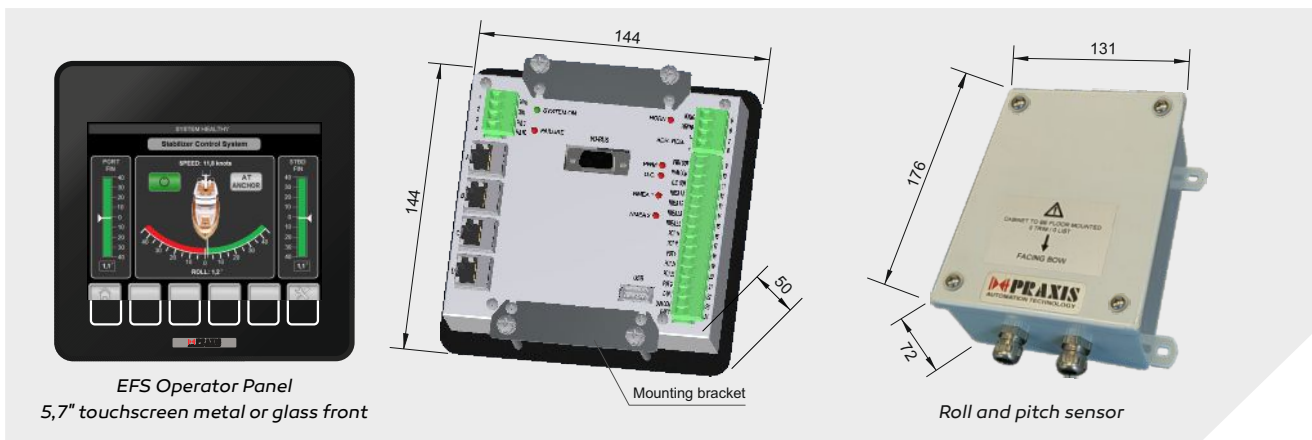
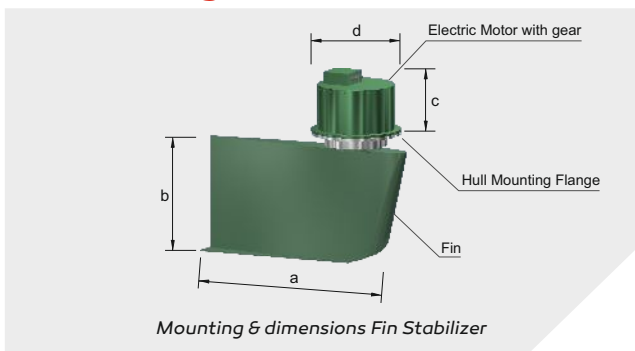
The Hull Mounting Flange is welded into the hull and bottom side of flange is flush with bottom side of hull. The Electric Motor will be placed on the flange and fastened with 12 x M10 bolts. The fin is bolted to the Electric Motor from bottom side.

Two versions are available; one for fin sizes up to 1m² with a SAE2 flange and one for fin sizes up to 2.5m² with SAE1 flange.

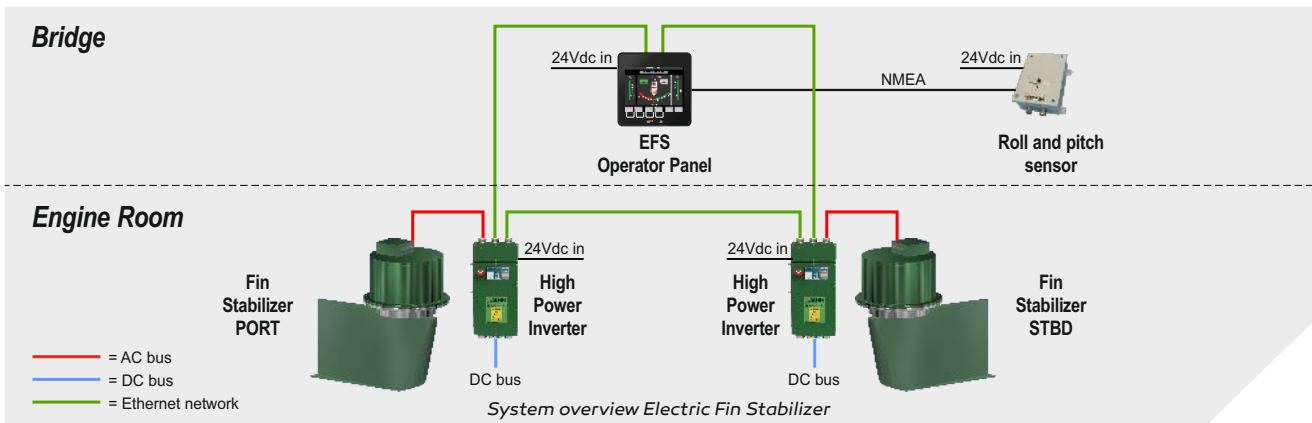
Electric Fin Stabilizer specification

Type	Fin size	Ship size	Power	Hull mounting flange	Hull thickness max.	Hull mounting hole Ø	Dimensions			
							a	b	c	d
EFS-06	0,6m ²	up to 18 meter	3kW	SAE-2	55mm	352mm	1080mm	560mm	333mm	489mm
EFS-08	0,8m ²	up to 21 meter	4kW	SAE-2	55mm	352mm	1250mm	640mm	333mm	489mm
EFS-10	1,0m ²	up to 25 meter	5kW	SAE-2	55mm	352mm	1400mm	720mm	333mm	489mm
EFS-15	1,5m ²	up to 35 meter	8kW	SAE-1	85mm	402mm	1620mm	930mm	403mm	552mm
EFS-20	2,0m ²	up to 43 meter	11kW	SAE-1	85mm	402mm	1780mm	1160mm	403mm	552mm
EFS-25	2,5m ²	up to 50 meter	15kW	SAE-1	85mm	402mm	1960mm	1280mm	403mm	552mm

Mounting & dimensions



System overview



Vessel Management System



Power Management System



Fire Alarm System



CCTV Video Distribution



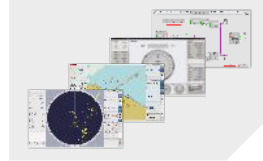
Ship Performance Monitor



Fleet Management System



Integrated Navigation System



Heading Control System



Propulsion Control System



Dynamic Positioning System



BNWAS Watch Alarm System



Navigation Light Control



Wiper Control System



Energy Management System



Electric Propulsion Motor



Electric Steerable POD



High Power Inverter



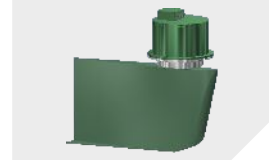
DC bus Generator



Electric Energy Storage



Electric Fin Stabilizer



*Ship automation,
navigation and
electric propulsion*