nautelsonar NS10-1 Low Frequency Active Sonar Amplifier

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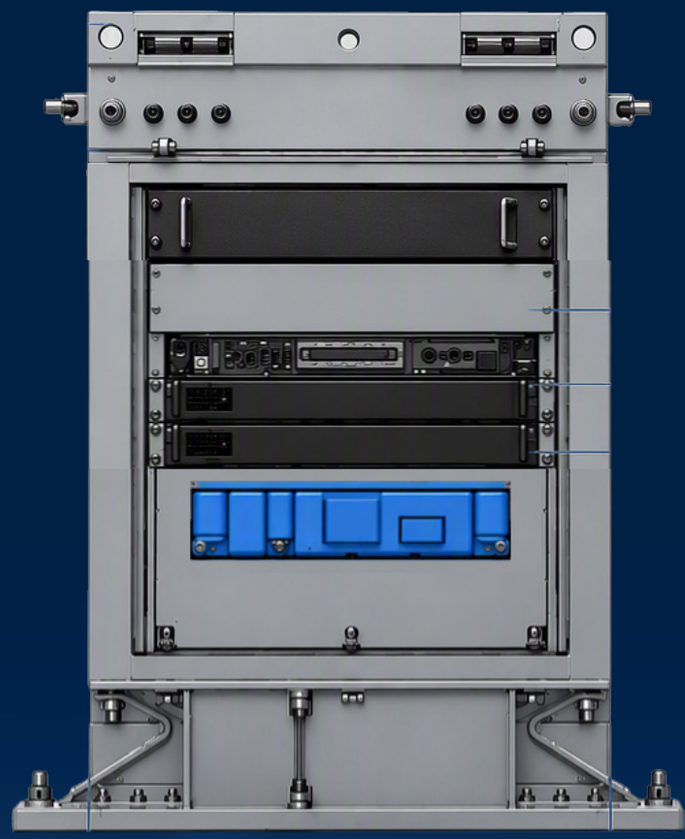
OVERVIEW

The NS10-1 is a compact, high-power sonar amplifier designed for active towed array sonar systems installed on unmanned surface vessels. Delivering 10 kW continuous output from 800 Hz to 12 kHz, it combines a 10 kW Class D amplifier stage, high-density capacitor energy storage, and advanced SMPS technology to provide efficient, reliable high-energy acoustic transmission, while enabling efficient power management. The system features easy access modules for rapid maintenance, and offers IP-based remote control and integrated BITE functionality.

Key Features

- 10 kW power output
- 800 Hz to 12 kHz operation
- Modular 10 kW amplifier unit
- Integrated energy storage capacitor banks
- IP-based control and monitoring



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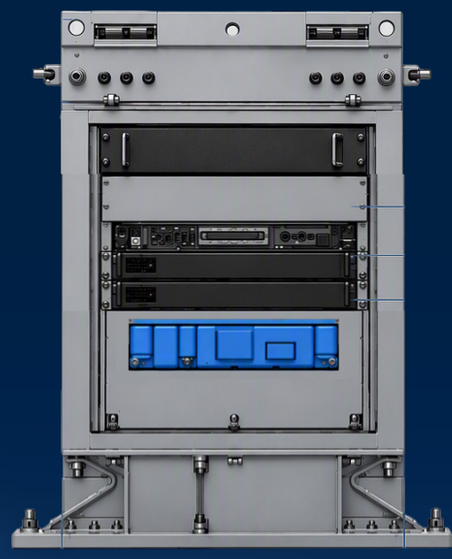
General Specifications

Output Power	100W - 10kW 1 channel amp
Frequency range	800 Hz to 12 kHz,
Input power	440 VAC, 3PH/ 115 VAC, 1PH
Nominal Output impedance	240 ohms (Tailored per contract)
Full power duty cycle	< 20%
Max Power Duration	12 secs (24sec option available)
E iciency at Max Power	>85%
Power Factor	>0.90
Amplifier Dimensions (inc shock mounts)	Height 735mm (29”),Width 610 mm (24”), Depth 1224 mm (48”)
Amplifier weight	>150 kg
Ambient	0-40C 95% Relative Humidity Non-condensing
Cooling	Air Cooled
MTTR	30 min
Control & Monitoring	Redundant TCP/IP



Qualifications

Shock	MIL-DTL-901E MIL-STD-810H
Vibration	MIL-STD-167-1A MIL-STD-810H
Shipboard Power	MIL-STD-1399 300B
EM Interference	MIL-STD-461H
Environmental	MIL-STD-810H

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SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE