

# NS72-36 Hull Mounted Sonar Amplifier

Low Frequency Amplifiers

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## OVERVIEW

The NS72-36 amplifier is a drop-in replacement for in-use hull mounted sonar units. It features 36 amplifier modules in a single 72" high rack package to deliver 36 channels in the same footprint as the original amplifier and power supply. The unit is 50% lighter and 40% less volume than original amplifiers or other replacement amplifiers. Additional channels can be added if required.

The NS72-36 has analog and optional digital audio inputs to work with any existing controller system, plus an optional IP port to operate as a network-controlled sonar transmitter. Configurable alarms are included.

Nautel HMS transmitters achieve their light weight by using switch mode power supplies (SMPS). State-of-the-art silicon carbide FETs deliver 2 kW per channel capability at high efficiency. Standard output bandwidth is 2 KHz to 12 KHz, with options to extend the range up or down. Overall efficiencies of 85% result in low cooling requirements.

These amplifiers meet or exceed warship environmental requirements with partial/typical MIL STD shock, vibration, EMI and power supply filtering testing. A compliant shock absorber base is required for most installations. Servicing of all modules is conveniently performed through the front door panel.

Nautel's customer care philosophy results in a long and reliable life expectancy for our amplifiers – we continue to provide industry leading customer support for every product from our 47 years in business.



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## GENERAL

<b>KW power rating</b>	2.0 kW/channel, 36 channels amp
<b>Full power duty cycle</b>	< 30%
<b>Nominal output impedance</b>	200 ohms
<b>Optional load matching</b>	Yes
<b>Power Supply package</b>	SMPS
<b>Input power</b>	440V, 3 Ph, 60 Hz, AC
<b>Energy Storage option</b>	No
<b>Frequency range</b>	2 KHz to 12 KHz
<b>Extended Frequency options</b>	Yes
<b>Handle Reactive loads</b>	Yes
<b>Package Weight Savings, Typical</b>	50%
<b>Package Volume Savings, Typical</b>	40%
<b>Exciter</b>	PWM Class D
<b>Analog and digital inputs</b>	Yes (digital options)
<b>IP connection ready</b>	Optional
<b>V and I data outputs</b>	No
<b>Configurable alarms</b>	Yes
<b>30 minute MTTR</b>	PA/SMPS modules
<b>Front maintenance access</b>	Yes
<b>Ambient Temperature</b>	Typical ship
<b>Air cooled</b>	Yes
<b>Water cooled</b>	Optional
<b>Silicon Carbide FETS</b>	Yes
<b>Error lookup data table</b>	Yes
<b>Maintenance USB computer port</b>	Yes

## ENVIRONMENTAL

<b>MIL-STD-901D shock</b>	1/2 sine pulse , G TBD
<b>MIL-STD-167-1A Mechanical Vibration</b>	Yes
<b>MIL-STD-1399 Interface Standard</b>	Yes
<b>MIL-STD--461E Requirements for control of electromagnetic interference, August 1999</b>	Yes TBD
<b>Shock compliant base required</b>	Yes
<b>Optional SQR 510 Interface</b>	Yes