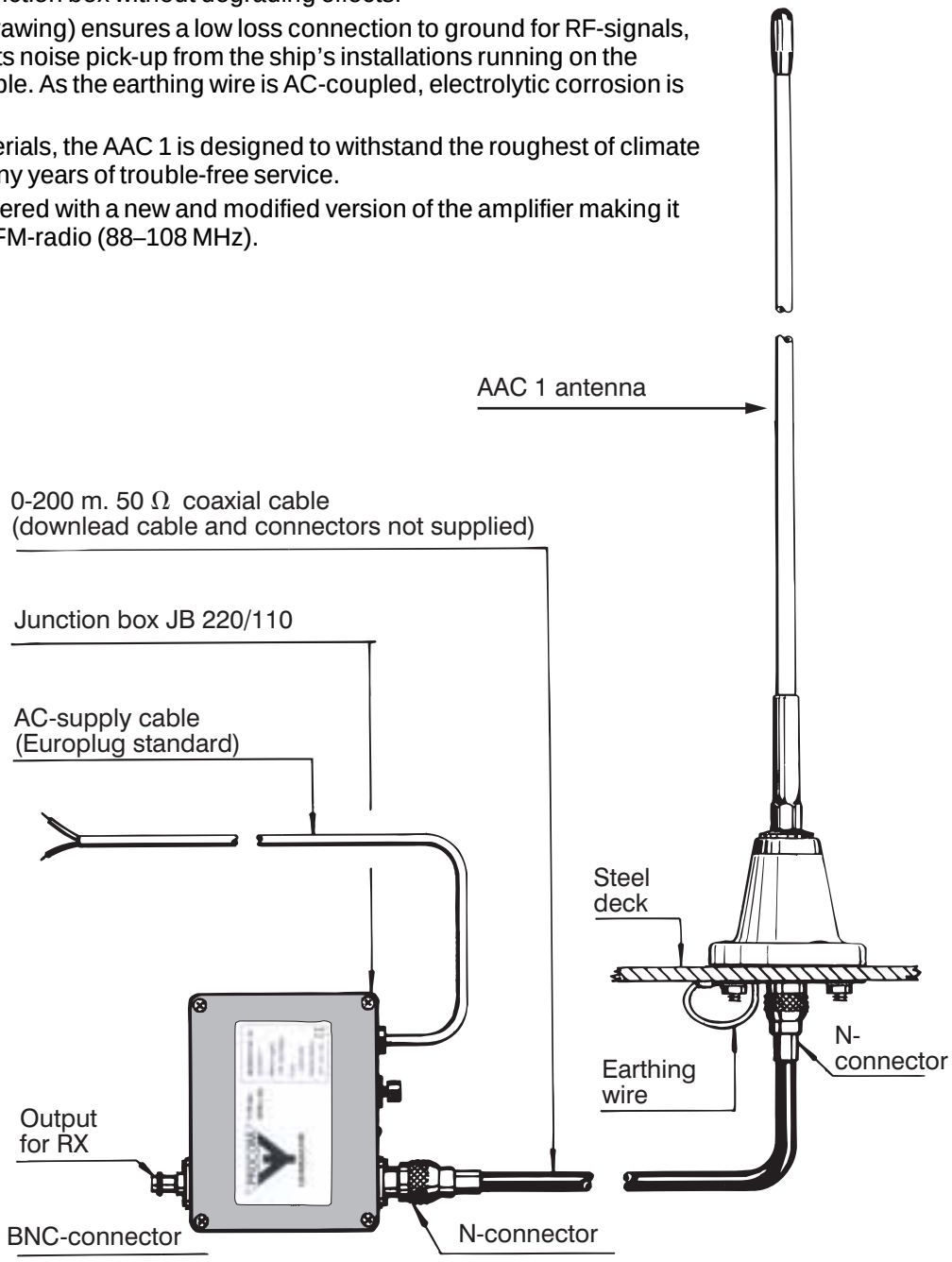
AAC 1

Active Receiving Antenna for 10 kHz–110 MHz
for Communication Purposes

DESCRIPTION:

- ★ This active receiving antenna has been designed for professional use, and special emphasis has been given in obtaining a large dynamic range with excellent cross and intermodulation properties, a low noise figure and a secure protection against RF-overload and violent nearby discharges.
- ★ The AAC 1 can be used either where superb listening quality is required or where a high RF-density environment exists, as for instance in connection with MF and HF duplex operation onboard ships, where nearby transmitting antennas may cause excessive field strengths. For complete safety the antenna should, however, not be mounted closer than 15 meters from transmitting antennas.
- ★ The antenna consists of a high-capacitance glassfiber whip and an amplifier, which is built into the antenna mount. The amplifier provides the necessary impedance matching between the high-impedance whip and the 50 Ω downlead cable over an extremely wide bandwidth.
- ★ The necessary supply voltage (12–15 V DC) for the amplifier is delivered through the downlead coaxial cable from the junction box with power supply, type JB 220/110, which separates DC and RF-signals. Up to 200 m of RG 213/U coaxial cable can be used between antenna and junction box without degrading effects.
- ★ The earthing wire (see drawing) ensures a low loss connection to ground for RF-signals, and thereby also prevents noise pick-up from the ship's installations running on the outside of the coaxial cable. As the earthing wire is AC-coupled, electrolytic corrosion is effectively prevented.
- ★ By careful choice of materials, the AAC 1 is designed to withstand the roughest of climate conditions, ensuring many years of trouble-free service.
- ★ The antenna is now delivered with a new and modified version of the amplifier making it possible also to receive FM-radio (88–108 MHz).



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ANTENNA SPECIFICATIONS:

ELECTRICAL	
MODEL	AAC 1
ANTENNA TYPE	Broadband active receiving antenna for communication purposes
FREQUENCY	10 kHz – 110 MHz
IMPEDANCE	Nom. 50 Ω
POLARISATION	Vertical
HORIZONTAL COVER.	Omni-directional
ANTENNA FACTOR	Typ. 0.15 mV output in 50 Ω by a field strength of 1 mV/m
1 dB COMPRESSION POINT	Typ. occurring at a field strength of 10 V/m
1 dB QUIETING	Typ. occurring at a field strength of 7 V/m from an interfering signal
CROSS MODULATION	20 dB cross modulation attenuation typically occurring at a field strength of 5 V/m from an interfering source
INTERMODULATION	IP_2 > 55 dBm IP_3 > 25 dBm
MAX. ALLOWED FIELD STRENGTH	90 V/m
AMPLIFIER PROTECTION	Spark gap
OPERATING VOLTAGE	12–15 V DC (with JB 220/110)
CURRENT CONSUMP.	Approx. 60 mA
MECHANICAL	
TEMP. RANGE	-30° C i +60° C
CONNECTOR	N-female
TOTAL HEIGHT	Approx. 0.92 m
WEIGHT	Approx. 0.6 kg
MOUNTING	On flat surfaces such as deck or roof or on 30–44 mm mast tube using accessory item "SM-MA" (not included)

JUNCTION BOX/POWER SUPPLY:

MODEL	JB 220/110
SUPPLY VOLTAGE	230 V or 115 V AC, 50–60 Hz (please specify voltage when ordering)
DC-VOLTAGE FOR ANTENNA	24 V, unloaded, approx. 12–15 V with antenna
POWER CONSUMPTION	Approx. 10 watt
TEMP. RANGE	-30° C i +60° C
CONNECTORS	In: N-female Out: BNC-female
"ON" INDICATOR	Red LED
FUSE	5 x 20 mm 100 mA/250 V (230 V-version) 200 mA/250 V (115 V-version)
SUPPLY CABLE	1.5 m, unterminated
MATERIAL	Aluminium
SURFACE TREATMENT	Light-grey vinyl painted
WEIGHT	Approx. 650 g
DIMENSIONS	120(W) x 130(D) x 59(H) mm (connectors included)

INSTALLATION DETAILS: