

# **750HP ANTENNA**

marine antenna, self suported

7.7m

2 sections

Vertical, 2 section, freestanding, HF antenna; 7.7m in height; tuneable in the 1.5-30 MHz frequency band.

#### **APPLICATION**

Light marine antenna intended for lowtonnage ships, fixes coastal, land stations, or offshore drilling.

#### CONSTRUCTION

Materials and design comply with standard MIL-E-16 400. Both sections are manufactured from SPIRGLASS glass-fibre reinforced resin, protected by a hard Epoxy varnish – providing high mechanical strength and fatigue resistance.

The insulating base, an integral part of the lower section, permits the installation of the antenna on any horizontal flat surface and also provides feeder cable protection.

The radiating multifibular conductor is welded to the "marine" chrome-plated bronze intermediate fittings. The conductor is sunk into the structure and is thus completely protected.

Standard colour : Marine Grey

#### **DIMENSIONS**

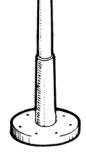
Total length : 7,700 mm
Length of lower section : 3,820 mm
Length of upper section : 3,860 mm
Diameter at base : 55mm
Diameter at tip : 12mm
Weight : 11.2 kg
Wind loading at 200km/h (as per DIN 1055) : 60 daN

### **ENVIRONMENTAL AND MECHANICAL CHARACTERISTICS**

Operating and temperature range : -28°C ... +65°C acc. to MIL-E-16 400 Resistance to humidity : 95% RH acc. To MIL-STD-180/507 I Resistance to saline fog : 96 hours acc. To MIL-STD-810/509 I Fungal resistance : Excellent acc. To MIL-STD-810/508 I Permissible windspeed for normal functioning : 120km/h acc. To MIL-A-24 319 A

Endurance windspeed : 200 km/h acc. To MIL-A-24 319 A

Deflection at tip when mounted horizontally : 730mm acc. To MIL-A-24 319 A





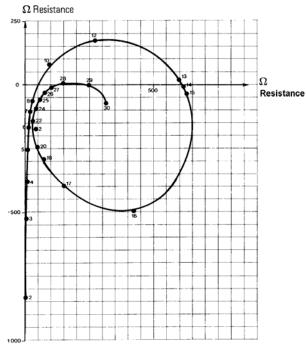
## **ELECTRICAL CHARACTERISTICS**

Frequency range : 1.5 – 30 MHz

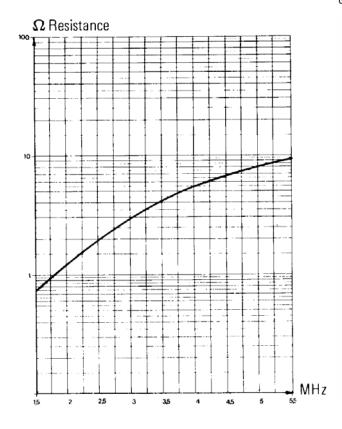
Peak Power : 1 kW

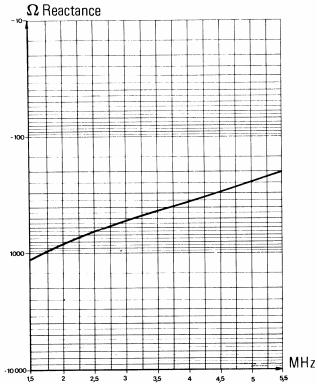
Polarisation : vertical or horizontal

Breakdown voltage at base (dry) : > 15 kVrms
 Impedance variations : see graphs



Graph calibrated in MHz







## **INSTALLATION**

Before installation, ensure that the support can resist to a bending moment of 170 daNm.

Coat the support with a thin layer of SILASTENE (or similar) to render it waterproof. Under no circumstances must a rubber plate be used.

Washers for the M10 bolts must have a thickness of at least 5mm.

Tightening torque: 2 daNm.

For land installation, construct a ground plane comprising at least eight equidistant radials consisting of 1mm<sup>2</sup> section copper of minimum 5m linked to ground by a connection which ensures a resistance less than  $5\Omega$ .

The feeder cable must be of copper and have a minimum section of 10mm<sup>2</sup> and must comply with marine standards E540 and E502.

