Omnidirectional Base and Marine Antenna
Type TCXL 70-1LW/… UHF

This rod-type UHF antenna is developed for use onboard ships as well as on masts and covers the 450 MHz band in three models. The 1” revolving nut mounting system makes it possible to mount the antenna in the mast, in the auxiliary mast or on the crossbeam. By means of Procom’s flange mount type “FLG”, it can easily be mounted even on the rooftop.

DESCRIPTION

- This antenna type can be used for a wide variety of purposes. It is very popular and widely used in connection with 70 cm CELLULAR systems – as for instance the Nordic Mobile Telephone system NMT – making it possible to extend the – normally land based – CELLULAR telephone system for maritime mobile service as well.
- The antenna is a ½ λ design and this means that it needs neither loading coils, ground plane, radials nor other auxiliary arrangements.
- Bear in mind that the higher the antenna is mounted the better coverage.
- Avoid mounting the antenna parallel with or in the neighborhood of other metal parts, such as masts, supporting wires etc. Free mounting and as high as possible is most preferable, otherwise the SWR and the radiation diagram will be influenced.
- The antenna is a grounded radiator antenna and therefore it shows a DC-short across the coaxial cable.
- A conical glass fiber tube completely encloses the carefully designed radiating element to assure long dependable service in all climates.

ORDERING DESIGNATIONS

<table>
<thead>
<tr>
<th>Type No.</th>
<th>Frequency</th>
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<tbody>
<tr>
<td>CXL 70-1LW/l</td>
<td>380 - 430 MHz</td>
</tr>
<tr>
<td>CXL 70-1LW/h</td>
<td>420 - 470 MHz</td>
</tr>
<tr>
<td>CXL 70- /hs</td>
<td>460 - 510 MHz</td>
</tr>
</tbody>
</table>

TYPICAL RADIATION PATTERN (E-PLANE)  
TYPICAL RADIATION PATTERN (H-PLANE)
SPECIFICATIONS

ELECTRICAL

MODEL
CXL 70-1/...

ANTENNA TYPE
½ λ coaxial dipole, broad-banded

FREQUENCY
CXL 70-1/1 : 380 – 430 MHz
CXL 70-1/h : 420 – 470 MHz
CXL 70-1/hs: 460 - 510 MHz

IMPEDEANCE
Nom. 50 Ω

RADIATION
Omnidirectional

POLARIZATION
Vertical

GAIN
2 dBi 0 dBd

BANDWIDTH
50 MHz

SWR
≤ 1.5

MAX. POWER
150 W

HCM CODE
HCM000ND00, 040DE00

MECHANICAL

CONNECTOR
N-female

WIND SURFACE
0.0093 m²

WIND LOAD
12 N @ 160 km/h

MAX. WIND SPEED
Tested to 200 km/h

COLOUR
White (RAL 9003)

MATERIALS
Shroud: Polyurethane-coated glass fiber
Mounting bracket: Chromed brass

TOTAL HEIGHT
Approx. 560 mm

DIA. IN TOP END
12 mm

DIA. IN BOTTOM END
16 mm

WEIGHT
Approx. 350 g

MOUNTING
On 1” RG (G1” - 11) threaded water pipe or
on optional mounting brackets (see accessories)

ENVIRONMENTAL

TEMP. RANGE
-30°C → +70°C

IP RATING
IP 66

ACCESSORIES (TO BE ORDERED SEPARATELY)

TYPICAL GAIN AND SWR CURVES