

# CXL 70-3LW/...

Lightweight, Medium Duty, 3 dBd Base Station and Marine Antenna for the 450 MHz Band

## DESCRIPTION

- CXL 70-3LW/... is a 3 dBd, vertically polarised, omnidirectional base station and marine antenna, which covers the UHF band in 4 models with up to 10 MHz overlap.
- The antenna meets the demand for a medium duty, cost-effective antenna to be chosen, when the exceptional mechanical capabilities of our extremely rugged heavy-duty model CXL 70-3C/... are not needed.
- The carefully designed radiating element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- Provided with the sturdy "LW" mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both SWR and gain.
- To substantially reduce noise caused by atmospheric discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 70-3LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.



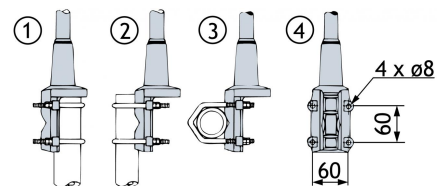
## ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
CXL 70-3LW/s	110000092	380 – 410 MHz
CXL 70-3LW/f	110000088	406 – 430 MHz
CXL 70-3LW/l	110000091	420 – 450 MHz
CXL 70-3LW/h	110000089	440 – 470 MHz

## SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 70-3LW/...
ANTENNA TYPE	Collinear, broad-banded
FREQUENCY	30 MHz wide frequency segments within 380 – 470 MHz. See model survey.
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
HALFPOWER BEAMWIDTH	30°
BANDWIDTH	30 MHz
SWR	≤ 1.5
MAX. POWER	150 W
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-35°C → +70°C
CONNECTOR	N-female
WIND SURFACE	0.026 m <sup>2</sup>
WIND LOAD	33 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
TOTAL HEIGHT	Approx. 1.4 m (dep. on freq.)
DIA. IN TOP END	16 mm
DIA. IN BOTTOM END	23 mm
WEIGHT	Approx. 1.3 kg
MOUNTING	On 16 to 54 mm dia. mast tube

## MULTI-PURPOSE MOUNTING BRACKET

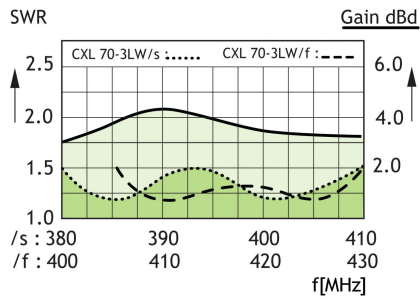


- ① Mast tube Di. min. = 30 mm  
Mast tube Do. max. = 54 mm
- ② Mast tube Do. min. = 54 mm  
Mast tube Do. max. = 16 mm
- ③ Mast tube Do. max. = 54 mm  
Mast tube Do. min. = 16 mm

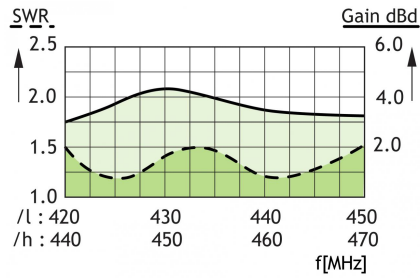
## PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.

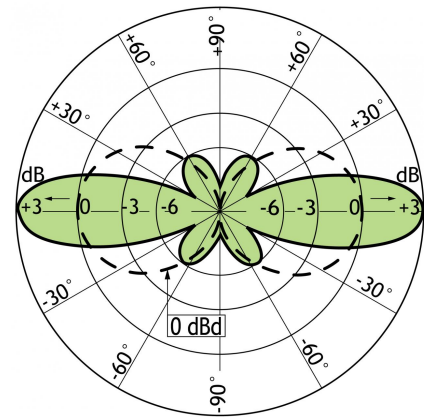
TYPICAL GAIN AND SWR CURVES



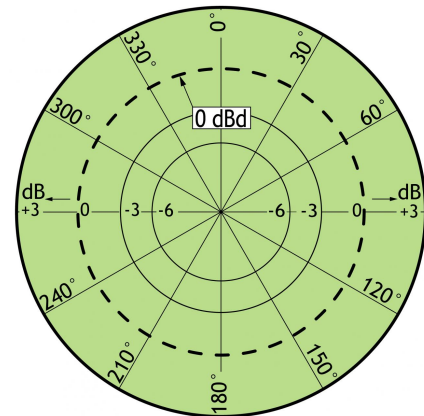
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



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12/11/13