## CXL 2-3LW/...

# Lightweight, 3 dBd Base Station and Marine Antenna for the $2\ m$ Band

#### DESCRIPTION

- CXL 2-3LW/... is a 3 dBd, vertically polarised, omnidirectional base station and marine antenna, which covers the VHF-band in 4 models.
- 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.
- The phasing of the radiating elements is adjusted to yield maximum gain in the horizontal plane, with the level of the sidelobes reduced to a minimum.
- The carefully designed, broad-banded antenna element is sealed in a high-quality conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- The CXL 2-3LW/... is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.



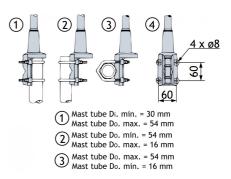
#### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
CXL 2-3LW/I	100000092	146 - 154 MHz
CXL 2-3LW/lm	100000091	153 - 162 MHz
CXL 2-3LW/hm	100000093	158 - 167 MHz
CXL 2-3LW/h	100000090	166 - 175 MHz

#### **SPECIFICATIONS**

ELECTRICAL		
MODEL	CXL 2-3LW/	
ANTENNA TYPE	Broad-banded collinear antenna	
FREQUENCY	Bands within 146 – 175 MHz	
IMPEDANCE	Nom. 50 Ω	
RADIATION	Omnidirectional	
POLARIZATION	Vertical	
GAIN	5 dBi 3 dBd	
HALF POWER BEAMWIDTH	30°	
BANDWIDTH	9 MHz	
SWR	≤ 1.5	
MAX. POWER	150 W	
ANTISTATIC PROTECTION	All metal parts DC-grounded (connector shows a DC-short)	
MECHANICAL		
TEMP. RANGE	-30°C → +70°C	
CONNECTOR	N-female	
CONNECTOR WIND SURFACE	N-female 0.0651 m <sup>2</sup>	
00.11.201.011		
WIND SURFACE	0.0651 m <sup>2</sup>	
WIND SURFACE WIND LOAD	0.0651 m <sup>2</sup> 82 N @ 160 km/h	
WIND SURFACE WIND LOAD COLOUR	0.0651 m <sup>2</sup> 82 N @ 160 km/h  Marine white  Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated	
WIND SURFACE WIND LOAD COLOUR MATERIALS	0.0651 m <sup>2</sup> 82 N @ 160 km/h  Marine white  Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel	
WIND SURFACE WIND LOAD COLOUR MATERIALS  TOTAL HEIGHT	0.0651 m <sup>2</sup> 82 N @ 160 km/h Marine white Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel Approx. 2.8 m	
WIND SURFACE WIND LOAD COLOUR MATERIALS  TOTAL HEIGHT DIA. IN TOP END	0.0651 m <sup>2</sup> 82 N @ 160 km/h  Marine white  Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel  Approx. 2.8 m 15 mm	
WIND SURFACE WIND LOAD COLOUR MATERIALS  TOTAL HEIGHT DIA. IN TOP END DIA. IN BOTTOM END	0.0651 m <sup>2</sup> 82 N @ 160 km/h  Marine white  Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel  Approx. 2.8 m  15 mm  23 mm	

#### MULTI-PURPOSE MOUNTING BRACKET



#### PLEASE NOTE

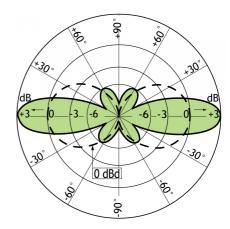
The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.



### TYPICAL GAIN AND SWR CURVES

#### SWR Gain dBd 6.0 2.0 4.0 1.5 2.0 1.0 /l: 146 148 150 152 154 156 /lm: 153 155 157 159 161 163 /h: 158 160 162 164 166 168 /hm: 166 168 170 172 174 176 f[MHz]

#### TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)





 $\ensuremath{\mathsf{PROCOM}}$  A/S reserve the right to amend specifications without prior notice.

29/09/11

