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 VSWR and gain.
- 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 70-3LW/… is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

ORDERING

Model	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

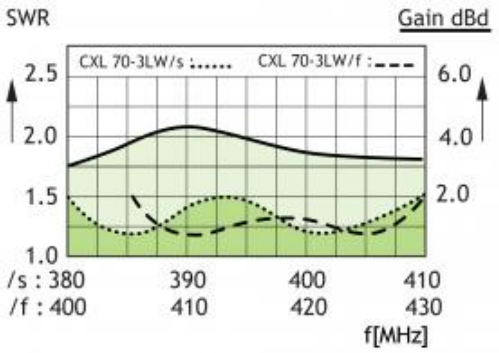
SPECIFICATIONS

Electrical	
Model	CXL 70-3LW/...
Frequency	30 MHz wide frequency segments within 380 - 470 MHz. See model survey.
Antenna Type	Collinear, broad-band
Max. Input Power	150 W
Polarisation	Vertical
Pattern Type	Omnidirectional
3 dB Beamwidth, E-Plane	30 °
Impedance	50 Ω
Gain	3 dBd (5.2 dBi)
VSWR	< 1.5:1
Bandwidth	30 MHz
Antistatic Protection	All metal parts DC-grounded (Connector shows a DC-short)
HCM Code(s)	HCM000ND00, 015DE50

Mechanical	
Connection(s)	N(f)
Materials	Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel
Colour	White (RAL 9003)
Wind Area	0.026 sq. m / 0.28 sq. ft
Wind Load	33 N (160km/h)
Dia. At Top End	16 mm / 0.63 in.
Dia. At Bottom End	23 mm / 0.91 in.
Height	Approx. 1510 mm / 59.45 in.
Weight	Approx. 1.3 kg / 2.87 lb
Mounting	On 16 to 54 mm / 0.63 to 2.13 in. dia. mast tube.

Environmental	
Operating Temperature Range	-35°C to +70°C
Survival Wind Speed	200 km/h
Ingress Protection	IP66

TYPICAL GAIN AND VSWR CURVES



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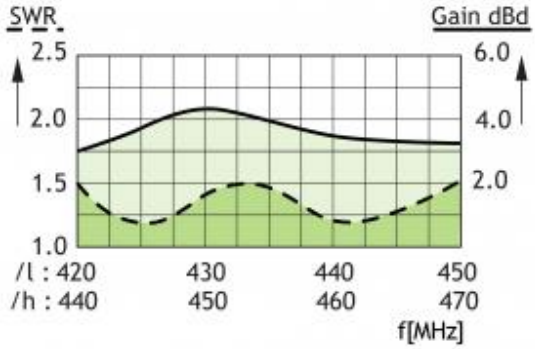
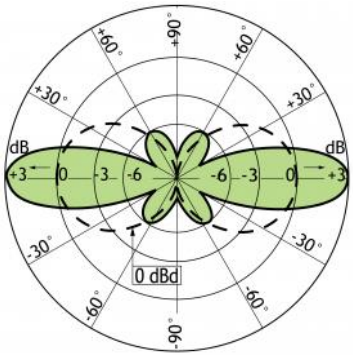
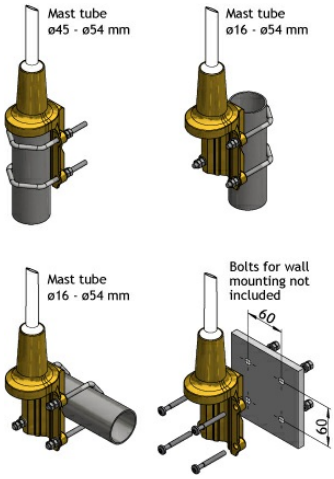


TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)

MULTI-PURPOSE MOUNTING BRACKET