

Lightweight, Medium Duty, 3 dBd Base Station and Marine Antenna for the $450\ \text{MHz}$ 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.



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 (160 km/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.	

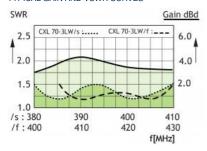


Environmental	
Operating temperature range	-35 °C to +70 °C
Survival Wind Speed	200 km/h
Ingress Protection	IP66

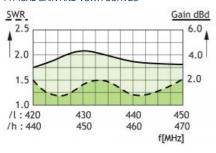
ORDERING

Model	Product No.	Frequency
CXL 70-3LW/s	110000092	380 - 410 MHz
CXL 70-3LW/f	110000088	406 - 430 MHz
CXL 70-3LW/I	110000091	420 - 450 MHz
CXL 70-3LW/h	110000089	440 - 470 MHz

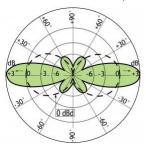
TYPICAL GAIN AND VSWR CURVES



TYPICAL GAIN AND VSWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET

