CXL 70-5C/...

Collinear, 5 dBd Base Station and Marine Antenna for the $450\ \text{MHz}$ Band

DESCRIPTION

- CXL 70-5C/... is a 5 dBd, vertically polarized, omnidirectional base station and marine antenna, which covers the 380 – 470 MHz band in 4 models with up to 10 MHz overlap.
- The antenna is provided with our "C" universal fixation bracket made of epoxy-coated, seawater resistant aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- CXL 70-5C/... can be mounted on 27 to 65 mm dia. mast tubes, and it is
 possible to lead the cable either along the inside or on the outside of the
 mast tube.
- 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.
- 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 exceptional mechanical capabilities of this antenna ensure long dependable service in all environments.



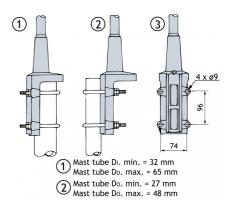
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
CXL 70-5C/s	100000120	380 – 410 MHz
CXL 70-5C/f	100000115	406 – 430 MHz
CXL 70-5C/I	100000118	420 – 450 MHz
CXL 70-5C/h	100000117	440 – 470 MHz

SPECIFICATIONS

MODELCXL 70-5C/ANTENNA TYPECollinear, broad-bandedFREQUENCY30 MHz wide frequency segments within 380 - 470 MHz.IMPEDANCENom. 50 ΩRADIATIONOmnidirectionalPOLARIZATIONVerticalGAIN7 dBi 5 dBdHALF POWER BEAMWIDTH18°BANDWIDTH30 MHzSWR/s: < 1.5 @ 380 - 400 MHz, < 2 @ 400 - 410 MHz /f: < 1.5 @ 406 - 426 MHz, < 1.7 @ 426 - 430 MHz /h: < 1.5 @ 420 - 440 MHz, < 2 @ 440 - 450 MHz /h: < 1.5 @ 440 - 460 MHz, < 2 @ 460 - 470 MHzMAX. POWER150 WANTISTATIC PROTECTIONAll metal parts DC-grounded (Connector shows a DC-short)MECHANICALTEMP. RANGE-35°C → +70°CCONNECTORN-femaleWIND SURFACE0.045 m²WIND LOAD57 N @ 160 km/hCOLOURMarine whiteMATERIALSShroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steelTOTAL HEIGHTApprox. 2.2 m (dep. on freq.)DIA. IN TOP END13 mmDIA. IN BOTTOM END25 mmWEIGHTApprox. 2.8 kgMOUNTINGOn 27 - 65 mm dia. mast tube	ELECTRICAL	
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ANTISTATIC PROTECTION All metal parts DC-grounded (Connector shows a DC-short) MECHANICAL TEMP. RANGE -35°C → +70°C CONNECTOR N-female WIND SURFACE 0.045 m² WIND LOAD 57 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. 2.2 m (dep. on freq.) DIA. IN TOP END 13 mm DIA. IN BOTTOM END 25 mm WEIGHT Approx. 2.8 kg	SWR	/f: < 1.5 @ 406 - 426 MHz, < 1.7 @ 426 - 430 MHz /l: < 1.5 @ 420 - 440 MHz, < 2 @ 440 - 450 MHz
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TEMP. RANGE -35°C → +70°C CONNECTOR N-female WIND SURFACE 0.045 m² WIND LOAD 57 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. 2.2 m (dep. on freq.) DIA. IN TOP END 13 mm DIA. IN BOTTOM END 25 mm WEIGHT Approx. 2.8 kg	ANTISTATIC PROTECTION	
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MATERIALS Shroud: Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated Clamps: Stainless steel TOTAL HEIGHT Approx. 2.2 m (dep. on freq.) DIA. IN TOP END 13 mm DIA. IN BOTTOM END 25 mm WEIGHT Approx. 2.8 kg	WIND LOAD	57 N @ 160 km/h
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DIA. IN TOP END 13 mm DIA. IN BOTTOM END 25 mm WEIGHT Approx. 2.8 kg	MATERIALS	Shroud: Polyurethane-coated glass fibre
DIA. IN BOTTOM END 25 mm WEIGHT Approx. 2.8 kg		epoxy-coated
WEIGHT Approx. 2.8 kg	TOTAL HEIGHT	epoxy-coated Clamps: Stainless steel
		epoxy-coated Clamps: Stainless steel Approx. 2.2 m (dep. on freq.)
MOUNTING On 27 - 65 mm dia. mast tube	DIA. IN TOP END	epoxy-coated Clamps: Stainless steel Approx. 2.2 m (dep. on freq.) 13 mm
	DIA. IN TOP END DIA. IN BOTTOM END	epoxy-coated Clamps: Stainless steel Approx. 2.2 m (dep. on freq.) 13 mm 25 mm

MULTI-PURPOSE MOUNTING BRACKET

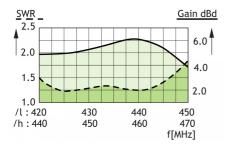




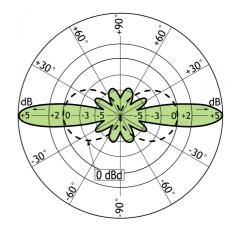
TYPICAL GAIN AND SWR CURVES

SWR Gain dBd 2.5 CXL 70-5C/s:..... CXL 70-5C/f :___ 6.0 2.0 4.0 1.5 2.0 1.0 400 420 /s:380 /f:400 390 410 410 430 f[MHz]

TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)





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

18/02/14

