

# Pro-XL 144/23L

## 11 elements

### yagi antenna

144 to 148 MHz

Part Nr. 20311

#### Electrical data

##### Radiation at 144.3 MHz

Effective electrical length ..... : 2.33  $\lambda$

Isotropic gain ..... : 14.2 dBi

Aperture angle @ -3 dB

- E-plane ..... : 2 x 18.4°
- H-plane ..... : 2 x 19.4°

First side lobe set

- E-plane ..... : - 18 dB @ 50°
- H-plane ..... : - 12 dB @ 50°

Rear protection ..... : - 21 dB

Average stray radiation

- E-plane ..... : - 30 dB
- H-plane ..... : - 24 dB

#### Bandwidth

Gain @ -1 dB ..... : 141 to 149 MHz

Nominal impedance ..... : 50  $\Omega$

Impedance match bandwidth @ SWR <1.3/1 ..... : 143 to 147 MHz

Maximum RF power (peak, SSB/CW) ..... : 1000 W

#### Array of 2 or 4 antennas

(optimized stacking distance. from center to center of elements. for minimal side lobe radiation)

- E plane - Electrical distance ..... : 1.70  $\lambda$
- Pratical distance ..... : 3.53 m
- H plane - Electrical distance ..... : 1.59  $\lambda$
- Pratical distance ..... : 3.32 m

#### Mechanical data

Connector ..... : N

Overall length ..... : 4.89 m

Mass ..... : 5 kg

Effective wind load

- Horizontal polarization ..... : 0.24  $m^2$
- Vertical polarization ..... : 0.27  $m^2$

Approximate wind load (25 m/s - 55 mph)

- Horizontal polarization ..... : 9.2 daN
- Vertical polarization ..... : 10.3 daN

Approximate wind load (45 m/s - 100 mph)

- Horizontal polarization ..... : 29.6 daN
- Vertical polarization ..... : 33.3 daN

#### Radiation patterns

