

## 3109 BICONICAL ANTENNA

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ETS-Lindgren's Model 3109 Biconical Antenna uses a modified Guanella balun for impedance transformation and matching. The Model 3109 provides a broad frequency range and because it is constructed of much heavier materials, it has a maximum continuous input power up to 1 kW, with a peak power handling capability up to 2 kW. While this antenna typically has a high

VSWR at frequencies below 70 MHz, it is still capable of generating a high field strength with acceptable input power in this region of the band. The optional extended elements markedly improve its performance in this region. This antenna is ideal for IEC 1000-4-3 testing.

ETS-Lindgren is the only manufacturer to offer optional extended elements. These elements are twice as long as standard elements and enable users to generate high fields at low frequencies with less than 25% of the power usually required.

### Key Features

- Frequency Range 20 MHz to 300 MHz
- Peak Power Handling Capability Up to 2 kW
- Unique Element Design Improves Performance
- Compact Size for Use in Limited Space
- Improved Balun Design for Increased Efficiency
- Quality Construction for Trouble-Free Service

### Specifications

#### Electrical Specifications

**Frequency Minimum:** 20 MHz  
**Frequency Maximum:** 300 MHz  
**Connectors:** Type N (f)  
**Impedance (Nominal):** 50  $\Omega$   
**Maximum Continuous Power:** 1 kW (N); 1,5kW (7/16 DIN)  
**Pattern Type:** Omnidirectional  
**Peak Power:** 2 kW  
**Polarization:** Linear  
**VSWR (Average):** 1.9:1

#### Physical Specifications

**Width:** 133 cm (52.36 in)  
**Weight:** 3.2 kg (7.05 lb)

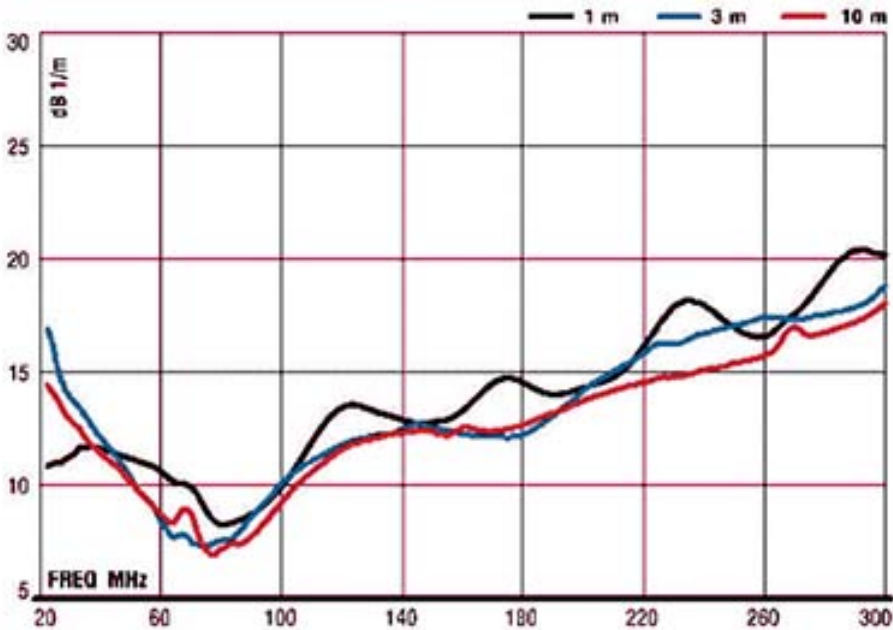
## Other Specifications

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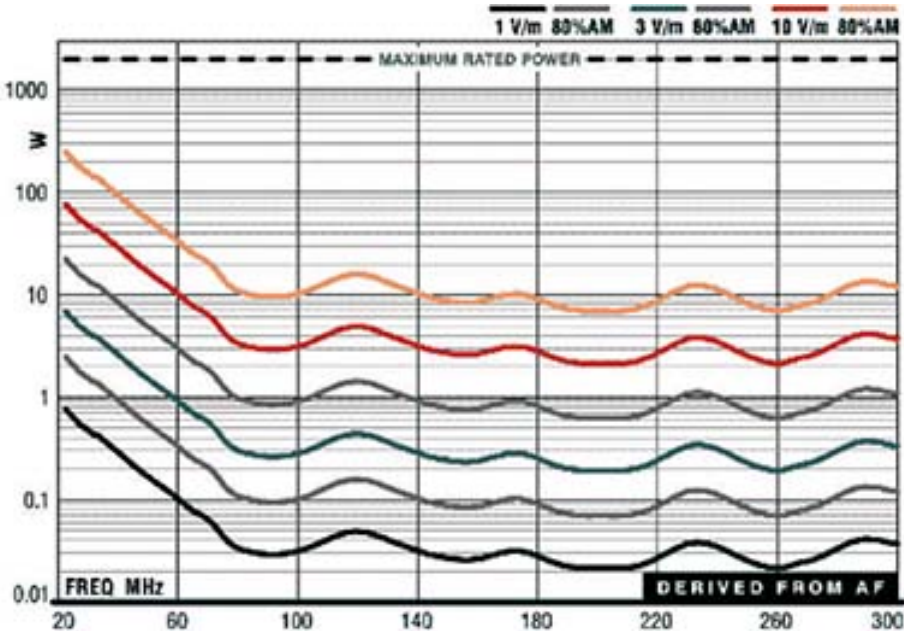
- Antenna (Balun and Elements)
- Balun acts as Base Accepts an ETS-Lindgren Tripod or Most Other Manufacturers Tripods
- Individually Calibrated at 1 m per SAE ARP 958
- Actual Antenna Factors and a Signed Certificate of Calibration Conformance Provided

Product Charts

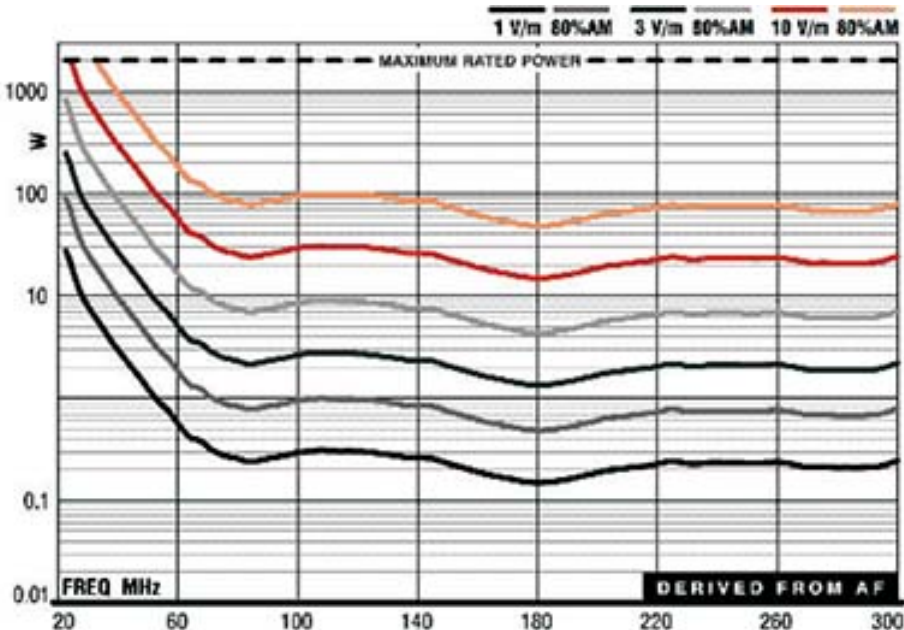
3109 Biconical  
Antenna Factor



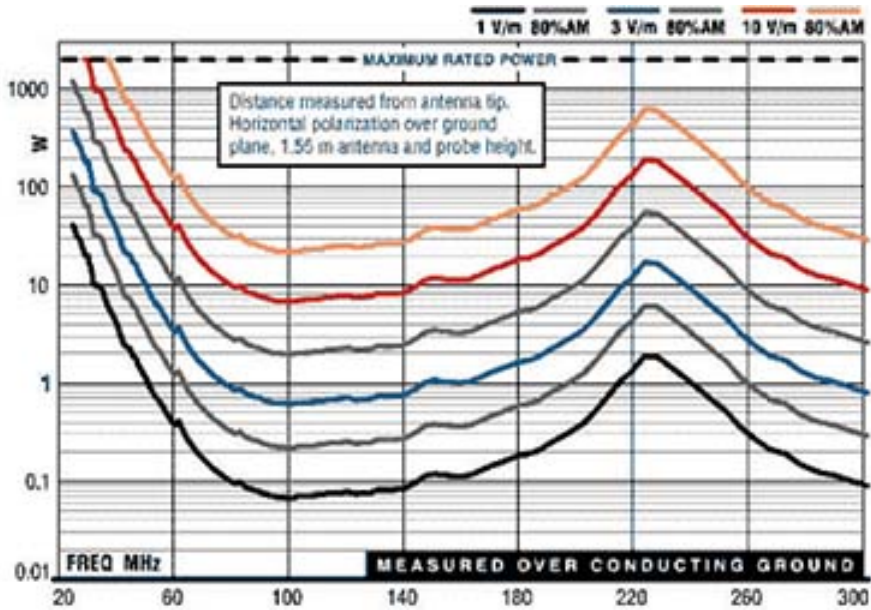
3109 Forward Power  
at 1 m



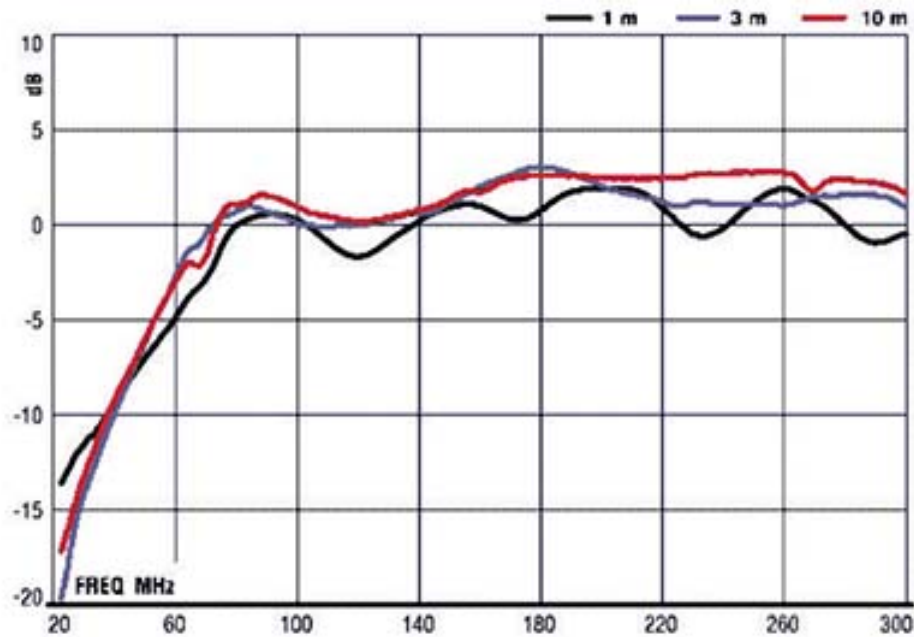
3109 Forward Power  
at 3 m



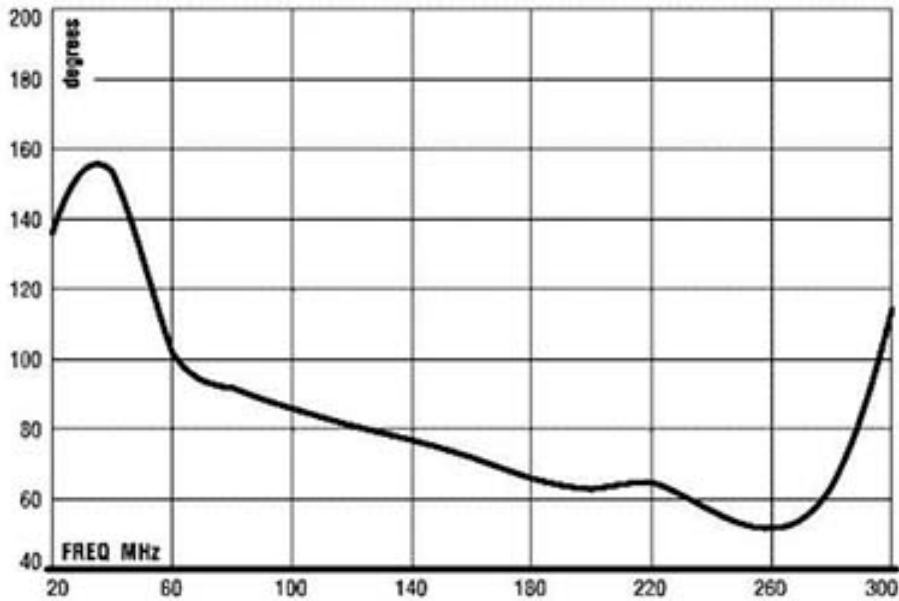
3109 Forward Power  
at 3 m



3109 Biconical  
Antenna Gain



3109 Biconical  
Antenna Half Power  
Beamwidth



3109 Biconical  
Antenna VSWR

