

## **100A Series**

# Low Power Circularly Polarized FM Antenna



The 100A Series antenna is the latest development in ERI's famous ROTOTILLER® style FM antenna. The 100A Series antenna is designed for non-pressurized, translator and low power FM applications. This antenna is also available in half wave length bay to bay configurations which will limit RFI problems by reducing downward and upward radiation.

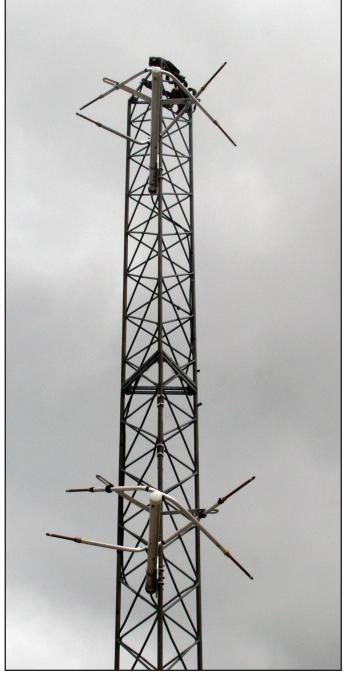
Mounting brackets and attachment hardware suitable for round members up to 4" diameter are included. Stand-off pole mounting brackets and antenna input jumper cables are also available.

#### **Characteristics**

Product Line:	100			
Product Series:	100A Series			
Frequency Range:	88 - 108 MHz, Single frequency			
Polarization:	Circular (Clockwise)			
Azimuth:	±2 dB in free space, horizontal			
VSWR at Input:	$1.5:1 \pm 2 \text{ MHz}$			

#### **Features**

- FM Translator and low power FM applications
- Circular polarization
- Light weight and low wind load design
- · Economically priced



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#### 100A Model

### **Electrical and Mechanical Specifications**

			Input	Input Feed Config.	Input Power Rating <i>kW</i>	Bay to Bay Spacing Wave	Weight				Wind Area (CaAa)							
Туре	Power Gain	dB Gain									Normal Exposure				Transverse Exposure			
Number							No Ice		1/2" lce		No Ice		1/2" lce		No Ice		1/2" lce	
							lbm	kg	lbm	kg	ft <sup>2</sup>	m <sup>2</sup>	ft <sup>2</sup>	m²	ft <sup>2</sup>	m²	ft <sup>2</sup>	m²
100A-1M	0.42	-3.768	7-16 DIN Male	Branch	1.0	Full	20.0	9.1	45.0	20.4	1.40	0.13	3.00	0.28	3.10	0.29	5.30	0.49
100A-2F	0.90	-0.458	7-16 DIN Female	Branch	2.0	Full	45.0	20.4	100.0	45.4	3.50	0.33	7.10	0.66	7.10	0.66	11.50	1.07
100A-4F	1.92	2.833	7-16 DIN Female	Branch	2.0	Full	100.0	45.4	225.0	102.1	8.70	0.81	17.30	1.61	15.80	1.47	26.20	2.43
100A-2F-HW	0.63	-2.007	7-16 DIN Female	Branch	2.0	Half	45.0	20.4	100.0	45.4	3.50	0.33	7.10	0.66	7.10	0.66	11.50	1.07
100A-4F-HW	1.18	0.704	7-16 DIN Female	Branch	2.0	Half	100.0	45.4	225.0	102.1	8.70	0.81	17.30	1.61	15.80	1.47	26.20	2.43

#### Notes

# **Ordering Information**

#### **Mounting Notes**

Price includes mounting brackets and attachment hardware for up to 4-inch in diameter tower leg or pole.

#### **Type Number Definition**

100A - b c	100A - b c - d								
100A	ERI 100A Series low power FM antenna								
b	Number of Bays								
c	Input: M = Male, F = Female								
d	Design Note: Blank = Full wave length bay to bay spacing, $HW = Half$ wave length bay to bay spacing								

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<sup>(1)</sup> Rated at 2000 feet elevation

<sup>(2)</sup> Includes mounting brackets and attachment hardware for up to 4-inch in diameter tower leg or pole.

<sup>(3)</sup> Antenna weight and wind load are approximate values for a typical structure assuming no top load. Final design loads will vary for specific projects and should be verified by an ERI representative.

<sup>(4)</sup> Wind loads are calculated in accordance with the ANSI/TIA/EIA 222-F standard. Weight and effective wind area (C,A) includes antenna, inner transmission feed and typical support mast and mounting brackets with no ice.