

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:	$1.5:1 \pm 2$ 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

Type Number	Power Gain	dB Gain	Input	Input Feed Config.	Input Power Rating	Bay to Bay Spacing	Weight		Wind Area (CaAa)									
									Normal Exposure				Transverse Exposure					
							No Ice		1/2" Ice		No Ice		1/2" Ice		No Ice		1/2" Ice	
							<i>lbm</i>	<i>kg</i>	<i>lbm</i>	<i>kg</i>	<i>ft²</i>	<i>m²</i>	<i>ft²</i>	<i>m²</i>	<i>ft²</i>	<i>m²</i>	<i>ft²</i>	<i>m²</i>
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:

(1) Rated at 2000 feet elevation

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

(3) 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.

(4) 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.

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 - 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