

Sidemount FM Dipole 818 Series

Product Description

These vertically polarized antennas for FM broadcasting applications are intended for use where low wind loadings are required. They are designed to be sidemounted to a tower leg or pole and optional mounting brackets are available for this purpose. The 818 series are fabricated from stainless steel and will handle up to 5kW per bay. Multiple element arrays are supplied as a complete package including power dividers and distribution cables. An optional input tuner ensures optimum VSWR performance after installation as it enables the effects of tower steelwork to be eliminated. Beam tilt and null fill can be provided on request. The 818 series can be arrayed in multiple bays as required.



818-4

Features/Benefits

- Rugged construction for maximum corrosion protection
- Broadband operation
- Multichannel use if required
- Optional pressurization
- Low windload to minimize tower or mast costs
- Vertical polarization
- Temperature range -40 to +60 degrees C available

Technical Specifications

Product Line	Antenna Radio
Product Type	Band II (VHF) FM Sidemount Antennas
Frequency Range, MHz	87.5 - 108
Polarization	Vertical
Nominal Gain (Mid-band), dBd	4.9400000000000004
Azimuth Radiation Pattern	Omni directional + 3 dB Note#1
Return Loss, dB	Typically 20 over 6MHz bandwidth . Tunable within band
Input Connector	7-16 DIN; 7/8" EIA Flange ; 1-5/8" EIA Flange
Power Rating, kW	8 Note#2
Impedance, ohms	50 unbalanced
Weight, kg (lb)	38 (84)
Dimensions (Height or Length), cm (in)	151(59-1/2) Single antenna
Dimensions (Width), cm (in)	6 (2-3/8) Single antenna
Dimensions (Depth), cm (in)	84 (33-1/8) Single antenna
Mounting (Standard), mm (in)	Brackets for clamp diameter 43 - 76mm (1-3/4 - 3)
Effective Area Front (full antenna), sq m (sq ft)	0.40 (4.3) Note#3
Effective Area Power Divider, sq m (sq ft)	0.09 (1.0) Note#3
Wind Load @ 50 m/sec Front, kN (lb)	0.58 (130) Note#4 #5
Pressurization Operational, kPa (psi)	10 - 25 (1.5 - 3.6) 7/8" EIA Version
Pressurization Test, kPa (psi)	100 (15) 7/8" EIA Version

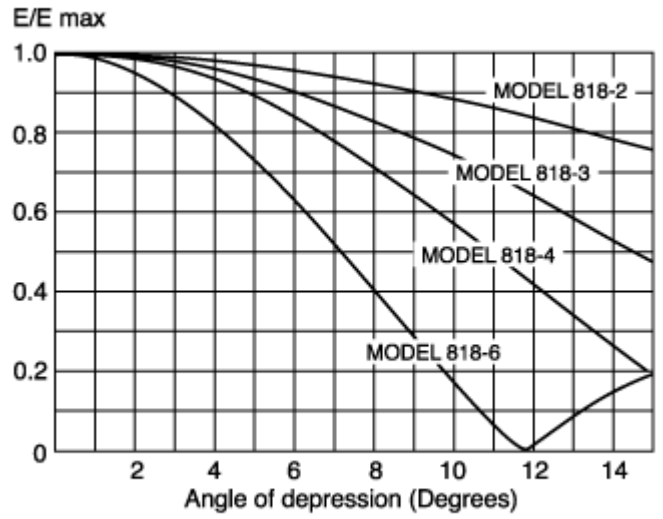
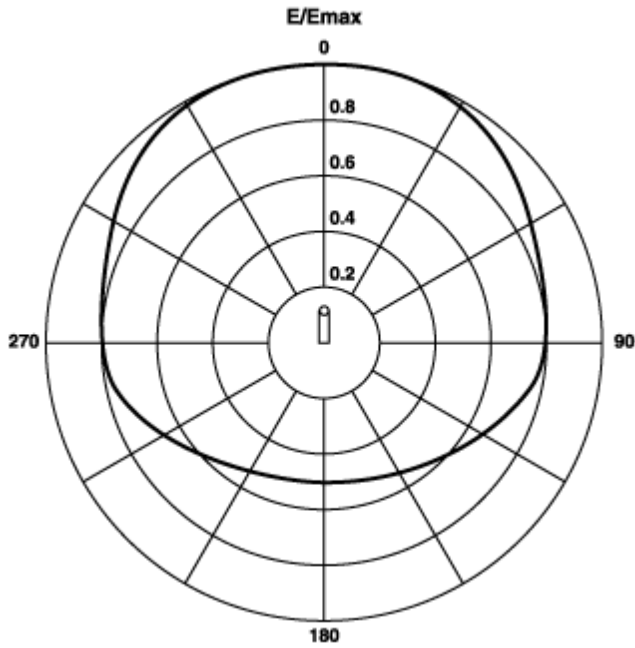
Notes

- Note 1** When antenna is mounted on a mast/tower with a face width of less than 150mm (5.9").
Note 2 Input power is limited to 5kW if a 7/8" connector is used, 4.0kW for 7-16 DIN connector.
Note 3 Connecting cables are not included in calculations - 0.03sq m. per metre length should be allowed.
Note 4 Power divider included and considered adjacent to antennas.
Note 5 Calculated in accordance with AS1170-1981, Part 2 "SAA Loading Code - Wind Forces".

Other Documentation



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All information contained in the present datasheet is subject to confirmation at time of ordering