



# ANTENNA EXPERTS

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Model # HFBF-230

2.8 – 22 MHz.

6dBi Gain Typical

## HF Omnidirectional Horizontal Polarized Broadband Butterfly Antenna

**DESIGN:** The HFBF-230 Horizontal Polarized Butterfly Broad Band Dipole Antenna offer optimum performance, fully automatic, low VSWR operation over the HF band 2.8-22 MHz and suitable for receiving, transmitting or HF spectrum monitoring or surveillance with polarization diversity. The HFBF-230 HF butterfly antenna is completely passive type which allow to receive and transmit horizontal polarized electrical field signals. The HFBF-230 broadband butterfly antenna propagates NVIS, local, medium or long distance communications. This HF broadband butterfly antenna is ready to go right out of the box, no taps to change frequency, nothing to tune - ever! Designed for the military and built to last. No Antenna Tuning Unit (ATU) is required for its operation. Antenna matching circuit BALUN is part of antenna. No active circuit is involved to design this antenna. The antenna is fully passive thus ensuring many years of maintenance free life. The HF Broad Band Butterfly Antenna provides optimum performance over complete HF band, eliminating the requirement of multiple antennas, minimizing the cost and setup requirements.

**CONSTRUCTIONS:** The HFBF-230 horizontal polarized broadband butterfly antenna is designed for broad band operation for fixed stations application. The radiating element of butterfly antenna is made of either high quality copper or type 303 marine grade stainless steel wire which are ultra corrosion resistant alloy to ensure the survivability in worst environment conditions. The antenna matching circuit BALUN is designed in such way that it can be removed with simple hand tools in case of failure without dismantling the complete butterfly antenna. The butterfly antenna uses 1-5/8" EIA female connector to withstand the 3KW average power handling capacity. The HFBF-230 horizontal polarized butterfly antenna operates at D.C. ground with low resistance discharge path for protection against lightning and immunity to noise.

### ELECTRICAL SPECIFICATIONS:

Frequency Range	2.8 - 22 MHz. or 1.5 – 30 MHz Optional
Gain - Typical	6 dBi
Bandwidth	Entire 2.8 - 22 MHz.
Polarization	Horizontal
Input Impedance	50 Ohms.
Radiation Pattern	Omni-directional
VSWR – Better Than	3 : 1
RF Power Handling Capacity	3 KW Average
Antenna Termination	DIN Female or EIA Female
Lightning Protection	Direct Ground

### MECHANICAL SPECIFICATIONS:

Recommended Mast Type	Lattice, Tubular or Fiberglass
Dipole Radiating Element Materials	Copper or Stainless Steel Alloy
Wind Rating – Without Ice	180 Km/Hr.
Wind Rating – With 25mm Radial Ice	150 Km/Hr.
Mounting Hardware	Marine Grade Stainless Steel
Fasteners Materials	Marine Grade Stainless Steel
Typical Installation Time – Antenna Only	1 Hours by 2 Technician

Full technical specification including VSWR curve, installation diagram, dimensional details, key feature and many more are available for registered user. Please contact us for these information.

Note: All information contained in the datasheet is subject to change without any prior notice.

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