



VHL3-13-2GR

1.0 m | 3 ft ValuLine® High Performance Low Profile Antenna, single-polarized, 12.700–13.250 GHz, PBR120, gray antenna, polymer gray radome without flash, standard pack—one-piece reflector

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General Specifications

Antenna Type	VHLP - ValuLine® High Performance Low Profile Antenna, single-polarized
Diameter, nominal	1.0 m 3 ft
Packing	Standard pack
Radome Color	Gray
Radome Material	Polymer
Reflector Construction	One-piece reflector
Antenna Input	PBR120
Antenna Color	Gray
Antenna Type	VHLP - ValuLine® High Performance Low Profile Antenna, single-polarized
Diameter, nominal	1.0 m 3 ft
Flash Included	No
Polarization	Single

Electrical Specifications

Operating Frequency Band	12.700 – 13.250 GHz
Beamwidth, Horizontal	1.6 °
Beamwidth, Vertical	1.6 °
Cross Polarization Discrimination (XPD)	30 dB
Electrical Compliance	Brazil Anatel Class 2 Canada SRSP 312.7 Part B ETSI 302 217 Class 3 US FCC Part 101B
Front-to-Back Ratio	66 dB
Gain, Low Band	39.9 dBi
Gain, Mid Band	40.0 dBi
Gain, Top Band	40.1 dBi
Operating Frequency Band	12.700 – 13.250 GHz
Radiation Pattern Envelope Reference (RPE)	7180
Return Loss	17.7 dB
VSWR	1.30

Mechanical Specifications

Fine Azimuth Adjustment	±15°
Fine Elevation Adjustment	±15°
Mounting Pipe Diameter	115 mm 4.5 in
Net Weight	24 kg 53 lb
Side Struts, Included	0

Product Specifications

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Side Struts, Optional	1 inboard
Wind Velocity Operational	200 km/h 124 mph
Wind Velocity Survival Rating	250 km/h 155 mph

Wind Forces At Wind Velocity Survival Rating

Angle α for MT Max	0 °
Axial Force (FA)	2979 N 670 lbf
Side Force (FS)	936 N 210 lbf
Twisting Moment (MT)	1184 N•m
Weight with 1/2 in (12 mm) Radial Ice	46 kg 101 lb
Zcg with 1/2 in (12 mm) Radial Ice	220 mm 9 in
Zcg without Ice	324 mm 13 in

Product Specifications

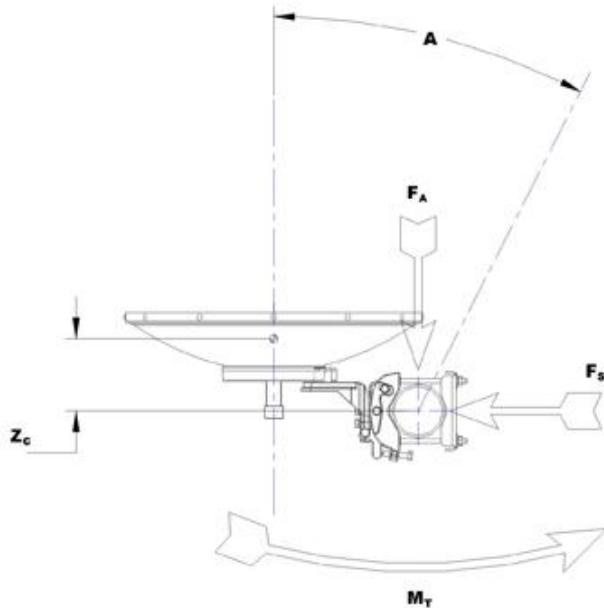
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Wind Forces At Wind Velocity Survival Rating Image



Packed Dimensions

Gross Weight, Packed Antenna	30.8 kg 67.9 lb
Height	106.3 cm 41.9 in
Length	119.8 cm 47.2 in
Volume	467365.0 cc
Width	36.7 cm 14.4 in

Product Specifications

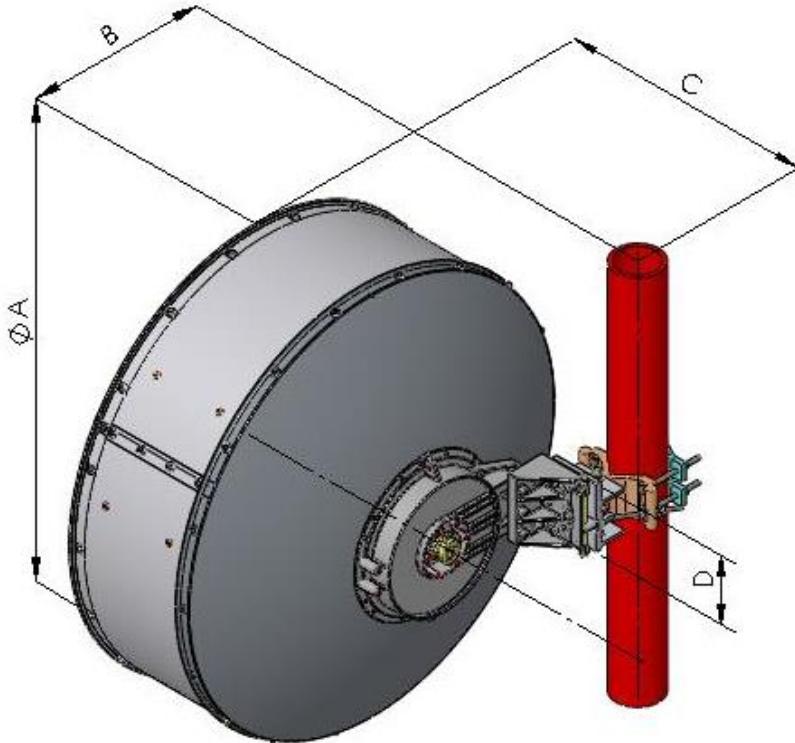
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Antenna Dimensions And Mounting Information



Dimensions in Inches (mm)				
Antenna Size, ft (m)	A	B	C	D
3(0.9)	39.4 (1000)	17.5 (445)	23.1 (586)	6.3 (160)

Regulatory Compliance/Certifications

Agency **Classification**
ISO 9001:2008 Designed, manufactured and/or distributed under this quality management system

* Footnotes

Axial Force (FA)	Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.
Cross Polarization Discrimination (XPD)	The difference between the peak of the co-polarized main beam and the maximum cross-polarized signal over an angle twice the 3 dB beamwidth of the co-polarized main beam.
Front-to-Back Ratio	Denotes highest radiation relative to the main beam, at $180^\circ \pm 40^\circ$, across

Product Specifications

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Gain, Mid Band

the band. Production antennas do not exceed rated values by more than 2 dB unless stated otherwise.

Operating Frequency Band

For a given frequency band, gain is primarily a function of antenna size. The gain of Andrew antennas is determined by either gain by comparison or by computer integration of the measured antenna patterns.

Packing

Bands correspond with CCIR recommendations or common allocations used throughout the world. Other ranges can be accommodated on special order.

Radiation Pattern Envelope Reference (RPE)

Andrew standard packing is suitable for export. Antennas are shipped as standard in totally recyclable cardboard or wire-bound crates (dependent on product). For your convenience, Andrew offers heavy duty export packing options.

Return Loss

Radiation patterns determine an antenna's ability to discriminate against unwanted signals under conditions of radio congestion. Radiation patterns are dependent on antenna series, size, and frequency.

Side Force (FS)

The figure that indicates the proportion of radio waves incident upon the antenna that are rejected as a ratio of those that are accepted.

Twisting Moment (MT)

Maximum side force exerted on the mounting pipe as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.

VSWR

Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.

Wind Velocity Operational

Maximum; is the guaranteed Peak Voltage-Standing-Wave-Ratio within the operating band.

Wind Velocity Survival Rating

The wind speed where the antenna deflection is equal to or less than 0.1 degrees. In the case of ValuLine antennas, it is defined as a maximum deflection of 0.3 x the 3 dB beam width of the antenna.

The maximum wind speed the antenna, including mounts and radomes, where applicable, will withstand without permanent deformation. Realignment may be required. This wind speed is applicable to antenna with the specified amount of radial ice.