

Half-wave Dipole Side-mounted Vertical Polarization

380–470

V

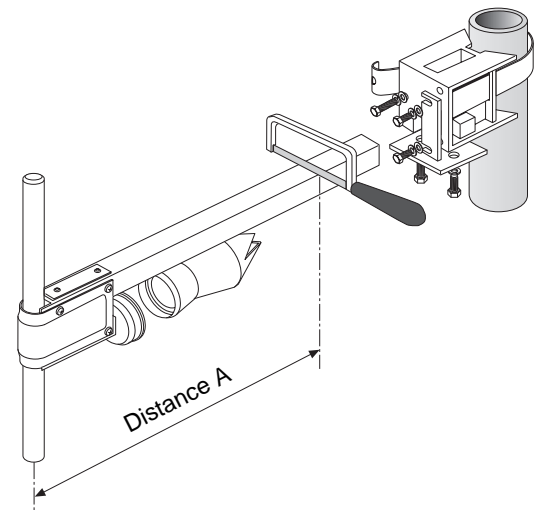
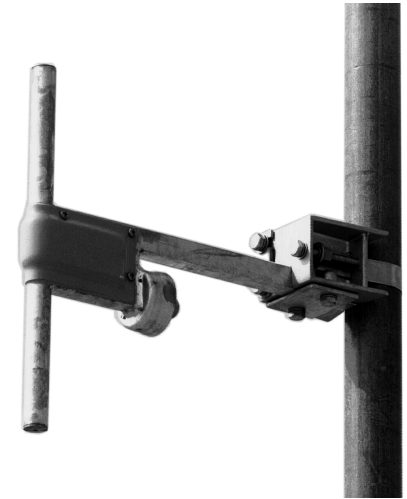
KATHREIN
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- Omnidirectional antenna with variable antenna-to-mast distance.
- Depending on the distance of the radiator from the mast edge and also on the mast diameter, various radiation patterns can be achieved.

VPol Omni 380–470 360° 4dBi

Type No.	K 75 29 21
Frequency range	380 – 470 MHz
Polarization	Vertical
Gain	4 dBi
Impedance	50 Ω
VSWR	400 – 470 MHz: < 1.5 380 – 400 MHz: < 1.5; $A = \lambda/4$ 380 – 400 MHz: < 2.0; $A > \lambda/4$
Max. power	450 W (at 50 °C ambient temperature)

- Material:** Radiator: Hot-dip galvanized steel.
Horizontal support pipe: Stainless steel.
Mount: Aluminum.
Tightening band and all screws and nuts: Stainless steel.
Feedpoint radome: Fiberglass.
- Attachment:** To tubular masts of 60 – 320 mm diameter using supplied stainless steel tightening band (20 mm wide, 0.8 mm gauge).
- Special features:** The distance from tubular mast to radiator is adjustable from 170 – 580 mm.
- Grounding:** All metal parts of the antenna including the inner conductor and the supplied mount are DC grounded.
- Horizontal radiation pattern:** Depending on the distance A (edge of pipe mast to dipole) – see sketch.



Mechanical specifications

Input	N female
Weight	1.6 kg
Wind load	40 N (at 150 km/h)
Max. wind velocity	200 km/h
Packing size	880 x 330 x 100 mm
Length	315 mm

936.072/d Subject to alteration.

Please note:

As a result of more stringent legal regulations and judgements regarding product liability, we are obliged to point out certain risks that may arise when products are used under extraordinary operating conditions.

The mechanical design is based on the environmental conditions as stipulated in ETS 300 019-1-4, which include the static mechanical load imposed on an antenna by wind at maximum velocity. Extraordinary operating conditions, such as heavy icing or exceptional dynamic stress (e.g. strain caused by oscillating support structures), may result in the breakage of an antenna or even cause it to fall to the ground. These facts must be considered during the site planning process.

The installation team must be properly qualified and also be familiar with the relevant national safety regulations.

The details given in our data sheets have to be followed carefully when installing the antennas and accessories.

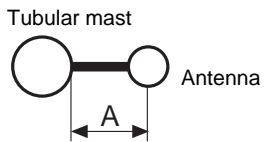
The limits for the coupling torque of RF-connectors, recommended by the connector manufacturers must be obeyed.

Any previous datasheet issues have now become invalid.



Examples for horizontal radiation patterns for mast diameters where $A = 0.25 \lambda$; 0.5λ ; 0.75λ .

Distance A:



- $A = 0.25 \lambda$
- $A = 0.5 \lambda$
- $A = 0.75 \lambda$

Mast diameter	Horizontal Radiation Pattern
60 mm	
160 mm	
250 mm	
600 mm	
Triangular lattice mast with side length of 500 mm	

Triangular lattice mast

