

VPol Omnidirectional Antenna 1087–1093

Vertical Polarization V

The antenna consists of a number of identical, decoupled half-wave dipoles, phase-feeding cables and transformer. Each dipole is mounted onto a central supporting brass tube. The horizontal pattern is obtained by the circular characteristic of the single dipole, the vertical pattern varying phase and distance of the single dipoles. All metal parts are DC grounded and, therefore, widely immune to damage from lightning. Two antenna monitor probes are located inside the fiberglass tube. All feedlines and monitor cables descend inside the supporting brass tube.

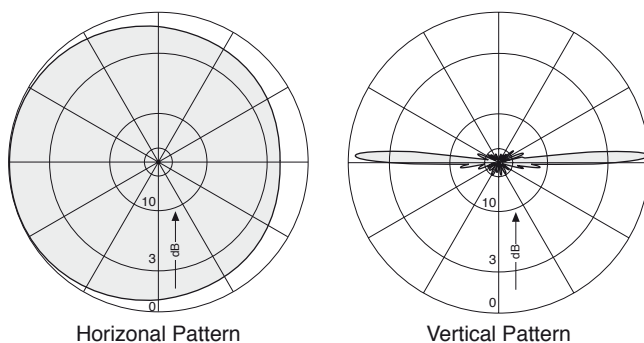
VPol Omni 1087–1093 360° 11.5dBi

Type No.	880 10002
Frequency range	1087 – 1093 MHz
Polarization	Vertical
Gain	11.5 ±0.5 dBi
Impedance	50 Ω
VSWR	< 1.8 (antenna input)
Horizontal pattern	Omnidirectional: Deviation from omni better ±1.5 dB
Vertical pattern uptilt	2 ±0.5°
Coupling attention	25 ±3 dB (antenna/monitor probes)
R. F. peak power	1 kW, modulated as per ICAO recommendation
Temperature range	-55° to +70° ambient

- Material:** Dipoles, decoupling elements, supporting tube and transformer: High quality brass.
Base: Weather-resistant aluminum.
Radome: Fiberglass, colour: Grey.
All screws and nuts: Stainless steel.
- Mounting:** To pipes of 60 – 62 mm OD by means of mounting clamps, supplied.
- Grounding:** The antenna is DC grounded by a cross section of 98 mm² brass.



Radiation Pattern (at mid-band)



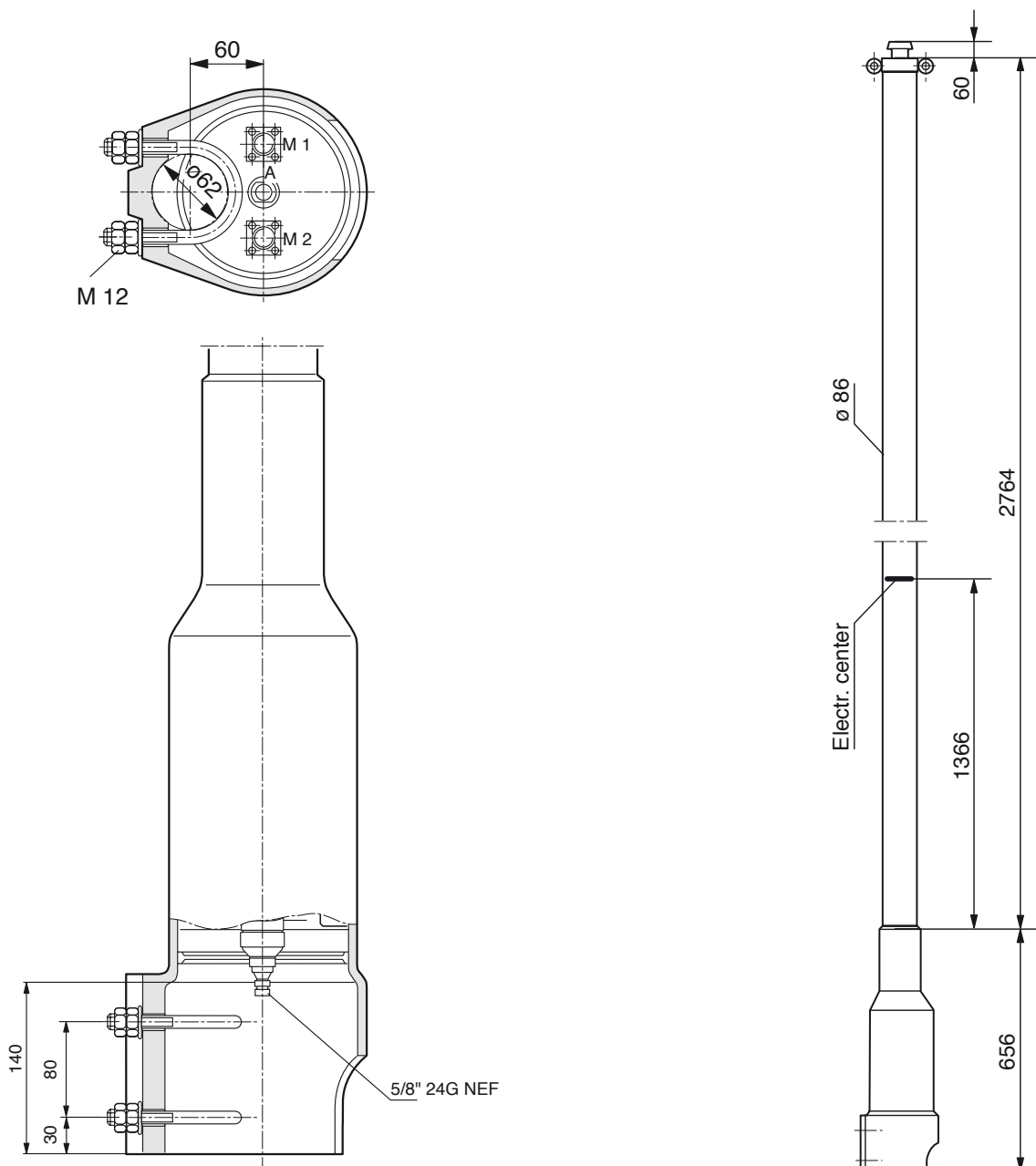
Mechanical specifications	
Input (antenna/monitors)	N female
Connector position	Bottom
Weight	26 kg
Wind load	350 N (at 150 km/h with 12 mm radial ice)
Max. wind velocity	200 km/h
Packing size	3572 x 272 x 292 mm
Height	3480 mm
Radome diameter	86 mm

936.3579 Subject to alteration.

Mounting Instruction

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880 10002



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 and thereby respects 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.

