



Omnidirectional Antennas 146 - 174 MHz

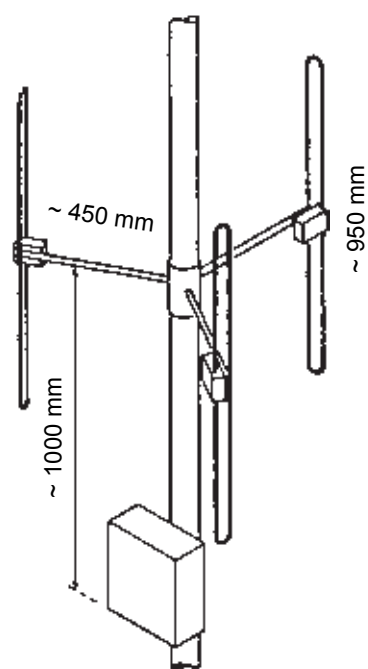
WS 300 42 1.	omnidirectional
WS 300 44 1.	omnidirectional, heavy duty, with radome
WS 300 44 1. 2S	3 dB omnidirectional, heavy duty, with radome
WS 300 52 1.	omnidirectional
WS 300 54 1.	omnidirectional, heavy duty, with radome
WS 300 54 1. 2S	3 dB omnidirectional, heavy duty, with radome
WS 300 84 15	omnidirectional groundplane
WS 300 86 1	omnidirectional groundplane, adjustable
WS 300 92 1	broadband disccone 80 - 1100 MHz
WS A00 92 1	broadband disccone 118 - 1100 MHz
WS 301 12 10.	3 dB offset pattern antenna
WS 301 13 10 8	3 dB offset pattern antenna, heavy duty, with radome
WS 301 12 .9 .	dipole for wall mounting
WS 301 13 .9 .	dipole for wall mounting, heavy duty, with radome
WS 301 12 11 8	6 dB offset pattern antenna
WS 301 13 11 8	6 dB offset pattern antenna, heavy duty, with radome
WS 301 12 12 8	8 dB offset pattern antenna
WS 301 13 12 8	8 dB offset pattern antenna, heavy duty, with radome
WS 301 12 13.	10 dB offset pattern antenna
WS 301 13 13.	10 dB offset pattern antenna, heavy duty, with radome

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**OMNIDIRECTIONAL ANTENNA
WS 300 42 1.
130 ... 174 MHz**



TYPE NO. WS 300 42 17 : 140 - 165 MHz
WS 300 42 18 : 146 - 174 MHz
WS 300 42 16 : 130 - 162 MHz
further frequencies on request

POLARIZATION vertical
IMPEDANCE 50 Ω
GAIN 0 dB (ref. λ/2 dipole)
VSWR < 1.3, at the limits of the band <1.4
POWER max. 300 watts
3 dB BEAMWIDTH horizontal, H plane: 360°
(deviation from circularity ± 1.5 dB)
vertical, E plane: 78°

TERMINATION in the junction box WAK 1 ending with N male
other termination on request

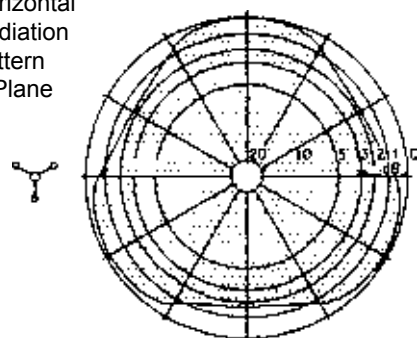
GROUNDING all metal parts are DC grounded

MOUNTING on mast with ø 60 - 104 mm, clamps for other ø on request

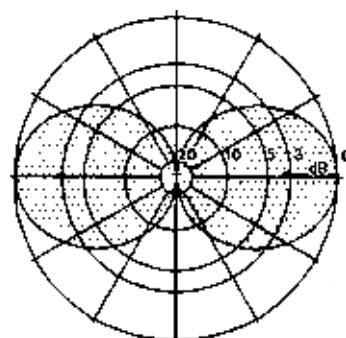
MATERIAL aluminium, bolts of stainless steel, weather-resistant plastics

WEIGHT 5.5 kg
WIND AREA 0.17 m²
WIND LOAD 220 N (150 km/h)
165 N (130 km/h)

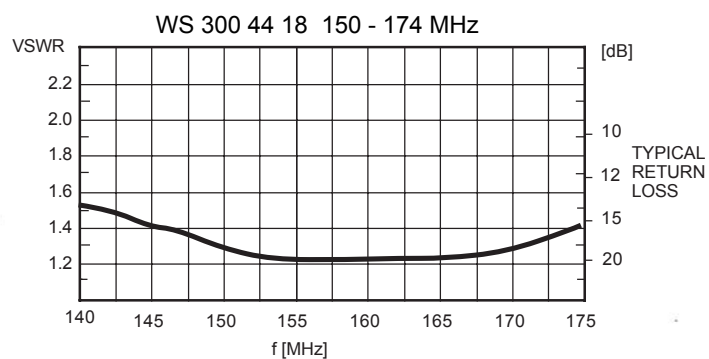
Horizontal Radiation Pattern H Plane



Vertical Radiation Pattern E Plane



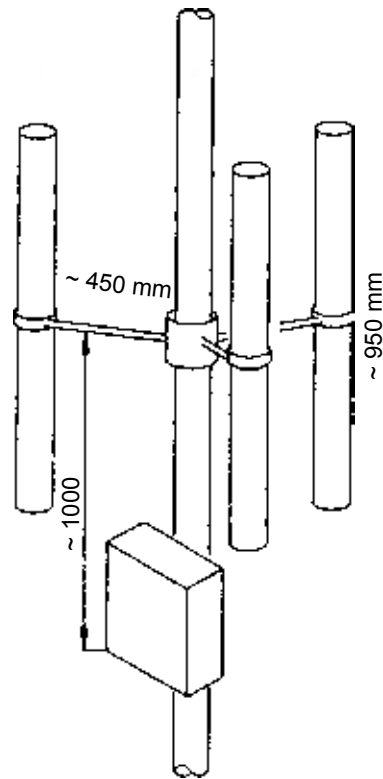
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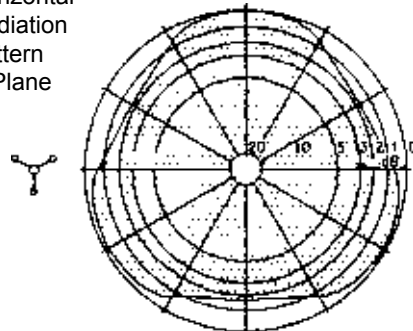
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**OMNIDIRECTIONAL ANTENNA
WS 300 44 1.
130 ... 174 MHz**

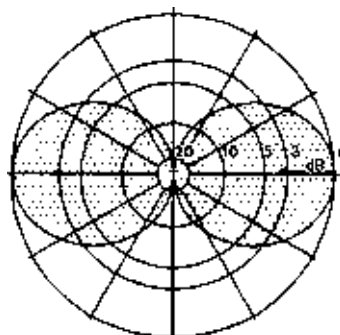


TYPE NO.	WS 300 44 17 : 140 - 165 MHz WS 300 44 18 : 146 - 174 MHz WS 300 44 16 : 130 - 162 MHz further frequencies on request
DESCRIPTION	heavy duty, with radome The radome protects the antenna dipole from environmental influences, icing, and increases the lightning protection.
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 1.3, at the limits of the band <1.4 (≤ 1.6 for 3006)
POWER	max. 300 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° (deviation from circularity ± 1.5 dB) vertical, E plane: 78°
TERMINATION	in the junction box WAK 1 ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	on mast with ø 60 - 104 mm clamp for other mast-ø on request
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics, radome of UV-stabilized polyethylene
WEIGHT	13 kg
WIND AREA	0.34 m ²
WIND LOAD	434 N (150 km/h) 326 N (130 km/h)

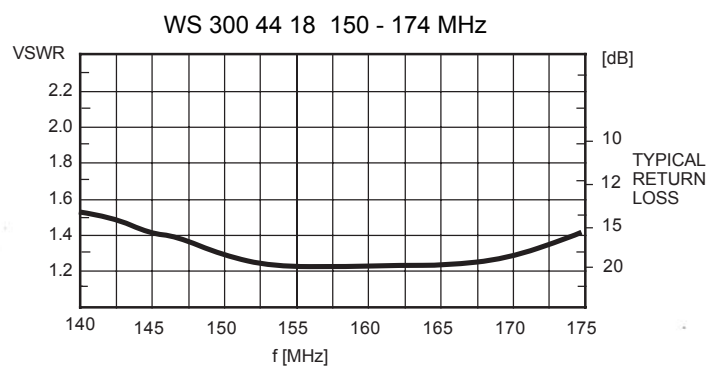
Horizontal Radiation Pattern H Plane



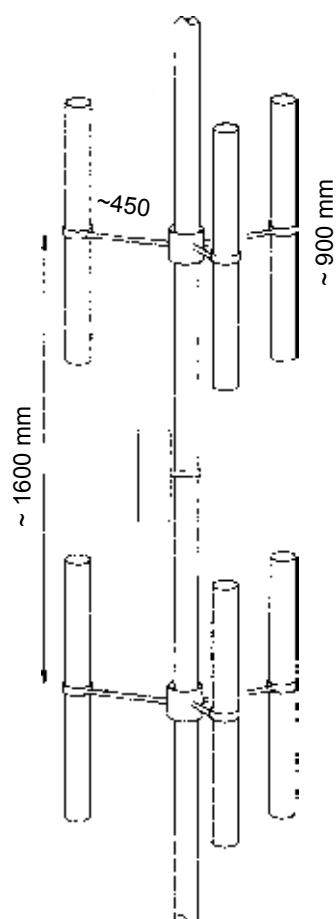
Vertical Radiation Pattern E Plane



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3 dB OMNIDIRECTIONAL ANTENNA
WS 300 44 1. 2S
144 ... 174 MHz


TYPE NO. **WS 300 44 17 2S : 144 - 165 MHz**
WS 300 44 18 2S : 156 - 174 MHz
 further frequencies and tilt on request

DESCRIPTION heavy duty, with radome
 The radome protects the antenna dipole from environmental influences, icing, and increases the lightning protection.

POLARIZATION vertical

IMPEDANCE 50 Ω

GAIN 3 dB (ref. λ/2 dipole)

VSWR < 1.3, at the limits of the band < 1.4

POWER max. 300 watts

3 dB BEAMWIDTH horizontal, H plane: 360°
 (deviation from circularity ± 1.5 dB)
 vertical, E plane: 45°

TERMINATION in the junction box WAK 1 ending with N male
 other termination on request

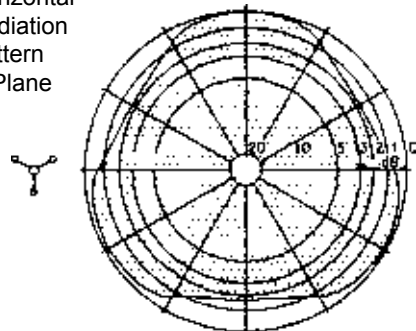
GROUNDING all metal parts are DC grounded

MOUNTING on mast with ø 60 - 104 mm
 clamp for other mast-ø on request

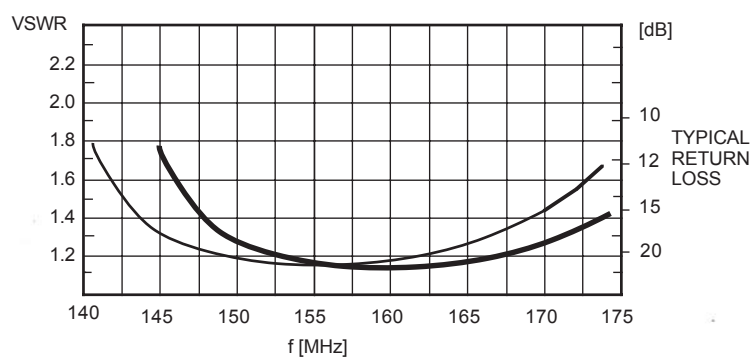
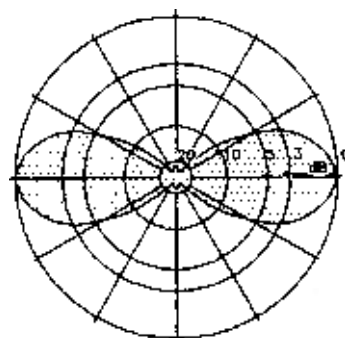
MATERIAL aluminium, bolts of stainless steel, weather-resistant
 plastics, radome of UV-stabilized polyethylene

WEIGHT 25 kg
WIND AREA 0.6 m²
WIND LOAD 766 N (150 km/h)
 576 N (130 km/h)

Horizontal
 Radiation
 Pattern
 H Plane



Vertical
 Radiation
 Pattern
 E Plane

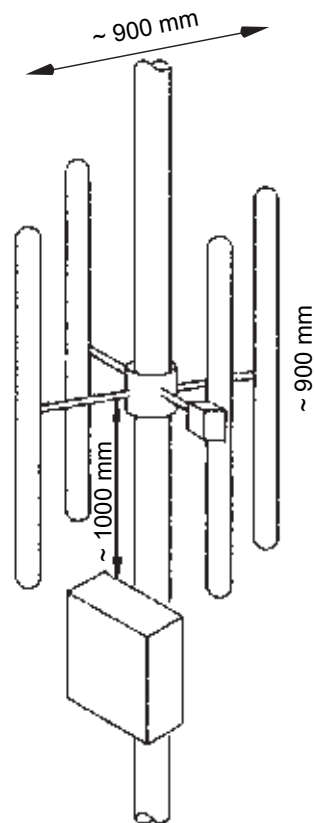


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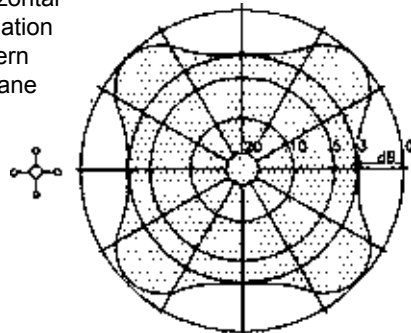
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**OMNIDIRECTIONAL ANTENNA for mast diameter ≤ 400 mm
WS 300 52 1.
144 ... 174 MHz**

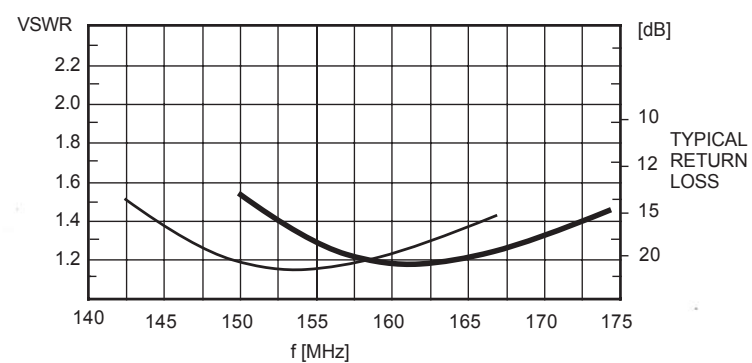
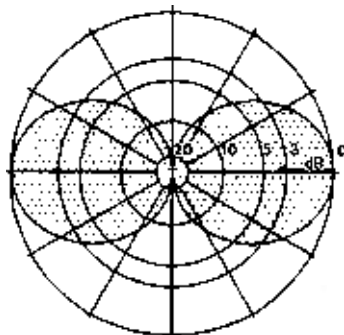


TYPE NO.	WS 300 52 17 : 144 - 165 MHz WS 300 52 18 : 156 - 174 MHz further frequencies on request
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. $\lambda/2$ dipole)
VSWR	< 1.3, at the limits of the band < 1.4
POWER	max. 500 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° (deviation from circularity ≤ 1.5 dB) vertical, E plane: 78°
TERMINATION	in the junction box WAK 1 ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	on mast with outer \varnothing 60 - 400 mm please give exact mast \varnothing
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics
WEIGHT	7 kg
WIND AREA	0.2 m ²
WIND LOAD	255 N (150 km/h) 190 N (130 km/h)

Horizontal
Radiation
Pattern
H Plane



Vertical
Radiation
Pattern
E Plane

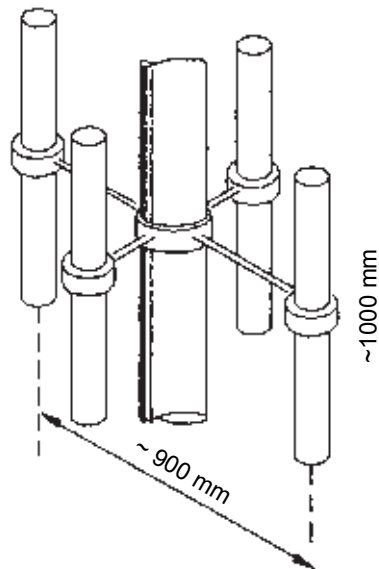


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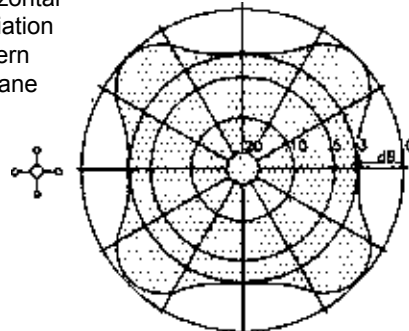
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ONIDIRECTIONAL ANTENNA for mastdiameter ≤ 400 mm
WS 300 54 1.
144 ... 174 MHz

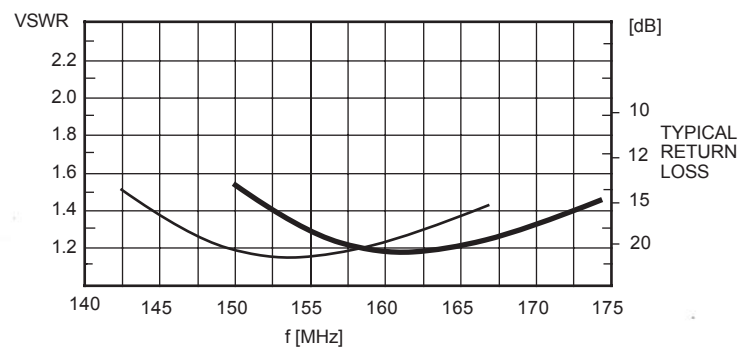
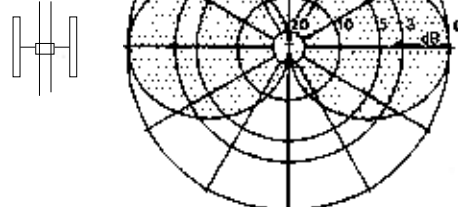


TYPE NO.	WS 300 54 17 : 144 - 165 MHz WS 300 54 18 : 156 - 174 MHz further frequencies on request
DESCRIPTION	heavy duty, with radome The radome protects the antenna dipole from environmental influences, icing, and increases the lightning protection.
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 1.3, at the limits of the band < 1.4
POWER	max. 300 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° (deviation from circularity ≤ 1.5 dB) vertical, E plane: 78°
TERMINATION	in the junction box WAK 1 ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	on mast with outer ø ≤ 400 mm with clamp of hot dip galvanized
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics, radome of UV-stabilized polyethylene
WEIGHT	13 kg (without WAK 1 and clamp)
WIND AREA	0.37 m ²
WIND LOAD	473 N (150 km/h) 355 N (130 km/h)

Horizontal
Radiation
Pattern
H Plane



Vertical
Radiation
Pattern
E Plane

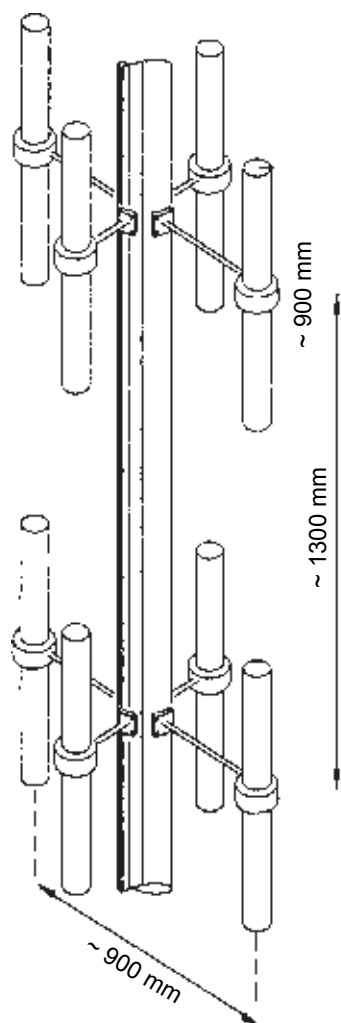


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**3dB OMNIDIRECTIONAL GAIN ANTENNA
WS 300 54 1. 2S
144 ... 174 MHz**



TYPE NO. WS 300 54 17 2S : 144 - 165 MHz
WS 300 54 18 2S : 156 - 174 MHz
further frequencies and tilt on request

DESCRIPTION heavy duty, with radome
The radome protects the antenna dipole from environmental influences, icing, and increases the lightning protection.

POLARIZATION vertical

IMPEDANCE 50 Ω

GAIN 3 dB (ref. λ/2 dipole)

VSWR < 1.3, at the limits of the band <1.4

POWER max. 500 watts

3 dB BEAMWIDTH horizontal, H plane: 360°
(deviation from circularity ≤ 1.5 dB)
vertical, E plane: 45°

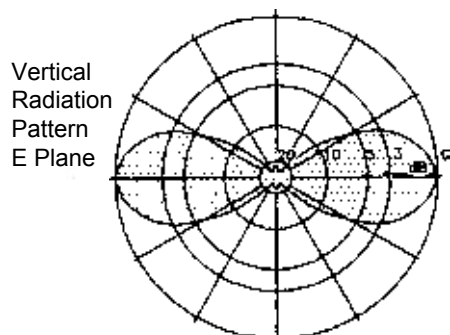
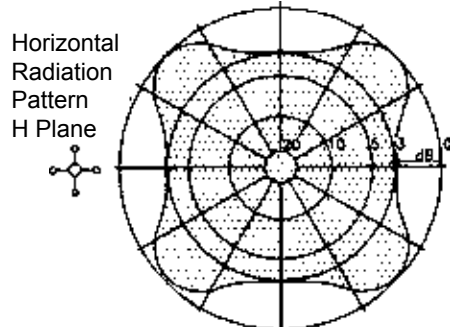
TERMINATION in the junction box WAK 1 ending with N male
other termination on request

GROUNDING all metal parts are DC grounded

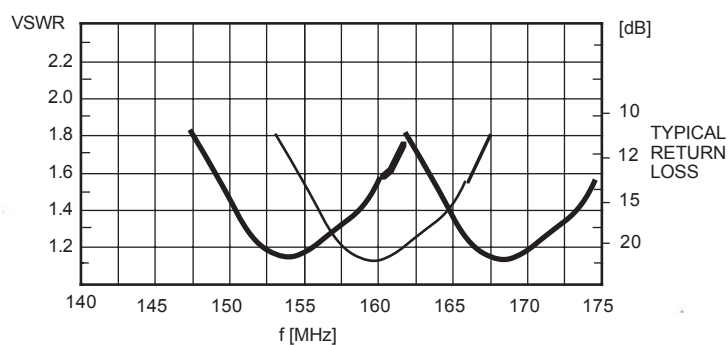
MOUNTING on mast with outer $\varnothing \leq 400$ mm
clamp for other mast- \varnothing on request

MATERIAL aluminium, bolts of stainless steel, weather-resistant
plastics, radome of UV-stabilized polyethylene

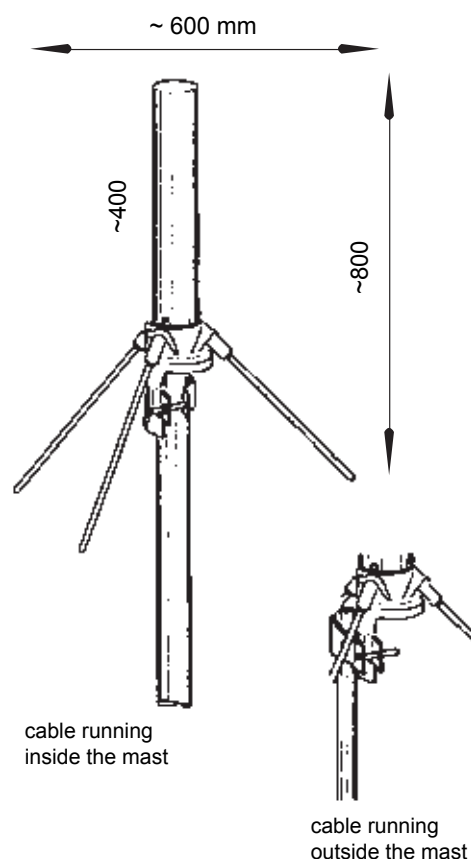
WEIGHT 25 kg
WIND AREA 0.74 m²
WIND LOAD 945 N (150 km/h)
709 N (130 km/h)



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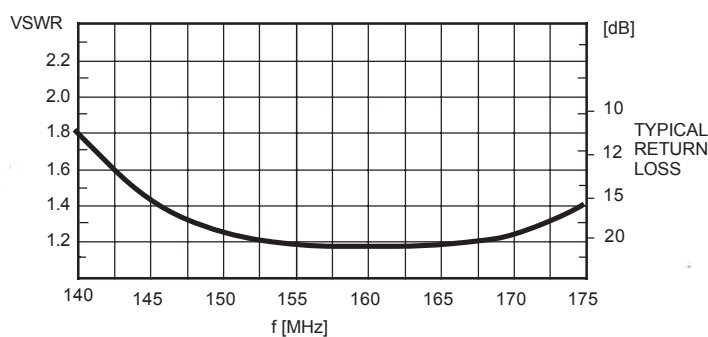
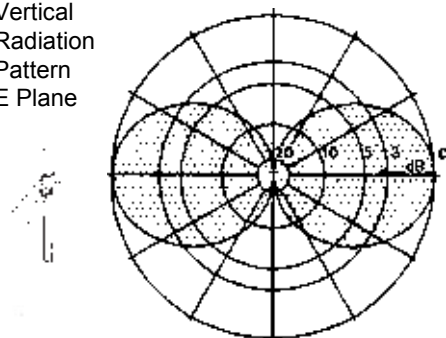


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OMNIDIRECTIONAL ANTENNA
WS 300 84 15
146 - 174 MHz


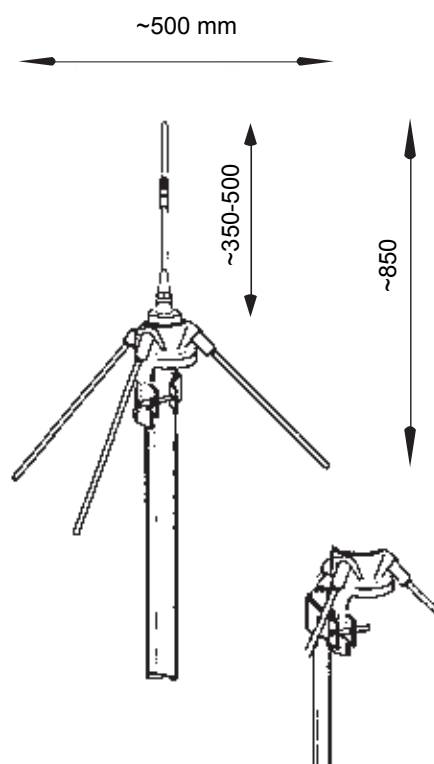
TYPE NO.	WS 300 84 15: 146 - 174 MHz further frequencies on request
DESCRIPTION	antenna with radome The radome protects the antenna from environmental influences, icing, and increases the lightning protection.
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dBd (ref. λ/2 dipole)
VSWR	< 1.3, at the limits of the band <1.4
POWER	max. 150 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° vertical, E plane: 78°
TERMINATION	~ 1 m cable ending with N male the cable must NOT be shortened (transformer) other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	to 40 - 66 mm ø mast cable runs inside or outside the mast
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics, radome of UV-stabilized, white polyethylene
WEIGHT	1.5 kg
WIND AREA	0.04 m ²
WIND LOAD	51 N (150 km/h) 38 N (130 km/h)
WIND SURVIVAL	230 km/h
DIM. PACKED	600x150x150 mm
GROSS WEIGHT	2.5 kg
GROSS VOLUME	0.0135 m ³

Vertical Radiation Pattern E Plane

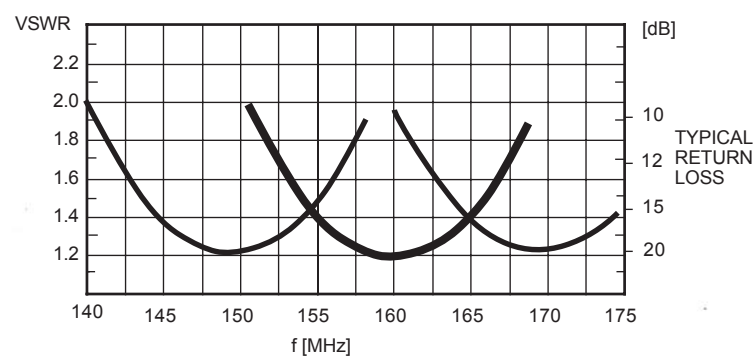
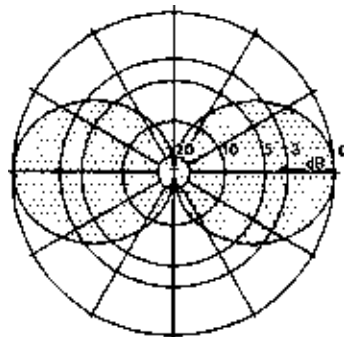


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OMNIDIRECTIONAL ANTENNA
WS 300 86 1
140 - 174 MHz

TYPE NO.	WS 300 86 1: 140 .. 174 MHz frequency adjustable according to table
DESCRIPTION	ground-plane antenna with adjustable radiator
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 1.3 in tuned frequency
POWER	max. 150 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° vertical, E plane: 78°
TERMINATION	1 m cable RG 213/U ending with N male other termination on request
GROUNDING	radiator not grounded, lightning protector recommended
MOUNTING	to 40 - 66 mm ø mast cable runs inside or outside the mast
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics
WEIGHT	1.4 kg
WIND AREA	0.04 m ²
WIND LOAD	51 N (150 km/h) 38 N (130 km/h)

 Vertical
 Radiation
 Pattern
 E Plane


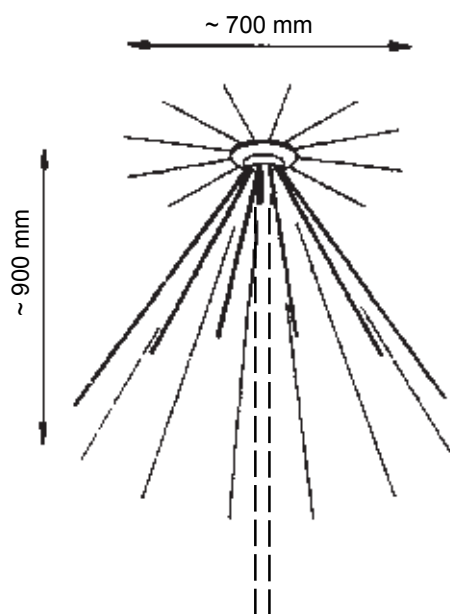
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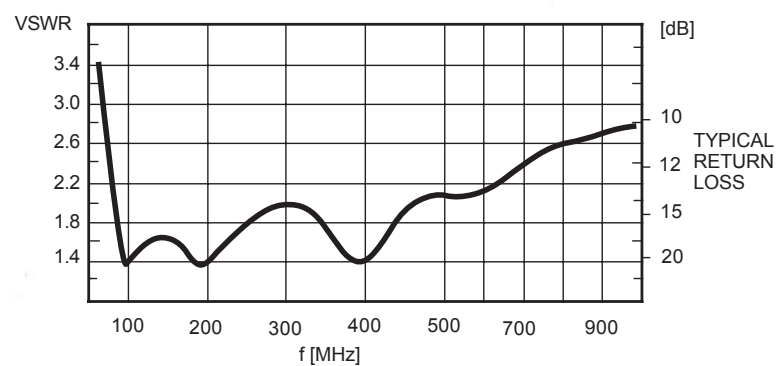
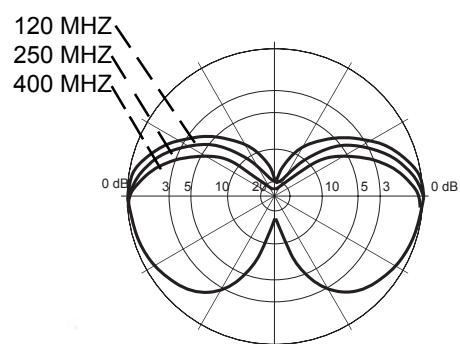
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DISCONE ANTENNA
WS 300 92 1
80 - 1100 MHz



TYPE NO.	WS 300 92 1: 80 - 1100 MHz
DESCRIPTION	wideband omnidirectional antenna
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 3 from 90 - 500 MHz < 4.5 from 80 - 1100 MHz
POWER	max. 150 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° (deviation from circularity ± 2 dB)
TERMINATION	1 m cable RG 213/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	on mast with outer ø 42 mm, adaptation for other ø on request
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics
WEIGHT	2.6 kg
WIND AREA	0.21 m ²
WIND LOAD	270 N (150 km/h) 205 N (130 km/h)

**VERTICAL RADIATION PATTERN
(E PLANE)**



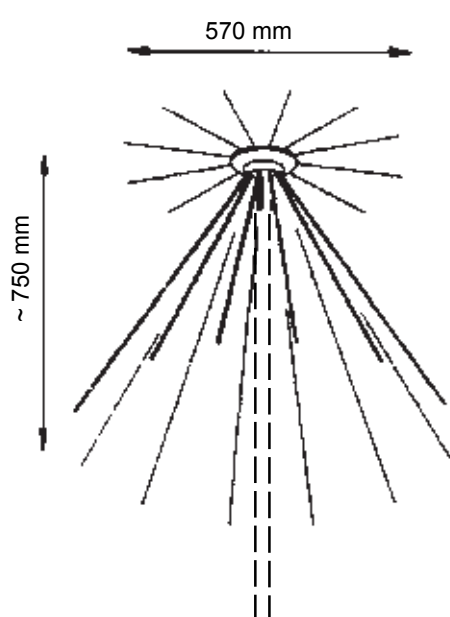
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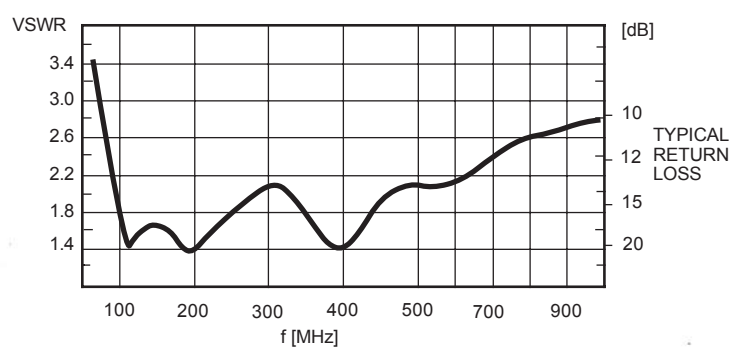
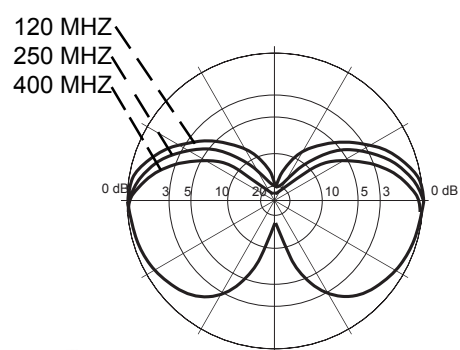
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DISCONE ANTENNA
WS A00 92 1
118 - 1100 MHz



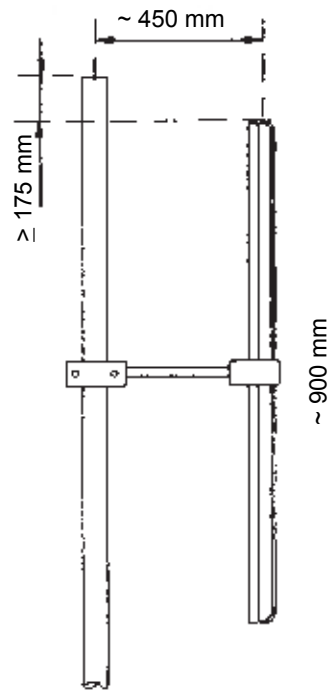
TYPE NO.	WS A00 92 1 : 118 - 1100 MHz
DESCRIPTION	wideband omnidirectional antenna
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 3 from 118 - 500 MHz, preferred < 1.8 < 4.5 from 500 - 1100 MHz
POWER	max. 150 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° (deviation from circularity ± 2 dB)
TERMINATION	1 m cable RG 213/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	on mast with outer ø 42 mm, adaptation for other ø on request
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics
WEIGHT	2.4 kg
WIND AREA	0.18 m ²
WIND LOAD	230 N (150 km/h) 170 N (130 km/h)

VERTICAL RADIATION PATTERN
(E PLANE)



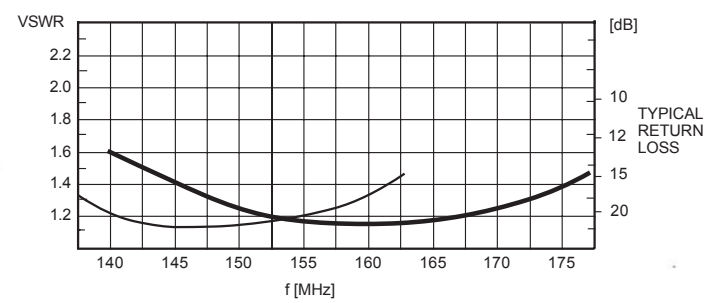
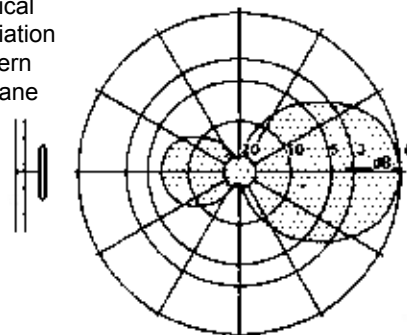
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OMNIDIRECTIONAL OFFSET-PATTERN ANTENNA
**WS 301 12 10 .
137 ... 174 MHz**


TYPE NO.	WS 301 12 10 7: 137 - 160 MHz WS 301 12 10 8: 146 - 174 MHz further frequencies on request
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	2 dBd
VSWR	< 1.3, at the limits of the band <1.4
POWER	max. 150 watts
3 dB BEAMWIDTH	horizontal, H plane: 180° vertical, E plane: 75°
TERMINATION	2 m cable RG 213/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	<i>mast-ø</i> <i>clamps</i> 30 - 80 mm WG 11 (standard) 50 - 104 mm WG 12 (option) clamp for other mast-ø on request
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics
WEIGHT	1.3 kg
WIND AREA	0.036 m ²
WIND LOAD	45 N (150 km/h) 34 N (130 km/h)

 Horizontal
Radiation
Pattern
H Plane

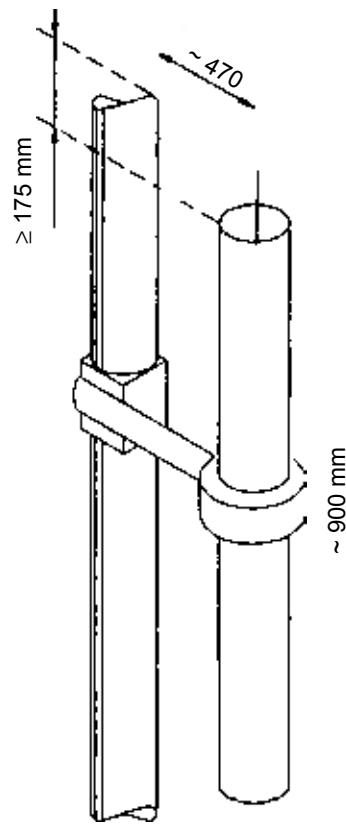
 Vertical
Radiation
Pattern
E Plane


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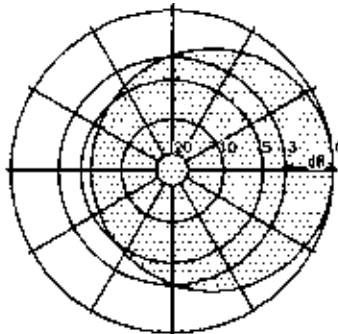
**OMNIDIRECTIONAL OFFSET-PATTERN ANTENNA
WS 301 13 10 8
146 - 174 MHz**



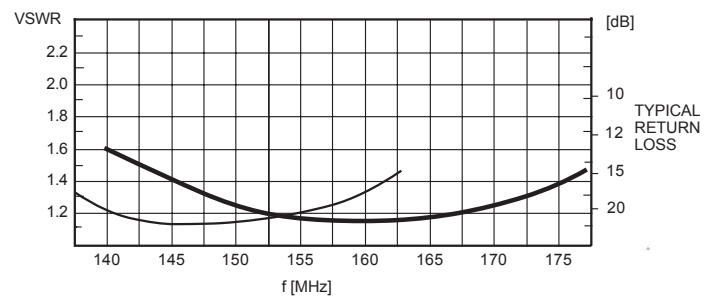
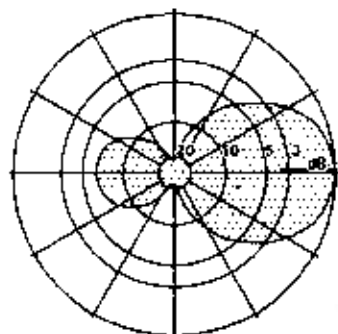
TYPE NO.	WS 301 13 10 8: 146 - 174 MHz further frequencies on request
POLARISATION	vertical
DESCRIPTION	heavy duty, with radome The radome protects the antenna dipole from environmental influences, icing, and increases the lightning protection.
IMPEDANCE	50 Ω
GAIN	2 dB (ref. λ/2 dipole)
VSWR	< 1.3, at the limits of the band <1.5
POWER	max. 150 watts
3 dB BEAMWIDTH	horizontal, H plane: 180° vertical, E plane: 75°
TERMINATION	2 m cable RG 213/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	<i>mast-ø</i> <i>clamps</i> 30 - 80 mm WG 17 (standard) 50 - 104 mm WG 18 (option) clamp for other mast-ø on request
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics, radome of UV-stabilized polyethylene
WEIGHT	3.7 kg
WIND AREA	0.093 m ²
WIND LOAD	120 N (150 km/h) 90 N (130 km/h)

Horizontal Radiation Pattern H Plane

MAST DIPOL



Vertical Radiation Pattern E Plane

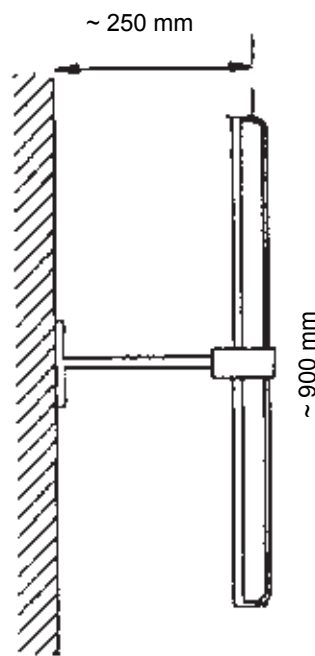


KW 1-08

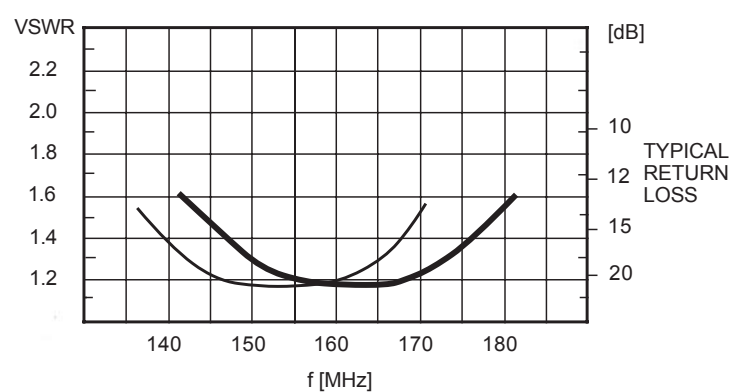
WIPIC reserves the right to amend specifications in the light of continuing development.

wipic

DIPOLE FOR WALL MOUNTING
WS 301 12 .9 .
137 ... 174 MHz



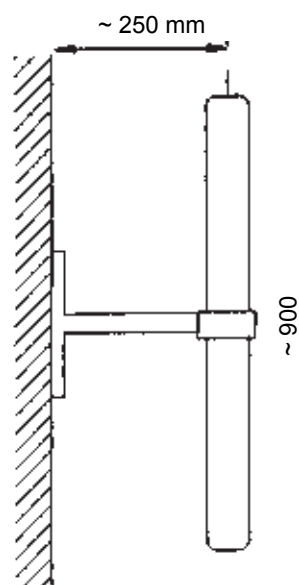
TYPE NO.	vertical polarization WS 301 12 19 8: 137 - 160 MHz WS 301 12 19 9: 146 - 174 MHz horizontal polarization WS 301 12 29 8: 137 - 160 MHz WS 301 12 29 9: 146 - 174 MHz further frequencies on request
IMPEDANCE	50 Ω
GAIN	0 - 6 dB (ref. λ/2 dipole), depends on wall material
VSWR	< 1.3, at the limits of the band <1.5
POWER	max. 150 watts
3 dB BEAMWIDTH	depends on wall material
TERMINATION	2 m cable RG 213/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	flange no. 12 on walls
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics
WEIGHT	1.3 kg
WIND AREA	0.04 m ²
WIND LOAD	51 N (150 km/h) 38 N (130 km/h)



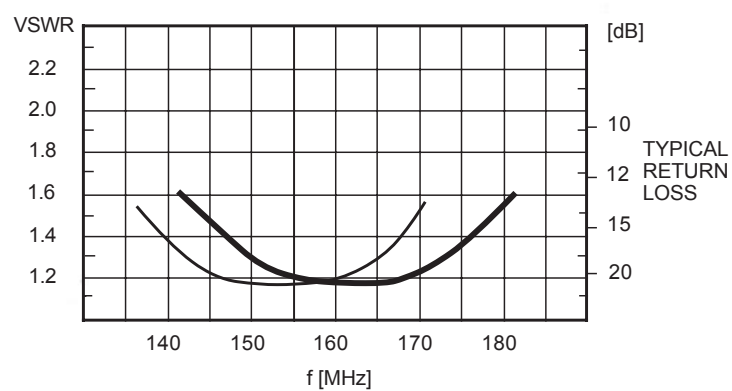
KW 1-08

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Section 3.1. 14/21

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DIPOLE FOR WALL MOUNTING
WS 301 13 .9 .
137 ... 174 MHz


TYPE NO.	vertical polarization WS 301 13 19 8: 137 - 160 MHz WS 301 13 19 9: 146 - 174 MHz horizontal polarization WS 301 13 29 8: 137 - 160 MHz WS 301 13 29 9: 146 - 174 MHz further frequencies on request
DESCRIPTION	heavy duty, with radome The radome protects the antenna dipole from environmental influences, icing, and increases the lightning protection.
IMPEDANCE	50 Ω
GAIN	0 - 6 dB (ref. $\lambda/2$ dipole), depends on wall material
VSWR	< 1.3, at the limits of the band <1.5
POWER	max. 150 watts
3 dB BEAMWIDTH	depends on wall material
TERMINATION	2 m cable RG 213/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	flange no. 13 on walls
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics, radome of UV-stabilized polyethylene
WEIGHT	3.7 kg
WIND AREA	0.093 m ²
WIND LOAD	120 N (150 km/h) 90 N (130 km/h)



KW 1-08

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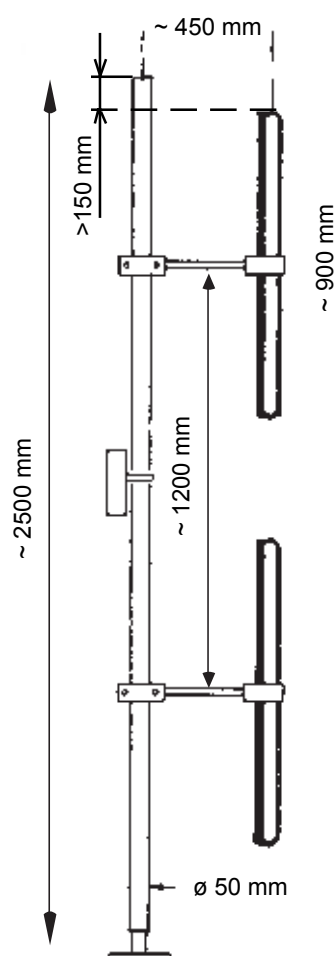
Section 3.1. 15/21

wipic

OMNIDIRECTIONAL OFFSET PATTERN GAIN ANTENNA

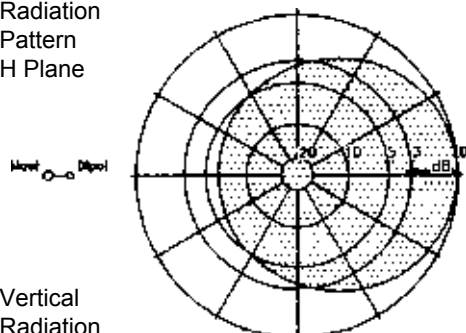
WS 301 12 11 8

146 - 174 MHz

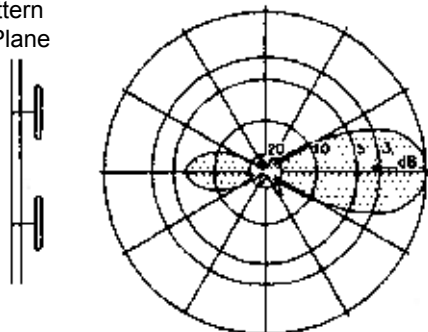


TYPE NO.	WS 301 12 11 8 : 146 - 174 MHz
	further frequencies or tilt on request
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	ref. λ/2 dipole 6 dB in forward direction 0 dB in reverse direction
VSWR	< 1.3, at the limits of the band <1.4
POWER	max. 300 watts
3 dB BEAMWIDTH	horizontal, H plane: 180° vertical, E plane: 40°
TERMINATION	in then junction box WAK 1 ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
DELIVERY	2 dipoles with junction and box WAK 1
MOUNTING	<i>mast-ø</i> <i>clamps</i> 30 - 80 mm WG 11 (standard) 50 - 104 mm WG 12 (option) clamp for other mast-ø on request
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics

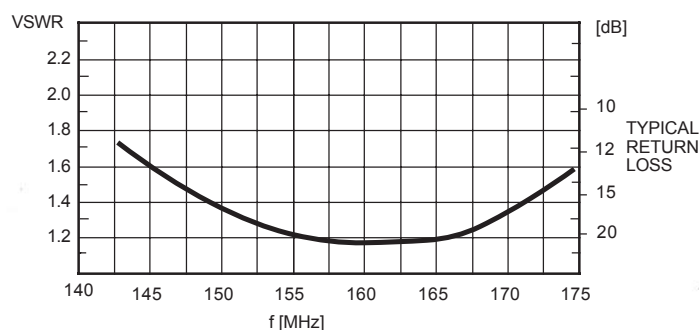
Horizontal
Radiation
Pattern
H Plane



Vertical
Radiation
Pattern
E Plane



WEIGHT	4.4 kg
WIND AREA	0.14 m ²
WIND LOAD	180 N (150 km/h) 135 N (130 km/h)



KW 1-08

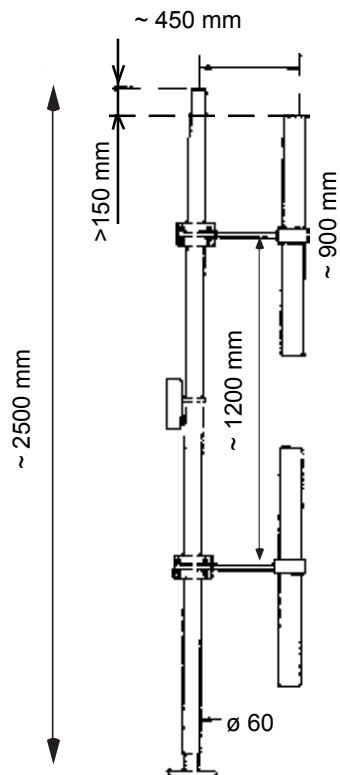
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OMNIDIRECTIONAL OFFSET PATTERN GAIN ANTENNA

WS 301 13 11 8

146 - 174 MHz



TYPE NO. WS 301 13 11 8 : 146 - 174 MHz

further frequencies or tilt on request

DESCRIPTION heavy duty, with radome
The radome protects the antenna dipole from environmental influences, icing, and increases the lightning protection.

POLARIZATION vertical

IMPEDANCE 50 Ω

GAIN ref. λ/2 dipole
6 dB in forward direction
0 dB in reverse direction

VSWR < 1.3, at the limits of the band <1.4

POWER max. 300 watts

3 dB BEAMWIDTH horizontal, H plane: 180°
vertical, E plane: 40°

TERMINATION in the junction box ending with N male
other termination on request

GROUNDING all metal parts are DC grounded

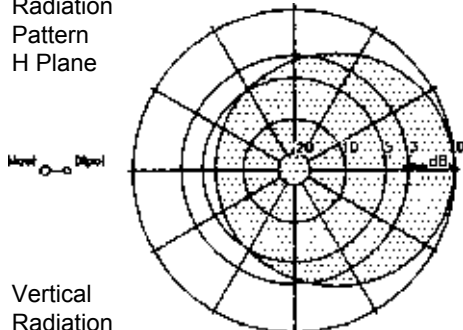
DELIVERY 2 dipoles with junction and box WAK 1

MOUNTING mast-ø clamps
30 - 80 mm WG 17 (standard)
50 - 104 mm WG 18 (option)
clamp for other mast-ø on request

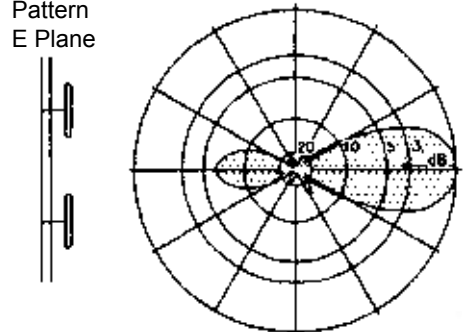
MATERIAL aluminium, bolts of stainless steel, weather-resistant plastics, radome of UV-stabilized polyethylene

WEIGHT 9 kg
WIND AREA 0.36 m²
WIND LOAD 460 N (150 km/h)
345 N (130 km/h)

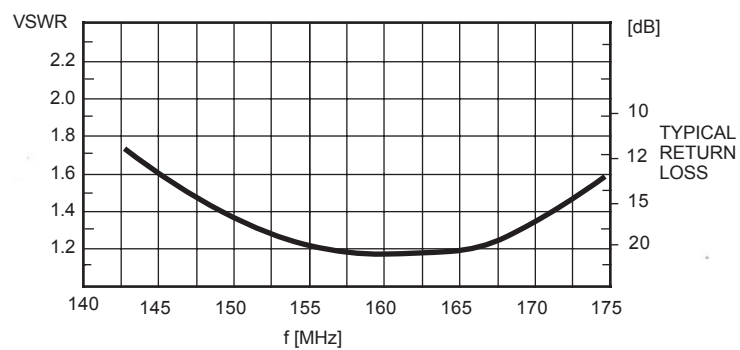
Horizontal Radiation Pattern H Plane



Vertical Radiation Pattern E Plane



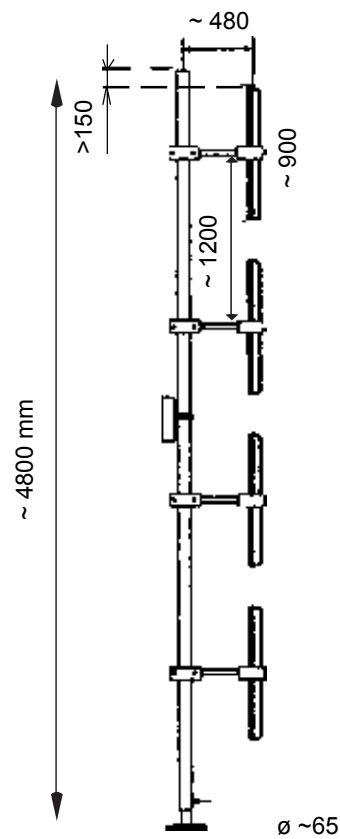
KW 1-08



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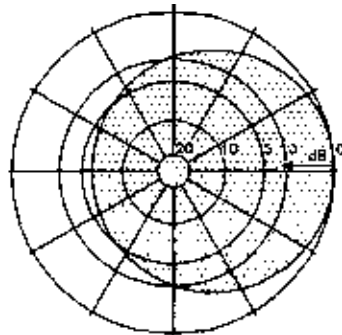


OMNIDIRECTIONAL OFFSET-PATTERN GAIN ANTENNA
WS 301 12 12 8
146 - 174 MHz

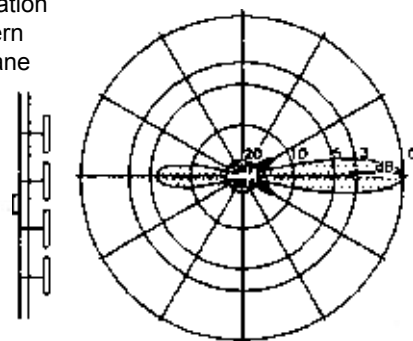


TYPE NO.	WS 301 12 12 8 : 146 - 174 MHz
	further frequencies or tilt on request
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	ref. λ/2 dipole 8 dB in forward direction 2 dB in reverse direction
VSWR	< 1.3, at the limits of the band <1.5
POWER	max. 500 watts
3 dB BEAMWIDTH	horizontal, H plane: 180° vertical, E plane: 20°
TERMINATION	in then junction box WAK 1 ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
DELIVERY	dipoles with junction and box WAK 1
MOUNTING	<i>mast-ø</i> <i>clamps (see chapt. 10)</i> 30 - 80 mm WG 11 (standard) 50 - 104 mm WG 12 (option) clamp for other mast-ø on request
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics

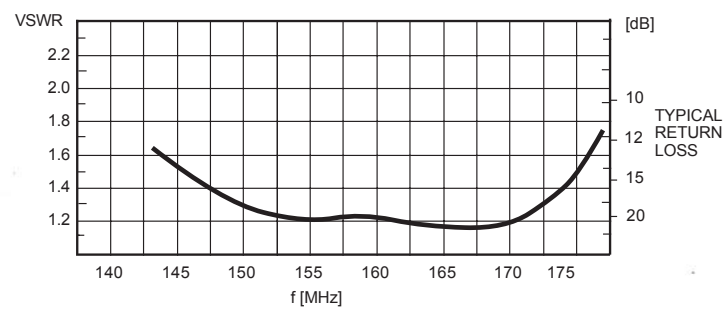
Horizontal
Radiation
Pattern
H Plane
MAST DIRECTION
C →



Vertical
Radiation
Pattern
E Plane



WEIGHT	8.3 kg
WIND AREA	0.21 m ²
WIND LOAD	270 N (150 km/h) 200 N (130 km/h)

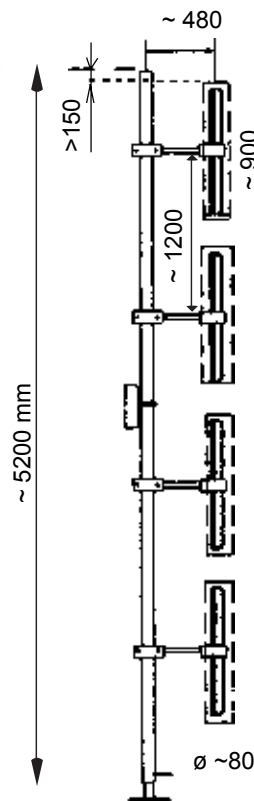


KW 1-08

WIPIC reserves the right to amend specifications in the light of continuing development.

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**OMNIDIRECTIONAL OFFSET-PATTERN GAIN ANTENNA
WS 301 13 12 8
146 - 174 MHz**



TYPE NO.	WS 301 13 12 8 : 146 - 174 MHz
	further frequencies or tilt on request
DESCRIPTION	heavy duty, with radome The radome protects the antenna dipoles from environmental influences, icing, and increases the lightning protection.
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	ref. λ/2 dipole 8 dB in forward direction 2 dB in reverse direction
VSWR	< 1.3, at the limits of the band <1.5
POWER	max. 500 watts
3 dB BEAMWIDTH	horizontal, H plane: 180° vertical, E plane: 20°
TERMINATION	in the junction box ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
DELIVERY	4 dipoles with junction and box WAK 1

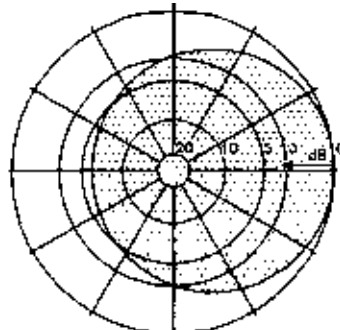
MOUNTING	<i>mast-ø</i> <i>clamp</i>
	30 - 80 mm WG 17 (standard)
	50 - 104 mm WG 18 (option)
	clamp for other mast-ø on request

MATERIAL aluminium, bolts of stainless steel, weather-resistant plastics, radome of UV-stabilized polyethylene

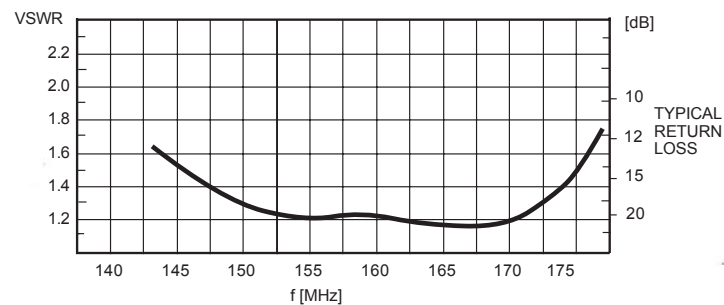
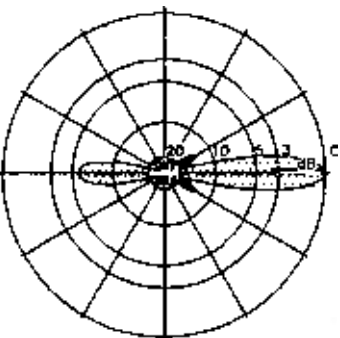
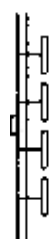
WEIGHT	14 kg
WIND AREA	0.48 m ²
WIND LOAD	620 N (150 km/h) 460 N (130 km/h)

Horizontal Radiation Pattern H Plane

MAST DIPOLE



Vertical Radiation Pattern E Plane

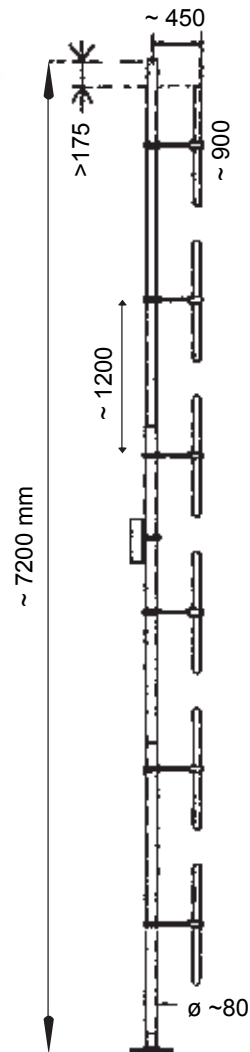


KW 9-01

WIPIC reserves the right to amend specifications in the light of continuing development.



**OMNIDIRECTIONAL OFFSET-PATTERN ANTENNA
WS 301 12 13 .
144 ... 174 MHz**



TYPE NO. WS 301 12 13 7 : 144 - 155 MHz
WS 301 12 13 8 : 152 - 165 MHz
WS 301 12 13 9 : 162 - 174 MHz
further frequencies or tilt on request

POLARIZATION vertical

IMPEDANCE 50 Ω

GAIN ref. λ/2 dipole
10 dB in forward direction
4 dB in reverse direction

VSWR < 1.3, at the limits of the band <1.4

POWER max. 600 watts, higher ratings on request

3 dB BEAMWIDTH horizontal, H plane: 180°
vertical, E plane: 12°

TERMINATION in then junction box WAK 1 ending with N male
other termination on request

GROUNDING all metal parts are DC grounded

DELIVERY 6 dipoles with junction and box WAK 1

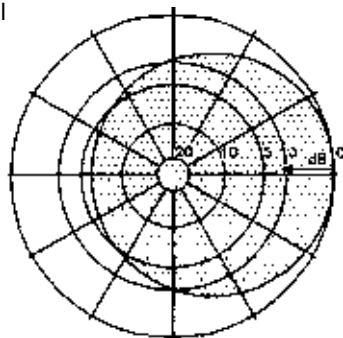
MOUNTING mast-ø mounting clamps
30 - 80 mm WG 11 (standard)
50 - 104 mm WG 12 (option)
clamp for other mast-ø on request

MATERIAL aluminium, bolts of stainless steel, weather-resistant
plastics

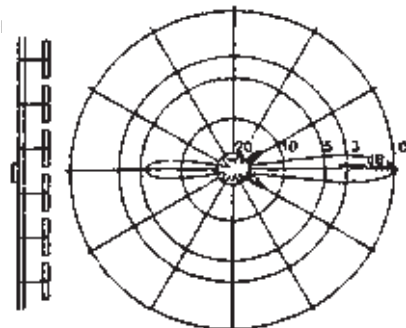
WEIGHT 4.4 kg
WIND AREA 0.14 m²
WIND LOAD 180 N (150 km/h)
135 N (130 km/h)

Horizontal
Radiation
Pattern
H Plane

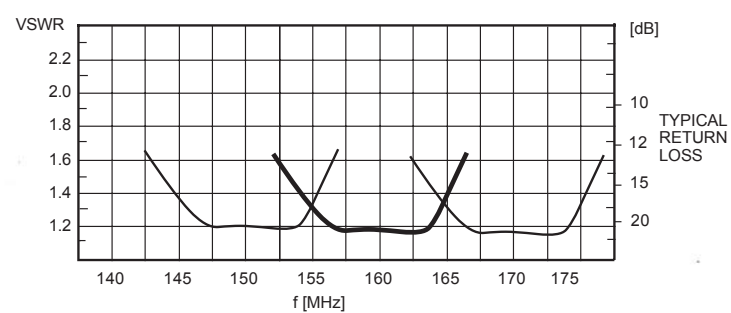
MAST DIPOLE
C →



Vertical
Radiatio
Pattern
E Plane



KW 1-08

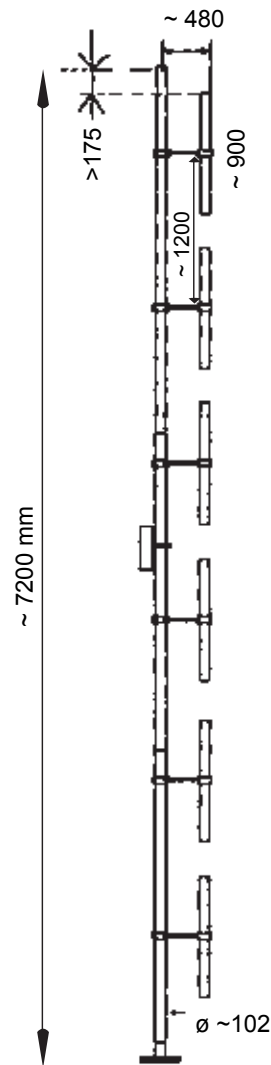


WIPIC reserves the right to amend specifications in the light of continuing development.

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OMNIDIRECTIONAL OFFSET-PATTERN ANTENNA

**WS 301 13 13 .
144 ... 174 MHz**



TYPE NO.
WS 301 13 13 7 : 144 - 155 MHz
WS 301 13 13 8 : 152 - 165 MHz
WS 301 13 13 9 : 162 - 174 MHz
 further frequencies or tilt on request

DESCRIPTION heavy duty, with radome
 The radome protects the antenna dipoles from environmental influences, icing, and increases the lightning protection.

POLARIZATION vertical

IMPEDANCE 50 Ω

GAIN ref. λ/2 dipole
 10 dB in forward direction
 4 dB in reverse direction

VSWR < 1.3, at the limits of the band <1.4

POWER max. 600 watts, higher ratings on request

3 dB BEAMWIDTH horizontal, H plane: 180°
 vertical, E plane: 12°

TERMINATION in the junction box ending with N male
 other termination on request

GROUNDING all metal parts are DC grounded

DELIVERY 6 dipoles with junction and box WAK 1

MOUNTING
mast-ø *clamp*
 30 - 80 mm WG 17 (standard)
 50 - 104 mm WG 18 (option)
 clamp for other mast-ø on request

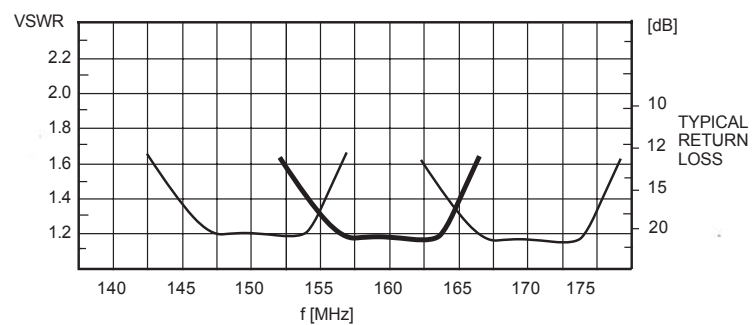
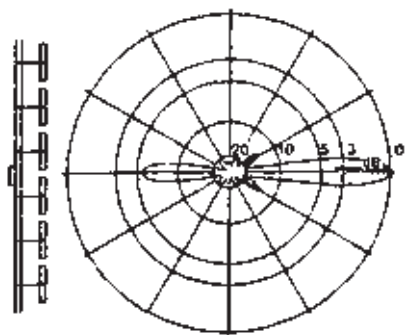
MATERIAL aluminium, bolts of stainless steel, weather-resistant plastics, radome of UV-stabilized polyethylene

WEIGHT 27 kg
WIND AREA 0.6 m²
WIND LOAD 766 N (150 km/h)
 580 N (130 km/h)

Horizontal Radiation Pattern H Plane



Vertical Radiation Pattern E Plane



KW 1-08

WIPIC reserves the right to amend specifications in the light of continuing development.