

wipic-Antennas

GENERAL INDEX

SECTION NO.	BAND	TYPES	WS ...
Section 1.	10 - 42 MHz	all antennas	100-186
Section 2.1.	68 - 87.5 MHz	omnidirectional antennas	200-201
Section 2.2.	68 - 87.5 MHz	directional antennas	202-280
Section 3.1.	146 - 174 MHz	omnidirectional antennas	300-301
Section 3.2.	146 - 174 MHz	directional antennas	302-380
Section 4.1.	225 - 480 MHz	omnidirectional antennas	400-401
Section 4.2.	225 - 480 MHz	directional antennas	402-480
Section 5.	25 - 1900 MHz	mobile antennas	F20-F60
Section 6.	860 - 1100 MHz	all antennas	600-641
Section 7.	1100 - 2800 MHz	all antennas	700-702
Section 8.1.	87.5 - 108 MHz	omnidirectional antennas	U00-U01
Section 8.2.	87.5 - 108 MHz	directional antennas	U02-U57
Section 9.	108 - 144 MHz	all antennas	A00-A80
Section 9.5.	accessoires	couplers, power splitters, junction boxxes cables, clamps, brackets, flanges	WCP-WG
Section 9.7.	broad cast	receiving antennas for TV and FM bands	F../U..
Section 9.9.	Technical Information	Antenna Fundamentals	

KW10-08



Antennas for 10 - 42 MHz

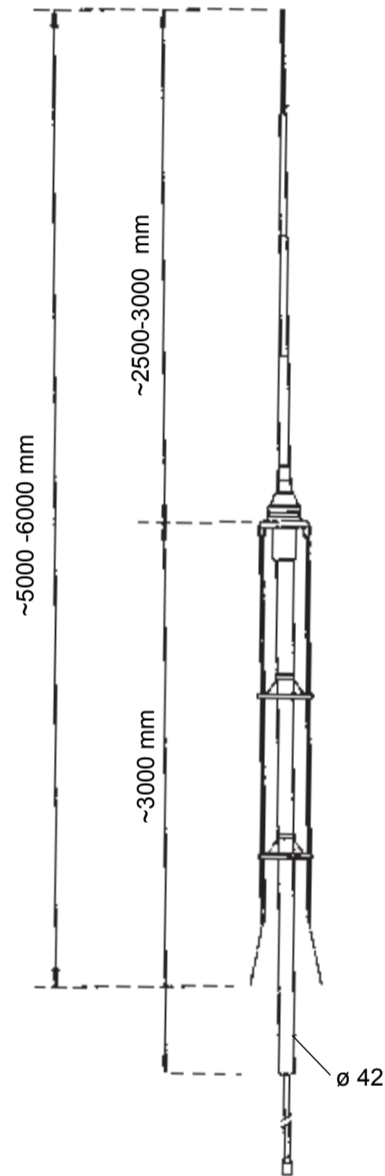
TYPE

ORDER NUMBER

WS 100 31 11	omnidirectional
WS 100 31 12	omnidirectional
WS 100 61 4	omnidirectional, heavy duty
WS 100 62 4	omnidirectional, heavy duty
WS 100 86 1	omnidirectional, adjustable
WS 100 92 1	discone
WS 101 05 10 .	3 dB offset pattern antenna
WS 101 32 1. .	short dipole for wall and mast mounting
WS 102 05 11 .	2 element yagi
WS 151/3 05 13 .	directional antenna type Kleewi
WS 180 22 31 6	logper 30 -1100 MHz
WS 186 21 23 2	logper 13 - 24 MHz, low weight

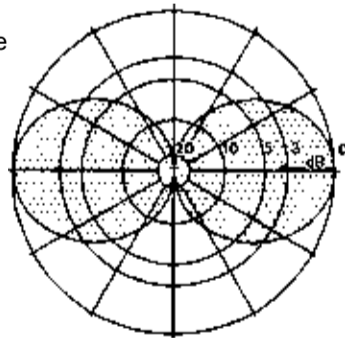
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**OMNIDIRECTIONAL ANTENNA
WS 100 31 11
25 ... 30 MHz**

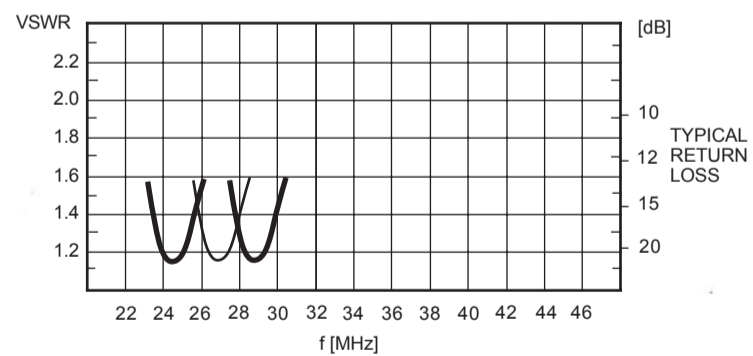


TYPE NO.	WS 100 31 11 (requested frequency) tuned on the requested frequency between 25 and 30 MHz
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. to λ/2 dipole)
VSWR	< 1.3 on tuned freq.
POWER	500 watts
3 dB BEAMWIDTH	horizontal (H-plane) 360° vertical (E-plane) 78°
TERMINATION	N male, cable must not be shortened (impedance transformer)
GROUNDING	radiator not grounded
MOUNTING	on mast with inner diameter 42 mm, reductions for other diameters on request
MATERIAL	aluminium, bolts of stainless steel
WEIGHT	4.2 kg
WIND AREA	0.31 m ²
WIND LOAD	400 N (150 km/h) 300 N (130 km/h)

Vertical
Radiation
Pattern
E Plane



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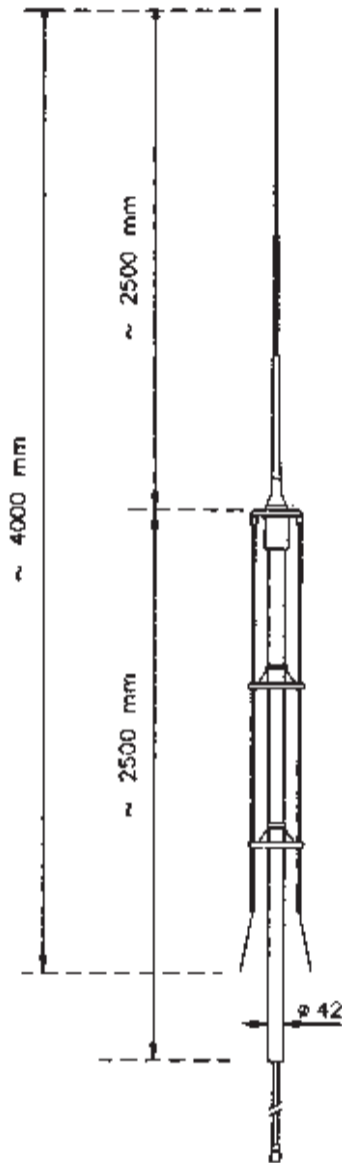
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OMNIDIRECTIONAL ANTENNA

WS 100 31 12

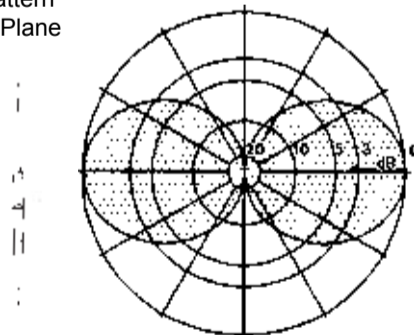
30 ... 38 Mhz



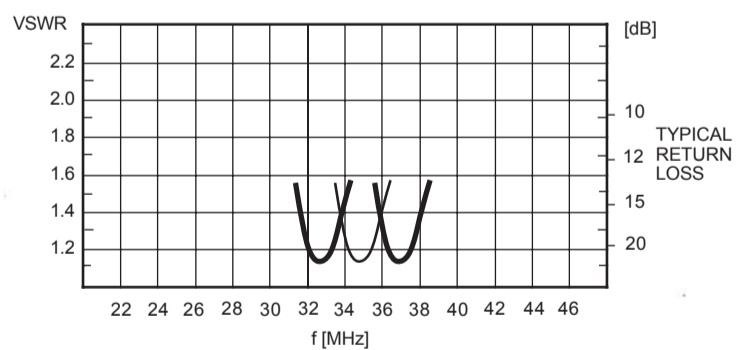
WS 100 31 12 (tuned to the requested frequency)

POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 1.3 on tuned frequency
POWER	500 watts
3 dB BEAMWIDTH	horizontal (H-plane) 360° vertical (E-plane) 78°
TERMINATION	UHF-male, cable must not be shortened (impedance transformer)
MOUNTING	on mast with inner diameter 42 mm. reductions for other diameters on request
MATERIAL	aluminium, bolts of stainless steel
WEIGHT	4.2 kg
WIND AREA	0.31 m ²
WIND LOAD	400 N (150 km/h) 300 N (130 km/h)

Vertical Radiation Pattern E Plane



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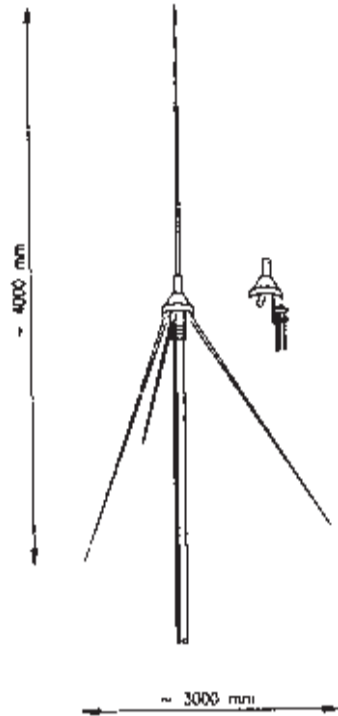


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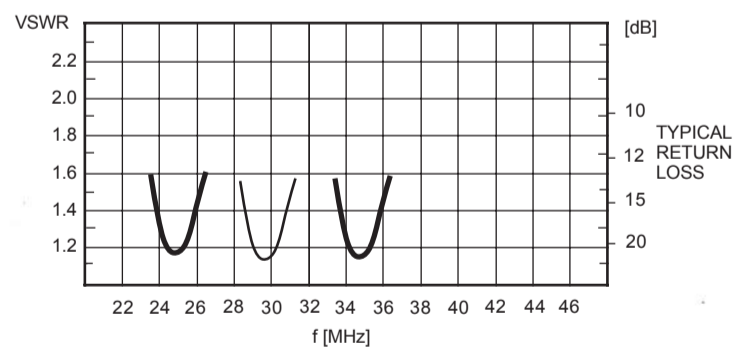
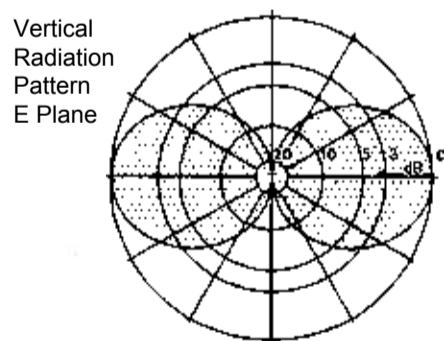
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OMNIDIRECTIONAL ANTENNA

WS 100 61 4
25 ... 42 MHz



TYPE NO.	WS 100 61 4 (and requested frequency)
DESCRIPTION	heavy duty, tuned on desired frequency
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 1.3, on tuned frequency
POWER	max. 500 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° vertical, E plane: 78°
TERMINATION	N female (other termination on request)
GROUNDING	radiator not grounded
MOUNTING	to 40 - 80 mm ø mast cable running inside or outside the mast
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics, UV-stabilized plastics
WEIGHT	3.4 kg
WIND AREA	0.15 m ²
WIND LOAD	190 N (150 km/h) 145 N (130 km/h)



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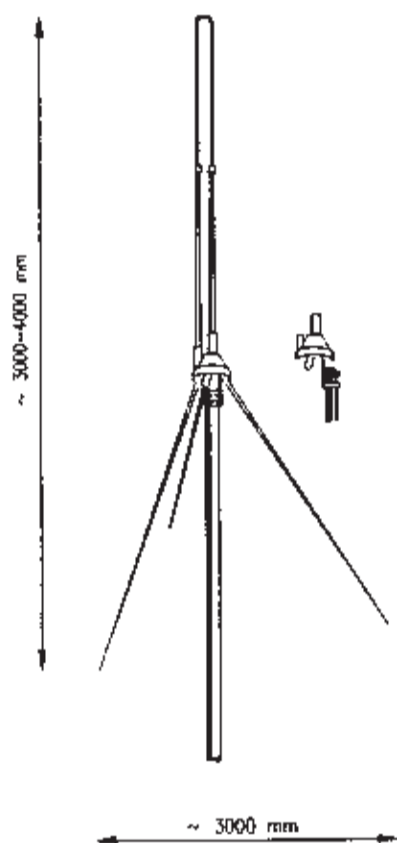
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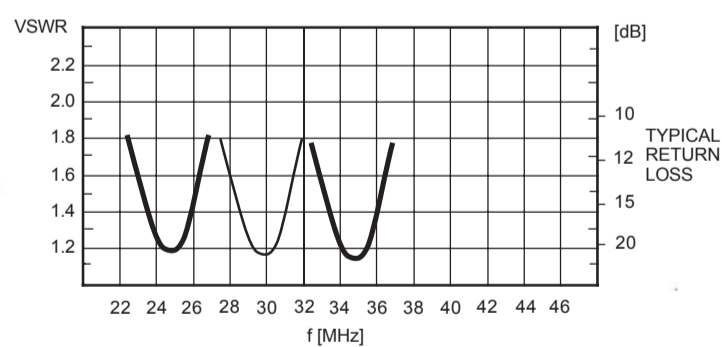
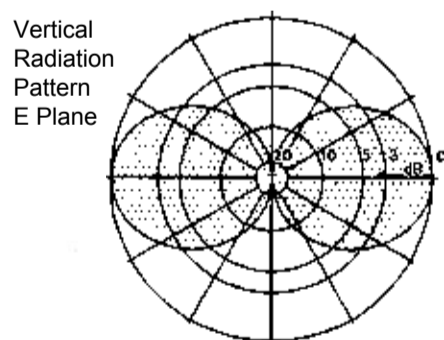
OMNIDIRECTIONAL ANTENNA

WS 100 62 4

25 ... 42 MHz

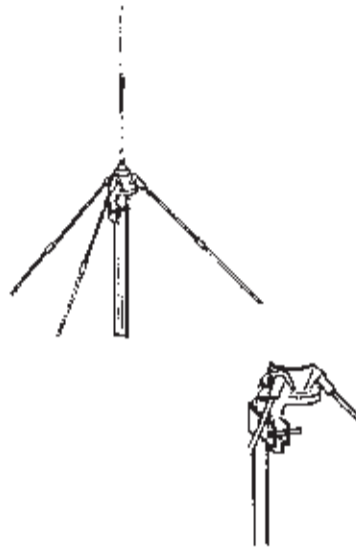


TYPE NO.	WS 100 62 4 (and requested frequency) further frequencies on request
DESCRIPTION	heavy duty, tuned on the requested frequency
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 1.3, on tuned frequency
POWER	max. 500 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° vertical, E plane: 78°
TERMINATION	~ 2 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 - 80 mm ø mast cable running inside or outside the mast
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics, UV-stabilized plastics
WEIGHT	3.8 kg
WIND AREA	0.18 m ²
WIND LOAD	240 N (150 km/h) 180 N (130 km/h)

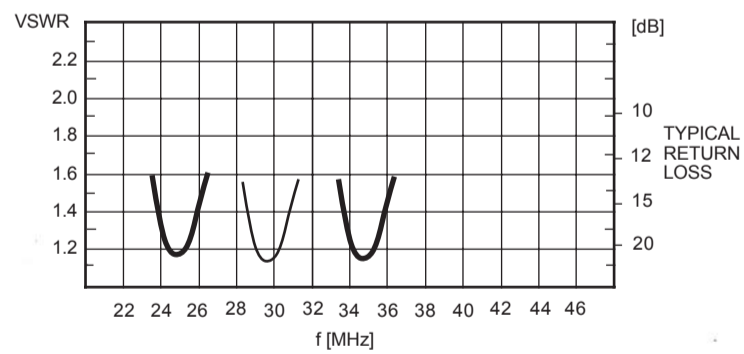
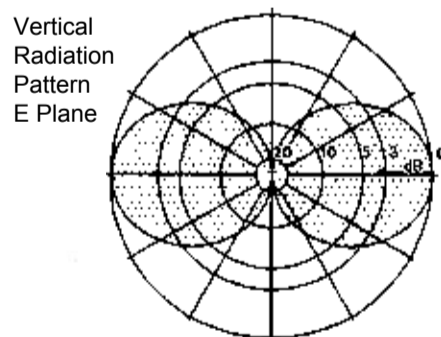


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**OMNIDIRECTIONAL ANTENNA
WS 100 86 1 adjustable
30 ... 42 MHz**


TYPE NO.	WS 100 86 1: 30 ... 42 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
MOUNTING	to 40 - 66 mm ø mast cable runs inside or outside the mast
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics
WEIGHT	2.4 kg
WIND AREA	0.13 m ²
WIND LOAD	166 N (150 km/h) 125 N (130 km/h)



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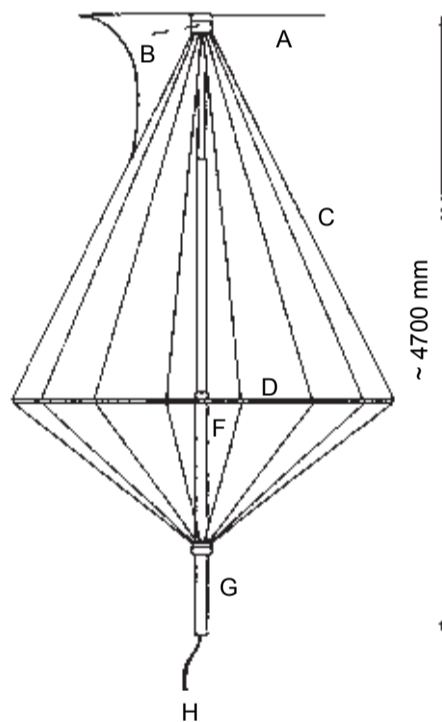
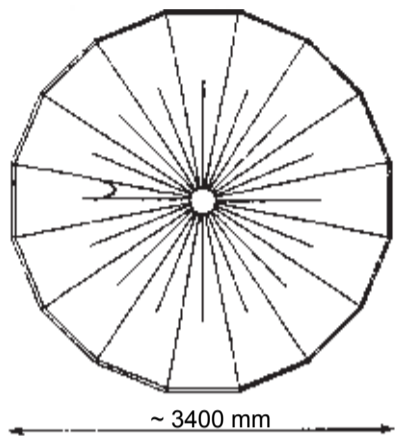
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Section 1. 6/13

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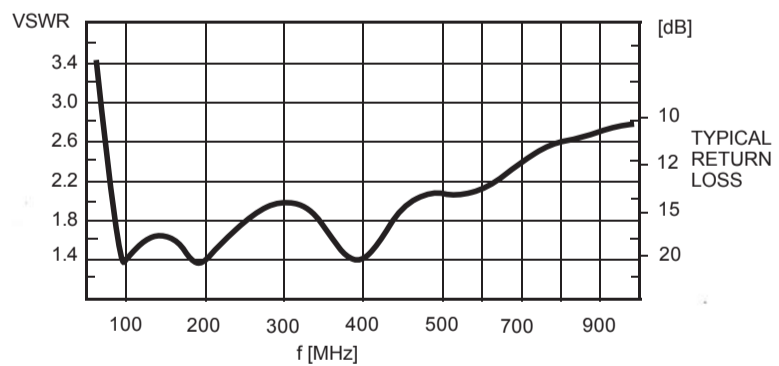
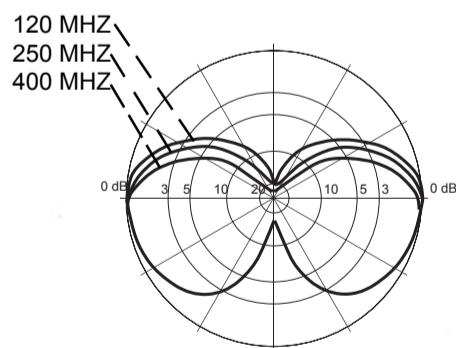
**DISCONE ANTENNA
WS 100 92 1
30 - 1000 MHz**

*New:
radiator grounded!*



TYPE NO.	WS 100 92 1: 30 -1000 MHz
POLARISATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 2.2 (30 - 500 MHz) < 2.8 (30 - 1000 MHz)
POWER	max. 500 watts (depending on frequency)
3 dB BEAMWIDTH	horizontal, E plane: omnidirectional
TERMINATION	~ 1 m cable RG 213/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics, uv-stabilized plastics A radiators alu B insulator weather-resistant plastics C cable stainless steel D polygon alu E cable aramid (Kevlar) F tube ø 71 alu G tube ø 80 alu H cable RG 213/U ending with N male
WEIGHT	30 kg
WIND AREA	0.74 m ²
WIND LOAD	950 N (150 km/h) 710 N (130 km/h)

**VERTICAL RADIATION PATTERN
(E PLANE)**

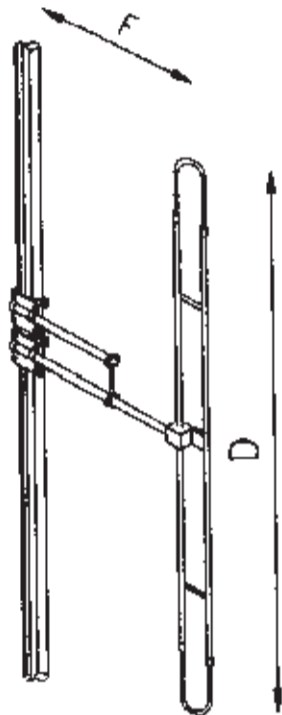


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**OMNIDIRECTIONAL OFFSET PATTERN ANTENNA , REINFORCED
WS 101 05 10 .
35 - 43 MHz**



TYPE NO.	WS 101 05 10 6 : 35 - 37 MHz WS 101 05 10 7 : 37 - 39 MHz WS 101 05 10 8 : 39 - 41 MHz WS 101 05 10 9 : 41 - 43 MHz further frequencies on request		
DESCRIPTION	heavy duty		
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:	180°	
	vertical, E plane:	75°	
TERMINATION	6 m cable RG 213/U ending with N female other termination on request		
GROUNDING	all metal parts are DC grounded		
MOUNTING	mast-ø	mounting clamps	
	30 - 80 mm	2xWG 17 (standard)	
	50 - 104 mm	2xWG 18 (option)	
	clamp for other mast-ø on request		

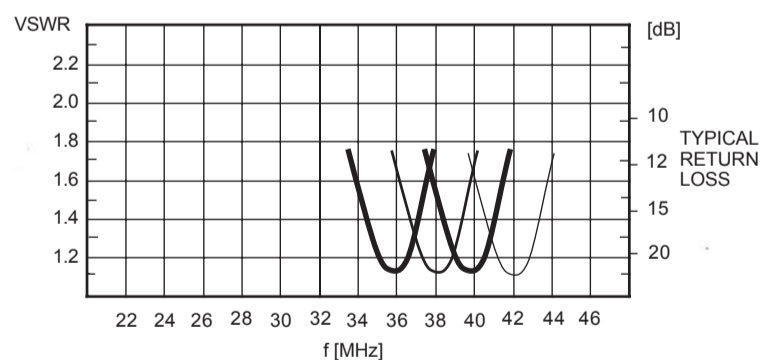
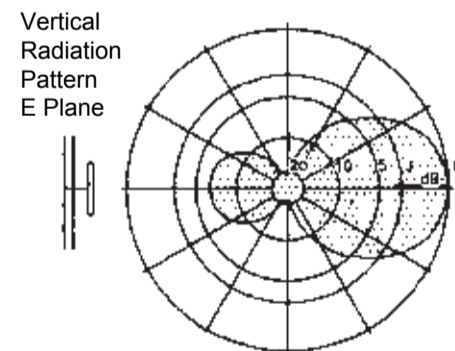
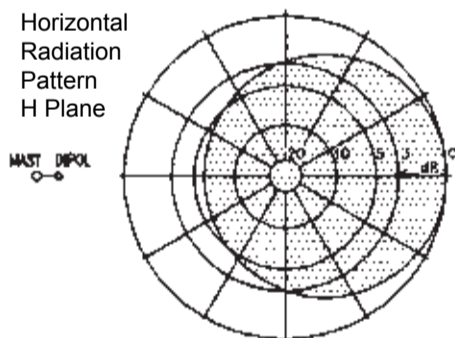
MATERIAL aluminium, bolts of stainless steel, weather-resistant plastics

WEIGHT 12 kg

**WIND AREA
WIND LOAD**

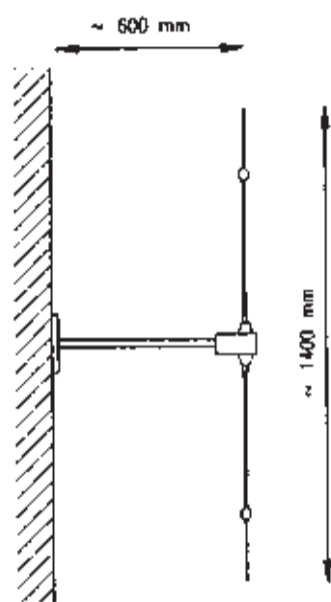
TYPE	dimensios D	F	wind area m ²	wind load 150 km/h
WS..6	3800	1100	0.38	485 N
WS..7	3600	1020	0.35	450 N
WS..8	3400	960	0.33	410 N
WS..9	3200	900	0.29	370 N

(appr. datas)

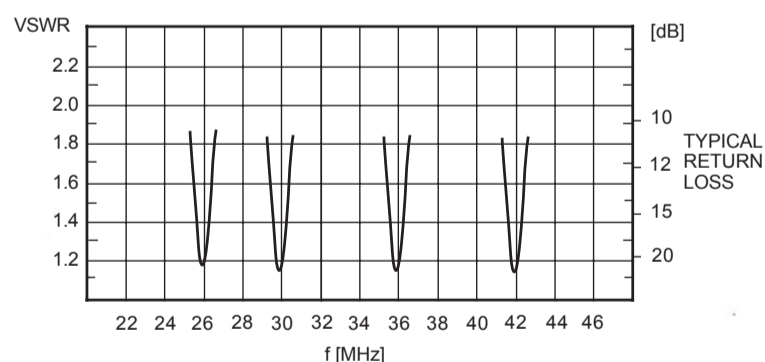


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SHORT DIPOLE FOR MAST AND WALL MOUNTING
WS 101 32 1. .
26 ... 44 MHz


TYPE NO.	WS 101 32 10 8: 26 - 32 MHz (mast mounting) WS 101 32 10 9: 35 - 44 MHz (mast mounting) WS 101 32 19 8: 25 - 32 MHz (wall mounting) WS 101 32 19 9: 35 - 44 MHz (wall mounting) further frequencies on request
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0-3 dB (ref. λ/2 dipole) depending on wall material
VSWR	< 1.3 on tuned frequency tuning by customer
POWER	max. 15 watts
TERMINATION	2 m cable RG 213/U ending with UHF male other termination on request
GROUNDING	dipole not grounded
MOUNTING	mast mounting with WG 15 or WG16 (see chapter 10) wall mounting mast mounting on request
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics
WEIGHT	1.3 kg
WIND AREA	0.04 m ²
WIND LOAD	50 N bei 150 km/h 38 N bei 130 km/h



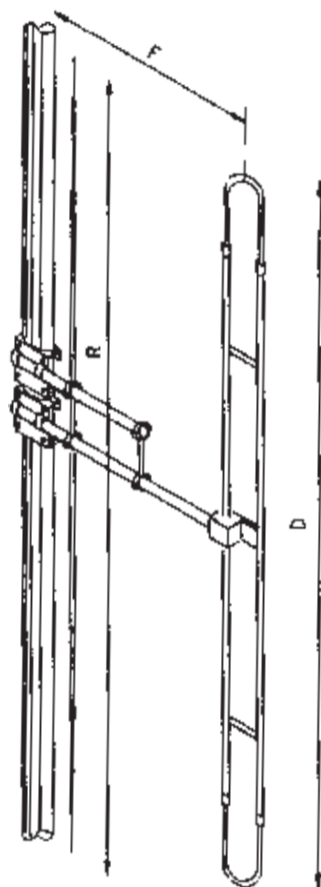
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Section 1. 9/13

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**TWO ELEMENT YAGI ANTENNA
WS 102 05 11 .
30 ... 42 MHz**



TYPE NO. WS 102 05 11 4 : 30 - 31 MHz
 WS 102 05 11 5 : 31 - 33 MHz
 WS 102 05 11 6 : 33 - 35 MHz
 WS 102 05 11 7 : 35 - 37 MHz
 WS 102 05 11 8 : 37 - 39 MHz
 WS 102 05 11 9 : 39 - 42 MHz
 further frequencies on request

DESCRIPTION heavy duty

POLARIZATION vertical

IMPEDANCE 50 Ω

GAIN 3.5 dB (ref. λ/2 dipole)

VSWR <1.4

POWER max. 500 watts

3 dB BEAMWIDTH horizontal, H-plane: 130°
 vertical, E-plane: 74°

TERMINATION 6 m cable RG 213/U ending with N female
 other termination on request

GROUNDING all metal parts are DC grounded

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

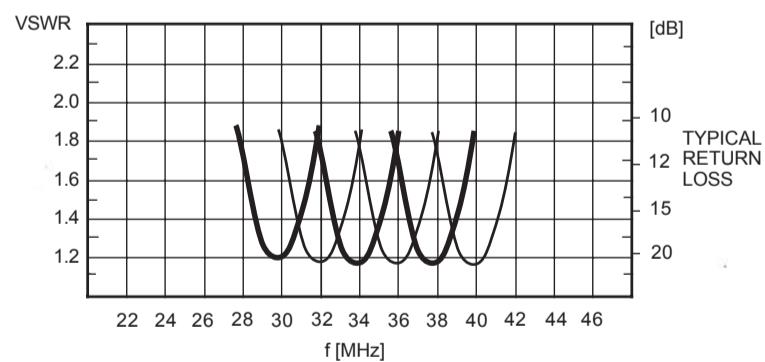
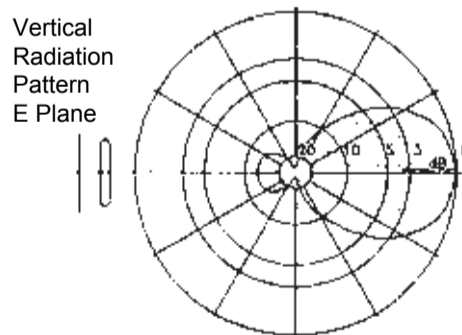
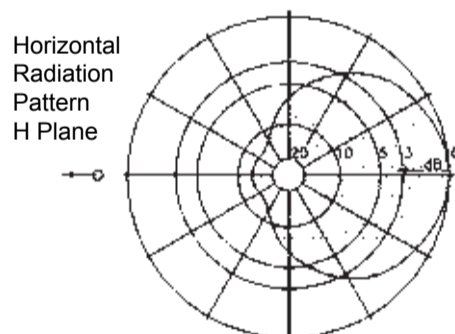
MATERIAL aluminium, bolts of stainless steel, weather-resistant plastics

WEIGHT ~ 15 kg

**WIND AREA
WIND LOAD**

TYPE	dimensions D R F	wind area m ²	windload 150 km/h
WS..4	4500 5400 1850	0.48	620 N
WS..5	4200 4900 1700	0.45	580 N
WS..7	3800 4500 1600	0.42	540 N
WS..9	3400 4000 1450	0.30	500 N

(approx. datas)

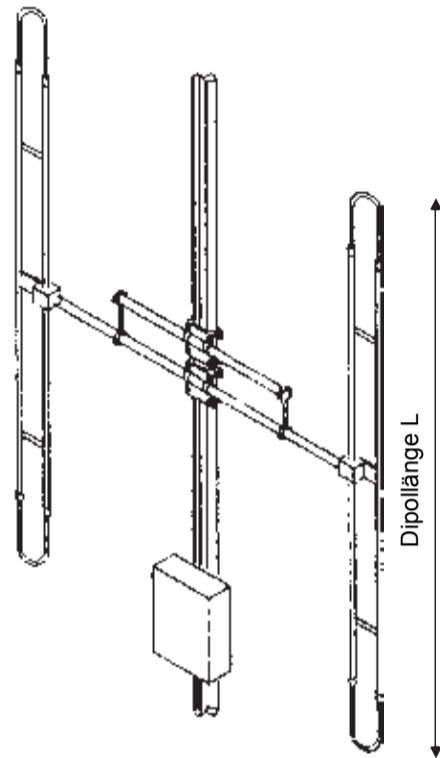


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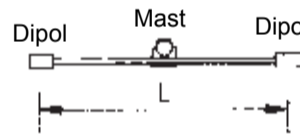
BIDIRECTIONAL ANTENNA
WS 151 05 13 . and WS 153 05 13 .
34 ... 42 MHz



TYPE NO.	WS 151 05 13 6, WS 153 05 13 6:	34 - 36 MHz
	WS 151 05 13 7, WS 153 05 13 7:	36 - 38 MHz
	WS 151 05 13 8, WS 153 05 13 8:	38 - 40 MHz
	WS 151 05 13 9, WS 153 05 13 9:	40 - 42 MHz

DESCRIPTION	heavy duty
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	3 dB (ref λ/2 dipole)
VSWR	≤ 1.3
POWER	600 watts
3 dB BEAM WIDTH	horizontal (H plane): see radiation patterns vertical (E plane): ~ 78° please give pattern no. when ordering
TERMINATION	in the junction box WAK 1 ending with N female other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	<i>mast-ø</i> <i>clamp</i> 30 - 80 mm 2xWG 17 (standard) 50 - 104 mm 2xWG 18 (option) other clamps on request

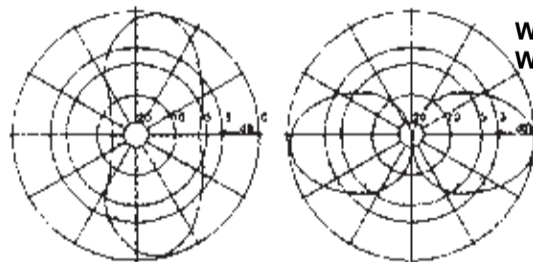
HORIZONTAL RADIATION PATTERN
H PLANE



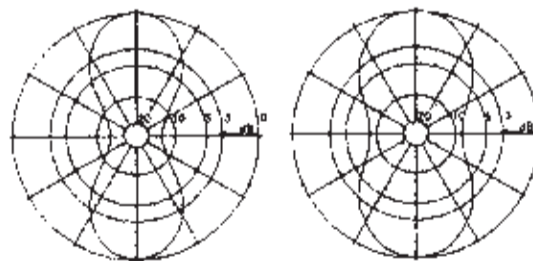
MATERIAL aluminium, bolts of stainless steel, weather-proof plastics

WEIGHT 20 kg

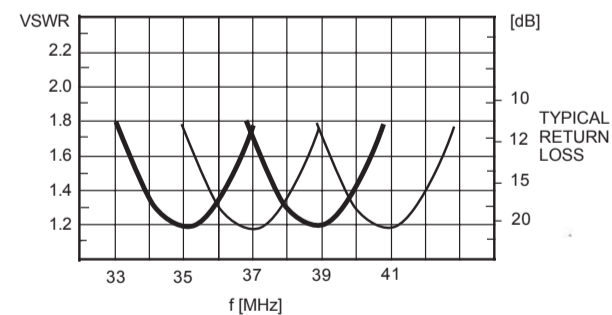
TYPE	wind area in mm ²	windload 150 km/h	length of dipole in mm
WS .. 6	0.76	970 N	3900
WS .. 7	0.7	895 N	3800
WS .. 8	0.62	790 N	3500
WS .. 9	0.58	740 N	3300



WS 151 ... Diagramm No. 3 WS 151 ... Diagramm No. 4
L ~ 3300 mm L ~ 2300 mm

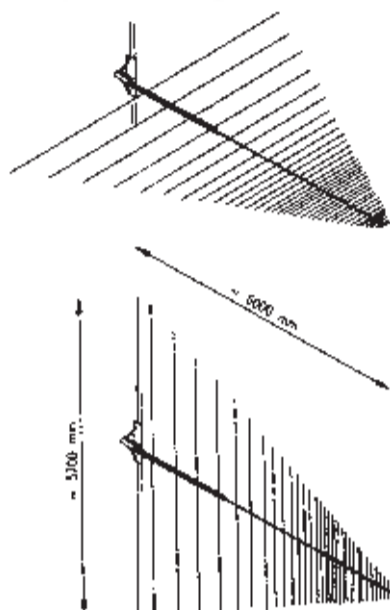


WS 153 ... Diagramm No. 1 WS 153 ... Diagramm No. 2
L ~ 4200 mm L ~ 3300 mm

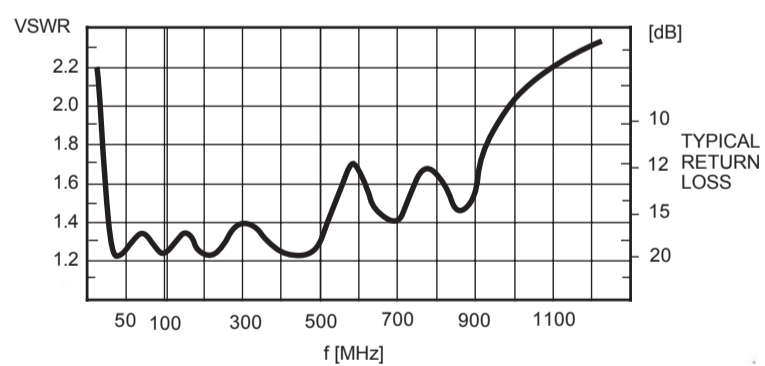


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**LOG PERIODIC ANTENNA
WS 180 22 31 6
30 - 1100 MHz**


TYPE NO.	WS 180 22 31 6: 30 - 1100 MHz
POLARIZATION	vertikal or horizontal
IMPEDANCE	50 Ω
GAIN	5-6 dB ref. $\lambda/2$ Dipol F/B = 16 - 25 dB
VSWR	< 1.8 30 - 500 MHz < 2.4 500 - 1100 MHz
POWER	max. 150 watts (depending on frequency)
3 dB BEAMWIDTH	E-plane: 70 - 80° H-plane: 90 - 100°
TERMINATION	2 m cable RG 213/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	mast- \emptyset clamp 50 - 104 mm WG 51 - 50-104 clamp for other mast- \emptyset on request
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics
WEIGHT	27 kg
WIND AREA	0.65 m ²
WIND LOAD	830 N 150 km/h 620 N 130 km/h



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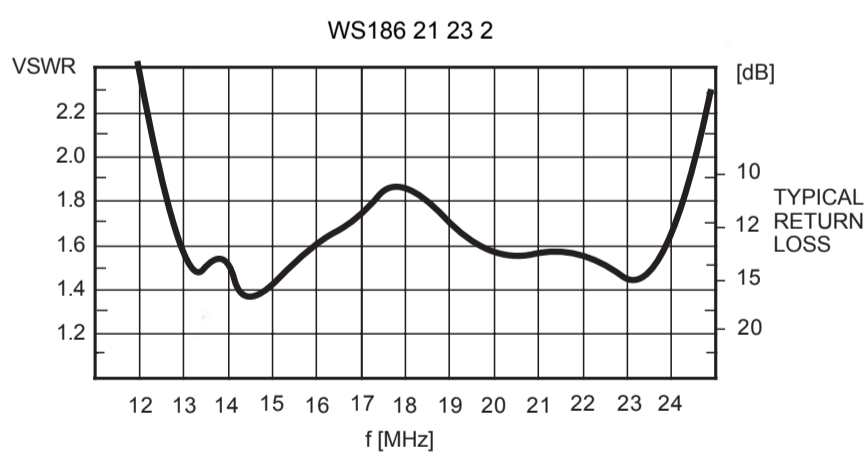
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Section 1. 12/13




LOG PERIODIC ANTENNA
WS 186 21 23 2
13 - 24 MHz

TYPE NO.	WS 186 21 23 2: 13 - 24 MHz
DESCRIPTION	small size, low weight, high performance, designet for shipping by air
POLARIZATION	horizontal
IMPEDANCE	50 Ω
GAIN	5 - 6 dB (ref. $\lambda/2$ dipole)
VSWR	1.3 - 1.9
POWER	max. 5000 watts
3 dB BEAMWIDTH	horizontal: 70 - 80°
TERMINATION	UHF chassis female (SO 239) other termination on request
BALUN	coil with 5 turns in the feeding cable near the termination (not included)
GROUNDING	all metal parts are DC grounded
MOUNTING	mast- \emptyset clamp 50 - 104 mm WG 51 - 50-104 clamp for other mast- \emptyset on request
MATERIAL	aluminium, bolts of stainless steel, Delrin
DIMESIONS	length over all: 6.2 m longest element: 11.5 m shortest element: 4.3 m longest element for shipping: 2.5 m
WEIGHT	16 kg
WIND AREA	0.94 m ²
WIND LOAD	1200 N at 150 km/h 900 N at 130 km/h



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