

Directional Antenna

174 – 230 MHz

K 52 30 57, K 52 30 51

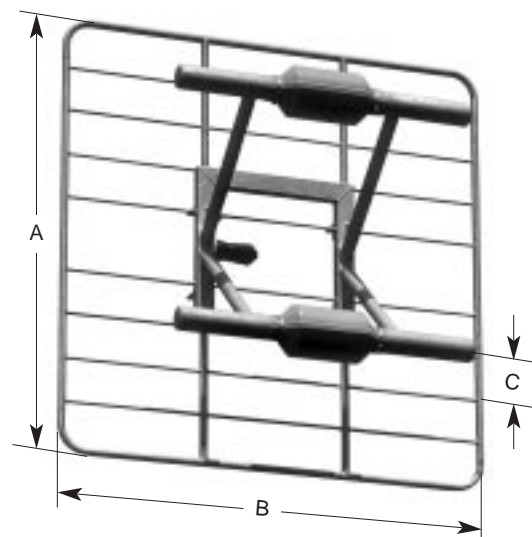
KATHREIN

Antennen · Electronic

SITEL Caponago Tel.02 / 95.74.36.09

- Broadband directional antenna of hot-dip galvanized steel.
- Especially suitable for square and round masts.

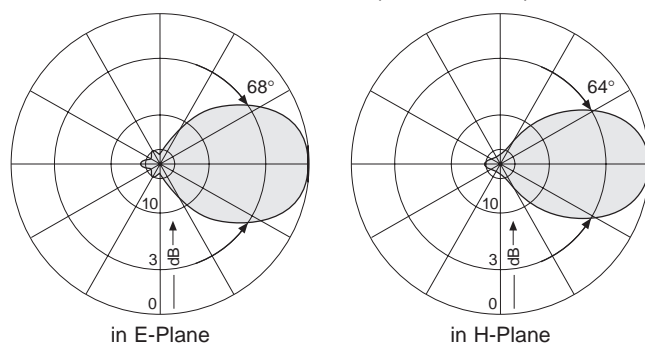
Type No.	K 52 30 57	K 52 30 51
Input	7-16 female	N female
Frequency range	174 – 230 MHz	
VSWR	< 1.08	
Gain (ref. to $\lambda/2$ -dipole)	8 dB at mid-band	
Impedance	50 Ω	
Polarization	Horizontal or vertical	
Max. power	2 kW	1 kW
	(higher power upon request)	
Weight	23 kg	
Wind load (at 160 km/h)		
Horizontal	frontal / lateral: 750 N / 315 N	
Vertical	frontal / lateral: 750 N / 375 N	
Max. wind velocity	225 km/h	
Packing size	1350 x 1350 x 550 mm	



A: 1300 mm
B: 1300 mm
C: 490 mm

- Material:** Hot-dip galvanized steel.
Weather protection: Fiberglass.
- Mounting:** By means of the pair of hot-dip galvanized steel clamps:
K 61 12 0 to pipes of 60 – 115 mm \varnothing
K 61 13 0 to pipes of 115 – 210 mm \varnothing
(please order separately).
Mounting dimensions upon request.
- Ice protection:** Even under severe icy conditions the antenna is still functional due to its heavy-duty construction and the fiberglass covers for the feeding points.
- Grounding:** Via mounting parts.
- Combinations:** The antenna is especially suitable as a component in arrays to achieve various radiation patterns. Particularly for square and round masts.
- Scope of supply:** Antenna without mounting clamps.

Radiation Patterns (at mid-band)



Directional Antenna

174 – 230 MHz

K 52 33 5.

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SITEL Caponago Tel.02 / 95.74.36.09

- Horizontally polarized broadband directional antenna of hot-dip galvanized steel.
- Especially suitable for square masts.

Type No.	K 52 33 57	K 52 33 51
Input	7-16 female	N female
Frequency range	174 – 230 MHz	
VSWR	< 1.1	
Gain (ref. to $\lambda/2$ -dipole)	11 dB at mid-band	
Impedance	50 Ω	
Polarization	Horizontal	
Max. power	2 kW	1 kW
	(higher power upon request)	
Weight	60 kg	
Wind load (at 160 km/h)	frontal: 1627 N	
	lateral: 876 N	
Max. wind velocity	225 km/h	
Packing size	285 x 135 x 50 cm	

Material: Hot-dip galvanized steel.
Weather protection: Fiberglass.

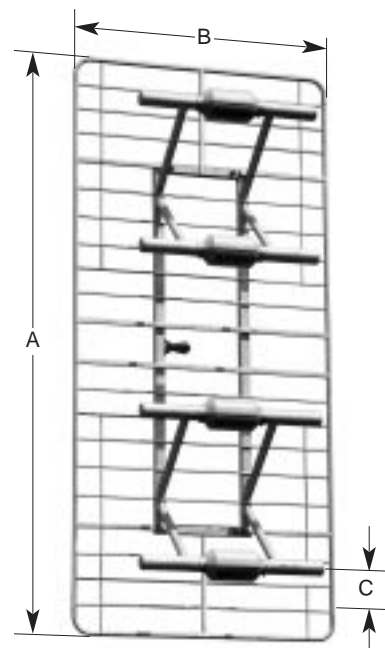
Mounting: By means of the pair of hot-dip galvanized steel clamps:
K 61 16 01 to pipes of 77 mm \varnothing
K 61 16 02 to pipes of 60 – 125 mm \varnothing
(please order separately).
Further mounting hardware and mounting dimensions upon request.

Ice protection: Even under severe icy conditions the antenna is still functional due to its heavy-duty construction and the fiberglass covers for the feeding points.

Grounding: Via mounting parts.

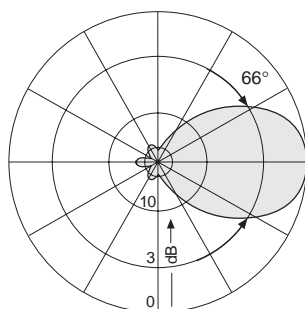
Combinations: The antenna is especially suitable as a component in arrays to achieve various radiation patterns. Particularly for square masts.

Scope of supply: Antenna without mounting clamps.

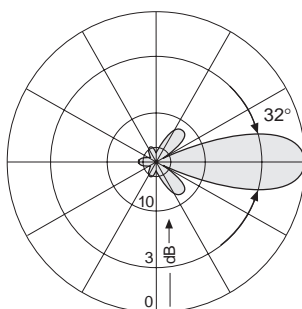


A: 2800 mm
B: 1300 mm
C: 415 mm

Radiation Patterns (at mid-band)



in E-plane
Horizontal Radiation Pattern



in H-plane
Vertical Radiation Pattern

Directional Antenna

174 – 230 MHz

K 53 33 5.

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- Vertically polarized broadband directional antenna of hot-dip galvanized steel.

Type No.	K 53 33 57	K 53 33 51
Input	7-16 female	N female
Frequency range	174 – 230 MHz	
VSWR	< 1.1	
Gain (ref. to $\lambda/2$ -dipole)	11 dB at mid-band	
Impedance	50 Ω	
Polarization	Vertical	
Max. power	2 kW	1 kW
	(higher power upon request)	
Weight	55 kg	
Wind load (at 160 km/h)	frontal: 2.13 kN	
	lateral: 1.45 kN	
Max. wind velocity	225 km/h	
Packing size	285 x 135 x 50 cm	

Material: Hot-dip galvanized steel.
Weather protection: Fiberglass.

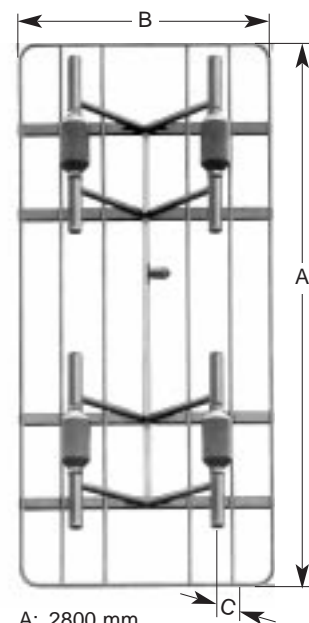
Mounting: By means of 8 screws M 16 to a suitable construction.
Mounting hardware and mounting dimensions upon request.

Ice protection: Even under severe icy conditions the antenna is still functional due to its heavy-duty construction and the fiberglass covers for the feeding points.

Grounding: Via mounting parts.

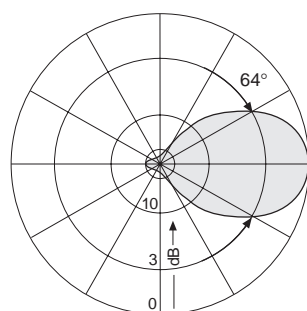
Combinations: The antenna is especially suitable as a component in arrays to achieve various radiation patterns.

Scope of supply: Antenna with 8 screws M 16.

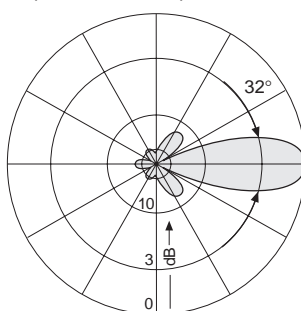


A: 2800 mm
B: 1300 mm
C: 400 mm

Radiation Patterns (at mid-band)



in H-plane
Horizontal Radiation Pattern



in E-plane
Vertical Radiation Pattern

Directional Antenna

174 ... 230 MHz

K 52 34 5. .

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SITEL Caponago Tel.02 / 95.74.36.09

- Broadband directional antenna of hot-dip galvanized steel.
- Especially suitable for triangular and round masts.

Type No.	K 52 34 517	K 52 34 527
Input	7-16 female	
Frequenca range	174 – 202 MHz	202 – 230 MHz
VSWR	< 1.15	
Gain (ref. to $\lambda/2$ -dipole)	7 dB	
Impedance	50 Ω	
Polarization	Horizontal	
Max. power	2 kW (higher power upon request)	
Weight	20 kg	
Wind load (at 160 km/h)	frontal: 375 N lateral: 375 N	
Max. wind velocity	225 km/h	

Material: Hot-dip galvanized steel.
Weather protection: Fiberglass.

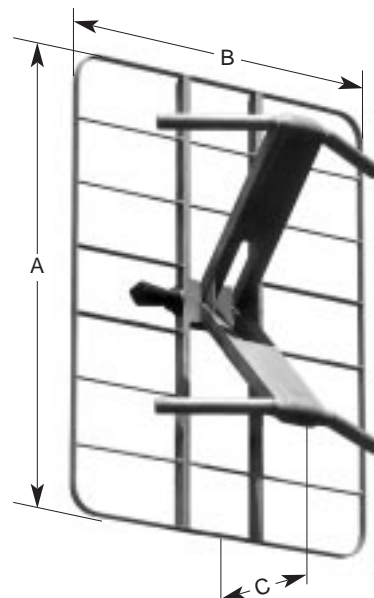
Mounting: By means of the pair of hot-dip galvanized steel clamps:
K 61 12 0 to pipes of 60 – 115 mm \varnothing
K 61 13 0 to pipes of 115 – 210 mm \varnothing
(please order separately).
Further mounting hardware and mounting dimensions upon request.

Ice protection: Even under severe icy conditions the antenna is still functional due to its heavy-duty construction and the fiberglass covers for the feeding points.

Grounding: Via mounting parts.

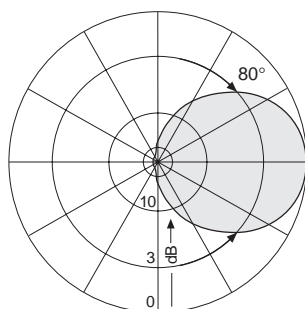
Combinations: The antenna is especially suitable as a component in arrays to achieve various radiation patterns. Particularly for triangular and round masts.

Scope of supply: Antenna without mounting clamps.

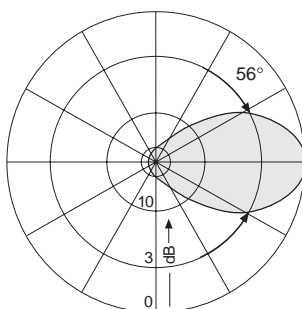


A: 1200 mm
B: 860 mm
C: 405 mm

Radiation Patterns (at mid-band)



in E-plane
Horizontal Radiation Pattern



in H-plane
Vertical Radiation Pattern

Directional Antenna

174 – 230 MHz

K 52 31 57, K 52 31 51

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Antennen · Electronic

SITEL Caponago Tel.02 / 95.74.36.09

- Broadband directional antenna of weather-resistant aluminum.

Type No.	K 52 31 57	K 52 31 51
Input	7-16 female	N female
Frequency range	174 – 230 MHz	
VSWR	< 1.15	
Gain (ref. to $\lambda/2$ -dipole)	7.5 dB at mid-band	
Impedance	50 Ω	
Polarization	Horizontal or vertical by conversion of two clamps	
Max. power	500 Watt	
Weight	7 kg	
Wind load		
Horizontal (160 km/h)	frontal / lateral: 450 N / 240 N	
Vertical (150 km/h)	frontal / lateral: 400 N / 290 N	
Max. wind velocity		
Horizontal	225 km/h	
Vertical	150 km/h	
Packing size	1240 x 1240 x 120 mm	

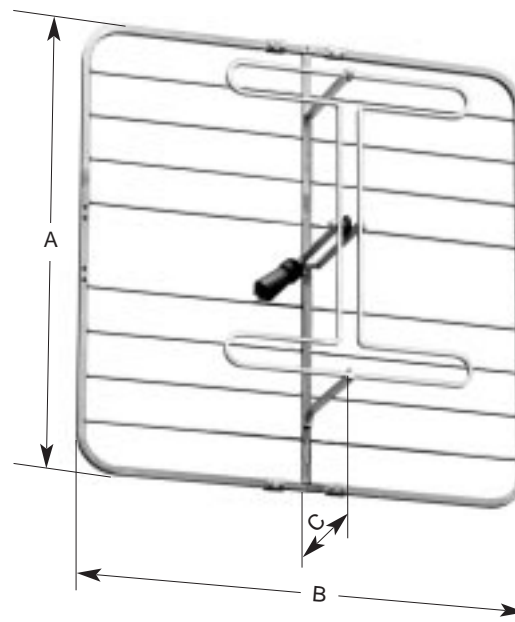
Material: Weather-resistant aluminum.

Mounting: To pipes of 60 – 115 mm \varnothing by means of mounting clamps, supplied

Grounding: Via mounting parts.

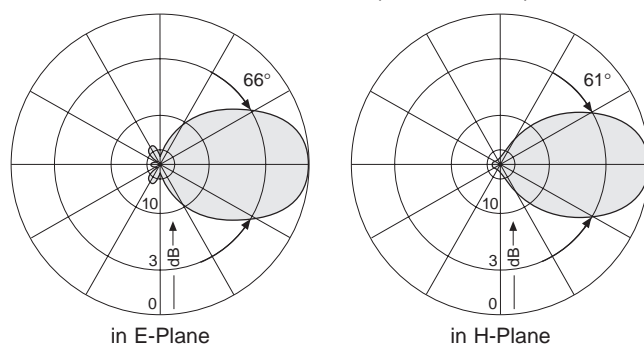
Combinations: The antenna is especially suitable as a component in arrays to achieve various radiation patterns.

Special features: The antenna will be shipped dismounted.



A: 1200 mm
B: 1200 mm
C: 360 mm

Radiation Patterns (at mid-band)



Directional Antenna for TV and DAB

TV: 174 – 223 MHz / DAB: 220 – 240 MHz

768 000

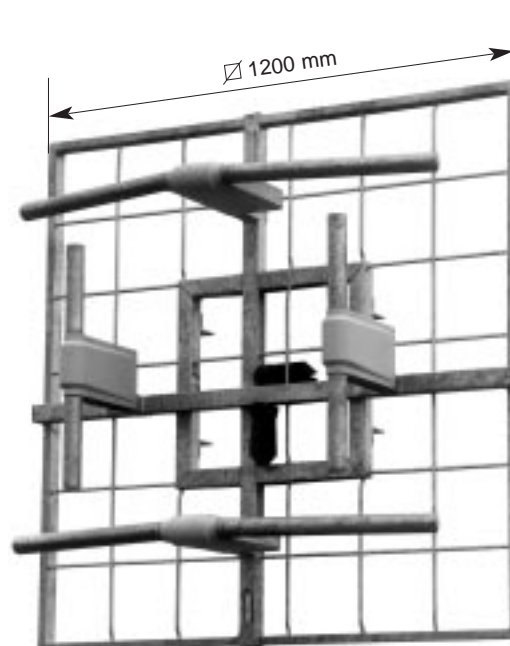
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Antennen · Electronic

SITEL Caponago Tel.02 / 95.74.36.09

- Dual-polarized antenna.
- Specially designed for simultaneous operation of TV in Band III and DAB in Channel 12 and Channel 13.

Type No.	768 000
Input	TV: 1 x 7-16 female / horizontal DAB: 1 x 7-16 female / vertical
Frequency range for horizontal polarization vertical polarization	1 Channel at Band III DAB: 220 – 240 MHz
VSWR	$s < 1.15$
Gain (ref. $\lambda/2$ -dipole)	7.5 dB
Impedance	50 Ω
Polarization	TV: horizontal / DAB: vertical
Max. power	2 kW per input (at 40 °C ambient temperature)
Weight	30 kg
Windload (at 160 km/h)	frontal: 815 N lateral: 570 N
Max. wind velocity	225 km/h



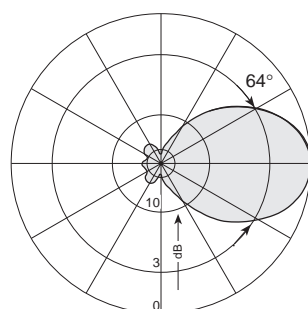
Material: Hot-dip galvanized steel.
Radome: Fiberglass

Mounting: Using M16 screws (supplied) to suitable attachment construction. Antennas K 52 30 5. may be replaced by 768 000 without altering mounting fixture.
Mounting dimensions upon request.

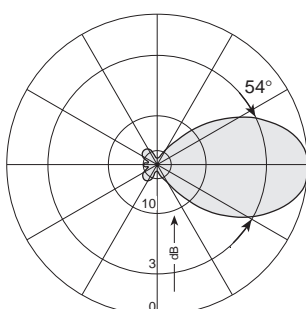
Scope of delivery: Antenna supplied without clamps.

Grounding: Via mounting parts.

Radiation Patterns for TV
(at mid-band)

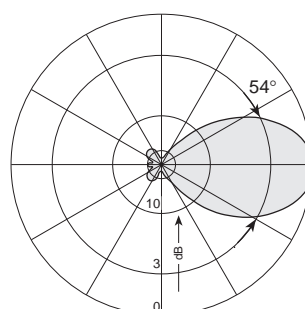


E-plane
Horizontal Radiation Pattern

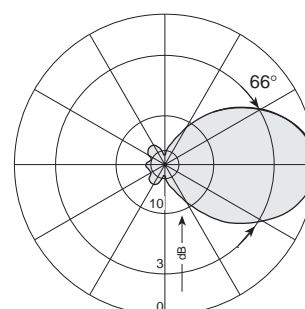


H-plane
Vertical Radiation Pattern

Radiation Patterns for DAB
(at mid-band)



H-plane
Horizontal Radiation Pattern



E-plane
Vertical Radiation Pattern

Directional Antenna for TV and DAB

174 ... 230 MHz

K 52 40 5.., 768 494

KATHREIN

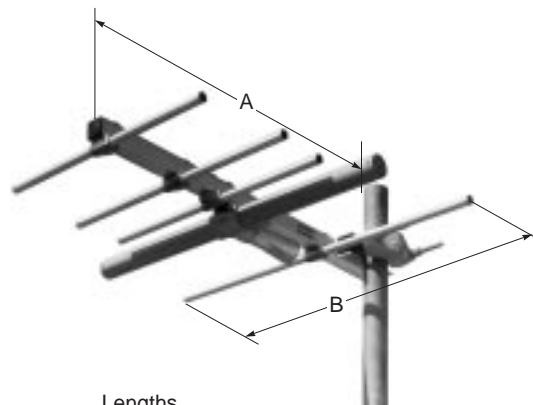
Antennen · Electronic

SITEL Caponago Tel.02 / 95.74.36.09

- 5 element broadband Yagi antenna of weather-proof aluminum.
- Component for low power transmitting antennas.
- The directional antenna type 768 494 is especially for DAB.

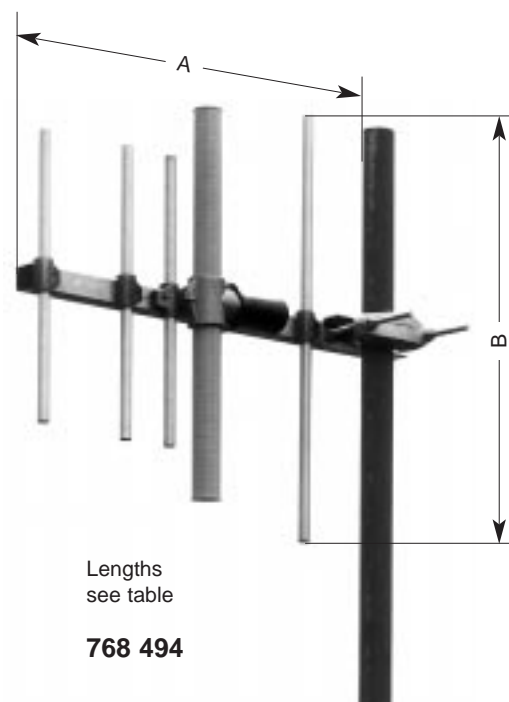
Type No. for input	7-16 female N female	K 52 40 517 K 52 40 511	K 52 40 527 K 52 40 521	768 494
Frequency range (ch = channel)		174 – 202 MHz (ch 5 – ch 8)	202 – 230 MHz (ch 9 – ch 12)	215 – 242 MHz
Dimensions	A B	930 mm 885 mm	810 mm 765 mm	830 mm 765 mm
Gain (ref. to $\lambda/2$ -dipole)		6 dB		
VSWR		< 1.15		< 1.2
Impedance		50 Ω		
Polarization		Horizontal		Vertical
Max. power		100 Watt (higher power upon request)		400 Watt
Weight		5 kg		
Wind load (at 160 km/h)				
	frontal:	114 N	102 N	100 N
	lateral:	102 N	91 N	150 N
Max. wind velocity		225 km/h		
Packing size		970 x 200 x 135 mm		

Material:	Weather-proof aluminum. Radiator in fiberglass radome.
Mounting:	To pipes of 60 – 115 mm \varnothing by means of mounting clamps, supplied. Mounting dimensions upon request.
Grounding:	Via mounting parts.
Combinations:	The antenna is especially suitable as a component in arrays to achieve various radiation patterns.
Special features:	The antenna will be shipped dismantled.



Lengths
see table

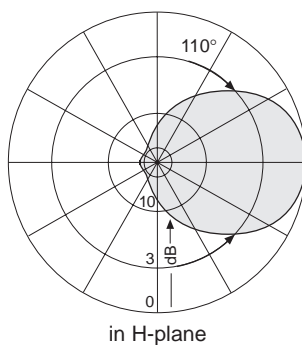
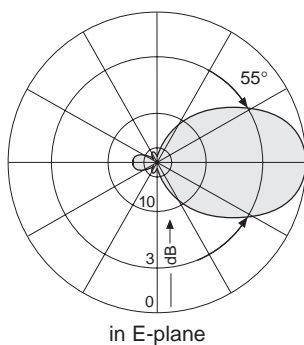
K 52 40 5..



Lengths
see table

768 494

Radiation Patterns (at mid-band)



Directional Antenna

174 ... 230 MHz

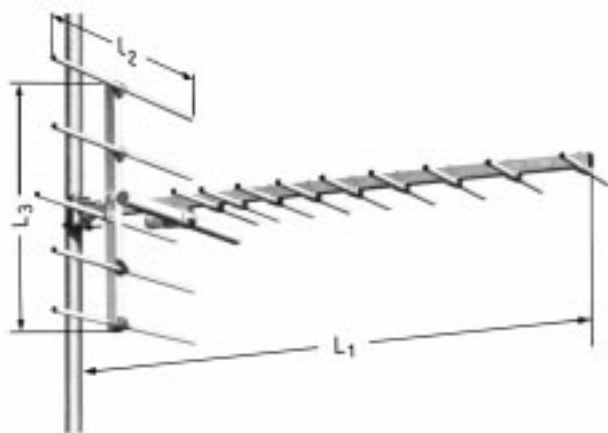
K 52 17 5..

KATHREIN

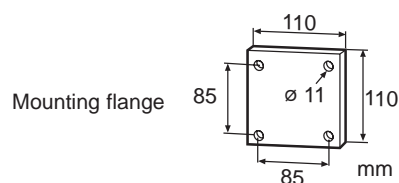
Antennen · Electronic

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- 15 element broadband Yagi antenna of weather-proof aluminum.



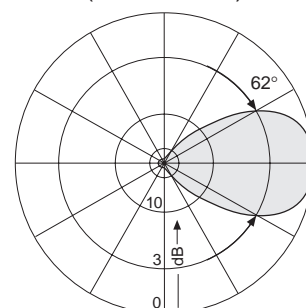
Lengths see table



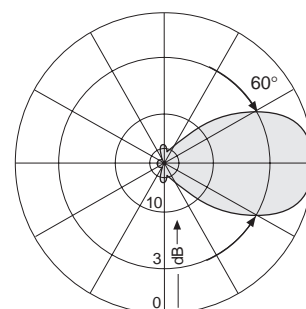
Mounting flange

Type No. for input	7-16 female N female	K 52 17 517 K 52 17 511	K 52 17 527 K 52 17 521	K 52 17 537 K 52 17 531
Frequency range		174 – 188 MHz	188 – 209 MHz	209 – 230 MHz
VSWR			< 1.15	
Gain (ref. to $\lambda/2$ -dipole)			8 dB	
Impedance			50 Ω	
Polarization			Horizontal or vertical	
Max. power			100 Watt (higher power upon request)	
Weight		14 kg	12.7 kg	12 kg
Dimensions (Lengths)				
L1		2000 mm	1850 mm	1700 mm
L2		1200 mm	1100 mm	950 mm
L3		900 mm	850 mm	750 mm
Wind load (at 160 km/h)		frontal / lateral:	frontal / lateral:	frontal / lateral:
horizontal:		364 N / 313 N	330 N / 290 N	290 N / 280 N
vertical:		427 N / 540 N	404 N / 490 N	364 N / 427 N
Max. wind velocity				
horizontal:		225 km/h	225 km/h	225 km/h
vertical:		190 km/h	225 km/h	225 km/h
Packing size		204 x 17 x 17 cm	190 x 17 x 17 cm	175 x 17 x 17 cm

Radiation Patterns
(at mid-band)



in E-plane



in H-plane

Material: Elements: Weather-proof aluminum.
Dipole cover: Fiberglass.
Support and flange: Hot-dip galvanized steel.

Mounting: By means of mounting flange, supplied.
Mounting dimensions upon request.

Grounding: Via mounting parts.

Combinations: Two or more antennas can be combined to achieve higher gain and longer, narrower beam width.

Special features: The antenna is shipped dismounted.

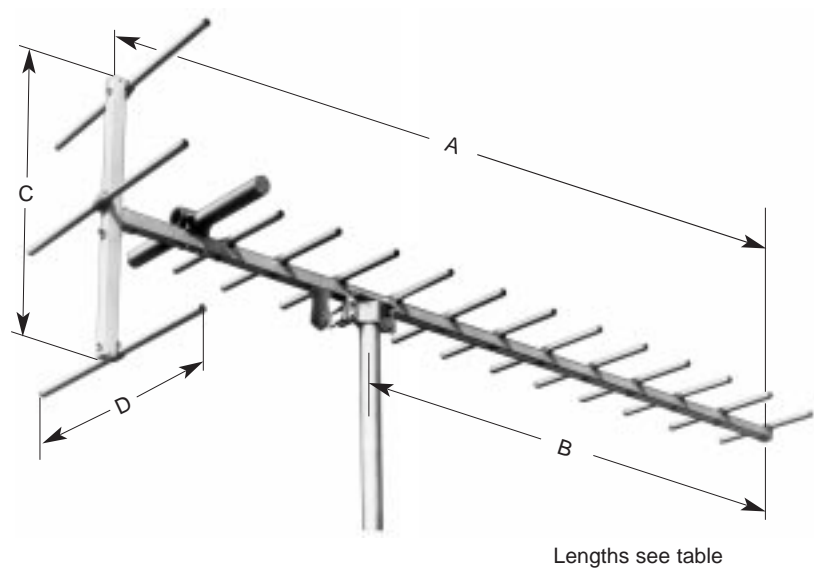
Directional Antenna

174 ... 230 MHz

K 52 14 5..

SITEL Caponago Tel.02 / 95.74.36.09

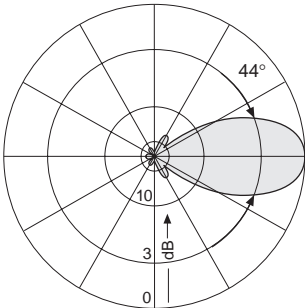
- 16 element Yagi antenna of weather-proof aluminum.



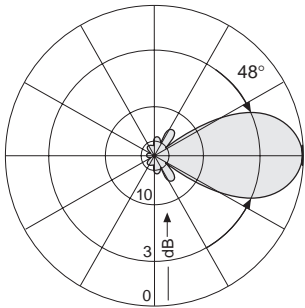
Type No. for input	7-16 female N female	K 52 14 517 K 52 14 511	K 52 14 527 K 52 14 521
Frequency range (ch = channel)		174 – 202 MHz (ch 5 – ch 8)	202 – 230 MHz (ch 9 – ch 12)
VSWR		< 1.15	
Gain (ref. to $\lambda/2$ -dipole)		11 dB	
Impedance		50 Ω	
Polarization		Horizontal	
Max. power		100 Watt (higher power upon request)	
Weight		12 kg	11 kg
Dimensions (Lengths)	A	3360 mm	2900 mm
	B	2060 mm	2000 mm
	C	880 mm	760 mm
	D	955 mm	825 mm
Wind load (at 140 km/h)			
	frontal:	210 N	185 N
	lateral:	290 N	250 N
Max. wind velocity		140 km/h	
Packing size		335 x 17 x 17 cm	288 x 17 x 17 cm

Material:	Support: Weather-proof aluminum. Dipole cover: Fiberglass. Clamp: Hot-dip galvanized steel.
Mounting:	To pipes of 60 – 115 mm Ø by means of mounting clamps, supplied.
Grounding:	Via mounting parts.
Combinations:	Two or more antennas can be combined to achieve higher gain and longer, narrower beam width.
Special features:	The antenna is shipped dismounted.

Radiation Patterns
 (at mid-band)



in E-plane
 Horizontal Radiation Pattern



in H-plane
 Vertical Radiation Pattern

Directional Antenna

174 ... 230 MHz

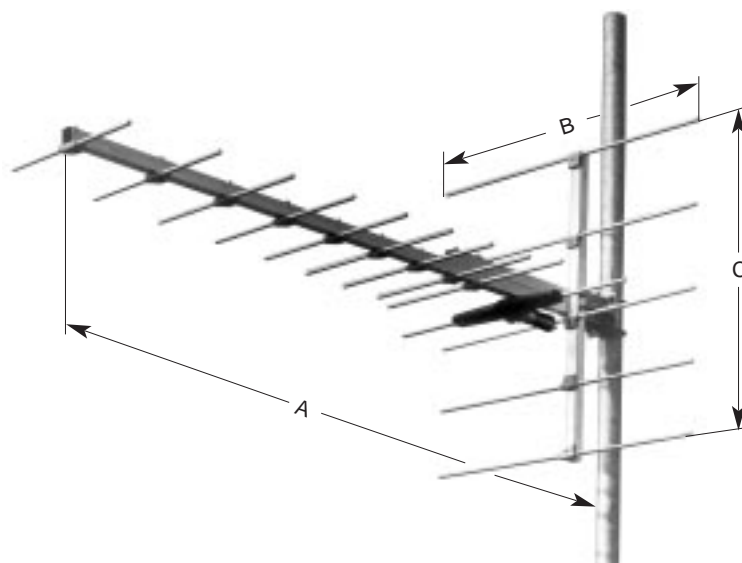
K 52 07 5..

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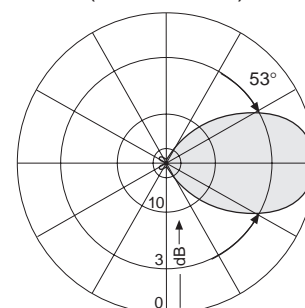
- Particularly light 15 element Yagi antenna of weather-proof aluminum.



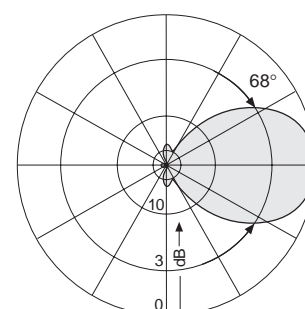
Lengths see table

Type No. for input	7-16 female N female	K 52 07 517 K 52 07 511	K 52 07 527 K 52 07 521	K 52 07 537 K 52 07 531
Frequency range		174 – 188 MHz	188 – 209 MHz	209 – 230 MHz
VSWR			< 1.2	
Gain (ref. to $\lambda/2$ -dipole)			8 dB	
Impedance			50 Ω	
Polarization		Horizontal or vertical by conversion of the U-bolts		
Max. power		100 Watt (higher power upon request)		
Weight		7.5 kg	7.2 kg	6.8 kg
Dimensions (Lengths)	A	2010 mm	1865 mm	1720 mm
	B	1020 mm	940 mm	840 mm
	C	900 mm	850 mm	760 mm
Wind load (at 160 km/h)		frontal / lateral:	frontal / lateral:	frontal / lateral:
horizontal:		239 N / 279 N	222 N / 267 N	199 N / 250 N
vertical:		239 N / 313 N	222 N / 290 N	199 N / 250 N
Max. wind velocity		225 km/h		
Packing size		204 x 17 x 17 cm	190 x 17 x 17 cm	176 x 17 x 17 cm

Radiation Patterns
(at mid-band)



in E-plane



in H-plane

Material: Weather-proof aluminum: Dipole cover: Hostalen.

Mounting: To pipes of 57 – 105 mm \varnothing by means of supplied U-bolts.

Grounding: Via mounting parts.

Combinations: Two or more antennas can be combined to achieve higher gain and longer, narrower beam width.

Special features: The antenna is shipped dismantled.

Directional Antenna

174 – 230 MHz

K 52 22 5.

KATHREIN

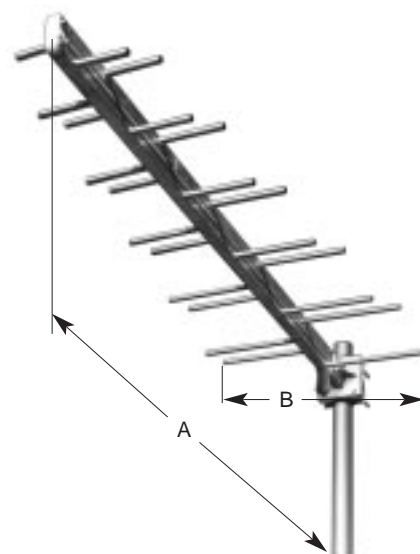
Antennen · Electronic

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- Logarithmic-periodic broadband directional antenna with high side-lobe suppression.
- Especially rugged design of hot-dip galvanized steel.

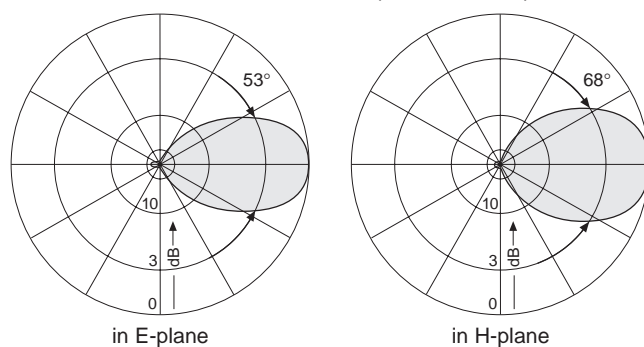
Type No.	K 52 22 57	K 52 22 51
Input	7-16 female	N female
Frequency range	174 – 230 MHz	
VSWR	< 1.2	
Gain (ref. to $\lambda/2$ -dipole)	8.5 dB at mid-band	
Impedance	50 Ω	
Side-lobe suppression	> 25 dB	
Polarization	Horizontal or vertical by conversion of two clamps	
Max. power	1 kW (higher power upon request)	
Weight	27 kg	
Wind load (at 160 km/h)		
horizontal:	frontal / lateral: 250 N / 500 N	
vertical:	frontal / lateral: 250 N / 313 N	
Max. wind velocity	225 km/h	
Packing size	245 x 29 x 110 cm	

Material:	Hot-dip galvanized steel.
Mounting:	To pipes of 60 – 115 mm \varnothing by means of mounting clamps, supplied. Mounting dimensions upon request.
Grounding:	Via mounting parts.
Combinations:	Several antennas can be combined to increase the gain and to produce radiation patterns with very high side-lobe suppressions.



A: 2300 mm
B: 890 mm

Radiation Patterns (at mid-band)



Dipole Antenna for DAB

220 – 240 MHz

769 006

KATHREIN

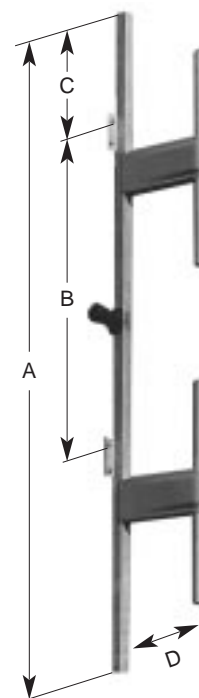
Antennen · Electronic

SITEL Caponago Tel.02 / 95.74.36.09

- Dipole antenna for side-mounting to masts.

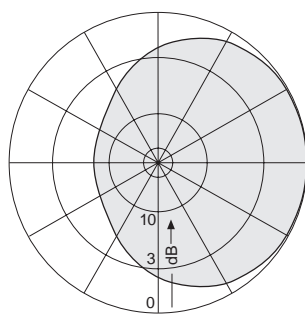
Type No.	769 006
Input	7-16 female
Frequency range	220 – 240 MHz
VSWR	< 1.2
Gain (ref. to $\lambda/2$ -dipole)	5.5 dB in preferred direction
Impedance	50 Ω
Polarization	Vertical
Max. power	2 kW (at 40 °C ambient temperature)
Weight	15 kg
Wind load (at 160 km/h)	438 N
Max. wind velocity	225 km/h
Packing size	231 x 42 x 16 cm

Material:	Hot-dip galvanized steel. Radome: Fiberglass.
Mounting:	Laterally using 8 screws M 12 x 50 to suitable flange (see draft).
Ice protection:	Even under severe icy conditions the antenna is still functional due to its heavy-duty construction and the fiberglass covers for the feeding points.
Grounding:	Via mounting parts.
Note:	The radiation in the mast direction will be reduced proportionally to the size of the mast.

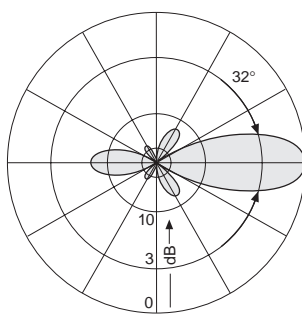


A: 2205 mm
B: 1100 mm
C: 372 mm
D: 315 mm

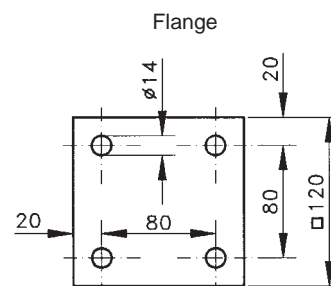
Radiation Patterns (at mid-band)



in H-plane
Horizontal Radiation Pattern



in E-plane
Vertical Radiation Pattern



Omnidirectional Antenna for DAB
223 – 240 MHz
767 655, 767 656

KATHREIN
 Antennen · Electronic

SITEL Caponago Tel.02 / 95.74.36.09

Type No.	767 655	767 656
Input	7-16 female	
Frequency range	223 – 240 MHz	
VSWR	< 1.2	
Gain (ref. $\lambda/2$ -dipole)	3 dB	6 dB
Impedance	50 Ω	
Polarization	Vertical	
Max. power	500 Watt (at 40 °C ambient temperature)	1000 Watt
Weight	37 kg	67 kg
Windload (at 160 km/h)	500 N	900 N
Max. wind velocity	200 km/h	
Length	2900 mm	5000 mm
Radome diameter	186 mm	
Packing size	3030 x 400 x 400 mm	5230 x 400 x 400 mm

- Material:** Radiator: Hot-dip galvanized steel.
 Radome: Fiberglass, brown.
 Antenna base: Aluminum.
- Mounting:** With standard flange with 320 mm diameter.
- Attention:** The aluminum flange may only be mounted to a flat base-plate (max. unevenness 0.5 mm) with a drilling hole of 60 mm diameter in the center for the 7-16 connector.
- Grounding:** Continuous earth connection between antenna tip and base.
- Remark:** Special versions with higher input power or modified frequency range or electrical beam tilt are available upon request.

