

# Directional Antenna

## 470 – 860 MHz

### K 72 36 4.

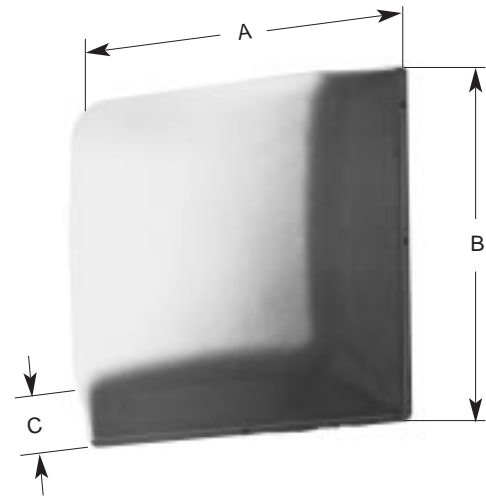
**KATHREIN**

Antennen · Electronic

**SITEL Caponago Tel.02 / 95.74.36.09**

- Horizontally polarized broadband directional antenna made of aluminum and protected by a fiberglass cover.

Type No.	K 72 36 47	K 72 36 41
Input	7-16 female	N female
Frequency range	470 – 860 MHz	
VSWR	s < 1.12	
Gain (ref. $\lambda/2$ -dipole)	8 dB at mid-band	
Impedance	50 $\Omega$	
Polarization	Horizontal	
Max. power	500 Watt (higher power upon request)	
Weight	6 kg	
Wind load (at 160 km/h)	frontal: 375 N	lateral: 114 N
Max. wind velocity	225 km/h	
Packing size	567 x 567 x 294 mm	



A = B: 500 mm  
C: 190 mm

**Material:** Reflector screen and dipoles: Weather-resistant aluminum. Protective cover: Fiberglass.  
Colour: White, upon request orange.  
Attachment elbow: Hot-dip galvanized steel.

**Attachment:** (please order separately) E.g. by using clamps K 61 14 0... to tubular masts of 40 – 521 mm diameter.  
Further attachment parts and mounting dimensions upon request.

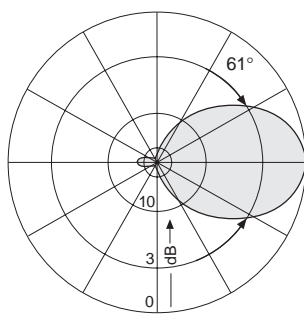
**Grounding:** Via mounting parts.

**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.

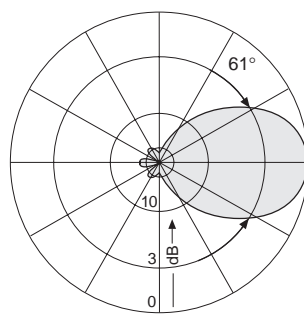
**Combinations:** The antenna is particularly suitable for use in combinations in order to achieve various radiation patterns.

**Scope of delivery:** Directional antenna with one weather protection unit each for straight connectors and elbow connectors.

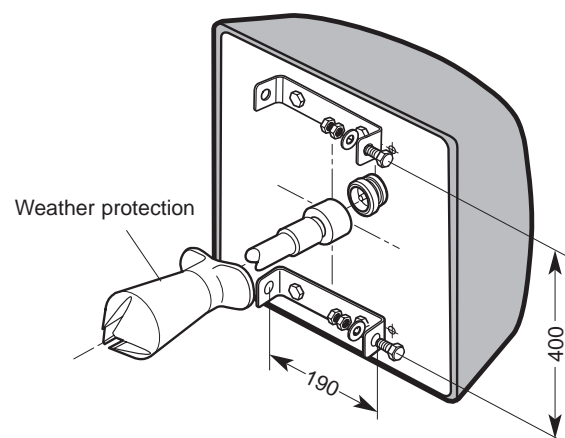
#### Radiation Patterns (at mid-band)



in E-plane  
Horizontal Radiation Pattern



in H-plane  
Vertical Radiation Pattern



All dimensions in mm

# Directional Antenna

## 470 – 860 MHz

### K 72 31 4., K 73 31 4.

**KATHREIN**

Antennen · Electronic

**SITEL Caponago Tel.02 / 95.74.36.09**

- Horizontally or vertically broadband polarized broadband directional antenna made of aluminum and protected by a fiberglass cover.

Type No.	N female	K 72 31 41	K 73 31 41
	white with 7-16 female	K 72 31 47	K 73 31 47
	orange with 7-16 female	K 72 31 47 R	K 73 31 47 R
Polarization		Horizontal	Vertical
VSWR		$s < 1.1$	$s < 1.12$
Gain (ref. $\lambda/2$ -dipole)		11 dB at mid-band	
Frequency range		470 – 860 MHz	
Max. power		N female: 0.5 kW 7-16 female: 1 kW	
Wind load (at 160 km/h)		Frontal: 815 N Lateral: 251 N	
Max. wind velocity		225 km/h	
Weight		12 kg	
Packing size		1062 x 562 x 275 mm	
Height/width/depth		1000 x 500 x 190 mm	

**Material:** Reflector screen and dipoles: Weather-resistant aluminum. Protective cover: Fiberglass. Attachment elbow: Hot-dip galvanized steel.

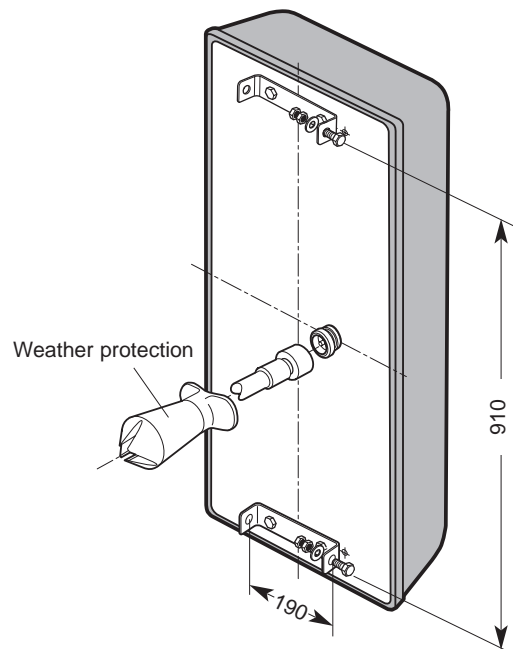
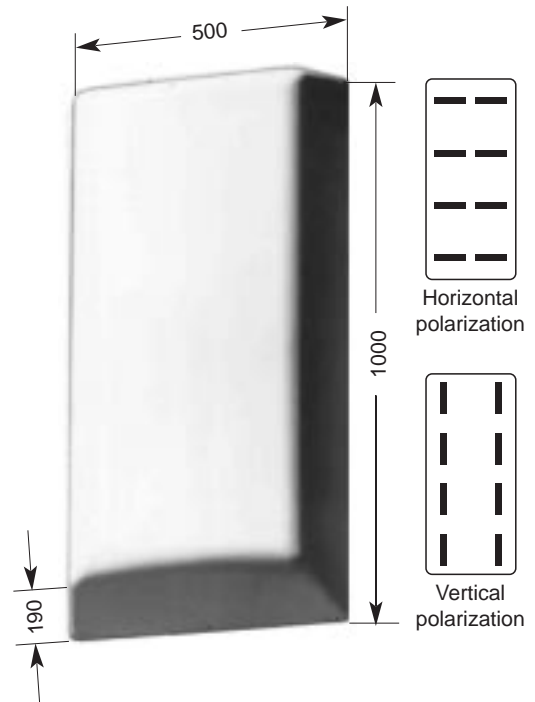
**Attachment:** (please order separately) E.g. by using clamps K 61 14 0... to tubular masts of 40 – 521 mm diameter. Further attachment parts and mounting dimensions upon request.

**Grounding:** Via mounting parts.

**Ice protection:** The dipoles remain fully functioning even in icy conditions as the fiberglass cover protects the whole antenna and also the antenna is of a very robust design.

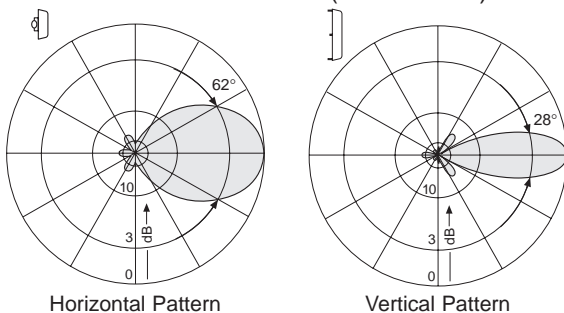
**Combinations:** The antenna is particularly suitable for use in combinations in order to achieve various radiation patterns.

**Scope of supply:** Directional antenna with one weather protection unit each for straight connectors and elbow connectors.



All dimensions in mm

**Radiation Patterns (at mid-band)**



# Directional Antenna

470 – 860 MHz 774 040, 774 041,  
774 046, 774 047

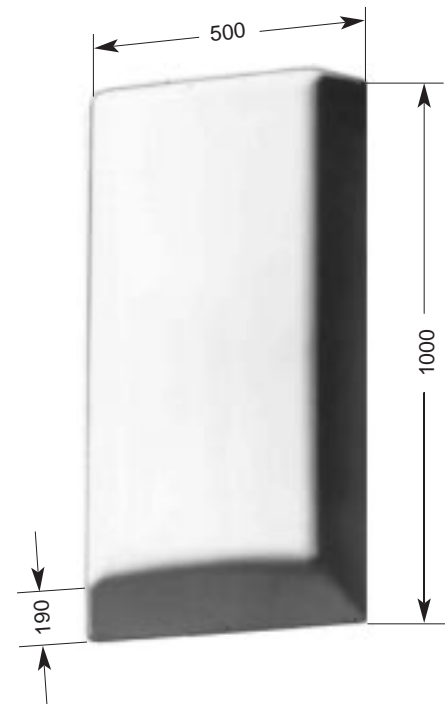
**KATHREIN**

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**SITEL Caponago Tel.02 / 95.74.36.09**

- Horizontally polarized broadband directional antenna made of aluminum and protected by a fiberglass cover.
- Similar to Type K 72 31 47.

Type No.	white orange	774 040 774 041	774 046 774 047
Input (from below)		7-16 female	13-30 female
Frequency range		470 – 860 MHz	
VSWR		s < 1.1	
Gain (ref. $\lambda/2$ -dipole)		11 dB at mid-band	
Impedance		50 $\Omega$	
Polarization		Horizontal	
Max. power		1 kW	2 kW
Weight		12 kg	
Wind load (at 160 km/h)		Frontal: 815 N Lateral: 260 N	
Max. wind velocity		225 km/h	
Packing size		1062 x 562 x 294 mm	
Height/width/depth		1000 x 500 x 190 mm	



**Material:** Reflector screen and dipoles: Weather-resistant aluminum.  
Protective cover: Fiberglass.  
Attachment plate: Hot-dip galvanized steel.

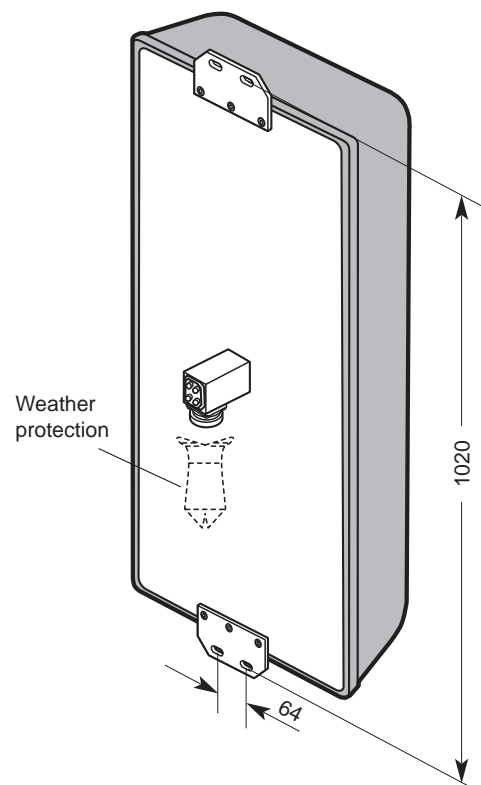
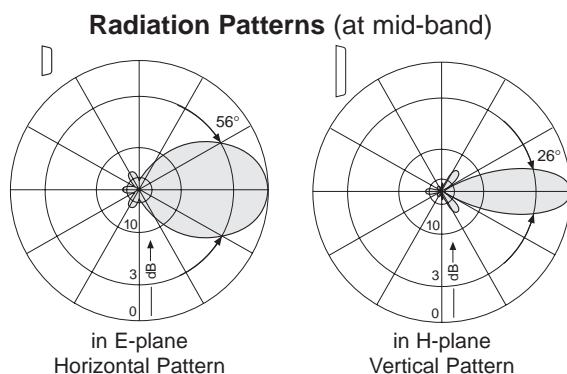
**Attachment:** Using M 8 x 35 screws (supplied) to suitable attachment construction.  
Mounting dimensions upon request.

**Grounding:** Via mounting parts.

**Ice protection:** The dipoles remain fully functioning even in icy conditions as the fiberglass cover protects the whole antenna and also the antenna is of a very robust design.

**Combinations:** The antenna is particularly suitable for use in combinations in order to achieve various radiation patterns.

**Scope of supply:** The 7-16 female connectors are supplied with one weather protection unit.



All dimensions in mm

# Directional Antenna

470 – 860 MHz 772 549, 772 550, 772 999,

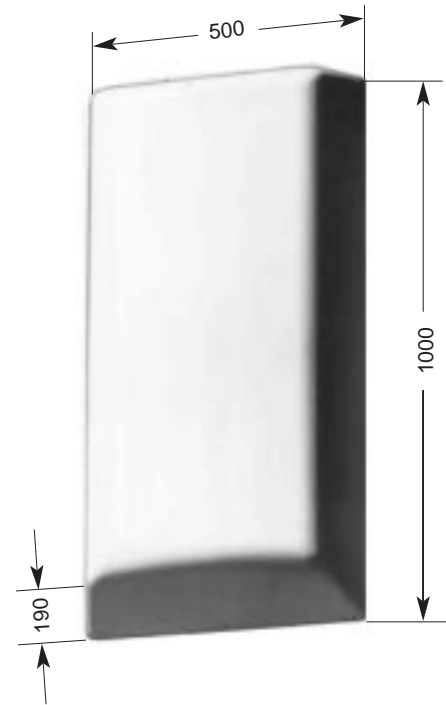
773 000, 773 332, 773 333 **SITEL Caponago Tel.02 / 95.74.36.09**

**KATHREIN**

Antennen · Electronic

- Horizontally polarized broadband directional antenna made of aluminum and protected by a fiberglass cover.

Type No.	white orange	772 549 772 550	773 000 772 999	773 333 773 332
Input (from below)		7-16 female	13-30 female	1 <sup>5</sup> / <sub>8</sub> " EIA flange
Frequency range		470 – 860 MHz		
VSWR		s < 1.1		
Gain (ref. $\lambda/2$ -dipole)		11 dB at mid-band		
Impedance		50 $\Omega$		
Polarization		Horizontal		
Max. power		1 kW	2 kW	3 kW
Weight		9.5 kg	10 kg	
Wind load (at 160 km/h)		Frontal: 815 N Lateral: 260 N		
Max. wind velocity		225 km/h		
Packing size		1062 x 562 x 294 mm		
Height/width/depth		1000 x 500 x 190 mm		



**Material:** Reflector screen and dipoles: Weather-resistant aluminum.  
Protective cover: Fiberglass.  
Attachment plate: Hot-dip galvanized steel.

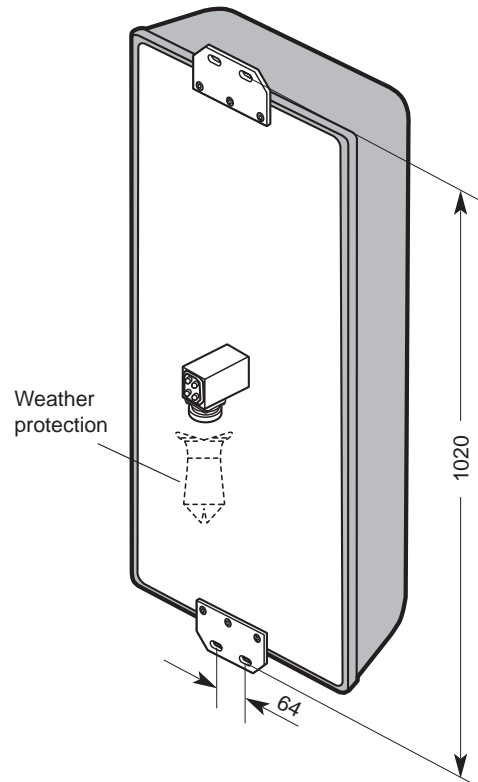
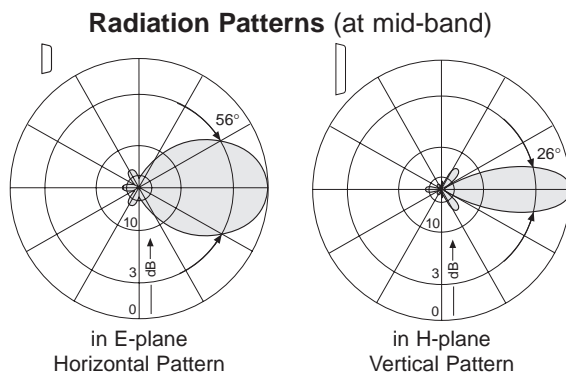
**Attachment:** Using M 8 x 35 screws (supplied) to suitable attachment construction.  
Mounting dimensions upon request.

**Grounding:** Via mounting parts.

**Ice protection:** The dipoles remain fully functioning even in icy conditions as the fiberglass cover protects the whole antenna and also the antenna is of a very robust design.

**Combinations:** The antenna is particularly suitable for use in combinations in order to achieve various radiation patterns.

**Scope of supply:** The 7-16 female connectors are supplied with one weather protection unit.



All dimensions in mm

# Directional Antenna

## 675 – 860 MHz

### K 72 31 5.

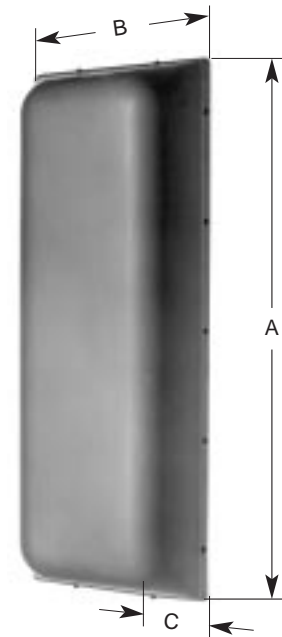
**KATHREIN**

Antennen · Electronic

**SITEL Caponago Tel.02 / 95.74.36.09**

- Horizontally polarized broadband directional antenna made of aluminum and protected by a fiberglass cover

Type No.	K 72 31 57	K 72 31 51
Input	7-16 female	N female
Frequency range	675 – 860 MHz	
VSWR	s < 1.1	
Gain (ref. $\lambda/2$ -dipole)	10 dB at mid-band	
Impedance	50 $\Omega$	
Polarization	Horizontal	
Max. power	1 kW (higher power upon request)	
Weight	8 kg	
Wind load (at 160 km/h)	frontal: 315 N	lateral: 160 N
Max. wind velocity	225 km/h	
Packing size	97 x 41 x 24 cm	



A: 880 mm  
B: 315 mm  
C: 150 mm

**Material:** Reflector screen and dipoles: Weather-resistant aluminum. Radome: Fiberglass, colour: White, upon request orange.  
Fittings: Hot-dip galvanized steel.

**Attachment:** (please order separately) E.g. by using clamps K 61 14 0... to tubular masts of 40 – 521 mm diameter. Further attachment parts and mounting dimensions upon request.

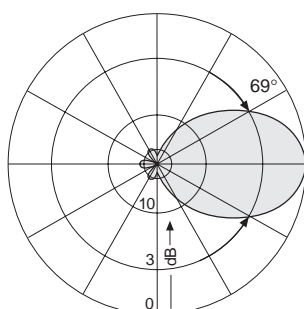
**Grounding:** Via mounting parts.

**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.

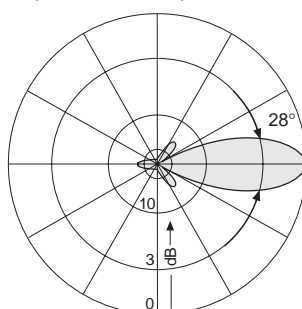
**Combinations:** The antenna is particularly suitable for use in combinations in order to achieve various radiation patterns.

**Scope of delivery:** Directional antenna with one weather protection unit each for straight connectors and elbow connectors.

#### Radiation Patterns (at mid-band)



Horizontal Radiation Pattern



Vertical Radiation Pattern

# Directional Antenna

## 470 – 860 MHz

### K 72 23 47, K 72 23 41

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**SITEL Caponago Tel.02 / 95.74.36.09**

- Logarithmic-periodic broadband directional antenna in fiberglass radome.
- High side-lobe suppression.

Type No.	K 72 23 47	K 72 23 41
Input	7-16 female	N female
Frequency range	470 – 860 MHz	
VSWR	< 1.25	
Gain (ref. to $\lambda/2$ -dipole)	9 dB at mid-band	
Impedance	50 $\Omega$	
Side-lobe suppression	> 23 dB at 470 – 500 MHz > 25 dB at 500 – 860 MHz	
Polarization	Either horizontal or vertical by repositioning two clamps	
Max. power	30 Watt (higher power upon request)	
Weight	9 kg	
Wind load (at 160 km/h)	For horizontal pol.: frontal/lateral: 63 / 102 N For vertical pol.: frontal/lateral: 63 / 500 N	
Max. wind velocity	For horizontal pol.: 225 km/h For vertical pol.: 180 km/h	
Packing size	1172 x 372 x 224 mm	

**Material:**  
 Radiator: Weather-resistant aluminum.  
 Radome: Fiberglass, colour: Grey.  
 Mounting kit: Aluminum.  
 All screws and nuts: Stainless steel.

**Mounting:**  
 To tubular masts of 48 – 115 mm diameter using supplied clamps.

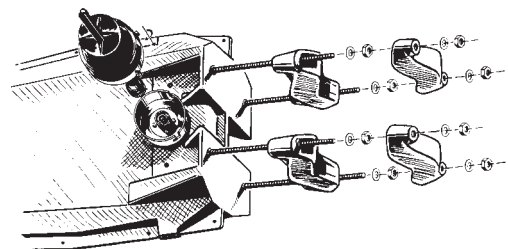
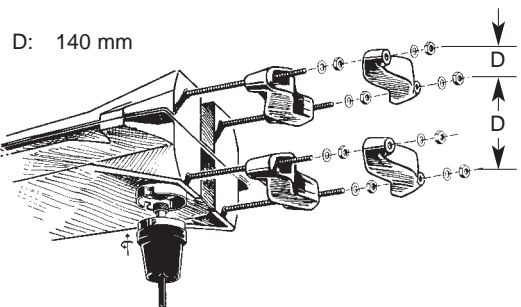
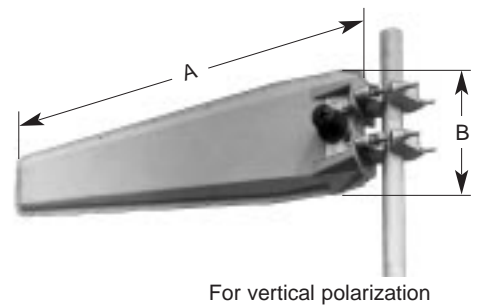
**Ice protection:**  
 Since radiating system is fully protected by the radome and due to its very sturdy construction, the antenna remains fully operational even under heavy icy conditions.

**Grounding:**  
 Via mounting parts.

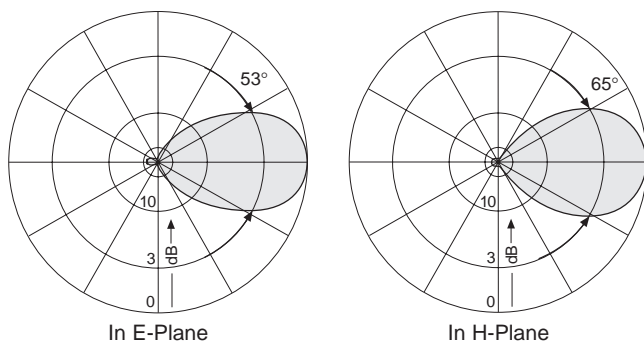
**Combinations:**  
 Several antennas can be combined to increase the gain and to produce radiation patterns with very high side-lobe suppressions.



A: 1153 mm  
 B: 353 mm  
 C: 180 mm



### Radiation Patterns (at mid-band)



# Omnidirectional Antenna

## 470 – 860 MHz

### 767 006, 770 881

**KATHREIN**

Antennen · Electronic

**SITEL Caponago Tel.02 / 95.74.36.09**

- Broadband omnidirectional antenna.

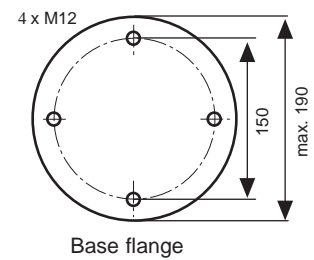
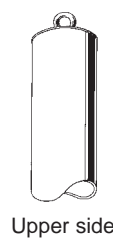
Type No.	767 006	770 881
Number of bays	1	2
Input	7-16 female	7/8" EIA
Frequency range	470 – 860 MHz	
VSWR	s < 1.1	
Gain	5 dB at mid-band	8 dB at mid-band
Vertical 3 dB beam width	22°	11°
Impedance	50 Ω	
Polarization	Horizontal	
Max. power	1 kW (at 40 °C ambient temperature)	2 kW
Weight	20 kg	40 kg
Wind load (at 160 km/h)	228 N	478 N
Max. wind velocity	225 km/h	
Height H	1.15 m	2.3 m



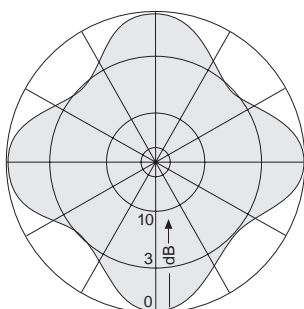
**Material:** Omnidirectional antenna in protective fiberglass radome with a diameter of 300 mm.  
Flange: Aluminum.

**Attachment:** To tubular masts with a diameter of 100 – 160 mm by using the attachment accessories 768 853 (see photo) or on a flange (see draft).

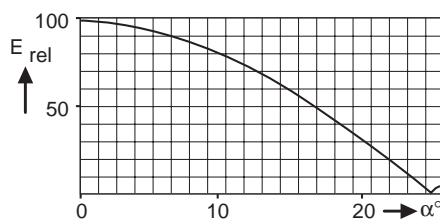
**Grounding:** Via mounting parts.



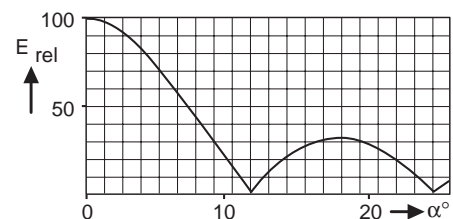
### Radiation Patterns (at mid-band)



Horizontal Radiation Pattern



Vertical Radiation Pattern  
1 bay (767 006)



Vertical Radiation Pattern  
2 bays (770 881)