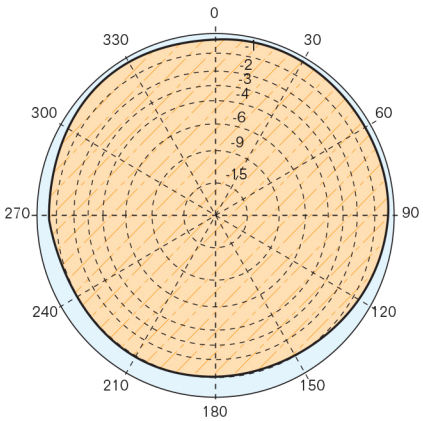
EKA CIR 1

- **Band II**
- **FM Band 87.5÷108 MHz**
- **Tuned Antenna**
- **True Circular Polarization**
- **Stainless Steel AISI 304**

ELECTRICAL DATA	
Frequency range	87.5÷108 MHz
Impedance	50 Ohm
Connectors	N female
Max Power	800W (N female)
VSWR	≤ 1.1:1
Polarization	Right circular
Gain	-3.4 dB
Pattern	Omni directional ± 1.5 dB in free space Omni directional ± 3 dB with 100mm dia. pole
Lightning protection	All metal parts DC grounded

MECHANICAL DATA	
Dimensions	1000 x 300 x 800 mm
Net Weight	3.0 Kg without clamp 5.5 Kg with clamp
Wind surface	0.036 m^2
Wind load	6.0 kg (wind speed at 160 km/h)
Max wind velocity	220 km/h
Materials	External parts: stainless steel Internal parts: silver plated brass
Mounting	With special pipe clamps 50÷110 mm dia.

RADIATION PATTERN (MID BAND)



H-Plane

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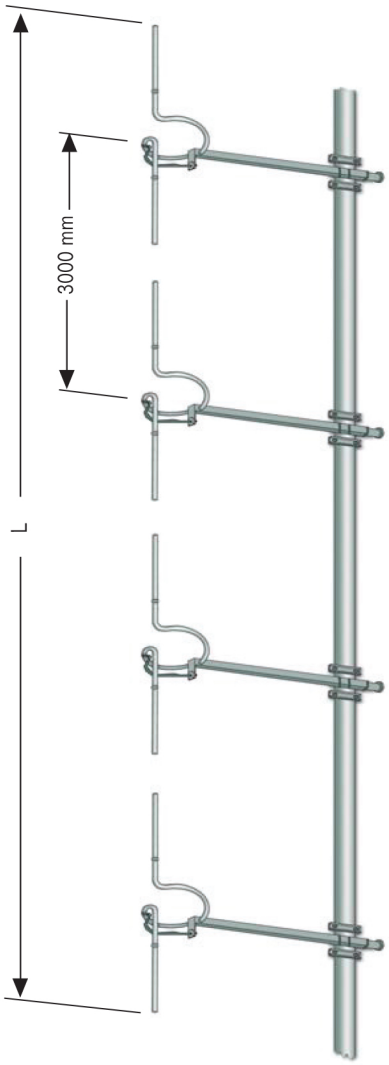
CIR 1 SYSTEMS



ELECTRICAL DATA	
Frequency range	87.5÷108 MHz
Impedance	50 Ohm
Connector	N female
VSWR	≤ 1.1:1 in the operating channel
Polarization	Circular
Gain	Refer to table
Horizontal pattern	Any type according to requirements
Vertical pattern	Null fill, beam tilt and special requirements to order
Other facilities	The antenna system can be supplied in split feed with two equal half antennas. Each half can accept full power

MECHANICAL DATA	
Height of array	Subject to number of bays (refer to table)
Total net weight	According to the working frequency
Wind load	Refer to table (at 98 MHz)
Pressurizzable	No
Mounting hardware	Hot dip galvanized steel clamps (option)
Shipping	As required

NUMBER OF BAYS	DIPOLE PER BAY	GAIN *		WEIGHT IN Kg. **	ANTENNA HEIGHT L IN METERS	WIND LOAD (v = 160 km/h) Kg	PIPE LENGT IN METERS	TOWER SPACE IN METERS	COLINEARS SYSTEMS***				
		dB	TIMES						800 W	1000 W	2000W	3000W	4000W
1	1	- 3.4	0.46	4.08	1.4	6	3.1	15	EKA CIR 1				
2	1	- 0.0	0.99	13.15	4.0	12	6.1	20		SYST 21			
3	1	1.9	1.55	18.50	7.0	18	9.1	30		SYST 31	SYST 32		
4	1	3.2	2.12	24.00	10.0	24	12.2	40		SYST 41	SYST 42	SYST 43	
5	1	4.3	2.70	31.00	13.0	30	15.2	50		SYST 51	SYST 52	SYST 53	SYST 54
6	1	5.2	3.28	38.10	16.0	36	18.3	60		SYST 61	SYST 62	SYST 63	SYST 64
8	1	6.5	4.40	50.40	19.0	48	24.4	80		SYST 81	SYST 82	SYST 83	SYST 84
12	1	8.4	6.85	75.00	22.0	72	36.6	120		SYST 121	SYST 122	SYST 123	SYST 124

* Referred to a half wave dipole. Attenuation of connecting cables not taken into account

** Without mounting hardware

*** The system comprised: antennas, coaxial cables and splitters - for more detail see the catalog - different version on request

Gain is provided for vertical polarization

When antenna is pole mounted on the top of a tower the horizontally polarized radiation pattern is omni-direccional

If the antenna is side mounted, the supporting structure will have a slight effect on the radiation pattern and VSWR

Vertical tower space, wind load and weight numbers given are typical. Actual values vary the specific installation.

Gain will be reduced if null fill, beam tilt or special wavelength spacing is provided

Antenna radiation aperture is the distance from the centre of the top bay to the centre of the bottom bay

Five ft. (1.6m) of pipe required above the top bay and below the bottom bay for protect from pattern interference by others antennas

Antenna wind load is calculated for 100 Mph (160 km/h) per EIA-222 standard.

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