

# 3VTVC-02

## VHF (BIII) / DAB PANEL ANTENNA

### FEATURES

- H, V, circular or elliptical polarization
- broadband: pol. H: 174 ÷ 230 MHz  
pol. V: 174 ÷ 240 MHz
- 7.5 dB gain
- directional pattern
- suitable as a component in various arrays on square towers
- stainless steel dipoles



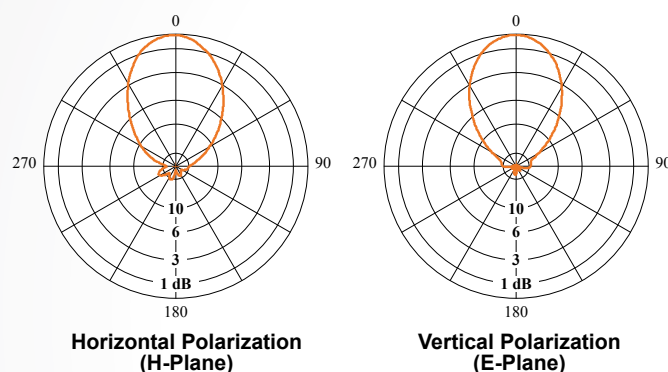
### ELECTRICAL DATA

ANTENNA TYPE	3VTVC-02
FREQUENCY RANGE	Pol. H: 174 ÷ 230 MHz Pol. V: 174 ÷ 240 MHz
IMPEDANCE	50 ohm
CONNECTOR	2 x 7/8" EIA
MAX POWER	6 kW (3 kW per connector)
VSWR	≤ 1.2
POLARIZATION	Horizontal, Vertical, Circular/Elliptical
GAIN (referred to half wave dipole)	7.5 dB (linear polarization)
HALF POWER BEAMWIDTH	Pol. H: E-Plane ± 30° H-Plane ± 27° Pol. V: E-Plane ± 32° H-Plane ± 30°
LIGHTNING PROTECTION	All metal parts DC grounded

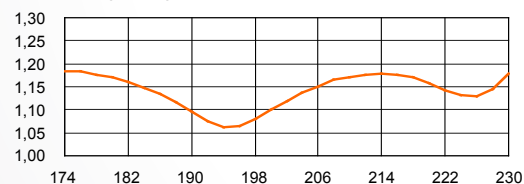
### MECHANICAL DATA

DIMENSIONS	1300 x 1300 x 620 mm
WEIGHT	50 kg
WIND SURFACE	0.81 m <sup>2</sup>
WIND LOAD (at 150km/h)	1.13 kN
MAX WIND VELOCITY	220 km/h
MATERIALS	Reflector (hot dip galvanized steel) Dipoles (stainless steel) Internal parts (silver plated brass, polished brass, deoxidized aluminium) Radome (fiberglass)
ICING PROTECTION	Feed point radome
RADOME COLOUR	Grey (standard)
MOUNTING	Directly on supporting mast or tower

HORIZONTAL RADIATION PATTERNS (Mid Band)

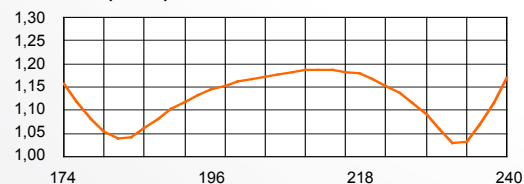


VSWR (H-Pol)



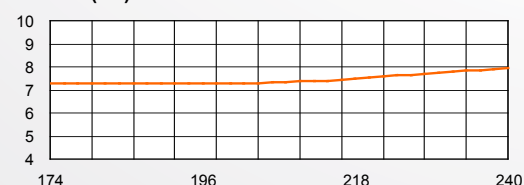
FREQ. (MHz)

VSWR (V-Pol)



FREQ. (MHz)

GAIN (dB)



FREQ. (MHz)

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## VHF (BIII) / DAB PANEL ANTENNA

### FEATURES

- radiating systems with 3VTVC-02 panel
- high power antenna systems
- omnidirectional or directional patterns
- equal or unequal power split ratio distribution network



3VTVC-02/40 (10x4)  
WINNIPEG Station, CANADA

### ELECTRICAL DATA

FREQUENCY RANGE	Pol. H: 174 ÷ 230 MHz Pol. V: 174 ÷ 240 MHz
IMPEDANCE	50 ohm
CONNECTOR	EIA flange according to system power rating
POWER RATING	The antenna system can accept any power according to requirements
VSWR	≤ 1.1 in the operating channels
POLARIZATION	Linear, Circular / Elliptical on request
GAIN	Refer to table
HORIZONTAL PATTERN	Any type according to requirement
VERTICAL PATTERN	Null fill, beam tilt and special requirements to order
OTHER FEATURES	The antenna system can be supplied in split feed configuration (two equal halves) Each half can accept full power

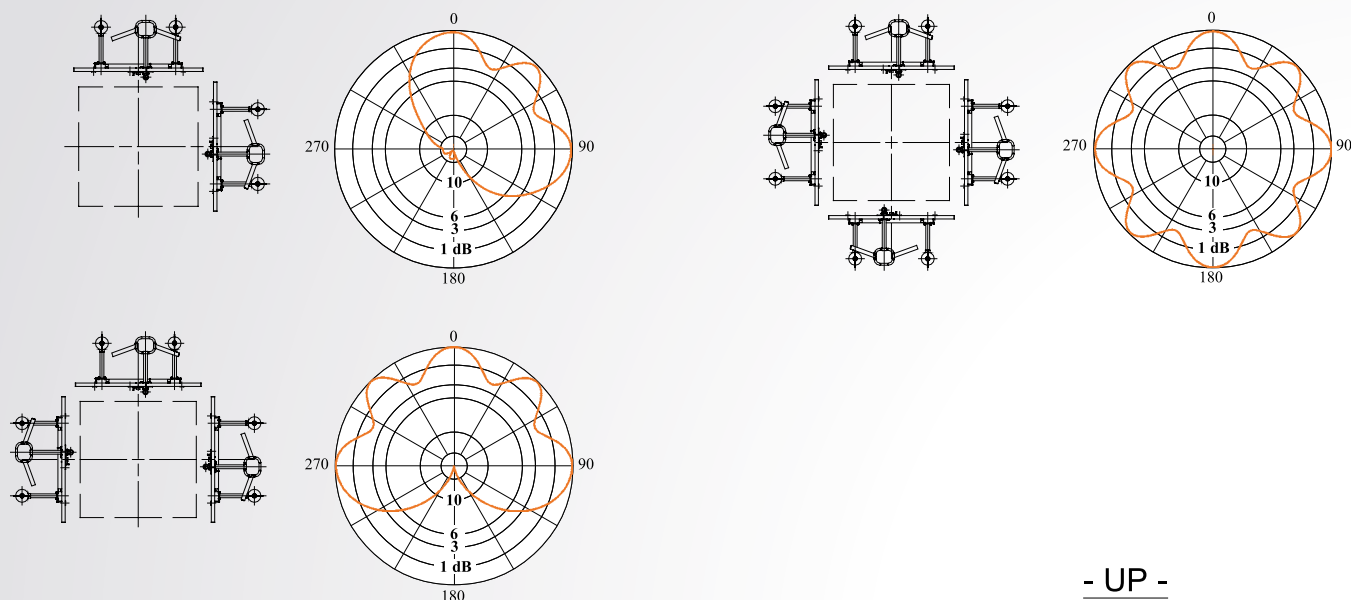
### MECHANICAL DATA

HEIGHT OF ARRAY	Subject to number of bays
TOTAL NET WEIGHT	Refer to table
WIND LOAD	Refer to table
PRESSURIZABLE	Yes
RADOME COLOUR	Grey (standard)
MOUNTING HARDWARE	Available upon request

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## VHF (BIII) / DAB PANEL ANTENNA

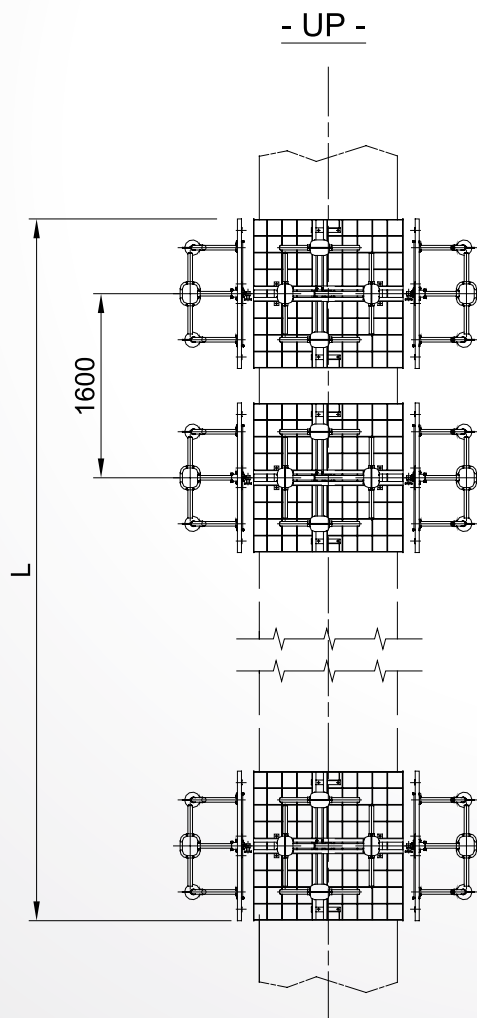
### HORIZONTAL PATTERNS WITH 2, 3 AND 4 FACES AT 200 MHz



### TECHNICAL DATA

NUMBER OF BAYS	PANELS PER BAY	GAIN dB (1)	GAIN TIMES (1)	WEIGHT kg (2)	ANTENNA HEIGHT L m	WIND LOAD kN (3)
1	2	5.7	3.71	151		2.80
	3	3.8	2.39	241	1.3	3.48
	4	2.3	1.70	298		4.18
2	1	11.4	13.80	151		2.28
	2	8.6	7.24	298	2.9	5.60
	3	6.8	4.78	477		6.97
4	4	5.4	3.46	612		8.36
	1	14.4	27.54	298		4.56
	2	11.6	14.45	612	6.1	11.21
	3	9.8	9.54	876		13.94
6	4	8.4	6.91	1172		16.70
	1	16.1	40.73	477		6.86
	2	13.3	21.37	876	9.3	16.82
	3	11.6	14.45	1363		20.92
8	4	10.1	10.23	1775		25.06
	1	17.4	54.95	612		9.15
	2	14.6	28.84	1172	12.5	22.43
	3	12.8	19.05	1775		27.90
	4	11.4	13.80	2289		33.42

(1) referred to linear polarization and to half wave dipole. Losses of power distribution network not included.  
 (2) without mounting hardware  
 (3) v= 150 km/h



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### DIMENSIONAL DETAILS

### VERTICAL PATTERN

