

# WY 380-3N

# WY 400-3N

## UHF Base Station 3 Elements Yagi Antennas 380-470 MHz

**DESCRIPTION:** Base station antennas conceived by using an innovative feed system studied and applied to have highly symmetrical radiation pattern in both planes (E and H). It's completely computer designed to get high performances of gain and front-to-back in the working band. All aluminium parts are protected by anodized treatment, hardware are of Stainless steel or zinc plated steel, mounting bracket is of extruded aluminium for the best strength and the connector is placed in rear position for an easy access. To increase the antenna gain please install it in vertical stacked array.

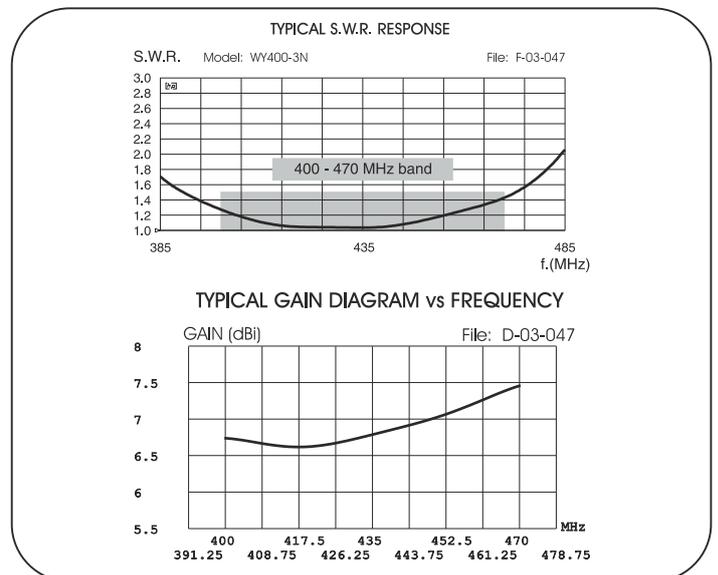
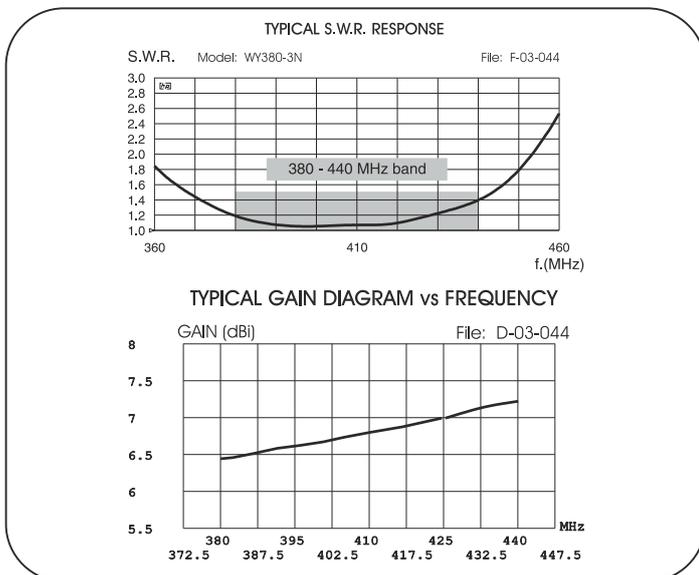
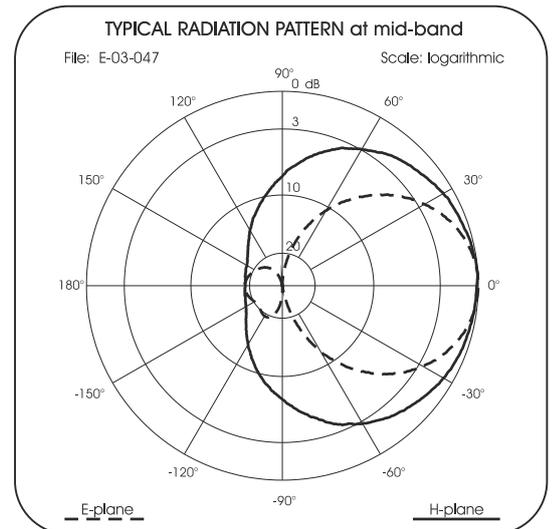
**These products are Patented.**



Electrical Data	WY 380-3N	WY 400-3N
Type	3 elements Yagi	
Frequency Range @ SWR ≤ 1.5	380 - 440 MHz	400 - 470 MHz
Impedance	50 Ω	
Radiation (H-plane) beamwidth @ -3 dB	125°	
Radiation (E-plane) beamwidth @ -3 dB	65°	
Front to back ratio	≥ 17 dB	
Polarization	Linear Vertical or Horizontal	
Gain	4.85 dBd - 7 dBi	
Max Power (CW) @ 30°C	150 Watts	
Grounding Protection	All metal parts are DC-grounded, the inner conductor shows a DC short	
Connector	N-female with rubber protection cap	

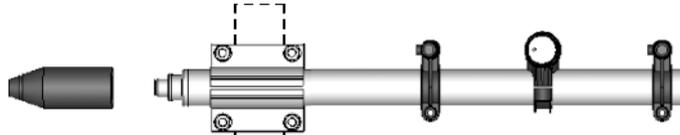
### Mechanical Data

Materials	Anodized 6063-T5 Aluminium, EPDM rubber, thermoplastic UV stabilized, Chromed Brass	
Wind Load @ 150 km/h	65 N	63 N
Wind Resistance	180 Km/h; 112 mi/h	180 Km/h; 112 mi/h
Wind Surface	0.048 m <sup>2</sup> ; 0.51 ft <sup>2</sup>	0.047 m <sup>2</sup> ; 0.50 ft <sup>2</sup>
Dimensions W x H (approx.)	565 x 400 mm; 1.9 x 1.3 ft	525 x 375 mm; 1.7 x 1.2 ft
Turning radius (approx.)	460 mm; 1.5 ft	420 mm; 1.4 ft
Weight (approx.)	1130 gr; 2.5 lb	1100 gr; 2.4 lb
Operating temperature	-40° C to +60° C	
Mounting Mast	∅ 35 - 52 mm; ∅ 1.4 - 2.0 in	
Boom / Dipole / Element Diameter	∅ 32 mm; 1.3 in / ∅ 24 mm; 0.95 in / ∅ 12 mm; 0.5 in	



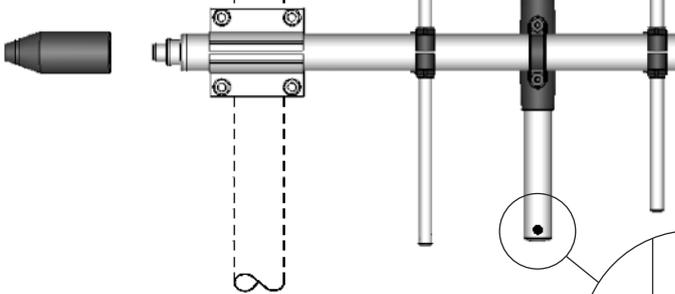
## MOUNTING INSTRUCTIONS

**Correct mounting for horizontal polarization**

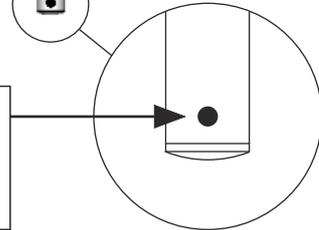


		LR	L1	DR	D1
WY 380-3N	(mm)	396	276	132	106
	(in)	15.6	10.9	5.2	4.2
WY 400-3N	(mm)	371	260	124	100
	(in)	14.6	10.2	4.9	3.9

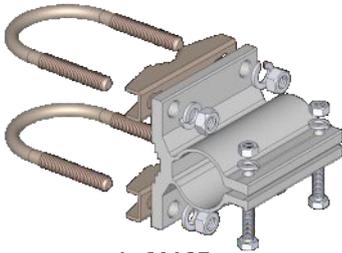
**Correct mounting for vertical polarization**



**If mounted for vertical polarization place the draining hole at the bottom.**



### Standard Mounting Bracket



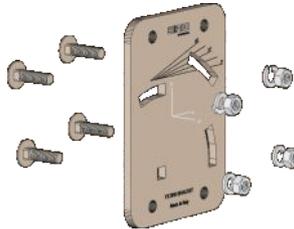
**Spare parts: p/n SA197**

Materials: extruded aluminum  
Hardware: stainless & zinc plated steel  
Dimensions : 80 x 76 x 65 mm  
Weight: 460 gr

#### Part list

Q.ty	Description
1	Extruded aluminium bracket
2	Steel bracket
2	M8x200 U-bolt
4	M8 Grower washer
4	M8 Hexagonal nut
2	M6x20 Hexagonal head screw
2	M6 Grower washer
2	M6 Hexagonal nut

### Tilting Bracket\*



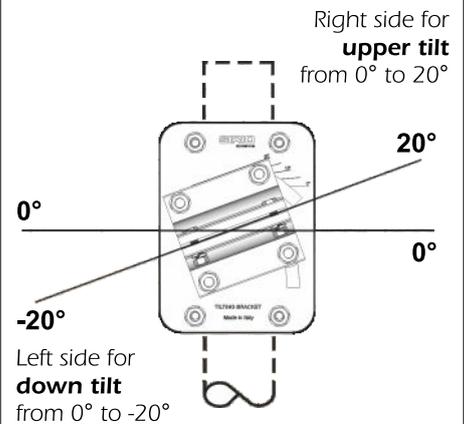
**Order p/n: 2519803.00**

Materials & Hardware: zinc plated steel  
Dimensions: 110 x 150 x 6 mm.  
Weight: 800 gr

#### Part list

Q.ty	Description
1	10x150x6 Tilting bracket
4	M8x25 Spheric head screw
4	M8 Grower washer
4	M8 Hexagonal nut

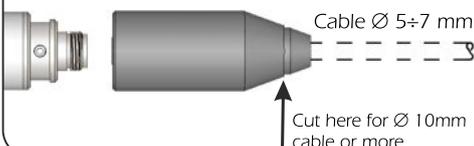
### Mounting example



\* Optional (not included).

### Connector protection cap

Spare parts: p/n TE06416

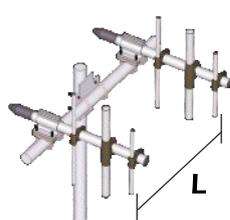


### Stacking and Baying distance

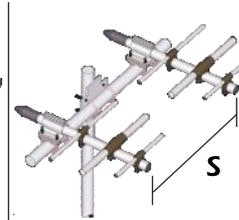
WY380-3N: L=370mm; 14.5in. S=530mm; 20.8in  
WY400-3N: L=350mm; 13.8in. S=500mm; 19.7in



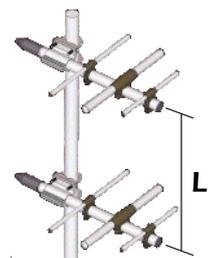
Vertical polarization (Stacked)



Vertical polarization (Bayed)



Horizontal polarization (Bayed)



Horizontal polarization (Stacked)



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