

## S.3Y series

### Directional antennas

#### DESCRIPTION

- The S.3Y series are of a rugged and reliable construction for communication networks at both UHF & VHF.
- The one piece folded dipole incorporates a d.c. short to minimise static interference.
- The balun assembly is completely encapsulated in epoxy resin, totally preventing moisture ingress, and has been tested to BS5490:IP67.
- These antennas give a gain of 6dBd with front to back ratio typ. 15 dB.
- They are supplied as standard with 3 metres of RG 213 cable terminated with an 'N' type socket, although cable and connector options are available upon request.



#### ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
S.3Y-71	66 - 75 MHz	123002030
S.3Y-80	75 - 85 MHz	123002031
S.3Y-98	88 - 108 MHz	123002032
S.3Y-127	117 - 137 MHz	123002033
S.3Y-142	135 - 149 MHz	123002034
S.3Y-155	145- 165 MHz	123002035
S.3Y-165	155 - 175 MHz	123002036
S.3Y-184	176 - 192 MHz	123002037
S.3Y-200	192 - 208 MHz	123002038
S.3Y-395	380 - 410 MHz	123002039
S.3Y-420	410 - 430 MHz	123002048
S.3Y-445	420 - 470 MHz	123002049

#### MOUNTING ACCESSORIES TO BE ORDERED SEPARATELY

TYPE	DIMENSION	PRODUCT NO.
1763-100		123001001
UA64-23	25 - 50 mm	123001006
UA64-23	25 - 76 mm	123001007
UA66-24	25 - 50 mm	123001017
UA66-24	25 - 76 mm	123001018
UA66-24	25 - 100 mm	123001019
UA66-24	25 - 115 mm	123001020

#### SPECIFICATIONS

ELECTRICAL	
FREQUENCY RANGE	66 - 470 MHz
INPUT IMPEDANCE	50Ω
BANDWIDTH	± 6% of centre frequency
SWR	<1.5:1
FRONT TO BACK RATIO	15 dB
MAXIMUM INPUT POWER	150 Watts
POLARISATION	Vertical & horizontal
FORWARD GAIN	6 dBd
3 dB BEAMWIDTH	E Plane 62° H Plane 84°
MECHANICAL	
STANDARD CONNECTION	3m (118.11 in.) Length of RG 213 c/w 'N' type socket
ELEMENTS UHF	UHF 12.7 mm dia. x 1.6 mm (0.50 in. dia x 0.06 in.) wall aluminium alloy grade 6063T6
ELEMENTS VHF	VHF 19.0 mm dia. x 1.6 mm (0.75 in. dia x 0.06 in.) wall aluminium alloy grade 6063T6
SUPPORT BOOM	31.7 mm dia. x 2.6 mm (1.25 in. dia x 0.10 in.) wall aluminium alloy grade 6082T6
FASTENERS	Stainless steel grade A2-70
SADDLE CLAMPS	Diecast zinc alloy
INSULATOR	Epoxy resin encapsulant
LIGHTNING PROTECTION	Direct grounded
MOUNTING BRACKETS	See mounting accessories (not supplied)
TYPICAL WEIGHT (UHF)	UHF 1.5 kg (3.31 lb.)
TYPICAL WEIGHT (VHF)	VHF 4.5 kg (9.92 lb.)
TYPICAL LENGTH (UHF)	UHF 0.7 m (27.56 in.)
TYPICAL LENGTH (VHF)	VHF 1.5 m (88.61 in.)
TYPICAL WIND LOADING @ 162 km/h (UHF)	UHF 52 N
TYPICAL WIND LOADING @ 162 km/h (VHF)	VHF 240 N

## MOUNTING ACCESSORIES



1763-100

Galvanised steel-cross-over clamp, fits 32 mm (1-1/4") diameter antenna booms to up to 50 mm (2") diameter poles, max. length 1500 mm.



UA64-23

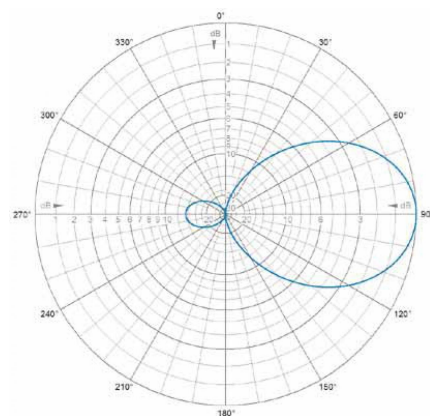
Circular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel 'U' bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter. Will also accomodate 76 mm (3") 'U' bolts to fit masts of that diameter (order UB06).



UA66-24

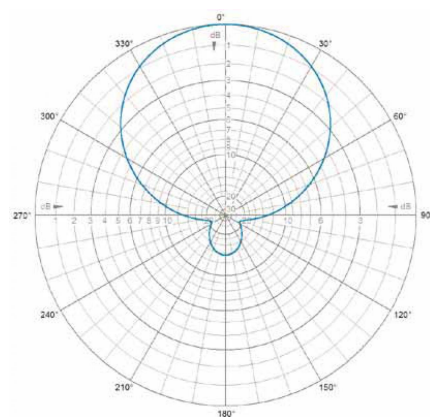
Rectangular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel 'U' bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter.  
To fit 76 mm (3") masts (order UB06 'U' bolts).  
To fit 100 mm (4") masts (order UB07 'U' bolts).  
To fit 115 mm (4 1/2") masts (order UB09 'U' bolts).

## TYPICAL RADIATION PATTERN (E-PLANE)



If the antennas are mounted for vertical polarization, these curves show the radiation patterns in the vertical plane.

## TYPICAL RADIATION PATTERN (H-PLANE)



If the antennas are mounted for vertical polarization, these curves show the radiation patterns in the horizontal plane (horizontal coverage).



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