

## S.6Y series

### Directional antennas



- The S.6Y 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 8.5 dBd with front to back ratio typically 16 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.6Y-148 | 140 - 155 MHz | Replaced by 7042140 |
| S.6Y-165 | 156 - 175 MHz | Replaced by 7042155 |
| S.6Y-184 | 176 - 192 MHz | 123002062           |
| S.6Y-200 | 192 - 208 MHz | 123002063           |
| S.6Y-395 | 380 - 410 MHz | 123002064           |
| S.6Y-420 | 410 - 430 MHz | 123002065           |
| S.6Y-445 | 420 - 470 MHz | 123002066           |

### SPECIFICATIONS

| ELECTRIAL           |                            |
|---------------------|----------------------------|
| FREQUENCY RANGE     | 140 - 470 MHz              |
| INPUT IMPEDANCE     | 50Ω                        |
| BANDWIDTH           | ± 5% of centre frequency   |
| SWR                 | <1.5:1                     |
| FRONT TO BACK RATIO | 16 dB                      |
| MAXIMUM INPUT POWER | 150 Watts                  |
| POLARISATION        | Vertical & horizontal      |
| FORWARD GAIN        | 8.5 dBd                    |
| 3 dB BEAMWIDTH      | E Plane 56°<br>H Plane 63° |

| MECHANICAL                            |                                                                                       |
|---------------------------------------|---------------------------------------------------------------------------------------|
| STANDARD CONNECTION                   | 3 m (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 2.7 kg (5.95 lb.)                                                                 |
| TYPICAL WEIGHT (VHF)                  | VHF 5.5 kg (12.13 lb.)                                                                |
| TYPICAL LENGTH (UHF)                  | UHF 1.3 m (51.18 in.)                                                                 |
| TYPICAL LENGTH (VHF)                  | VHF 4 m (157.48 in.)                                                                  |
| TYPICAL WIND LOADING @ 162 km/h (UHF) | UHF 100 N                                                                             |
| TYPICAL WIND LOADING @ 162 km/h (VHF) | VHF 208 N                                                                             |

## MOUNTING ACCESSORIES

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   |



### 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

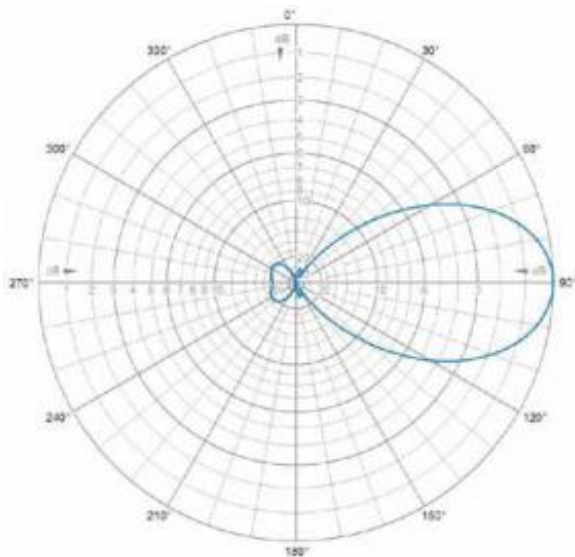
Circular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel 'U' bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter. Will also accommodate 76 mm (3") 'U' bolts to fit masts of that diameter. (order UB06).



### UA66-24

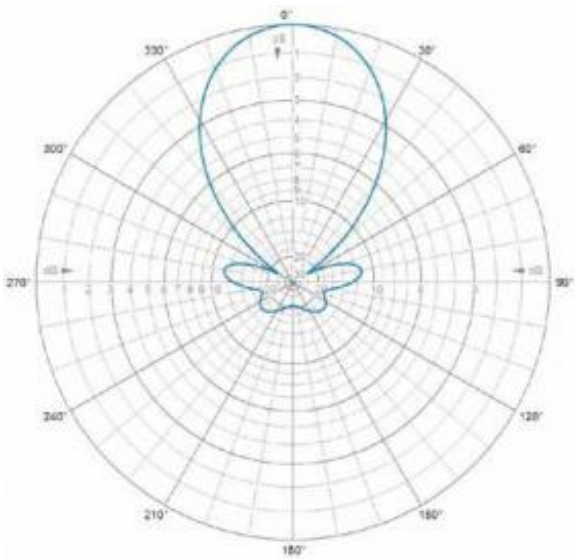
Rectangular cast alloy clamp, gives a good two point fixing, supplied as standard with 4 x 50 mm stainless steel 'U' bolts and two half-moon cast spacers to fit antenna booms of 25 to 50 mm diameter. To fit 76 mm (3") masts (order UB06 'U' bolts). To fit 100 mm (4") masts (order UB07 'U' bolts). To fit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