# MARINE CATALOGUE

### Antennas & Accessories







# THE WORLD'S Ultimate Antennas.



Antennas. They mean everything to us.

In a world where two-thirds of the globe is covered by water, marine antenna products are our world.

Since 1970, AC Antennas has been known for our relentless commitment in utilizing our 50+ years of experience towards one pure goal: providing the best antennas in the world.

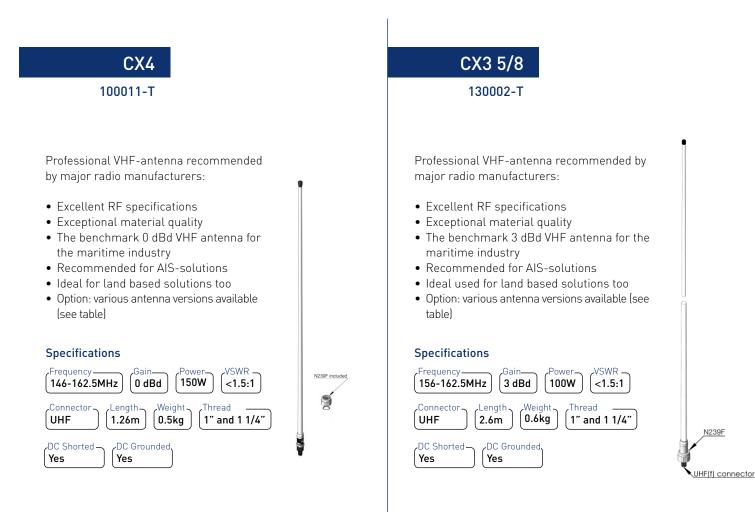
Today we have a large portfolio of marine, land based and portable antennas.

Our marine products are engineered and manufactured in Denmark to the highest possible quality level for vessels within the major marine markets of; commercial, fishing and yachting. All of our products are distributed worldwide through our professional partners.

We take pride in our products and our worldwide partners but even more in our loyal and faithful customers throughout decades.

Welcome to our world. Welcome to a world of antennas.





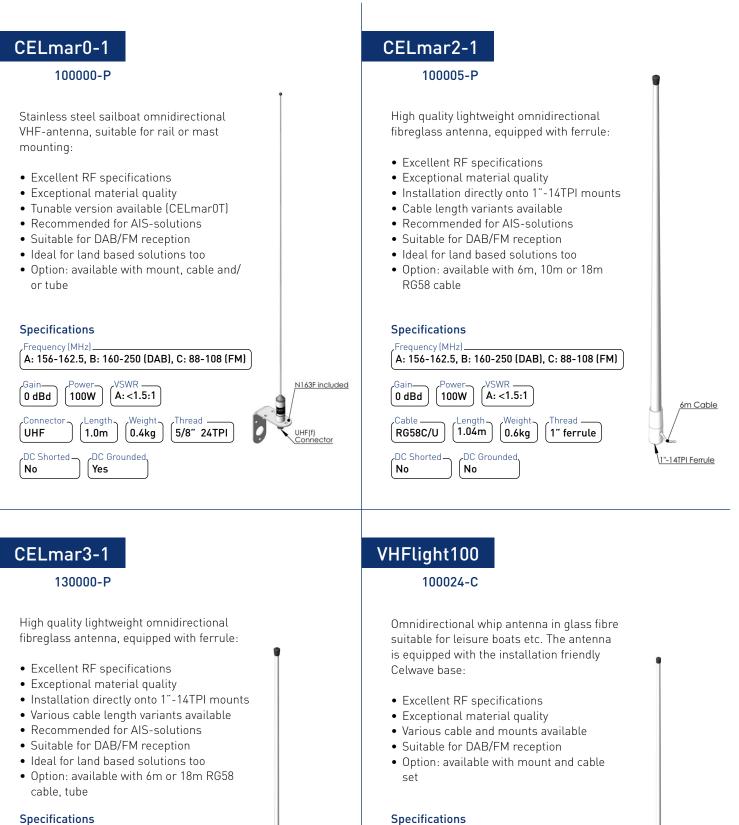
#### CX4 types

| Product<br>name | Product<br>number | Frequency<br>[MHz] | Connector<br>[female] | Mount<br>included |
|-----------------|-------------------|--------------------|-----------------------|-------------------|
| CX4             | 100011-T          | 146-162.5          | UHF                   | N239F             |
| CX4-1           | 100012-T          | 146-162.5          | N                     | N239F             |
| CX4-2           | 100038-T          | 146-162.5          | UHF                   | N162F             |
| CX4-3           | 100015-T          | 146-162.5          | UHF                   | -                 |
| CX4-5           | 100040-T          | 146-162.5          | UHF                   | N171F             |
| CX4-6           | 100017-T          | 146-162.5          | N                     | -                 |
| CX4-8           | 100018-T          | 135-150            | UHF                   | -                 |
| CX4-9           | 100019-T          | 118-137            | N                     | -                 |
| CX4-11          | 100013-T          | 154-174            | UHF                   | -                 |
| CX4-12          | 100014-T          | 154-174            | N                     | -                 |
| CX4b            | 100022-T          | 146-162.5          | UHF                   | N239F             |
| CX4b-1          | 100059-T          | 146-162.5          | N                     | N239F             |
| CX4b-2          | 100060-T          | 146-162.5          | UHF                   | N162F             |
| CX4b-3          | 100061-T          | 146-162.5          | UHF                   | -                 |
| CX4b-5          | 100063-T          | 146-162.5          | UHF                   | N171F             |
| CX4b-6          | 100023-T          | 146-162.5          | N                     | -                 |
| CX4b-8          | 100065-T          | 135-150            | UHF                   | -                 |
| CX4b-11         | 100066-T          | 154-174            | UHF                   | -                 |

#### CX3 5/8 types

| Product<br>name | Product<br>number | Frequency<br>(MHz) | Connector<br>(female) | Mount<br>included |
|-----------------|-------------------|--------------------|-----------------------|-------------------|
| CX3 5/8         | 130002-T          | 156-162.5          | UHF                   | N239F             |
| CX3 5/8-1       | 130003-T          | 156-162.5          | N                     | N239F             |
| CX3 5/8-10      | 130004-T          | 156-162.5          | UHF                   | -                 |

# WE CRIMP OUR ANTENNAS. 4–5 TIMES STRONGER BUILD–UP DUE TO CRIMPING.





No

Yes

Frequency (MHz)

ower

100W

Length

1.14m

Yes

DC Grounded,

Gain-

UHF

No

0 dBd

Connector

DC Shorted

A: 156-162.5, B: 160-250 (DAB), C: 88-108 (FM)

VSWR

A: <2:1

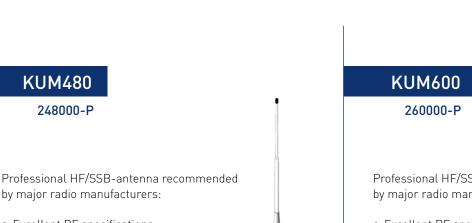
Weight

0.3kg

Fhread -

1" ferrule

# QUALITY. To professionals. By professionals.



- Excellent RF specifications
- Exceptional material quality
- Works with Automiatic Tuner Unit systems
- Side fed
- Available in different versions:
- Tx/Rx or Rx only: 0.15-30MHz
- Wire or Coax installation
- Mast, wall or ferrule mounting
- Ideal for land based solutions too



Professional HF/SSB-antenna recommended by major radio manufacturers:

- Excellent RF specifications
- Exceptional material quality
- Works with Automiatic Tuner Unit systems

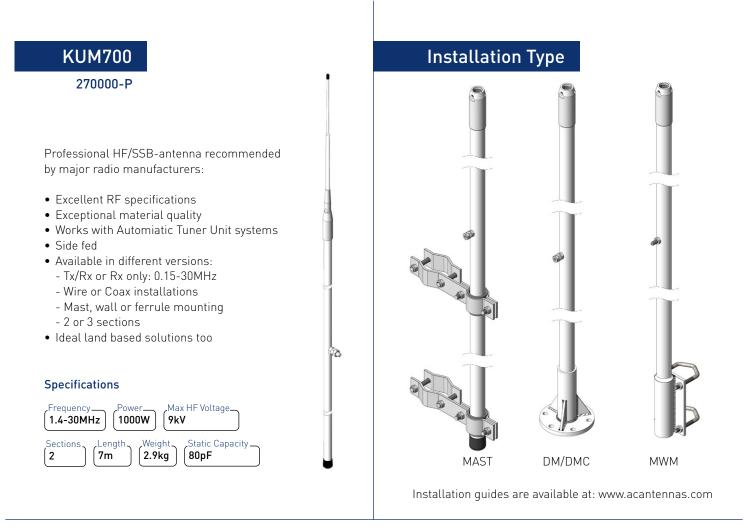
20

- Side fed
- Available in different versions:
  Tx/Rx or Rx only: 0.15-30MHz
  - Wire or Coax installations
  - Mast, wall or ferrule mounting
  - 2 or 3 sections
- Ideal for land based solutions too

#### **Specifications**



KUM903 **KUM803** 280300-T 290300-T Professional HF/SSB-antenna recommend-Professional HF/SSB-antenna recommended by major radio manufacturers: ed by major radio manufacturers: • Excellent RF specifications • Excellent RF specifications • Exceptional material quality Exceptional material quality • Works with Automiatic Tuner Unit sys- Works with Automiatic Tuner Unit systems tems Side fed Side fed • Available in different versions: • Available in different versions: - Tx/Rx or Rx only: 0.15-30MHz - Tx/Rx or Rx only: 0.15-30MHz - Wire or Coax installations - Wire or Coax installations - Mast, wall or deck mounting - Mast, wall or deck mounting - 2 or 3 sections - 2 or 3 sections • Ideal for land based solutions too • Ideal for land based solutions too **Specifications Specifications** Max HF Voltage-Max HF Voltage requenc ower eauen ower 1200W 1.4-30MHz 1200W 1.4-30MHz 18kV 18kV Static Capacity Static Capacity Sections Length Weight Sections. Length Weight 3 5,7kg 3 7,3kg 8m 100pF 9m 100pF



#### MF/HF combinations

#### More than 100 KUM combinations. Choose between length, sections, installation...

| Models<br>[names] | Length<br>[approx. m] | 2 parts | 3 parts | Mast mount | MastWallMount<br>[MWM models] | DeckMount<br>[DM models] | 1"     | Wire Instal.<br>[Tx/Rx] | Coax Instal.<br>-1:Tx/Rx<br>-2: Rx only |
|-------------------|-----------------------|---------|---------|------------|-------------------------------|--------------------------|--------|-------------------------|---|
| KUM48X            | 5                     | KUM480  | _       | KUM480     | KUM480MWM                     | _                        | KUM481 | KUM48X                  | -2: KX Only<br>KUM48X-1 or -2           |
| KUM6XX            | 6                     | KUM600  | KUM603  | KUM400     | KUM60XMWM                     | _                        | KUM601 | KUM40X                  | KUM60X-1 or -2                          |
| KUM7XX            | 7                     | KUM700  | KUM703  | KUM70X     | KUM70XMWM                     | -                        | KUM701 | KUM70X                  | KUM70X-1 or -2                          |
| KUM8XX            | 8                     | KUM850  | KUM803  | KUM80X     | KUM8XXMWM                     | KUM8XXDM                 | -      | KUM8XX                  | KUM8XX-1 or -2                          |
| KUM9XX            | 9                     | KUM950  | KUM903  | KUM90X     | KUM9XXMWM                     | KUM9XXDM                 | -      | KUM9XX                  | KUM9XX-1 or -2                          |

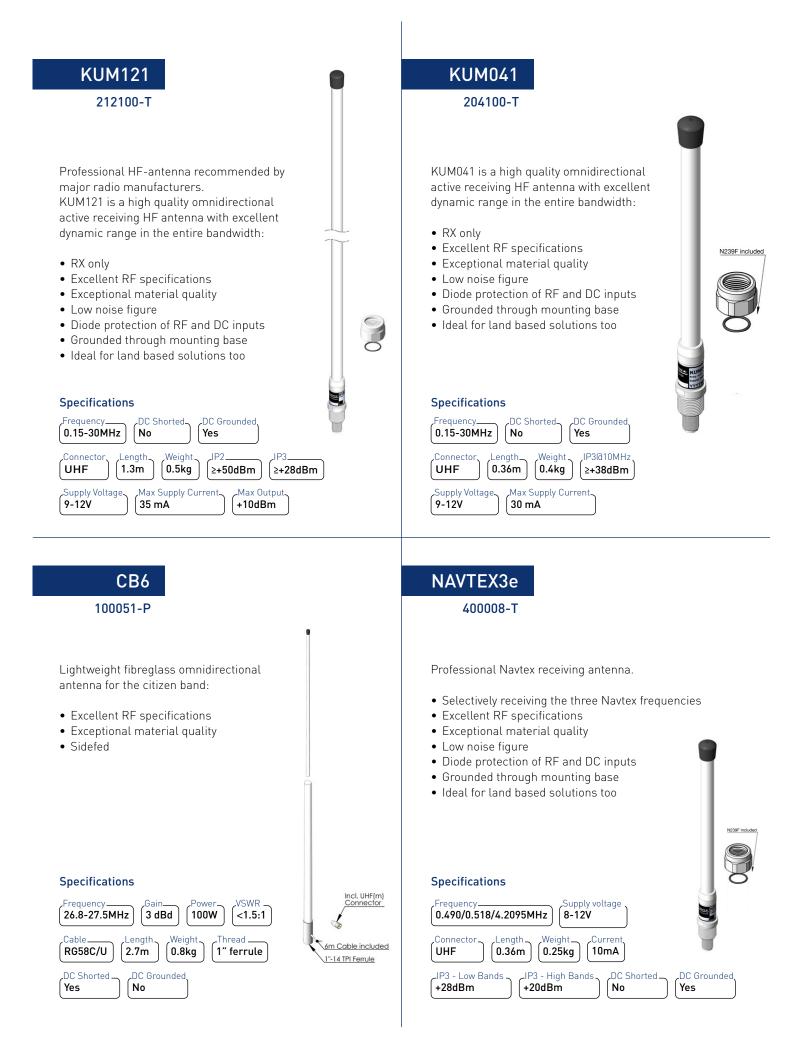
#### KUM examples:

| KUM600-2    | 6 meters, 2 parts, max. 750W, for mast mounts (1xKUM095-SET), Coax installation, Rx-only (0.15-30MHz) |
|-------------|---|
| KUM803-1DM  | 8 meters, 3 parts, max. 1200W, deck mount included, Coax installation, Tx/Rx (1.4-30MHz)              |
| KUM950-1MWM | 9 meters, 2 parts, max. 1200W, mast wall mount included, Coax installation, TX/Rx (1.4-30MHz)         |

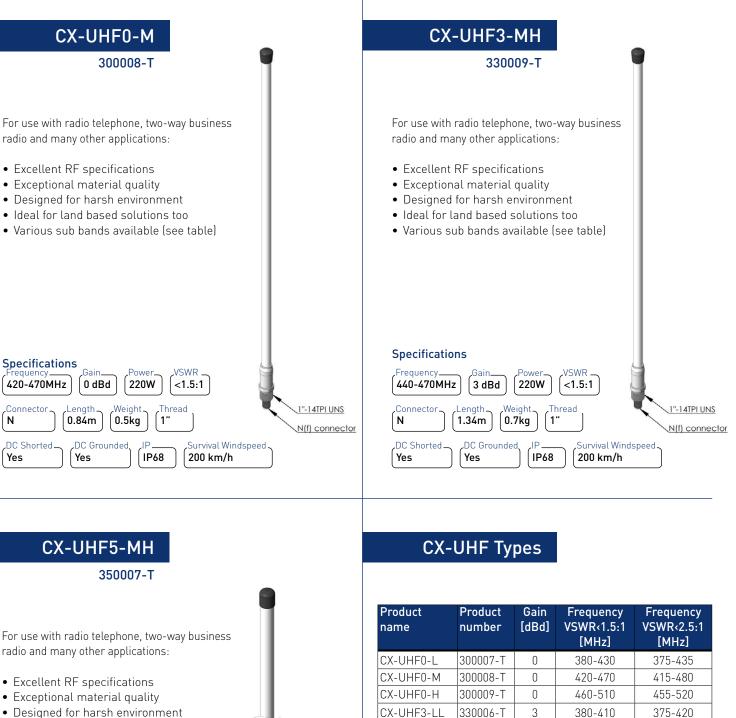
Note: Please contact AC Antennas for more information.

## NUKA ARCTICA, SEA TRIAL VESSEL FOR KUM121 APRIL—JUNE 2016.

SEA TRIAL CONDUCTED WITH COBHAM SATCOM BETWEEN DENMARK AND GREENLAND.







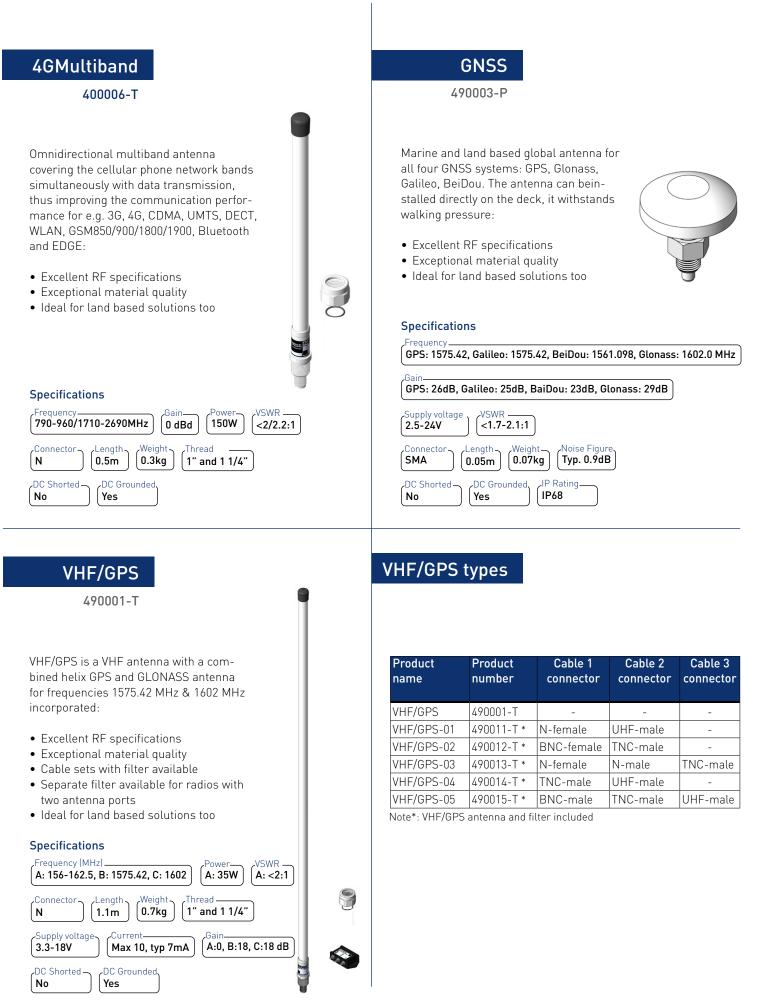
- Ideal for land based solutions too
- Various sub bands available (see table)

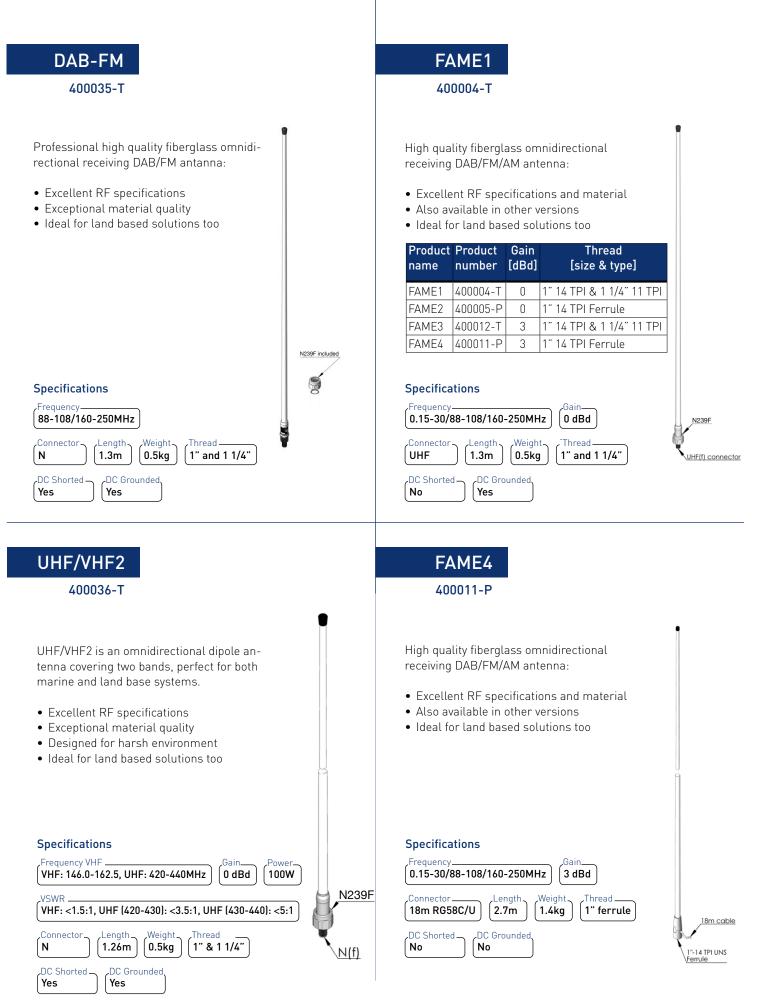
#### Specifications Frequency Gair VSWR 440-470MHz 5 dBd 250W <1.5:1 l enath Weight Connector Thread 2.1kg 1" Ν 2.22m DC Shorted -DC Grounded Survival Windspeed. IP68 Yes Yes 160 km/h

| Product<br>name | Product<br>number | Gain<br>[dBd] | Frequency<br>VSWR<1.5:1<br>[MHz] | Frequency<br>VSWR<2.5:1<br>[MHz] |
|-----------------|-------------------|---------------|----------------------------------|----------------------------------|
| CX-UHF0-L       | 300007-T          | 0             | 380-430                          | 375-435                          |
| CX-UHF0-M       | 300008-T          | 0             | 420-470                          | 415-480                          |
| CX-UHF0-H       | 300009-T          | 0             | 460-510                          | 455-520                          |
| CX-UHF3-LL      | 330006-T          | 3             | 380-410                          | 375-420                          |
| CX-UHF3-LH      | 330007-T          | 3             | 400-430                          | 390-430                          |
| CX-UHF3-ML      | 330008-T          | 3             | 420-450                          | 420-460                          |
| CX-UHF3-MH      | 330009-T          | 3             | 440-470                          | 435-480                          |
| CX-UHF3-HL      | 330010-T          | 3             | 460-490                          | 450-500                          |
| CX-UHF3-HH      | 330011-T          | 3             | 480-510                          | 475-520                          |
| CX-UHF5-LL      | 350004-T          | 5             | 380-405                          | 375-415                          |
| CX-UHF5-LH      | 350005-T          | 5             | 405-430                          | 400-440                          |
| CX-UHF5-ML      | 350006-T          | 5             | 420-450                          | 415-455                          |
| CX-UHF5-MH      | 350007-T          | 5             | 440-470                          | 435-480                          |

Note: All models also sold in attractive combinations with the mounts: -A: N275F, -B: N274F/N239F, -C: N239F.













### SOLD BY 300+ MAJOR PLAYERS WORLDWIDE.



RECOMMENDED AND USED BY ALL MAJOR GLOBAL RADIO MANUFACTURERS TO THE PROFESSIONAL MARITIME MARKET.

| HF400-N<br>910034-A                                    | HF400-SMA<br>910035-A   | HF400-TNC<br>910036-A   | FME/RG213<br>910013-A  |
|--|---|---|--|
|  | <i>I</i>  | 6   |  |
| ConnectorHF400CrimpResistance 50 Ω0.01kgN-male         | Connector HF400<br>Crimp Resistance 50 Ω<br>0.01kg SMA-male             | Connector HF400<br>Crimp Resistance 50 Ω<br>0.01kg TNC-male       | Connector    RG213/RG214      Crimp    Resistance 50 Ω      0.01kg    FME-female       |
| N<br>910001-A  | K008F<br>910009-A   | K020F<br>910006-A   | K025F<br>910005-A  |
|  | si)   |   |  |
| ConnectorRG213/RG214CrimpResistance 50 Ω0.01kgN-male   | Connector RG213/RG214<br>Crimp Resistance 50 Ω<br>0.01kg UHF-male       | Connector RG213/RG214<br>Crimp Resistance 50 Ω<br>0.01kg BNC-male | Connector RG213/RG214<br>Crimp Resistance 50 Ω<br>0.01kg TNC-male                      |
| K015F<br>910007-A                                      | K009F<br>910008-A   | BNC<br>910000-A   | TNC<br>910003-A  |
|  |   |   | <b>()</b>  |
| ConnectorRG58CrimpResistance 50 Ω0.01kgN-male          | Connector  RG58    Crimp  Resistance 50 Ω    0.01kg  UHF-male           | Connector RG58<br>Crimp Resistance 50 Ω<br>0.01kg BNC-male        | ConnectorRG58CrimpResistance 50 Ω0.01kgTNC-male  |
| K007F<br>910010-A                                      | FME<br>910014-A   | K030F<br>910004-A   | <b>TAPE</b><br>993000-A 993001-A   |
|  |   |   |  |
| ConnectorRG58/RG213SolderResistance 50 Ω0.01kgUHF-male | Connector    RG58      Crimp    Resistance 50 Ω      0.01kg    FME-male | ConnectorRG58CrimpResistance 50 Ω0.01kgSMA-male                   | Product<br>nameProduct<br>numberTypeTAPE-01993000-AVulcanizedTAPE-02993001-AElectrical |

#### **CA-HFWIRE10MM**

#### 920074-B ... 920080-D



#### HF instalations wire, black

- 10mm2 strands
- Flame retardent
- Halogen free
- Recommended as feeder wire for KUM antennas

#### Different lenghts available

| Product name<br>incl. length | Product<br>number |
|------------------------------|-------------------|
| CA-HFWIRE10MM-B-10m          | 920074-B          |
| CA-HFWIRE10MM-B-20m          | 920075-B          |
| CA-HFWIRE10MM-B-30m          | 920076-B          |
| CA-HFWIRE10MM-B-40m          | 920077-B          |
| CA-HFWIRE10MM-B-50m          | 920078-B          |
| CA-HFWIRE10MM-B-100m         | 920079-D          |
| CA-HFWIRE10MM-B-500m         | 920080-D          |

#### CA-HF400

#### 920081-D...920086-B



#### HF400 cable, black

- 50 Ohm RF low loss coaxial cable
- Flame retardent
- Halogen free
- Recommended as replacement for RG213U coaxial cable

| Different lenghts available |  |
|-----------------------------|--|
|-----------------------------|--|

| Product name<br>incl. length | Product<br>number |
|------------------------------|-------------------|
| CA-HF400-B-10m               | 920082-B          |
| CA-HF400-B-20m               | 920083-B          |
| CA-HF400-B-30m               | 920084-B          |
| CA-HF400-B-40m               | 920085-B          |
| CA-HF400-B-50m               | 920086-B          |
| CA-HF400-B-70m               | 920081-D          |



#### RG213U cable, black

- 50 Ohm RF coaxial cable
- MIL-C-17F
- Color: black

| Product<br>number |
|-------------------|
| number            |
| 920060-B          |
| 920061-B          |
| 920062-B          |
| 920063-B          |
| 920064-B          |
| 920065-D          |
| 920066-D          |
|                   |

#### CA-RG59BU

#### 920053-P... 920059-D

#### CA-RG214U 920067-P... 920073-D



#### RG214U cable, black

- Double Screened
- 50 Ohm RF coaxial cable
- MIL-C-17F
- Recommended for long coaxial connections

#### Different lenghts available

| Product name     | Product<br>number |
|------------------|-------------------|
| incl. length     |                   |
| CA-RG214U-B-10m  | 920067-B          |
| CA-RG214U-B-20m  | 920068-B          |
| CA-RG214U-B-30m  | 920069-B          |
| CA-RG214U-B-40m  | 920070-B          |
| CA-RG214U-B-50m  | 920071-B          |
| CA-RG214U-B-100m | 920072-D          |
| CA-RG214U-B-500m | 920073-D          |

WIREKIT-02

#### CA-RG58CU

920039-P... 920045-D



#### RG58CU cable, white

- 50 Ohm RF coaxial cable
- MIL-C-17F

CA-RG58CU-W-100m

CA-RG58CU-W-500m

• Color: white

| Different lenghts available  |                   |  |  |  |
|------------------------------|-------------------|--|--|--|
| Product name<br>incl. length | Product<br>number |  |  |  |
| CA-RG58CU-W-10m              | 920039-P          |  |  |  |
| CA-RG58CU-W-20m              | 920040-P          |  |  |  |
| CA-RG58CU-W-30m              | 920041-P          |  |  |  |
| CA-RG58CU-W-40m              | 920042-P          |  |  |  |
| CA-RG58CU-W-50m              | 920043-B          |  |  |  |

920044-D

920045-D

### CA-RG58CU

920046-P... 920052-D



#### RG58CU cable, black

- 50 Ohm RF coaxial cable
- MIL-C-17F
- Color: black

| Different lenghts available |                   |  |
|-----------------------------|-------------------|--|
| Product name                | Product<br>number |  |
| incl. length                | numper            |  |
| CA-RG58CU-B-10m             | 920046-P          |  |
| CA-RG58CU-B-20m             | 920047-P          |  |
| CA-RG58CU-B-30m             | 920048-P          |  |
| CA-RG58CU-B-40m             | 920049-P          |  |
| CA-RG58CU-B-50m             | 920050-B          |  |
| CA-RG58CU-B-100m            | 920051-D          |  |
| CA-RG58CU-B-500m            | 920052-D          |  |



#### RG59BU cable, black

- 75 Ohm RF coaxial cable
- MIL-C-17F
- Color: black

#### Different lenghts available

| Different tengints avaitable |                   |  |
|------------------------------|-------------------|--|
| Product name<br>incl. length | Product<br>number |  |
| CA-RG59BU-B-10m              | 920053-P          |  |
| CA-RG59BU-B-20m              | 920054-P          |  |
| CA-RG59BU-B-30m              | 920055-P          |  |
| CA-RG59BU-B-40m              | 920056-B          |  |
| CA-RG59BU-B-50m              | 920057-B          |  |
| CA-RG59BU-B-100m             | 920058-D          |  |
| CA-RG59BU-B-500m             | 920059-D          |  |



992001-P

### Wire installation kit for MH/HF antenna systems consists of

CA-HFWIRE10MM, tube clamp, shackles, insulator, cable clamps and wire clamps. Recommended for MF/HF radio installations up to 500W.

#### **Gain Reference**

Gain is one of the main parameters of an antenna. The gain of an antenna is a figure stating how much energy this antenna transmits/receives in the main direction, compared to a reference antenna.

Gain = 10 log 
$$\left(\frac{\text{ant.}}{\text{reference ant.}}\right)$$

Hypothetical the reference antenna is isotropic, which uniformly distributes energy in all directions.

This gain is stated as dBi.

Normally the reference antenna is a half wave dipole antenna and then the unit is dBd.

Conversion between the two follows this simple equation:

dBd = dBi-2.15

For marine use in most countries the gain is mentioned in "marine" dB which is non-existing. However, as the competition is using "marine" dB, AC Marine has decided to indicate gain in dBd and "marine" dB.

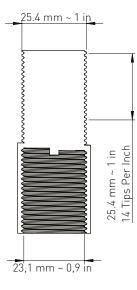
Below please find a table of relationship between dBd, dBi and "Marine" dB.

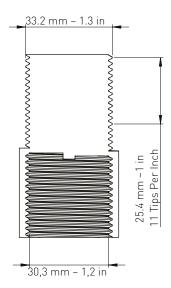
| dBd | dBi | Marine dB |
|-----|-----|-----------|
| 0   | 2.1 | 3         |
| 3   | 5.1 | 6         |
| 4.5 | 6.6 | 9         |
| 5   | 7.1 | 10        |

#### **Mount Reference**

1"-14 TPI

1¼" - 11 TPI





# MORE THAN 50 YEARS IN BUSINESS. THANKS TO OUR CUSTOMERS.

Our products are designed and manufactured to provide exceptional performance and to withstand punishment from the rigorous marine environment.

We use latest generation of technology to continue pushing technical performance for the betterment of our products. Navigating complexity, unlocking potential.

We are cost effective and deliver on time. Always.

Welcome to AC Antennas.



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