





## Tar/Jute Bridge Submarine Cable

galvanized / steel braid armor / 22 AWG to 1000 KCMIL / dual HDPE jackets / 600 volt





#### **Applications**

These are extremely tough multi-conductor 600 volt signal cables designed for underwater usage and meet all requirements for use on bascule, lift and swing-bridges as well as direct burial. They are produced to meet your specific combination of power, signal and control circuits (including fiber optic components) of up to 125 conductors and up to 5 inches (12.7 cm) in diameter. Empty duct may also be cabled in for future placement of conductors of fiber optic cables. Their unique tar/jute coating encases and protects the cable while preventing water access to the steel armor.

These cables have evolved over our long relationship with the US military and the US Departments Of Transportation (DOT). They are designed to perform flawlessly under the harshest of conditions. The features listed below are standard items; they may be modified per your request and need. Please contact for details.

### **Specifications and Ratings**

- ICEA S-95-658, NEMA WC-70
- ICEA S-73-532, NEMA WC-57
- BIW Specifying Standard SC-01

### **Design Parameters**

**CONDUCTOR:** Annealed uncoated copper to meet ASTM B-3, stranded to meet ASTM B-8, class B stranding, and ICEA S-95-658, NEMA WC-70.

INSULATION: Crosslinked polyethylene (XLPE) meeting ICEA S-95-658, NEMA WC-70. The insulation meets accelerated water absorption per Electrical Method EM-60. Insulation thickness for 600V and 2000V are shown on the back.

**CIRCUIT IDENTIFICATION:** Surface printed legend with number/color (1-BLACK, 2-WHITE, 3-RED, etc.) per ICEA S-73-532, NEMA WC-57-1990, Method 3 and Table E-5 or E-1 as required.

**ASSEMBLY:** Cable components are cabled together with jute or polypropylene as required by the application. The cabled core is wrapped with a moisture-resistant binder tape. Lay length and directions conform to ICEA S-95-658, NEMA WC-70.

**INNER JACKET:** Weather and UV-resistant high density polyethylene (HDPE) per ICEA S-95-658, NEMA WC-70. Jacket thickness varies per cable diameter; see chart on back

**INNER JUTE BEDDING** Tar/asphalt impregnated jute per ICEA S-95-658, NEMA WC-70. Jute thickness is shown on the back.

**ARMOR WIRE & FLOODING:** Galvanized steel wire per ICEA S-95-658, NEMA WC-70. Armor is flooded with tar/asphalt..

**OUTER JUTE BEDDING** Tar/asphalt impregnated jute per ICEA S-95-658, NEMA WC-70.

**FLODDING/JACKET**: Hot tar/asphalt coats and seals the outer bedding.





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Calculated Cable Diameter Under Jacket in (mm)	Inner Jacket Thickness in (mm)	Inner Jute Layer Thickness in (mm)	Armor Wire Size BWG in (mm)	Armor Wire Coating in (mm)
0 to .425 (10.8)	.045 (1.1)	.045 (1.1)	12 .109 (2.8)	none
0 to .700 (17.8)	.060 (1.5)	.045 (1.1)	10 .134 (3.4)	none
.701 to .750 (17.8 to 19.1)	.060 (1.5)	.065 (1.7)	10 .134 (3.4)	none
.701 to 1.00 (17.8 to 25.4)	.060 (1.5)	.065 (1.7)	10 .134 (3.4)	none
1.01 to 1.50 (25.4 to 38.1)	.080 (2.0)	.080 (2.0)	8 .165 (4.2)	none
1.01 to 2.00 (25.4 to 50.8)	.080 (2.0)	.080 (2.0)	8 .165 (4.2)	none
1.01 to 2.50 (25.4 to 63.5)	.110 (2.8)	.080 (2.0)	6 .203 (5.2)	none
2.51 to 5.00 (50.8 to 127)	.140 (3.6)	.095 (2.4)	4 .238 (6.0)	none

The data herein is approximate and subject to normal manufacturing tolerances.

Information is subject to change without notice. Consult factory for a variety of alternate constructions for specific applications.

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