

# Shore2Ship™ OPNAVINST 11310.3B

## Shore-to-Ship Power Cable for the U.S. NAVY

With global warming and concerns for environmental degradation, naval ports around the world are providing means for Cold Ironing – and so is General Cable.

**Cold Ironing**, also referred to as Shore-to-Ship Power, is the preferred solution to emissions reduction regulations, providing naval vessels at berth with an on-shore power source to **maintain essential services while turning their engines off completely**. When it comes to the circuits needed to provide on-shore power, critical components such as cables and connectors must be designed and engineered for safe and reliable operation in challenging environments. General Cable's **Shore2Ship™** cable meets the stringent standards of OPNAVINST 11310.3B.

**General Cable's Shore2Ship™ cables for cold ironing are highly specialized** to withstand the severe environmental conditions of naval ports and piers around the world—exposure to sea water and direct sunlight, continuous motion of the ship, and the repeated flexing of a portable power system—among others.

**Specifically designed in accordance with OPNAVINST 11310.3B, General Cable's Shore2Ship™ power cable for cold ironing provides the U.S. Navy with the features and benefits shown in the adjacent illustration.**



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### Optimized cable construction enables safe, durable and reliable service

*Maximum conductor flexibility to facilitate repeated use without causing harm to the cable core*

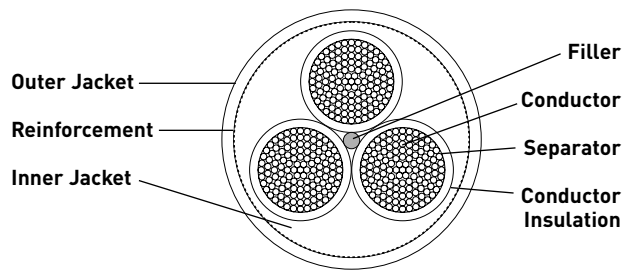


*Reinforced, extra-heavy-duty dual layer jacket protects against environmental pier conditions*

# Shore2Ship™ OPNAVINST 11310.3B

## Enhanced THOF-500 Shore-to-Ship Power Cable

### 600 V, Three Conductor, Non-Watertight, 90°C



#### Product Construction:

##### Conductor:

- 500 kcmil tinned copper
- Class I per ASTM B172 - 1221 wires (37 bunches of 33, unidirectional layup - .0201" wires)
- Nominal Diameter: 0.895"

##### Separator:

- 2 mil white Mylar separator tape pulled longitudinally over the conductor

##### Conductor Insulation:

- UV-Resistant Ethylene Propylene Rubber (EPR) - 90 mils (min avg)
- Phase ID: black, white, red

##### Filler:

- Rubber filler in the center of the cable

##### Inner Jacket:

- Heavy-duty black Chlorinated Polyethylene (CPE) - approximately 100 mils

#### Reinforcement:

- Two reverse/open wraps of Polypropylene filament

#### Outer Jacket:

- Extra-heavy-duty black Chlorinated Polyethylene (CPE) - approximately 135 mils, 90°C Rated

#### Print:

- GENERAL CABLE SHORE2SHIP™ 500 KCMIL 3/C 600 V ENHANCED SHORE-TO-SHIP POWER CABLE 90°C (YEAR OF MFG) PROPERTY OF U.S. NAVY

#### Features and Benefits:

- Rated 90°C
- Two-layer, extra-heavy-duty reinforced jacket for maximum protection from mechanical damage - the cause of most portable cable failures
- Pressure extruded jacket for water resistance
- Mold-cured jacket for maximum durability
- Flexible construction for easy handling and continuous reeling
- Flame- and sunlight-resistant to withstand the environmental conditions on the pier

#### Compliances:

- OPNAVINST 11310.3B
- Jacket duty rating and physical and aging tests for jacket and insulation per ICEA S-75-381
- Dielectric test per ICEA T-27-581

#### Packaging:

- Per Mil Spec

CATALOG NUMBER	MILITARY PART NO.	COND. SIZE	NO. OF COND.	MINIMUM AVG. INSULATION THICKNESS	NOMINAL JACKET THICKNESS	NOMINAL CABLE O.D.	NOMINAL CABLE WEIGHT	COPPER WEIGHT
		kcmil (STRAND)		INCHES (mm)	INCHES (mm)	INCHES (mm)	LBS/1000 FT (kg/km)	LBS/1000 FT (kg/km)
<b>OPNAVINST 11310.3B, 600 V, THREE CONDUCTOR, 500 KCMIL, NON-WATERTIGHT ENHANCED THOF-500</b>								
<b>13333.936500</b>	11310.3B	500 [1221/24]	3	0.090 [2.29]	0.235 [5.97]	2.731 [69.37]	7563 [11255]	4761 [7085]



4 Tesseneer Drive, Highland Heights, Kentucky 41076-9753

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Telephone: 888.593.3355  
Fax: 859.572.8463  
E-mail: info@generalcable.com  
www.generalcable.com  
Form No. INS-0158-1113  
45043