

# Shore2Ship™ THOF-E

## Shore-to-Ship Power Cable for Cold Ironing

With global warming and concerns for environmental degradation, new maritime regulations across the globe are calling for Cold Ironing – and General Cable is answering the call.

When a ship is left running at berth to maintain essential services, emissions can be equivalent to up to 400 cars on the road per day. That is why new at-berth regulations require container, passenger and cargo ships to shut off their engines and use shore-based power or face fines.

*Following early regulations for the prevention of vessel air pollution from the International Maritime Organization (IMO), the California Environmental Protection Agency's Air Resources Board enacted the "At-Berth Ocean-Going Vessels Regulation" containing a clearly defined compliance. As of January 1, 2014, vessels docked in Long Beach, Los Angeles, Oakland, San Diego, San Francisco and Hueneme will be required to shut off their engines and use shore power for 50% of their visits. That compliance increases to 80% by 2020. From New York to Japan, Hong Kong and Rotterdam, ports around the world are rapidly following suit.*

**Cold Ironing**, also referred to as Shore-to-Ship Power, is the preferred solution to these regulations. It provides vessels at berth with an on-shore power source to **maintain essential services while turning their engines off completely.**

**The cable and connectors used for cold ironing are highly specialized** to withstand the severe environmental conditions of

this application — exposure to sea water and direct sunlight, continuous motion, and the repeated flexing of a portable power system— among others.

**General Cable's Shore2Ship™ THOF-E cable is designed with all of these challenges in mind.** In every market we serve, General Cable is known as a leader in delivering solutions that provide maximum performance, reliability and service life. With a focus on innovation and continuous improvement, General Cable has applied its engineering expertise to the development of **Shore2Ship™ THOF-E** cables incorporating:

- ⚓ A physically tough jacket design to resist degradation from abrasion and tear
- ⚓ A 2-layer Chlorinated Polyethylene (CPE) jacket extruded under pressure to fill the cable's interstices for water resistance
- ⚓ Maximum flexibility to facilitate repeated use without causing harm to the cable core

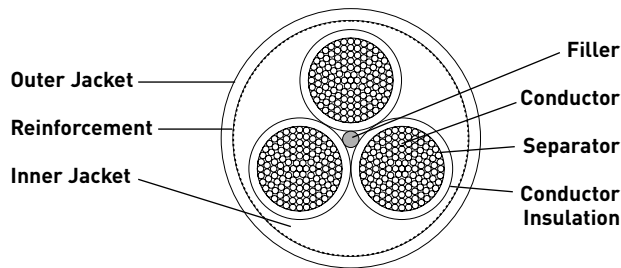


*Photos feature cable on Cochran Marine's Cable Positioning Device, used to serve shore power*

# Shore2Ship™ Commercial THOF-E

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

### 600 V/2000 V, Three Conductor, 90°C



#### Product Construction:

##### Conductor:

- 500 kcmil tinned, coated copper, bunched wires, rope-lay-stranded per ASTM B33 and ASTM B172
- Class I per ASTM B172 – 1221 wires (37 bunches of 33 – .0201")
- Nominal Diameter: 0.895"

##### Separator:

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

##### Insulation:

- Ethylene Propylene Rubber (EPR)
- 0.095" min average thickness
- Color-coded: black, white, red

##### Inner Jacket:

- Heavy-duty black Chlorinated Polyethylene (CPE) – approximate thickness 0.109"

##### Reinforcement:

- Two reverse/open wraps of Polypropylene filament

##### Outer Jacket:

- Extra-heavy-duty black Chlorinated Polyethylene (CPE) – approximate thickness 0.140"

##### Print:

- GENERAL CABLE® 3/C 500 KCMIL 600/2000 V ENHANCED THOF-E SHORE2SHIP™ POWER CABLE

##### Option:

- Other jacket colors available upon request

##### Features:

- Rated 90 °C
- Two-layer, extra-heavy-duty jacket reinforced 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 for easy handling and continuous reeling
- Flame- and sunlight-resistant

#### Compliances:

##### Industry:

- Meet requirements of RHH/RHW per UL 44
- Jacket duty rating and physical and aging tests for jacket and insulation per ICEA S-75-381

##### Packaging:

- Bulk lengths

CATALOG NUMBER	NO. OF COND.	COND. SIZE	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)
<b>600 V/2000 V, THREE CONDUCTOR, 500 KCMIL, ENHANCED THOF-500</b>							
<b>13333.036500</b>	3	500 (1221/24)	0.095 (2.41)	0.250 (6.35)	2.88 (73.15)	8147 (12124)	4761 (7085)



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