shipboard & offshore power cable

MIL-DTL-24643/14, /19 & /22 (LSSSGU / LSTSWA / LSMSWU)

600/1000 V Wate

MIL-DTL-24643C · 600/1000 V · Shipboard & offshore power cable



MIL-DTL-24643C | **600/1000 V (-40 to +105 °C)** | **Cross-Linked LSZH Outer Jacket (U)**

Application

MIL-DTL-24643/14, /19 & /22 (LSSSGU, LSSSGA, LSTSWA & LSMSWU) 600V/1000V Watertight Silicone/XLPO-Insulated Aluminum-Braid Armoured Low-Smoke Zero-Halogen Naval Shipboard Cable (MIL-DTL-24643C, 600/1000 V, -40 to +105 °C).

Typical uses: Commercial Vessels & Cruise Ships, Offshore Oil & Gas Platforms (FPSO), Jack-Up & Semi-Submersible Drilling Rigs, Naval Surface Vessels & Submarines

Construction





Cross-section, not to scale

1. Water-Blocked Tinned Copper Conductors
2. Cross-Linked Polyolefin / Silicone Insul
3. Longitudinal Watertight Interstitial Fil
4. Braided Aluminum Wire Armour (A)
5. Cross-Linked LSZH Outer Jacket (U)

Technical data

Typical values

Rated voltage / transmission duty	600/1000 V (US Navy MIL-DTL-24643/14 (LSSSGU/A), /19 (LSTSWA) & /22 (LSMSWU) Watertight)
Primary dielectric / buffering	Cross-Linked Polyolefin / Silicone Insulation — XLPO (19, /22) or fire-resistant silicone glass (14 LSSSGU) insulation
Short-circuit / peak thermal rating	Verified thermal stability per US Navy MIL-DTL-24643/14 (LSSSGU/A), /19 (LSTSWA) & /22 (LSMSWU) Watertight
Outer protection / armouring	Cross-Linked LSZH Outer Jacket (U) — Low-smoke zero-halogen cross-linked polyolefin naval sheath
Armour, screen & mechanical duty	Braided Aluminum Wire Armour (A) — Lightweight corrosion-resistant aluminum wire braid mechanical armour
Oil, drilling mud & seawater resistance	Resistant to marine fuel/lube oils, salt mist and offshore fluids per US Navy MIL-DTL-24643/14 (LSSSGU/A), /19 (LSTSWA) & /22 (LSMSWU) Watertight
Standards	US Navy MIL-DTL-24643/14 (LSSSGU/A), /19 (LSTSWA) & /22 (LSMSWU) Watertight
Core / conductor construction	Water-Blocked Tinned Copper Conductors — Stranded tinned copper filled with water-blocking compound
Continuous operating temperature	−40…+105 °C (shipboard & offshore duty)
Storage & transport temperature	−40…+80 °C on export wooden/steel drum
Minimum bending radius	8 × OD
Flame, fire & smoke performance	Qualified for marine flame-retardance and low-smoke zero-halogen / fire safety per US Navy MIL-DTL-24643/14 (LSSSGU/A), /19 (LSTSWA) & /22 (LSMSWU) Watertight
RoHS & REACH compliance	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant

Sizes

3 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Configuration	Core / stranding	Outer Ø ≈ mm	Net weight ≈ kg/km	Tensile rating kN ≈	Min. bend R mm
MIL-DTL-24643/14, /19 & /22 (LSSSGU / LSTSWA / LSMSWU) Construction Schedule (−40…+105 °C) 3 sizes						
☐ **MIL-DTL-24643 4G2.5 mm²**	**4 × 2.5 mm² (or 4C × 14 AWG)**	**IEC 60228 Class 2/5 Cu/SnCu**	**13.2**	**275**	**1.5**	**80**
☐ **MIL-DTL-24643 7G2.5 mm²**	**7 × 2.5 mm² (or 7C × 14 AWG)**	**IEC 60228 Class 2/5 Cu/SnCu**	**15.8**	**415**	**2.6**	**95**
☐ **MIL-DTL-24643 12G1.5 mm²**	**12 × 1.5 mm² (or 12C × 16 AWG)**	**IEC 60228 Class 2/5 Cu/SnCu**	**17.4**	**495**	**2.7**	**105**

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per US Navy MIL-DTL-24643/14 (LSSSGU/A), /19 (LSTSWA) & /22 (LSMSWU) Watertight.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
4 × 2.5 mm² (or 4C × 14 AWG)	**7.98**	**600/1000 V (26 A)**	**−40…+105 °C**
7 × 2.5 mm² (or 7C × 14 AWG)	**7.98**	**600/1000 V (21 A)**	**−40…+105 °C**
12 × 1.5 mm² (or 12C × 16 AWG)	**13.30**	**600/1000 V (14 A)**	**−40…+105 °C**

– Every production length undergoes routine conductor DC resistance, high-voltage dielectric or OTDR continuity and dimensional verification.

Standards and approvals

- MIL-DTL-24643C Compliant
- EN 10204 3.1 Factory Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/mil-dtl-24643-14-19-22-lsssgu-lstswa-lsmswu

Typical values for this cable type, based on US Navy MIL-DTL-24643/14 (LSSSGU/A), /19 (LSTSWA) & /22 (LSMSWU) Watertight. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.