MIL-DTL-24643 watertight braid-shielded multi-pair/triad cable

MIL-DTL-24643/33 & /36 (LS2SWU / LS3SWU)

600 V Submarine Cable



MIL-DTL-24643/33 & /36 · 600 V · Mil-dtl-24643 watertight braid-shielded

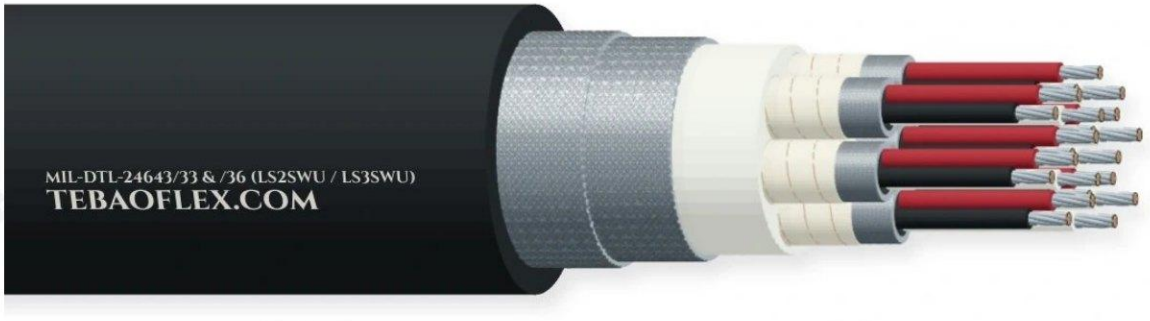
MIL-DTL-24643/33 & /36 | **600 V Watertight LSZH** | **Individually Cu-Braided**

Application

MIL-DTL-24643/32, /33 & /36 Types LS2SWAU, LS2SWU, LS3SWU & LS3SWUS 600 V Watertight Individually Copper-Braid-Shielded Multi-Pair & Multi-Triad Shipboard/Submarine Cable (MIL-DTL-24643/33 & /36, 600 V, -30 to +105 °C).

Typical uses: Naval Shipboard & Submarine Outboard, Offshore Cathodic Protection (ICCP), Underwater Welding & Nuclear Pools, Deep-Well & Seabed Pump Feeders

Construction





Cross-section, not to scale

1. Watertight Conductors (7×3×18 AWG)
2. Triad / Pair Color Code
3. Individual Copper Braid & Sealed Tapes
4. Watertight Core & Double Overall Braid
5. Cross-Linked Polyolefin Jacket (XLPO)

Technical data

Typical values

Rated voltage / transmission duty	600 V (MIL-DTL-24643/32, /33G & /36F Navy Watertight Standard)
Primary dielectric / buffering	Triad / Pair Color Code — Black, White & Red triads in LS3SWU/LS3SWUS (Black & White 75 Ω pairs in LS2SWU)
Short-circuit / peak thermal rating	Verified thermal stability per MIL-DTL-24643/32, /33G & /36F Navy Watertight Standard
Outer protection / armouring	Cross-Linked Polyolefin Jacket (XLPO) — Low-smoke zero-halogen cross-linked polyolefin outer sheath (600 V rated)
Hydrostatic, tensile & crush duty	Watertight Core & Double Overall Braid — Water-Blocking watertight fillers + double overall tin-coated copper braid (LS3SWUS)
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per MIL-DTL-24643/32, /33G & /36F Navy Watertight Standard
Standards	MIL-DTL-24643/32, /33G & /36F Navy Watertight Standard
Core / conductor construction	Watertight Conductors (7×3×18 AWG) — 7-strand Class B longitudinally water-blocked copper conductors with 0.58 mm XLPE
Continuous operating temperature	−30…+105 °C (subsea, marine & submersible duty)
Storage & transport temperature	−40…+80 °C on export wooden/steel drum
Minimum bending radius	8 × OD
Hydrostatic pressure & water blocking	Engineered for continuous submersion and hydrostatic integrity per MIL-DTL-24643/32, /33G & /36F Navy Watertight Standard
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-24643/33 & /36 (LS2SWU / LS3SWU) Construction Schedule (−30…+105 °C) 3 sizes						
☐ **MIL-DTL-24643 Config A (Compact)**	**4×2×24 AWG + 2×18 AWG (or 4C)**	**Stranded tinned Cu (IEC 60228 / ASTM)**	**10.4**	**155**	**4.5**	**85**
☐ **MIL-DTL-24643 Config B (Standard)**	**4×2×20 AWG + 4×16 AWG (or 8C)**	**Stranded tinned Cu (IEC 60228 / ASTM)**	**13.3**	**265**	**9.6**	**110**
☐ **MIL-DTL-24643 Config C (Heavy Hybrid)**	**8×2×20 AWG + 4×12 AWG (or 12C)**	**Stranded tinned Cu (IEC 60228 / ASTM)**	**16.6**	**420**	**18.5**	**140**

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per MIL-DTL-24643/32, /33G & /36F Navy Watertight Standard.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
4×2×24 AWG + 2×18 AWG (or 4C)	**28.40**	**600 V (45–100 Ω data)**	**−30…+105 °C**
4×2×20 AWG + 4×16 AWG (or 8C)	**10.70**	**600 V (45–100 Ω data)**	**−30…+105 °C**
8×2×20 AWG + 4×12 AWG (or 12C)	**5.40**	**600 V (High-Power Hybrid)**	**−30…+105 °C**

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

Standards and approvals

- MIL-DTL-24643/33 & /36 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.

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Email
info@tebaoflex.com

Web
tebaoflex.com/cables/mil-dtl-24643-33-36-ls2swu-ls3swu

Typical values for this cable type, based on MIL-DTL-24643/32, /33G & /36F Navy Watertight Standard. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.