MIL-DTL-24643 1,000 V watertight circuit-integrity power cable

MIL-DTL-24643/66~/68 (LS2OW / LS3OW / LS4OW)

1,000 V Submarine Cable

MIL-DTL-24643/66~/68 · 0.6/1 kV · Mil-dtl-24643 1,000 v watertight circuit-integrity



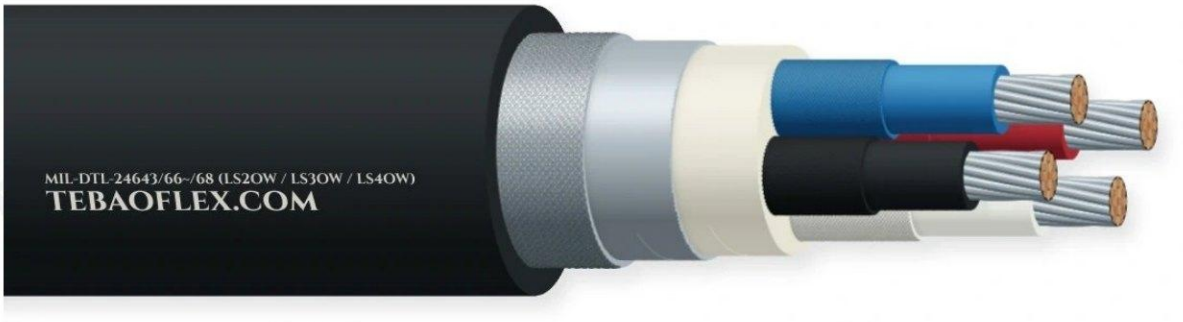
MIL-DTL-24643/66~/68 | 1,000 V Circuit Integrity | Watertight Foil + Braid

Application

MIL-DTL-24643/66, /67 & /68 Types LS2OW, LS3OW & LS4OW 1,000 V Watertight with Circuit Integrity Overall Foil/Braid-Shielded Shipboard & Submarine Power Cable (MIL-DTL-24643/66~/68, 0.6/1 kV, -30 to +105 °C, min. bend radius 8 × OD).

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 Stranded Conductors (2/3/4C)
2. Silicone + Glass Braid Insulation
3. Watertight Fillers & Foil Shield
4. Overall Tinned Copper Braid Shield
5. Irradiation Cross-Linked XLPO Jacket

Technical data

Typical values

Rated voltage / transmission duty	0.6/1 kV (MIL-DTL-24643/66A, /67A & /68A Circuit-Integrity Standard)
Primary dielectric / buffering	Silicone + Glass Braid Insulation — Watertight thermoset silicone rubber + glass braids for fire circuit integrity
Short-circuit / peak thermal rating	Verified thermal stability per MIL-DTL-24643/66A, /67A & /68A Circuit-Integrity Standard
Outer protection / armouring	Irradiation Cross-Linked XLPO Jacket — Low-smoke zero-halogen cross-linked polyolefin outer jacket (1,000 V rated)
Hydrostatic, tensile & crush duty	Overall Tinned Copper Braid Shield — Tin-coated copper wire braid providing 60 dB EMC shielding (DC to 100 MHz)
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per MIL-DTL-24643/66A, /67A & /68A Circuit-Integrity Standard
Standards	MIL-DTL-24643/66A, /67A & /68A Circuit-Integrity Standard
Core / conductor construction	Watertight Stranded Conductors (2/3/4C) — Gas/water-blocked stranded copper conductors (16 AWG Navy -3 to 400 MCM)
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-24643/66A, /67A & /68A Circuit-Integrity 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-24643/66~/68 (LS2OW / LS3OW / LS4OW) 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-24643/66A, /67A & /68A Circuit-Integrity 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	0.6/1 kV (45–100 Ω data)	−30…+105 °C
4×2×20 AWG + 4×16 AWG (or 8C)	10.70	0.6/1 kV (45–100 Ω data)	−30…+105 °C
8×2×20 AWG + 4×12 AWG (or 12C)	5.40	0.6/1 kV (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-24643/66~/68 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-24643-66-68-ls2ow-ls3ow-ls4ow

Typical values for this cable type, based on MIL-DTL-24643/66A, /67A & /68A Circuit-Integrity Standard. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.